VT NR.	TITLE	AUTHOR	CARD FR.
101 953	CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. ELEMENTARY-FIFTH & SIXTH GRADES. DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM (DVEP).		2 A03
101 954	CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. JUNIOR HIGH.		3 F12
101 955	CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. SENIOR HIGH.		6 B06
101 956	WHAT DO WORKERS DO? SECOND GRADE. A CAREER EDUCATION INSTRUCTIONAL UNIT (DEVELOPMENTAL DRAFT).	COOPER, BEVER	8 C06
101 972	CAREER EDUCATION RESOURCE BIBLIOGRAPHY.		10 A03
101 973	OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR THE STATE OF DELAWARE. AN EXPERIMENT IN CAREER EDUCATION, INTERIM REPORT.		10 C10
101 984	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. FIRST GRADE GUIDELINE.		12 A03
101 985	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. SECOND GRADE GUIDELINE.		13 E06
101 986	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. THIRD GRADE GUIDELINE.		15 D06
101 987	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FOUR CLASSROOM ACTIVITIES.		17 A03
101 988	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FIVE CLASSROOM ACTIVITIES.		18 E06
101 989	NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE SIX CLASSROOM ACTIVITIES.		20 D07
101 991	CONSUMER AND HOMEMAKING K-1-2. MANUAL FOR CAREER EDUCATION.	STEWART, JAME	22 A03
101 996	TRANSPORTATION K-1-2. MANUAL FOR CAREER EDUCATION.	STEWART, JAME	22 F02
101 998	CAPES. A GUIDELINE FOR THE CAREER AWARENESS PROGRAM FOR THE ELEMENTARY SCHOOLS.		23 D08
102 003	CAREER EDUCATION.		25 B11
102 004	VOCATIONAL TRAINING. PRINTING.		25 E01
102 005	PRE-VOCATIONAL EDUCATION WORKSHOP JULY 8-19, 1974. FINAL REPORT.		26 A03
102 006	COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. QUARTERLY REPORT.		26 D13
102 037	INSTRUCTOR'S GUIDE FOR PROFESSIONAL SUPERMARKET CHECKERS.	RIGGS, WALTER	28 D12
102 043	DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II. FINAL REPORT.	HATTSTAEDT, M	30 F08
102 065	TWENTY-FIVE LESSON PLANS FOR DISTRIBUTIVE EDUCATION. VOL. 3.	AUSTIN, GARY,	32 E08
102 072	ANALYSIS OF THE CREDIT COLLECTION OCCUPATION.	WYATT, TOM; U	33 C09
102 076	ANALYSIS OF THE WASTE WATER TREATMENT OPERATOR OCCUPATION.	CLARK, ANTHON	33 E03
102 077	ANALYSIS OF THE PLUMBING OCCUPATION.	CARLTON, EARN	35 A03
102 078	ANALYSIS OF THE MEDICAL ASSISTING OCCUPATIONS.	KEIR, LUCILLE	37 D12
102 079	HANDBOOK FOR BEGINNING TEACHERS.	APPLEGATE, RO	42 A03

VT NR.	TITLE	AUTHOR	CARD FR.
102 110	ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING VOCATIONAL AGRICULTURE.	MCGHEE, MAXIE	42 C11
102 111	PROFESSIONAL EDUCATIONAL COMPETENCY NEEDS OF THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO.	MOORE, EDDIE	42 E07
102 112	COMPARATIVE ANALYSIS OF TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE IN THREE VETERINARIAN LAY OCCUPATIONS.	MCCRACKEN, J.	43 A03
102 113	STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA.	ROSS, RALPH W	43 B14
102 114	RESOURCE GUIDE FOR THE MARYLAND PLAN'S GROUP PROJECT AND LINE PRODUCTION.	DAY, GERALD F	44 B14
102 115	OTIS (OCCUPATIONAL TRAINING INFORMATION SYSTEM). CYCLE SEVEN REPORT 1975. SUPPLEMENT 1: STATEWIDE TOTALS AND DESCENDING RANK ORDER OF PROGRAM CLUSTERS.	MORTON, J.B.,	45 A04
102 117	COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. FINAL REPORT.		46 A14
102 118	CAREER-CENTERED CURRICULUM FOR VOCATIONAL COMPLEXES IN MISSISSIPPI. FINAL REPORT, JULY 1970 - JUNE 1973.	MCMINN, JAMES	50 E09
102 122	SUMMARY OF THE PROCESS EVALUATION AND THE EVALUATION OF THE EFFECTS OF THE IMPLEMENTATION OF THE OCCUPATIONAL AWARENESS PROGRAM DURING THE 1972-73 SCHOOL YEAR.		53 A03
102 127	RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION. FINAL REPORT.		54 A03
102 131	REVIEW OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AS RELATED TO THE HANDICAPPED.	SINGLETARY, E	55 F02
102 132	ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS.	LOUDERMILK, W	56 A03
102 134	REPORT OF THE CAREER EXPLORATION PROGRAM FOR JUNIOR HIGH SCHOOLS IN NEW BRITAIN.	KEVORKIAN, AR	56 B12
102 136	CAREER EDUCATION PROJECT. INTERIM REPORT.	MURRAY, JOHN	58 B05
102 137	CAREER EDUCATION. A GUIDE TO THE 1972-1973 PILOT PROJECT.		59 A03
102 138	COOPERATIVE STATEWIDE PLANNING FOR HEALTH MANPOWER DATA IN OKLAHOMA.	SMITH, VIVIAN	59 D07
102 139	NEW OPPORTUNITIES FOR WORK. INTERIM REPORT.	JORDAN, KENNE	59 E08
102 145	FOLLOW-UP STUDY OF STUDENTS EXITED FROM SELECTED VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS.		62 A12
102 149	DEVELOP A PRE-VOCATIONAL PROGRAM FOR FRESHMEN STUDENTS IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL. EVALUATION REPORT.	WEST, B.R.	62 E03
102 155	THIRD YEAR ASSESSMENT OF CAREER EDUCATION PROJECT. BRIDGEPORT CITY SCHOOLS BRIDGEPORT, CONN. APRIL 29, 30, MAY 1, 1974.		63 A03
102 157	VOCATIONALLY COORDINATED CURRICULUM FOR GENERAL EDUCATION. PROGRESS REPORT.		64 D09
102 163	SEMIANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JANUARY 1, 1974 - JUNE 30, 1974.	BRAATEN, LARR	65 C13

VT NR.	TITLE	AUTHOR	CARD FR.
102 169	STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS IN VOCATIONAL EDUCATION. FISCAL YEAR 1974.	BRAATEN, LARR	67 A03
102 170	SEMI-ANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JULY 1, 1974 - DECEMBER 31, 1974.	BRAATEN, LARR	68 A03
102 177	CAREER THRESHOLDS: A LONGITUDINAL STUDY OF THE EDUCATIONAL AND LABOR MARKET EXPERIENCE OF MALE YOUTH. VOLUME FIVE.	ANDRISANI, PA	69 C10
102 188	GREATER MILWAUKEE METROPOLITAN AREA CAREER EDUCATION PROJECT. INTERIM REPORT.		70 C06
102 189	DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM. A "5 TO 12" MODEL FOR AN URBAN SCHOOL DISTRICT. FINAL REPORT.	SIMS, WILLIAM	70 F05
102 196	WOMEN IN THE WORK FORCE. FOLLOW-UP STUDY OF CURRICULUM MATERIALS.	VETTER, LOUIS	74 A03
102 198	HAWAII CAREER DEVELOPMENT CONTINUUM, K-14. FINAL REPORT.	RYAN, T. ANTO	74 E07
102 199	FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION. FINAL REPORT TO THE NATIONAL CENTER FOR EDUCATION STATISTICS.	CHRISTOFFEL,	77 A11

TITLE	AUTHOR	VT NR.	CARD FR.
ANALYSIS OF THE CREDIT COLLECTION OCCUPATION.	WYATT, TOM; U	102 072	33 C09
ANALYSIS OF THE MEDICAL ASSISTING OCCUPATIONS.	KEIR, LUCILLE	102 078	37 D12
ANALYSIS OF THE PLUMBING OCCUPATION.	CARLTON, EARN	102 077	35 A03
ANALYSIS OF THE WASTE WATER TREATMENT OPERATOR OCCUPATION.	CLARK, ANTHON	102 076	33 E03
ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING VOCATIONAL AGRICULTURE.	MCGHEE, MAXIE	102 110	42 C11
CAPES. A GUIDELINE FOR THE CAREER AWARENESS PROGRAM FOR THE ELEMENTARY SCHOOLS.		101 998	23 D08
CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. ELEMENTARY-FIFTH & SIXTH GRADES. DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM (DVEP).		101 953	2 A03
CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. JUNIOR HIGH.		101 954	3 F12
CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. SENIOR HIGH.		101 955	6 B06
CAREER EDUCATION PROJECT. INTERIM REPORT.	MURRAY, JOHN	102 136	58 B05
CAREER EDUCATION RESOURCE BIBLIOGRAPHY.		101 972	10 A03
CAREER EDUCATION.		102 003	25 B11
CAREER EDUCATION. A GUIDE TO THE 1972-1973 PILOT PROJECT.		102 137	59 A03
CAREER THRESHOLDS: A LONGITUDINAL STUDY OF THE EDUCATIONAL AND LABOR MARKET EXPERIENCE OF MALE YOUTH. VOLUME FIVE.	ANDRISANI, PA	102 177	69 C10
CAREER-CENTERED CURRICULUM FOR VOCATIONAL COMPLEXES IN MISSISSIPPI. FINAL REPORT, JULY 1970 - JUNE 1973.	MCMINN, JAMES	102 118	50 E09
COMPARATIVE ANALYSIS OF TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE IN THREE VETERINARIAN LAY OCCUPATIONS.	MCCRACKEN, J.	102 112	43 A03
COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. QUARTERLY REPORT.		102 006	26 D13
COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. FINAL REPORT.		102 117	46 A14
CONSUMER AND HOMEMAKING K-1-2. MANUAL FOR CAREER EDUCATION.	STEWART, JAME	101 991	22 A03
COOPERATIVE STATEWIDE PLANNING FOR HEALTH MANPOWER DATA IN OKLAHOMA.	SMITH, VIVIAN	102 138	59 D07
DEVELOP A PRE-VOCATIONAL PROGRAM FOR FRESHMEN STUDENTS IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL. EVALUATION REPORT.	WEST, B.R.	102 149	62 E03
DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II. FINAL REPORT.	HATTSTAEDT, M	102 043	30 F08
DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM. A "5 TO 12" MODEL FOR AN URBAN SCHOOL DISTRICT. FINAL REPORT.	SIMS, WILLIAM	102 189	70 F05
FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION. FINAL REPORT TO THE NATIONAL CENTER FOR EDUCATION STATISTICS.	CHRISTOFFEL,	102 199	77 A11

TITLE	AUTHOR	VT NR.	CARD FR.
FOLLOW-UP STUDY OF STUDENTS EXITED FROM SELECTED VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS.		102 145	62 A12
GREATER MILWAUKEE METROPOLITAN AREA CAREER EDUCATION PROJECT. INTERIM REPORT.		102 188	70 C06
HANDBOOK FOR BEGINNING TEACHERS.	APPLEGATE, RO	102 079	42 A03
HAWAII CAREER DEVELOPMENT CONTINUUM, K-14. FINAL REPORT.	RYAN, T. ANTO	102 198	74 E07
INSTRUCTOR'S GUIDE FOR PROFESSIONAL SUPERMARKET CHECKERS.	RIGGS, WALTER	102 037	28 D12
NEW OPPORTUNITIES FOR WORK. INTERIM REPORT.	JORDAN, KENNE	102 139	59 E08
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. FIRST GRADE GUIDELINE.		101 984	12 A03
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FIVE CLASSROOM ACTIVITIES.		101 988	18 E06
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FOUR CLASSROOM ACTIVITIES.		101 987	17 A03
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE SIX CLASSROOM ACTIVITIES.		101 989	20 D07
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. SECOND GRADE GUIDELINE.		101 985	13 E06
NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. THIRD GRADE GUIDELINE.		101 986	15 D06
OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR THE STATE OF DELAWARE. AN EXPERIMENT IN CAREER EDUCATION, INTERIM REPORT.		101 973	10 C10
OTIS (OCCUPATIONAL TRAINING INFORMATION SYSTEM). CYCLE SEVEN REPORT 1975. SUPPLEMENT 1: STATEWIDE TOTALS AND DESCENDING RANK ORDER OF PROGRAM CLUSTERS.	MORTON, J.B.,	102 115	45 A04
PRE-VOCATIONAL EDUCATION WORKSHOP JULY 8-19, 1974. FINAL REPORT.		102 005	26 A03
PROFESSIONAL EDUCATIONAL COMPETENCY NEEDS OF THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO.	MOORE, EDDIE	102 111	42 E07
REPORT OF THE CAREER EXPLORATION PROGRAM FOR JUNIOR HIGH SCHOOLS IN NEW BRITAIN.	KEVORKIAN, AR	102 134	56 B12
RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION. FINAL REPORT.		102 127	54 A03
RESOURCE GUIDE FOR THE MARYLAND PLAN'S GROUP PROJECT AND LINE PRODUCTION.	DAY, GERALD F	102 114	44 B14
REVIEW OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AS RELATED TO THE HANDICAPPED.	SINGLETARY, E	102 131	55 F02
ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS.	LOUDERMILK, W	102 132	56 A03
SEMI-ANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JULY 1, 1974 - DECEMBER 31, 1974.	BRAATEN, LARR	102 170	68 A03
SEMIANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JANUARY 1, 1974 - JUNE 30, 1974.	BRAATEN, LARR	102 163	65 C13
STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS IN VOCATIONAL EDUCATION. FISCAL YEAR 1974.	BRAATEN, LARR	102 169	67 A03

TITLE	AUTHOR	VT NR.	CARD FR.
STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA.	ROSS, RALPH W	102 113	43 B14
SUMMARY OF THE PROCESS EVALUATION AND THE EVALUATION OF THE EFFECTS OF THE IMPLEMENTATION OF THE OCCUPATIONAL AWARENESS PROGRAM DURING THE 1972-73 SCHOOL YEAR.		102 122	53 A03
THIRD YEAR ASSESSMENT OF CAREER EDUCATION PROJECT. BRIDGEPORT CITY SCHOOLS BRIDGEPORT, CONN. APRIL 29, 30, MAY 1, 1974.		102 155	63 A03
TRANSPORTATION K-1-2. MANUAL FOR CAREER EDUCATION.	STEWART, JAME	101 996	22 F02
TWENTY-FIVE LESSON PLANS FOR DISTRIBUTIVE EDUCATION. VOL. 3.	AUSTIN, GARY,	102 065	32 E08
VOCATIONAL TRAINING. PRINTING.		102 004	25 E01
VOCATIONALLY COORDINATED CURRICULUM FOR GENERAL EDUCATION. PROGRESS REPORT.		102 157	64 D09
WHAT DO WORKERS DO? SECOND GRADE. A CAREER EDUCATION INSTRUCTIONAL UNIT (DEVELOPMENTAL DRAFT).	COOPER, BEVER	101 956	8 C06
WOMEN IN THE WORK FORCE. FOLLOW-UP STUDY OF CURRICULUM MATERIALS.	VETTER, LOUIS	102 196	74 A03

AUTHOR	TITLE	VT NR.	CARD FR.
ANDRISANI, PA	CAREER THRESHOLDS: A LONGITUDINAL STUDY OF THE EDUCATIONAL AND LABOR MARKET EXPERIENCE OF MALE YOUTH. VOLUME FIVE.	102 177	69 C10
APPLEGATE, RO	HANDBOOK FOR BEGINNING TEACHERS.	102 079	42 A03
AUSTIN, GARY,	TWENTY-FIVE LESSON PLANS FOR DISTRIBUTIVE EDUCATION. VOL. 3.	102 065	32 E08
BRAATEN, LARR	SEMI-ANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JULY 1, 1974 - DECEMBER 31, 1974.	102 170	68 A03
BRAATEN, LARR	SEMIANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JANUARY 1, 1974 - JUNE 30, 1974.	102 163	65 C13
BRAATEN, LARR	STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS IN VOCATIONAL EDUCATION. FISCAL YEAR 1974.	102 169	67 A03
CARLTON, EARN	ANALYSIS OF THE PLUMBING OCCUPATION.	102 077	35 A03
CHRISTOFFEL,	FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION. FINAL REPORT TO THE NATIONAL CENTER FOR EDUCATION STATISTICS.	102 199	77 A11
CLARK, ANTHON	ANALYSIS OF THE WASTE WATER TREATMENT OPERATOR OCCUPATION.	102 076	33 E03
COOPER, BEVER	WHAT DO WORKERS DO? SECOND GRADE. A CAREER EDUCATION INSTRUCTIONAL UNIT (DEVELOPMENTAL DRAFT).	101 956	8 C06
DAY, GERALD F	RESOURCE GUIDE FOR THE MARYLAND PLAN'S GROUP PROJECT AND LINE PRODUCTION.	102 114	44 B14
HATTSTAEDT, M	DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II. FINAL REPORT.	102 043	30 F08
JORDAN, KENNE	NEW OPPORTUNITIES FOR WORK. INTERIM REPORT.	102 139	59 E08
KEIR, LUCILLE	ANALYSIS OF THE MEDICAL ASSISTING OCCUPATIONS.	102 078	37 D12
KEVORKIAN, AR	REPORT OF THE CAREER EXPLORATION PROGRAM FOR JUNIOR HIGH SCHOOLS IN NEW BRITAIN.	102 134	56 B12
LOUDERMILK, W	ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS.	102 132	56 A03
MCCRACKEN, J.	COMPARATIVE ANALYSIS OF TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE IN THREE VETERINARIAN LAY OCCUPATIONS.	102 112	43 A03
MCGHEE, MAXIE	ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING VOCATIONAL AGRICULTURE.	102 110	42 C11
MCMINN, JAMES	CAREER-CENTERED CURRICULUM FOR VOCATIONAL COMPLEXES IN MISSISSIPPI. FINAL REPORT, JULY 1970 - JUNE 1973.	102 118	50 E09
MOORE, EDDIE	PROFESSIONAL EDUCATIONAL COMPETENCY NEEDS OF THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO.	102 111	42 E07
MORTON, J.B.,	OTIS (OCCUPATIONAL TRAINING INFORMATION SYSTEM). CYCLE SEVEN REPORT 1975. SUPPLEMENT 1: STATEWIDE TOTALS AND DESCENDING RANK ORDER OF PROGRAM CLUSTERS.	102 115	45 A04
MURRAY, JOHN	CAREER EDUCATION PROJECT. INTERIM REPORT.	102 136	58 B05
RIGGS, WALTER	INSTRUCTOR'S GUIDE FOR PROFESSIONAL SUPERMARKET CHECKERS.	102 037	28 D12

AUTHOR	TITLE	VT NR.	CARD FR.
ROSS, RALPH W	STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA.	102 113	43 B14
RYAN, T. ANTO	HAWAII CAREER DEVELOPMENT CONTINUUM, K-14. FINAL REPORT.	102 198	74 E07
SIMS, WILLIAM	DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM. A "5 TO 12" MODEL FOR AN URBAN SCHOOL DISTRICT. FINAL REPORT.	102 189	70 F05
SINGLETARY, E	REVIEW OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AS RELATED TO THE HANDICAPPED.	102 131	55 F02
SMITH, VIVIAN	COOPERATIVE STATEWIDE PLANNING FOR HEALTH MANPOWER DATA IN OKLAHOMA.	102 138	59 D07
STEWART, JAME	CONSUMER AND HOMEMAKING K-1-2. MANUAL FOR CAREER EDUCATION.	101 991	22 A03
STEWART, JAME	TRANSPORTATION K-1-2. MANUAL FOR CAREER EDUCATION.	101 996	22 F02
VETTER, LOUIS	WOMEN IN THE WORK FORCE. FOLLOW-UP STUDY OF CURRICULUM MATERIALS.	102 196	74 A03
WEST, B.R.	DEVELOP A PRE-VOCATIONAL PROGRAM FOR FRESHMEN STUDENTS IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL. EVALUATION REPORT.	102 149	62 E03
WYATT, TOM; U	ANALYSIS OF THE CREDIT COLLECTION OCCUPATION.	102 072	33 C09

ACCESSION NUMBER: VT101953

PUBLICATION DATE: 73

TITLE: CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. ELEMENTARY-FIFTH & SIXTH GRADES. DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM (DVEP).

DESCRIPTOR: *CURRICULUM GUIDES; GRADE 5; GRADE 6; *CAREER AWARENESS; DEVELOPMENTAL PROGRAMS; *OCCUPATIONAL CLUSTERS; *DISADVANTAGED SCHOOLS; *SOCIAL STUDIES UNITS

IDENTIFIER: MODEL CITIES PROGRAM; CLEVELAND

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 241P.; SEE RELATED DOCUMENTS VT 101 954, 101 955 AND 102 189 IN THIS ISSUE.

ABSTRACT: THIS CAREER DEVELOPMENT CURRICULUM GUIDE IS A DEVELOPMENTAL PROGRAM FOR GRADES 5 AND 6, PREPARED TO PROVIDE YOUTH IN HIGH POVERTY MODEL CITIES AREA SCHOOLS WITH A BROAD BASE OF VOCATIONAL INFORMATION AND EXPLORATORY EXPERIENCES ON WHICH TO BASE CAREER DECISIONS. THE PROGRAM IS WORKED IN CONJUNCTION WITH THE SOCIAL STUDIES CLASSES. THE EMPHASIS IS ON OCCUPATIONAL CLUSTERS RATHER THAN ON SPECIFIC JOBS. THE STUDENTS ARE TO BECOME ORIENTED TO THE WORLD OF WORK THROUGH MULTI-FACETED EXPERIENCES INCLUDING FIELD TRIPS, WORK SIMULATION GAMES, AND ROLE PLAYING, AND ARE TO OBTAIN EXPERIENCE IN BASIC JOB SKILL OPERATIONS. THE UNITS FOLLOW A CONCEPTUAL APPROACH, WITH LISTS OF BEHAVIORAL OBJECTIVES, VOCABULARY, LEARNING EXPERIENCES, DESIRED OUTCOMES, AND INSTRUCTIONAL AND RESOURCE MATERIALS INCLUDED. THE APPENDIXES LIST MATERIALS AND RESOURCES AVAILABLE IN THE CLEVELAND PROGRAM. A BIBLIOGRAPHY IS ALSO INCLUDED. (AUTHOR/NJ)

CONTRACT NUMBER: OEC-0-71-0585(361)

INSTITUTION NAME: CLEVELAND PUBLIC SCHOOLS, OHIO.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 953

CAREER DEVELOPMENT CURRICULUM GUIDE

1970 - 1973

ELEMENTARY

Fifth & Sixth Grades

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

(DVEP)

CLEVELAND PUBLIC SCHOOLS

CLEVELAND, OHIO

1973

....Creating Bridges Between School and Earning a Living....

VT 101 953

CLEVELAND PUBLIC SCHOOLS

BEST COPY AVAILABLE

CLEVELAND BOARD OF EDUCATION

Arnold R. Pinkney, President

George Dobrea, Vice-President

Joseph M. Gallagher

Mary Ann Geraci

William B. Nagy

Gerald F. Sweeney

Ailene S. Taylor

Paul W. Briggs
Superintendent of Schools

Cleveland, Ohio

1973

"Strong claims are being made for career education's efficacy. To the extent that the concepts are not untried, there is already evidence in experiment and demonstration. But given the high mortality rate of panaceas in recent times, it is wise to leave room for uncertainty. Some of it may not work because of being improperly done. In such a broad concept some applications are likely to be unsuccessful. But the experiment is sufficient to promote reasonably high success probabilities to major aspects of the notion where they are carefully thought through and well administered".[1]

---

[1]Kenneth B. Hoyt, Rupert N. Evans, Edward F. Mackin, and Garth L. Mangum, "Career Education: What It Is," Career Education-What it is and how to do it. Salt Lake City, Utah: Olympus Publishing Company, 1972, p. 16.

CURRICULUM COMMITTEE

Mabel M. Artis
East High School

Spellman Lane
East High School

Sharyl White
John Adams High School

ORGANIZATION

Margaret Fleming
Directing Supervisor
Division of Research and Development

Don V. Healas
Director
Technical-Vocational Education

William I. Sims
Project Director
Developmental Vocational Education Program

FOREWORD

A new emphasis is being placed on the development of technical-vocational programs in the Cleveland Public Schools in line with our goal of providing quality education to all Cleveland children.

A reevaluation of programs is being made, existing programs are being upgraded, and new programs are being offered.

This "five to twelve" Career Development Curriculum Guide outlines the Cleveland program of training in Career Education.

Paul W. Briggs
Superintendent of Schools

PREFACE

This curriculum guide has been developed by the co-ordinating teachers of the Developmental Vocational Education Program which is funded under Part D of the Vocational Education Amendments of 1968. This program is being administered and implemented by the Cleveland Board of Education in cooperation with the Model Cities Association of Cleveland.

The material and information that is needed to implement this program has been gathered by the Co-ordinating Teachers and Vocational Aides from the local business world.

STATEMENT

This Exemplary Project in Vocational Education is conducted under Part D of the Vocational Education Amendments of 1968, P.L. 90-576.

The schools in the Model Cities area in Cleveland, Ohio are presently bounded by East 55th on the West, East 79th on the East, Superior Avenue on the North, and Kingsbury Run on the South. This amendment was designed to assist the cities in raising the standards of living for those locked into the target areas of selected cities.

During the summer of 1972, approximately sixty classroom teachers, department chairmen and guidance counselors prepared curricula materials and selected visual aids that formed the nuclei for this Career Development Curriculum Guide.

The purpose of this guide is to strengthen the students' ability to select and acquire a positive attitude toward work, toward all levels of occupational choices found in society, and toward themselves as prospective employees and their employers.

The results of these individuals during the summer of 1972, warrants our thanks and appreciation.

William I. Sims
Project Director
Developmental Vocational Education-
Program

TABLE OF CONTENTS

	Page
Philosophy of Cleveland Public Schools	1
Philosophy of Developmental Vocational Education Program	1
DVE Descriptions and Objectives	3
Introduction	6
Instructions for use of Guide	7
Outline of Procedures	9
List of Occupational Clusters	13
Fifth and Sixth Grade Social Studies Units	14 - 240
Appendices	526 - 554
Materials Available at DVEP Office	527 - 533
DVEP Visual Aids Description	534 - 538
[illegible]	[illegible]
[illegible]	[illegible]
Career Guide (Newspaper, Radio, Television)	549 - 554
Bibliography	555 - 556

PHILOSOPHY

Cleveland Public Schools

It is through education that a society not only transmits to individuals, but also reinforces for them, the values, skills, understandings, and standards of behavior through which society renews and repairs itself.

The responsibility for education is properly viewed as a partnership featuring a complementary and supplementary relationship among such agencies as organized religion, social and welfare agencies, cultural institutions, governmental agencies, and mass media as well as the schools. All these agencies support the family as the basic unit of personal and social development.

In a democratic society the school should create an environment in which young people will receive an integrated view of their culture, come to accept the basic assumptions of democratic behavior, and acquire a body of common knowledge essential for effective citizenship.

PHILOSOPHY

Developmental Vocational Education

Through the concept of career education all educational experiences, curriculum instruction, and counseling should be geared to preparation for economic independence and an appreciation for the dignity of work.

DVEP embodies the main thrust of career education, that is, to prepare all students for a successful life of work by increasing their options

for occupational choice, by eliminating barriers, real and imagined, to attaining job skills, and by enhancing learning achievement in all subject areas and at all levels of education.

PROGRAM DESCRIPTION AND OBJECTIVES

In cooperation with the Model Cities, the overall goal of the DVEP project is to create a bridge between school and earning a living. This is done through a career development program beginning in elementary school and continuing through high school. It provides students with a broad base of vocational information and exploratory experiences on which to base career decisions, with skill training to enable them to secure employment or undertake future training in the field of their choice and with actual job placement. Thus, the program is designed to increase options for making occupational decisions; to eliminate real and imagined barriers to attaining job skills; and to enhance learning achievement in all subject areas and at all levels of education for the youth in high poverty Model Cities area schools.

The program is developmental in nature and pyramidal in design. It begins with a broad informational/organizational approach at the elementary level, and is narrowed to an exploratory/preparational approach at the senior high level. Such an approach is designed to put the student at each level in a position to make informed decisions as to the next step in his career development and successively narrow his vocational preference.

Beginning at the upper elementary school level, students in grade five and six acquire reliable and valid information on as the broad range of available occupations and their requirements.

The program is worked in conjunction with the Social Studies classes. The emphasis is on occupational clusters rather than on specific jobs, including future occupational areas which are expected to emerge as a result of new technology. The students are to become oriented to the world of work through multi-faceted experiences including field trips, work simulation games, and role playing, and are to obtain experience in basic job skill operations.

At the junior high school level, the orientational-explorational aspect of the program involves learning the functional interrelationships between the production, management, and the service areas of business and industry. Students also sample the operations and skills required in a number of occupations through work-site tours and experience.

Finally, at the senior high level the program orientation is toward exploration and preparation for actual job placement beyond school. Students move from exploratory experiences in a number of occupational areas to intensive training in one skill area of their choice. High school students get on the job experience in work study programs.

PROGRAM DESCRIPTION AND OBJECTIVES

I. Specific Objectives For The Teacher

A. To assist students in identifying a variety of jobs in the 15 occupational clusters (elementary school level).

B. To cause an awareness through a description of various occupations (elementary school level).

C. To teach and demonstrate the relationship between specific vocational activities and "real" occupations (junior high school level).

D. To increase knowledge and functional interrelationships between management, production and service areas of business and industry (junior high school level)

E. To foster positive attitudes toward self, others, and the world of work (senior high school level).

II. Specific Outcome Objectives For Students

A. Increased ability to identify and describe a variety of occupations in a broad array of occupational areas (elementary school level).

B. Increased knowledge of equipment used in various occupations and their utility (elementary school level).

C. Increased knowledge of the operations of a functional interrelationship between management, production and service areas of business and industry (junior high school level).

D. Increased ability to describe the relationship between specific vocational activities and "real" occupations (junior high school level).

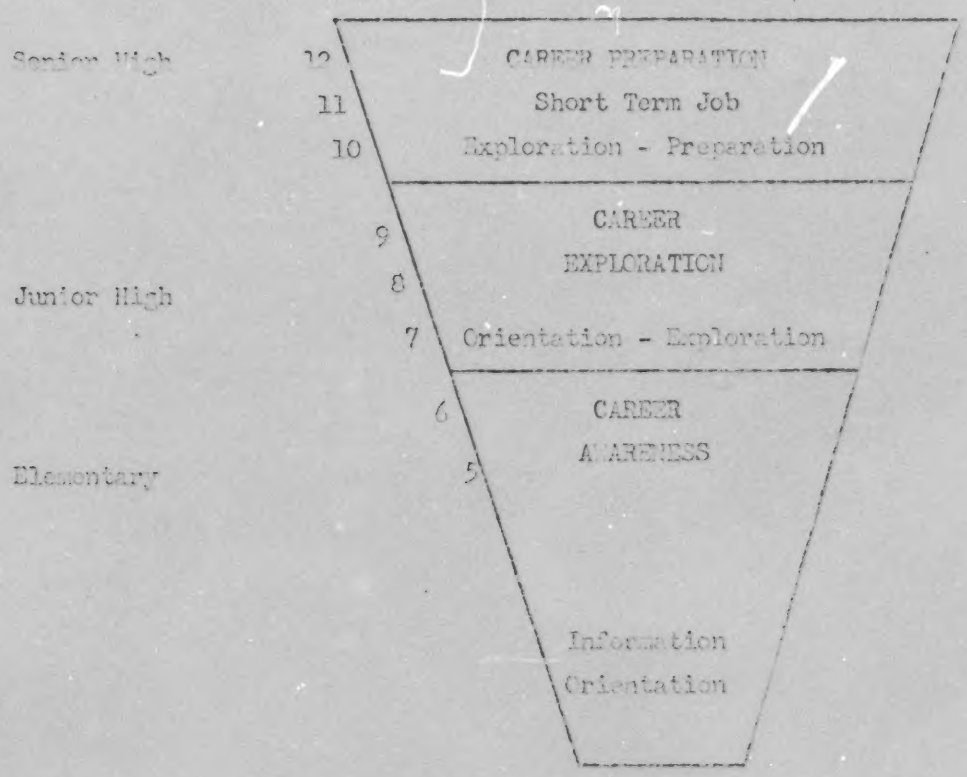
E. Increased positive attitudes toward vocational education (senior high school level).

INTRODUCTION

The Model Cities Developmental Vocational Education Program is directed toward serving the occupational needs and aspirations of those youths in the Cleveland Model Cities area. This vocational education project embraces four basic components:

1. An informational-orientation program at the elementary school.
2. An orientational-exploratory component at the junior high school level.
3. An exploratory-preparational phase at the senior high school level.
4. An extensive short term job program.

The figure below illustrates a clearer picture of the above mentioned components:



INSTRUCTIONS FOR USE OF THIS GUIDE

All units in this guide have been developed around the fifteen occupational clusters as have been identified by the United States Office of Education's Bureau of Adult, Vocational and Technical Education.

The Developmental Vocational Education Program has made a concentrated effort to assist Model Cities area disadvantaged and handicapped youth who have been turned off by education. Since it is probable that many of these inner city youth will never leave the city of Cleveland, it becomes necessary to make these individuals aware of the many career opportunities available in other areas in general and the City of Cleveland in particular.

The various materials in the elementary section of this guide are designed for injection in the various fifth and sixth grade social studies units presently used in the schools participating in this program. Obviously use of all of the occupational clusters is not possible in any one social studies unit, nor are all of the social studies units equally amenable to use of all of the clusters. Certain clusters compliment and enhance certain units better than others.

In using this guide, the elementary social studies teacher will have to decide which cluster to use in any given unit on the basis of how well the cluster will integrate with said unit, and the interests and aptitudes of his/her students. The use of the guide necessitates the use of teacher creativity and discretion in its implementation.

The time alloted to cover a regular social studies unit varies from two to six weeks. In scheduling the time alloted for the "cluster" material, the teacher may find that a certain cluster can best be presented in one or two sessions; another cluster may be enhanced by injection bit by bit at various stages in the teacher's regular social studies schedule.

At the elementary level, the conceptual approach, followed by a list of specific behavioral objectives is used. To augment this, vocabulary lists, learning experiences, desired outcomes, and instructional and resource materials are listed. Preceding each unit is a brief general discussion related to the cluster under consideration. In most cases a pre test and a post test is used at some point during the presentation of each occupational cluster; however, teachers are encouraged to be creative and use their own initiative in developing varied means of generating interest and enthusiasm for the subject.

On the secondary level, each unit is preceded by a list of general objectives, followed by specific behavioral objectives. General discussions, information and study sheets, and in some cases pre tests and post tests are provided for the majority of the units in the secondary section. In many instances, answers are provided for pre tests and post-tests. On occasions where answers are not given, it is suggested that teachers refer to their basal and supplementary textbooks used in the classroom, and the array of occupational resources available in the school's career library and guidance office. At all levels, instructional and resource materials (films, slides, tapes, books, pamphlets, etc.) are indicated and available in either the school, the DVEP office, or the Audio-Visual Services office provided by the Cleveland Board of Education.

The teacher, vocational aide, or any other resource person is not expected to use all of the learning activities listed or to achieve all of the objectives and goals listed in any one setting; only those which are applicable and appropriate should be used for a particular class. However, the teacher is encouraged to use his/her own objectives if he/she feels the need to do so.

In summary, for each unit in this curriculum guide, an effort has been made to supply the teacher with as much information as possible, such as lists of films, tapes, and filmstrips, contact points for speakers and field trips etc.. Teachers are also encouraged to call upon the school guidance staff, the librarian, and any other qualified school and/or community resource who may be more effective in aiding the students in developing more positive attitudes toward self, others, school, and the world of work.

OUTLINE OF PROCEDURES

A. Elementary (Informational -- Orientation Component)

1. Involve or inject the 15 occupational clusters into fifth and sixth grade social studies.

2. Relate occupational areas to the subject matter.

3. Emphasize occupational areas rather than specific jobs.

4. Introduce future occupational areas.

5. Develop appropriate classroom activities:

   a. role playing
   b. simulated games
   c. time organization problems

6. Secure films, slides and other visual aids for reinforcement.

7. Secure speakers for informational purposes.

8. Organize field trips:

   a. local companies and businesses
   b. junior high and senior high school vocational education facilities.

B. Junior High (Orientational -- Exploratory Component)

1. Inject the 15 occupational clusters into all junior high high classes.(all classes and subject areas are involved)

2. Relate the full range of occupational requirements, opportunities and advantages.

3. Establish a model industrial system:

   a. management
   b. production

      1. production line

   c. service components

      1. related concepts to actual operations
      2. managing the production

   d. business office

      1. planning the production
      2. managing the production

   e. each student to have equal time in every department

4. Arrange field trips to local business and industrial work sites.

   a. Time spent by students talking with employees in different areas:

      1. get a feel of actual duties performed
      2. working conditions
      3. wages
      4. job requirements
      5. advantages of the occupation

5. Encourage student reactions to the field trips.

   a. Individual counseling sessions

      1. discuss reactions to field trips
      2. discuss and relate roles students play in the model industrial system (Vocational course of study will be an elective at grades eight and nine).

   b. Self-evaluation

      1. analyzing own abilities
      2. aptitudes
      3. interests in future employment possibilities

6. Provide special instruction and experiences in narrower work areas.

   a. Build competence in a number of skill areas

      1. woodwork
      2. mechanical drawing
      3. printing
      4. metal shop
      5. typing
      6. home economics

7. Instruct and teach by direction.

   a. Junior high students instruct elementary school pupils

      1. tools
      2. machinery
      3. shops
      4. operations

8. Establish a career information center

   a. books
   b. pamphlets
   c. brochures
   d. films
   e. filmstrips

C. High School (Exploratory-Preparational Component)

1. Establish a Career Information Center

   a. information on job opportunities
   b. post graduate training program
   c. job requirements
   d. career planning

2. Counsel for career and occupational choices

   a. students analyze their interest
   b. aptitudes
   c. abilities
   d. discuss the next step in career development
   e. select a small area to work in for one year

      1. visit work sites

         a. observe operations involved in related occupations

         b. demonstration by tradesmen

3. Selection of one major occupational skill by student

   a. intensive training
   b. continue to make work-site visits
   c. observe and talk to the advanced students in the program (work and study)
   d. enter work-study program ($\frac{1}{2}$ day school -- $\frac{1}{2}$ day work)

      1. earn money
      2. put training to use in real work situation

4. Plan for post graduation

   a. finding a job

      1. employment office
      2. work orientation teacher
      3. high school vocational counselor
      4. newspapers

   b. furthering vocational training (Cleveland Board of Education)

      1. Max S. Hayes

         a. for males
         b. know specific industrial career he wants to train for

      2. Jane Addams High School

         a. for females
         b. know specific industrial career she wants to train for

3. Martin Luther King High School

   a. for males
   b. vocational training for interested and qualified students
   c. high school diploma
   d. academic instruction geared toward related occupational goals

OCCUPATIONAL CLUSTERS

1. Business and Office Occupations
2. Marketing and Distribution Occupations
3. Communications and Media Occupations
4. Construction Occupations
5. Manufacturing Occupations
6. Transportation Occupations
7. Agri-Business and Natural Resources Occupations
8. Marine Science Occupations
9. Environmental Control Occupations
10. Public Service Occupations
11. Health Occupations
12. Hospitality and Recreation Occupations
13. Personal Services Occupations
14. Consumer and Homemaking-Related Occupations
15. Fine Arts & Humanities

* The above clusters have been identified and codified by the United States Office of Education's Bureau of Adult, Vocational and Technical Education.

E L E M E N T A R Y

FIFTH AND SIXTH GRADE SOCIAL STUDIES

An attempt has been made to relate the fifteen occupational clusters devised by the United States Office of Education, to the following fifth and sixth grade units presently used in the Cleveland Public School System:

Grade 5

Unit II: How Africans and Europeans Settled the Coast Colonies
Unit III: A New America Grows Up
Unit IV: Lands and People of the Southern and North Central States
Unit VIII: Ohio
Unit IX: Land and People of the Western States

Grade 6

Unit III: How The Country Grew - A New America Grows Up
Unit IV: Citizens In A Changing America
Unit V: Canada, Our Neighbor to the North
Unit VII: Mexico, Gateway to Latin America
Unit VIII: Lands of The Carribean - Central America and the West Indies
Unit IX: South America
Unit X: The Americas In A Changing World

AGRI-BUSINESS & NATURAL RESOURCES--AGRICULTURE

General Discussion

The United States is in the middle of an agricultural revolution, that is having an effect on the employment outlook in agriculture. The reason is simply that each farmer today is able to produce far more than his predecessors. Management is the key to success in modern farming. Agriculture still offers challenging and rewarding careers with larger incomes and better living conditions than before. Although the number of opportunities in farming is shrinking, the number of jobs in farm related industries is not.

PRE-TEST

1. Name three types of farmers.
2. Extension service workers are engaged in educational work in agriculture, home economics, youth activities, and community resources development. (TRUE OR FALSE)
3. There are more farms in the United States today than ever before. (TRUE OR FALSE)
4. What is the job of the dairy farmer?
5. What is the job of the poultry farmer?
6. What types of animals are raised on a livestock farm?
7. What are some of the facilities that are available on a private outdoor recreational farm?
8. What are some of the duties of the corn and wheat farmers?
9. In what area is most of the cotton raised?
10. In what area is the most tobacco raised?

OCCUPATIONAL CLUSTER: Agri-Business & Natural Resources
JOB FAMILY: Agriculture

GRADE: 5 Social Studies
TITLE: Unit IV--Lands and People of The Southern and North Central States
BASIC CONCEPTS: (1) Agriculture has always been important to Ohio.

(2) Agriculture offers challenging and rewarding careers with larger incomes and better living conditions than before.

(3) Any career has levels of responsibility.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe the duties of people working in the various agricultural areas mentioned in this unit.	Agri-Business dairy Extension Service-Worker Farmer (Poultry) Livestock farmer Outdoor recreation-farmer Natural Resource-consumer	Pre-Test The students will make a display of products produced on a farm. Students will make reports on items produced on a farm. Post Test (Same as Pre-test)	The students will have a more positive attitude toward self, others, and the world of work. The student will be more aware of jobs available in the area of agriculture.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston: D.C. Heath and Company 1965	Films: "Our Natural Resources" "Conserving Our Natural Resources" "Exploring the Farmland"	Corn and Wheat farmers Dairy Farmers Live Stock Farmers Poultry Farmers Peanut Farmers	Contact: Consumers' League of Ohio, 940 Engineers Bldg., Cleveland, Ohio 621-1175 Topic, "Agricultural Migrants"	Contact: City of Cleveland Greenhouse, Luther Karrer, 750 East 88th St. Cleveland Ohio C.R. Perkins and Sons 28359 Center Ridge Rd. Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objective number (1) will be based on the ability of at least 80% of the students to orally identify and describe at least four out of six jobs listed in this unit. Student success on post test will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

MINING

AGRI-BUSINESS & NATURAL RESOURCES

General Discussion

The mining industry is a major supplier of the basic raw materials and energy sources required for industrial and consumer use. Few of the products exacted from mines reach the consumer in their natural state. Nearly all require further processing in one or several of the manufacturing industries.

POST TEST (Mining)

Answer the following questions True or False.

1. Petroleum is one of the fossil fuels. (True)
2. Exploring for oil is the first step in petroleum production. (True)
3. The paleontologist study fossil remains in the earth to locate oil-bearing sands. (True)
4. Mineralogist study animals and how they evolve. (False)
5. Draftsmen assist in surveying and mapping operations. (True)
6. Biology is another way of searching for oil. (False)
7. The chief duty of the pumpers is to regulate the flow of oil. (True)
8. Treaters treat all the workers well. (False)
9. Natural gas as it flows from the ground is easy to transmit through pipelines for long distances. (False)
10. Drilling for oil and gas is done in about three fourths of the United States. (True)

OCCUPATIONAL CLUSTER: Agri-Business & Natural Resources
JOB FAMILY: Mining

GRADE: 5 Social Studies
TITLE: Unit IX--Lands and People of the Western States or unit VII Mexico City, Gateway to Latin America
BASIC CONCEPTS: (1) Enterprise flourishes when people with money, energy, ability, and creative ideas find an advantageous location with abundant natural resources.

(2) The mining industry is a major supplier of the basic raw materials and energy resources required for industrial and consumer use.

(3) Different occupations are interrelated in many ways.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list at least 5 different jobs in the area of mining. The students will be able to describe and identify the jobs discussed in this unit.	Agri-Business Biology Conveyor Operator Crusher Operator Draftsmen Geologist Mineralogist Patoentologist Petroleum Pumpers Treater	Students will give reports on different types of mining. Students will bring in pictures and articles for a bulletin board. General class discussion on various products produced in mines. Students will orally discuss or list safety precautions used to prevent mine disasters Post Test	The students will be more aware of jobs existing in the city of Cleveland in the area of Agri-Business and natural resources. The students will have a more positive attitude toward self, others and the world of work. The students will be more aware of the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: AGRI-BUSINESS & NATURAL RESOURCES- MINING

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C Tottle, John In These United States and Canada Boston; D.C. Heath & Company 1965	Films: "Silver" - A film on mining "Copper" - A film on mining	Conveyor Operator Crusher Operator Cutting Machine operator Drill Operators Geologist Mechanic Repairmen Technician Tractor Driver Truck Driver	Contact: Morton Salt Co. Euclid Building 241-7282	Contact: Morton Salt Company Euclid Building 241-7282	Pamphlets Brochures SRA Kits Popeye Career-Comics

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of at least 80% of the students to orally describe 75% of the jobs discussed in this unit. The attainment of post test objectives will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

AGRI-BUSINESS AND NATURAL RESOURCES

NATURAL GAS AND PETROLEUM

General Discussion

Petroleum refining changes crude oil into gasoline, kerosene, fuel oil lubricants, and other products for use in homes and industry. The modern refinery is a complicated structure made up of tanks and towers connected by a maze of pipes. About one-third of the plant workers in refineries are employed in processing work.

The petroleum and gas industry employs a large spectrum of workers from the very highly trained professional to the unskilled. Each of these employees is necessary to find the petroleum, refine the crude oil into gasoline, kerosene, fuel oil, oil lubricants and other products for home and industry.

Exploring for petroleum involves the petroleum geologist to study the earth's crust and seek a site most likely to yield oil. Once a site has been selected, a shothole driller and his helper may use a portable rig to make holes in the earth's surface. The holes are then filled with explosives under the shooter's supervision. If oil is there, a permanent rig is assembled by the rig builder and the derrickman helps supervise the oil drilling.

The crude oil is piped to refineries. The refineries are complicated structures made up of tanks, towers and pipes. Once in the refinery the crude oil flow of production is almost continuous. About one third of the plant workers in refineries are employed in processing work. Others are involved in packaging, clerical work, and maintenance.

PRE-TEST(Natural Gas and Petroleum)

1. Is the United States the leader in petroleum marketed by the gasoline service station? _____

2. List two or more jobs in the petroleum field. _____

3. What is a roustabout? _____

4. What is the front of the petroleum industry? _____

5. What does a chemist in the petroleum field do? _____

6. What is a land man? _____

7. What is the lawyer's job? _____

8. What are some different types of petroleum products? _____
_____

9. What is the Stillman? _____

10. What is a pipeliner's job? _____

OCCUPATIONAL CLUSTER: Agri-Business and NATURAL RESOURCES
JOB FAMILY: NATURAL GAS AND PETROLEUM

GRADE: 6 Social Studies
TITLE: Unit VII--Mexico, Gateway to Latin America or Unit IX--South America
BASIC CONCEPTS: (1) Individuals differ in abilities, interest, attitudes, and values.

(2) Geographical location determines kinds of work therein.

(3) There are job opportunities for a wide range of abilities, men and women, young and mature, in agri-business and natural resources work.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe various jobs in the gas and petroleum industry. The students will be able to write or orally give general definitions for terms used in the unit.	Agri-business Derrickmen Driller Land man Observer Petroleum Petroleum geologist Pipe liner Prospector Roughneck Roustabout Scout Shooter Stillman Tool pusher	Pre test Reports by students on various jobs in the petroleum industry. Make a collage or bulletin board of people working in specific fields in the petroleum industry. Post test, (same as pre-test)	The students will have a positive attitude toward the world of work and preparation for work. The students will have a general knowledge of the meaning of the term agri-business.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES
NATURAL GAS AND PETROLEUM

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY EVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C Tottle, John In These United States and Canada Boston: D.C. Heath and Company, 1965	"Earth Resources in its Crust"	Chemists Derrickmen Draftsmen Drillers Firemen Observer Petroleum-geologist Prospector Rig Builders Rodmen Roughnecks Roustabout Scout Shooters Tool pusher	Contact: East Ohio Gas Company Sohio's Speakers Bureau (Petroleum) 1701 Midland Bldg. Cleveland, Ohio 575-5549	Contact: East Ohio Gas Company Public Relations Dept. 522-2929	Pamphlets Brochures SRA Kits Popeye Career-Comics

EVALUATION: The attainment of objective (1) will be based on the students' ability to orally identify and describe at least 10 jobs in the Natural Gas and Petroleum job family. Eighty percent of the students in the sixth grade social studies will be able to orally define 85% of the vocabulary terms used in this unit. The attainment of post test objectives will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

HORTICULTURE

AGRI-BUSINESS AND NATURAL RESOURCES

General Discussion.

Horticulture is the science of cultivating plants. Horticulture is one of the principle branches of agriculture. This vast field deals with the cultivation and utilization of fruits, flowers and ornamental plants. Today horticulture offers young people as many interesting and exciting careers as the space industry. Horticulture is a science, an art, a business and a profession.

THE TEST

1. What are some of the tools used in horticulture?
2. What does the word horticulture mean?
3. What plants or vegetables have you grown at home?
4. What is a greenhouse?
5. What grows inside a greenhouse?
6. Name four kinds of plants studied in horticulture.
7. Is horticulture a part of agriculture?
8. Is horticulture a science?
9. A greenhouse is always green. (TRUE OR FALSE)
10. Describe a home garden you have had, if any.

OCCUPATIONAL CLUSTER: Agri-Business and Natural Resources
JOB FAMILY: Horticulture

GRADE: 5 Social Studies
TITLE: Unit IV--Lands and People of the Southern and North Central States
BASIC CONCEPTS: (1) Every individual can have a meaningful, rewarding career.

(2) Information and exploration of jobs are essential to wise career decisions.

(3) Every career requires some special preparation.

(4) Every occupation contributes to society.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the function of various tools used in horticulture. The student will be able to describe in simple terms various careers associated with Horticulture. The student will be able to state general definitions for the vocabulary terms.	Agri-business Agricultural economist Agricultural engineer Biophysicist Floral Designer Geneticist Greenhouse Horticulture Plant propagator Soil scientist	Pre-Test Students will prepare book reports on jobs in Horticulture. Students will prepare a school garden. Students will make a Bulletin board dealing with jobs in Horticulture Post Test(same as pre test)	The student will appreciate the many different uses of plants (comfort, beauty, food, etc.). The student will be more aware of the World of work. The students will be more knowledgeable about Horticulture jobs and centers located in the city of Cleveland.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tuttle, John In These United States and Canada Boston: D.C. Heath and Company 1965	"Garden Plants and How They Grow" "Insects In A Garden" "Our National Resources" "Desert Farming" "Man Uses and Changes the Land"	Agricultural-economist Biophysicist Ecologist Floral designer Geneticist Horticulturist Plant propagator Soil Scientist	Contact: Sunnybrook Farms 9448 Mayfield Rd. Cleveland, Ohio Ohio Agriculture Research and Development Center	Contact: A.G. Heinrick's Greenhouse, 211 East Schaaf Rd., Cleveland, Ohio Cleveland Cultural Gardens-Rockefeller Park Castemine Farms 9809 Washington St. Chagrin Falls, Ohio Cleveland Fine Arts Gardens, 11150 East Blvd., Cleveland, Ohio	Books Pamphlets Brochures SRA Kits Popeye Career-Comics

EVALUATION: Successful attainment of objectives (1), (2), and (3) will be based on: (a) the ability of 85-90% of the students to orally define eight of the 11 terms discussed in this unit, (b) the ability of 85-90% of the students to orally describe 75% of the careers discussed in this unit. (c) the ability of all students to visually identify three out of five tools used by a horticulturist and/or a gardner. Student success in this unit will be based on at least 75% of the students achieving a 10% accuracy increase over his initial scores on the pretest.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

BUSINESS AND OFFICE OCCUPATIONS

General Discussion

In every industry you can imagine, there are certain people that the company cannot do without. This is the group of people who perform the business and clerical tasks. The group is made up of millions and millions of people who keep businesses running smoothly by keeping correct, up-to-date records. The skills of these persons are often important factors in a business' success or failure. Some titles included in this category are accountants, cashiers, typists, secretaries and personnel workers.

PRE-TEST

I. Multiple Choice

1. This person gives and receives information to people who call.
   (a) accountant (b) cashier (c) receptionist

2. This worker keeps track of goods being transferred from one place to another.
   (a) shipping & receiving clerk (b) wholesaler (c) distributor

3. This person keeps records.
   (a) clerk (b) accountant (c) secretary

4. Company products are displayed through them.
   (a) advertising workers (b) personnel workers (c) distributor

5. You may be hired by this person.
   (a) public relations (b) personnel worker (c) marketing worker

II. True or False

1. A secretary does not answer phones._____

2. An office machine operator works on one machine only._____

3. Marketing research workers are fact-finders._____

4. Personnel workers interview people for jobs._____

5. Advertising workers try to persuade the public to buy a product._____

KEY

I	II
1. c	1. F
2. a	2. F
3. b	3. T
4. a	4. T
5. b	5. T

OCCUPATIONAL CLUSTER: Business & Office Occupations
JOB FAMILY:

GRADE: 5 Social Studies
TITLE: Unit VIII - Ohio
BASIC CONCEPTS:

(1) The skills of persons working in business and office occupations are often important factors in the business' success or failure.

(2) A worker must understand, not only his job, but also his employer's rules, regulations, policies and procedures.

(3) Every career requires some preparation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the duties of various people performing business and office duties. The student will be able to identify some of the machines and materials used by individuals working in an office (typewriter, adding machine, etc.).	Accountant Advertising Worker Cashier Distributor Marketing Research Worker Office Machine Operator Personnel Worker Public Relations Worker Receptionist Secretary Stenographer Typist Wholesaler	Pre-test Set up a present day office situation, include the employer, secretary, etc. A short skit will show how a typical day proceeds in an office. Students will use a toy telephone to role-play or practice the duties of a receptionist. Post test (Same as pre-test)	The students will be more aware of specific jobs in the area of Business and Office Occupations. The students will have a more positive attitude toward self, others and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. & Tottle, John. In These United States and Canada Boston: D.C. Heath & Co. 1965	Films: "Your Career As A Secretary" "Careers--Clerical"	Accountant Cashier Office Machine Operator Personnel Staff Secretary Stenographer	Contact: Addressograph Multigraph Co., 731-8000 Ext. 291 Cleveland Advertising Club, Statler Hotel Contact Terry Beier 241-4807	Contact: J.W. Addressograph-Multigraph, 1200 Babbett Road, Euclid, Ohio 44117 Office Service Manager, Eaton Corp. 100 Erieview Plaza Cleveland, Ohio 44115, 523-5256	Pamphlets Flyers SRA Kits (hands on packs in Job Experience Kits) Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on: (1) the ability of at least 80% of the students to orally identify and describe nine out of thirteen Business and Office jobs, and (2) the ability of at least 80% of the students to orally identify seven out of ten pieces of office equipment used in Business and Office careers.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BANKING

General Discussion

Banks have been described as "department stores of finance" because of the variety of financial services that they offer. Their services range from convenient individual checking accounts to letters of credit that may be used to finance world trade.

PRE-TEST

Match the lettered definition to the matching terms.

_____1. Proof Machine Operator

_____2. Tellers

_____3. Sorter

_____4. Bookkeeping Machine Operator

_____5. Transit Clerk

_____6. Bookkeeping clerk

_____7. Trust Investment Clerk

_____8. Reconcilement clerk

_____9. Exchange Clerk

_____10. Interest Clerk

A. Routine typing, calculating, and posting related to bank transactions

B. Separate bank documents, checks deposit slips, and other bank items

C. Cashes customer's checks and handles deposits and withdrawals from checking and saving accounts

BANKING

PRE-TEST

D. Sort bank items such as checks and drafts of other banks, list and total the amounts involved, and prepare the documents so that they can be mailed for collection

E. Use equipment, sort items, and adds, and records the amounts of money involved

F. Process statement from other banks to expediate the auditing of accounts

G. Post the daily investment transactions of bank customers

H. Maintain records relating to interest-bearing items which are due or payed

I. Serve foriegn deposit accounts and determine charges for cashing or handling checks drawn against such accounts

J. Type legal papers affecting titles to real estate upon which money has been loaned, and maintain records relating to taxes and insurance on such properties

K. Processes mail which comes in daily to a city bank and determines which items must be held at the main office and which should be routed to branch banks or out-of-town banks for collection

L. Uses conventional bookkeeping machines or electronic posting machine especially designed for bank work

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS
JOB FAMILY: BANKING

GRADE: 5 Social Studies
TITLE: Unit VIII--Ohio
BASIC CONCEPTS: (1) Money is the chief form of barter in our society.

(2) There are many jobs associated with banking.

(3) Careers require different knowledge, abilities, attitudes.

(4) Careers can be grouped in various ways into "families" requiring similar abilities and providing similar rewards.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe duties of individuals performing various duties in a bank.	Bank Barter Bookkeeping Machine Operator Exchange Clerk Interest Clerk Reconcilement Clerk Sorter Teller Transit Clerk Trust Investment Clerk	Pre-Test Each student will write a report on a job they would like to have in a bank. Students will role play people who are opening and using new savings and checking accounts. Students will set up a bank in the classroom: Use fake money, passbooks, and cards. Post Test (same as Pre-test)	The student will be more aware of various jobs in the area of Banking The student will demonstrate a more positive attitude toward self, others, and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston, D.C. Heath and Company 1965	Films: "Banks and Credit" "How To Use Your Bank"	Bookkeeping Exchange Clerk Interest Clerk Machine operator Mortgage Clerk Proof Machine operator Reconcilement clerk Sorter Transit Clerk Trust Investment Clerk	Contact: Mr. Burt Gardner, Cleveland Trust Bank--East 9th and Euclid Ave. Cleveland, Ohio Miss Rae Cronker, American Institute of Banking, 420 Williamson Bldg., Cleveland, Ohio	Contact: Cleveland Trust Bank East 9th and Euclid Ave., Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career-Comics

EVALUATION: Successful attainment of objective number (1) will be based on the ability of at least 80% of the students to orally identify and describe seven out of ten jobs performed in a bank. Student success on the post test will be based on the ability of 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

COMMUNICATION - TELEVISION

General Discussion

Television is one phase of communication. In fact, it is one of the most wide spread phases of communication. It is very educational and it teaches much about world wide affairs. Televised are all sorts of programs which are all helpful to one person or another. There are various positions available in television and they are good positions. Many employees work behind the scene and are seldom seen by the public, some are never seen. But we know that if not for those people we wouldn't have a good program. Their work affects our daily lives.

PRE-TEST

DIRECTIONS--Answer each question in a complete sentence.

1. Name ten different types of jobs in television.
2. Why does scenery have to be built for television?
3. What is the name of the device the control room staff uses to observe floor activities.
4. What is the cost of a color television tube?
5. What is the cost of a black and white television tube?
6. What is a control room?
7. What is the job of the Floor Manager?
8. The cards that the cameramen use to tell the actors what to do are called?
9. What are the uses of television in which we studied about.
10. Write a short paragraph on what you learned about television.

OCCUPATIONAL CLUSTER: Communication and Media-Occupations
JOB FAMILY: Television

GRADE: 6 Social Studies
TITLE: The Americans In a Changing World
BASIC CONCEPTS: (1) Every occupation contributes to society.

(2) People must adopt as the World Changes

(3) Changes and Conditions in the World affect career opportunities.

(4) Television, one of the most powerful forms of mass communication, has an enormous influence upon the opinions, habits and morality of individuals.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify different kinds of work people in the television industry do and some contributions each one makes to the community. The student will be able to describe the jobs of various people working in a TV Station. All students will be able to correctly answer at least 75% of the pre-test items	Communication Field Technician News Writer Program Director Television announcer Traffic Manager Video Technician	Pre-test Students will make bulletin boards dealing with television careers Role-playing of different TV jobs Oral discussion of items on study sheet Post test(same as Pre-test)	The students will be more aware of the different knowledge abilities and attitude required in the world of work. The students will be more aware of the influence TV has on the employee.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY EVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In these United States and Canada Boston: D.C. Heath and Company 1965	Films: "Television Serves It's Community" "Television Is What You Make It" "Communication and our Town"	Announcer Director (TV) Field Technician Make-up Artist News Director News Writer Program Director Traffic Manager	Contact: WVIZ TV, Channel 25, Cleveland, Ohio	Contact: WVIZ TV Station Channel 25 (3500 Brookpark Rd. Cleveland, Ohio 398-2800 Ex-143	Pamphlets Posters SRA Kits Popeye career Comics People and Choices Career Folios

EVALUATION: Eighty percent of the students in sixth grade social studies upon completion of the study of this unit on television careers will be able to orally describe or identify at least 75% of the jobs discussed in this unit Student success in this unit will be based on at least 75% of the students achieving a 10% accuracy increase over his initial scores on the pre-test.

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

STUDY SHEET FOR COMMUNICATIONS

1. The first English daily newspaper did not appear until 1702.

2. In 1690 Benjamin Harris published PUBLICK OCCURENCES BOTH FORIEGN AND DOMESTICK.

3. Not until 1704 when John Campbell published the Boston News-Letter was a colonial newspaper published regularly.

4. Freedom of the press in the United States is one of the rights guaranteed by the first Amendment to the Constitution.

5. A newspaper is a publication usually issued daily or weekly to report current events through news stories, photographs, and illustrations.

6. Some of the different types of news found in most daily papers are:
   a. general interests and sports
   b. business and social
   c. news of death of prominent people
   d. editorial and entertainment
   e. advice columns
   f. weather reports

7. Some qualifications for obtaining an editorial position are:
   a. Preferably a college graduate, with a study of English, History, and Sociology, Political Science, Economics, and Psychology
   b. A writing ability
   c. A knowledge of grammar and spelling

8. The salary of the editor depends on the type and size of the publication. Editors of a large publication may receive from $600 to $1,000 a month. While editors of small publications may receive from $400 to $800 a month.

9. The Managing editor is the head of the news staff. He is responsible for the work of writers and editors under his supervision, as well as coordinating this work with that of the artists, typesetters, and advertising men. He works with all these people to decide what will go in the paper.

10. The City Editor is a man in charge of the news happening in the town.

11. The Copy Editor is a man that checks for mistakes in grammar or spelling. They also read advertising and everything else that is printed in the paper.

12. The Make-up Editor arranges things exactly as they will go on the pages of the paper.

13. The exact arrangement of all the copy as it will appear in the paper is called a lay-out.

14. The reporter (newsman) job is to gather information of current events and write stories on many subjects for publication in daily or weekly newspapers.

15. In gathering information, the reporter may interview people, review public records, attend news happenings, and do research.

16. Some requirements for becoming a reporter includes a college education, preferably degrees in journalism or liberal arts. Some feature writing courses require reading and conversational ability in a foreign language.

COMMUNICATIONS - NEWSPAPER

1. Communication means sharing information

2. Communication can be broken into three fields:

   A. Written
      a. Newspaper
      b. Telegram
      c. Mail
   B. Oral
      a. Radio
      b. Telephone
   C. Visual
      a. Television

3. The United States has the largest system of mass communication in the world.

4. The Communication industry has become one of the most important in the world.

OTHER JOBS IN COMMUNICATIONS
NEWSPAPER

1. The photengraver makes metal plates of illustrations (pictures), and other copy work which cannot be set up in type.

2. The phocengraver salary usually starts at $4.14 per hour.

3. Some of the requirements include high school courses in chemistry, physics and art and an interest in photography. There is usually a requirement for a physical examination, with emphasis placed on good eyesight. A steady hand.

4. The printing pressmen make ready type forms and press plates, set up, operate, clean and maintain presses, including feeding, loading and unloading paper. They also control ink flow and match colors.

5. Some requirements for the printing pressman is a high school education in order to enter an apprenticeship program. Specialized high school courses such as art, print shop, mathematics, chemistry and physics.

6. The Newspaper pressman in charge salary usually starts at $4.19 per hour. The Journeyman newspaper pressman salary is usually $3.86 per hour.

7. Some of the benefits of the newspaper occupations include a Union, pension plan, part payment of hospitalization, protected long service with job security, granted sick leave, and two weeks vacation for employees with one year or more seniority. Three weeks for three years or more seniority.

COMMUNICATION - NEWSPAPER

PRE-TEST

1. What is a newspaper?
2. Name some of the different jobs of a newspaper?
3. Why do we have newspapers?
4. Is a newspaper a form of transportation, public service or communication?
5. Have you ever been to a newspaper company?
6. What are the different types of news found in the daily newspaper?
7. When did the first newspaper appear?
8. What is the job of the editor?
9. What are the benefits of newspaper occupations?
10. Name three newspapers in our city.

OCCUPATIONAL CLUSTER: Communications and Media-Occupations
JOB FAMILY: Newspaper

GRADE: 5 Social Studies
TITLE: Unit II--How Africans and Europeans Settled the Coast Colonies
BASIC CONCEPTS: (1) Europe and the Western Hemisphere were both changed by exploration and settlement in new lands. Man and land affected each other. Adjustments to change were necessary and resulted in the growth of new ideas and new occupations.

(2) The Cleveland Press and the Cleveland Plain Dealer subscribe to every major news feature and picture service in America.

(3) The United States has the largest system of mass communications in the world.

(4) Every individual can have a meaningful, rewarding career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the duties of individuals working for a newspaper. The students will be able to list some of the contributions different people working in the newspaper industry make to the comunity.	Cartoonist Communication Copy Writer Editor(Managing, sports assistant) Newsman (Reporter Photoengraver Photographer Printing Pressman	Pre-test Create bulletin board on various positions in newspaper industry. Students will create and print their own newspaper and role-play the parts of various employees. Post test (same as Pre-test)	The students will be more aware of Cleveland's newspaper and the many jobs that are provided in the community. The student will have some appreciation for the impact the newspaper industry has in providing jobs for members of our community.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: COMMUNICATIONS AND MEDIA OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVZP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston; D.C. Heath and Company 1965	Films: "The Newspaper" "Newspaper Serves Its Community"	Artist Assistant Editor Cartoonist Copy writer Delivery Man Managing Editor Printing Pressman Reporter Salesman Sports Editor	Contact: Speakers Bureau of the Plain Dealer or-- The Cleveland Call and Post newspaper	Contact: The Cleveland Call and Post--Clevealnd's Black owned and operated newspaper, East 105 and Chester, Cleveland, Ohio The Plain Dealer 18th and Superior Ave. Cleveland, Ohio	Brochures Pamphlets SRA Kits Popeye Career Comics (communications)

EVALUATION: Successful attainment of objectives number (1) and (2) will be based on, (a) the ability of 80% of the students to orally identify and describe seven out of ten newspaper jobs and (b) the ability af all students to write or orally cite at least three contributions people working in the newspaper industry make to their community. Student success on the post test will be based on the ability of 80% of the students to achieve a 10% accuracy increase over their inital scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

COMMUNICATIONS - RADIO

General Discussion

Radio broadcasting is one means of sharing information in the United States. We have the largest system of mass communication in the world. The United States has more than half the world's radio and television sets.

Disc Jockey - To succeed as a disc jockey one must have a pleasant and well-controlled voice, a good sense of timing and excellent pronunciation. He is responsible to the program director, is responsible for presenting a good station image while on the air and outside engagements.

Radio Announcer - An announcer must have a pleasant and well-controlled voice, a good sense of timing and excellent pronunciation. He must also be a convincing salesman when presenting commercials.

Music Director - Responsible for music co-ordination for overall policy in connection with record distributors and promotion.

Broadcast Technician - Broadcast technician sets up and maintains the electronic equipment used to record radio programs.

COMMUNICATIONS - RADIO

PRE-TEST

1. What is a Radio Announcer?

2. What do you think would make a person a good Disc Jockey?

3. What are the most important duties of a Disc Jockey?

4. What would be the duties of the Music Director?

5. What is a Broadcasting Technician?

6. Who pays for the radio programs you hear?

7. List some of the other uses of radio besides in your home.

8. Why do you think Advertisers choose to place their products on programs that are popular?

9. What is a Commercial?

10. Would you rather listen to radio or look at television? Why?

OCCUPATIONAL CLUSTER: Communication and Media-Occupation
JOB FAMILY: Radio

GRADE: 6 Social Studies
TITLE: Unit VII-Mexico, Gateway to Latin America
BASIC CONCEPTS:

Communication Systems (Radio, TV, Newspaper) tie a community together, and link it to the rest of the world.

A lack of communication affects every day life and the growth of industry and trade.

Most jobs require certain personal qualities as well as skills.

A country's economy, location, government and laws affect career opportunities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify pictures and slides of people working in the Radio field. In a general sense, the student will be able to demonstrate their knowledge by successfully completing cross-word puzzles with careers in Radio	Broadcast Technician Consultant Disc Jockey Music Director Program Director Public Relations Radio Announcer Radio Station-Manager	Pre-test Student will role play a disc jockey--they will play records and give a complete broadcast program with news, records and commercials. Cross-word puzzles Career Games-communication Oral discussion Post test (same as pre test)	The student will be more aware of the world of work. The student will exhibit verbally, in writing or role-play his knowledge of various careers in Radio communication.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA OCCUPATION-Radio

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath & Co. 1965	Films: "Communications and the Community" Filmstrips: "Radio" ---	Broadcast Technician Chief Engineer Consultant Disc Jockey Music Director Program Manager Public Relations Station Manager	Contact: WBOE Radio Station Cleveland Board of Education or WJMO am Radio Station Cleveland, Ohio	Contact: WBOE FM Radio Station (Cleveland Board of Education E. 6th St.) WHK AM Radio Station Cleveland, Ohio Note: Call public relations department.	Pamphlets Posters SRA Kits Popeye Career-Comics

EVALUATION: Attainment of objectives one and two will be based on: (a) the ability of all students to identify pictures and slides of seven out of ten people working in various radio careers, and (b) the ability of all students to successfully complete a cross-word puzzle on radio careers with a minimum of five errors on the puzzle. Student success on the post test will be based on as least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

CONSTRUCTION

General Description

The activities of the construction industry touch nearly every aspect of our daily lives. The houses and apartments we live in, the factories, offices and schools in which we work, and the roads we travel upon are examples of some of the products of this important industry. The business encompasses not only new construction projects but also includes additions, alterations, and repairs to existing structures.

The contract construction industry is divided into three major segments. About half of the work force is employed by electrical, air conditioning, plumbing, and other special trade contractors. Almost one-third work in the general building sector where most residential, commercial, and industrial construction occurs. The remaining one-fifth are engaged in building dams, bridges, roads, and similar heavy construction projects.

CONSTRUCTION

PRE-TEST

True or False

_____1. A man who fixes sinks and faucets is an ironworker.

_____2. A painter's main tools are a hammer and nails.

_____3. A sheet metal worker uses wood.

_____4. Plumbers fix all broken windows.

Match the definitions to the correct word.

_____5. A man who paints your house

_____6. A person who puts a top on a building

_____7. A person who makes things of wood

_____8. A person who lays bricks

A. Bricklayer
B. Roofer
C. Painter
D. Carpenter

Fill in these spaces with the correct word.

_____9. Father called a _____ to fix the sink.

_____10. A _____ came and made some new steps for the porch.

KEY

True or False	Matching	Fill-in
1. F	5. C	9. Plumber
2. F	6. B	10. Carpenter
3. F	7. D	
4. F	8. A	

OCCUPATIONAL CLUSTER: Construction
JOB FAMILY:

GRADE: 5 Social Studies
TITLE: Unit IX - Lands and People of the Western States
BASIC CONCEPTS:

(1) Occupations in the Western States are frequently influenced by the geographic and climatic conditions of the region.

(2) Careers require different knowledge, abilities and attitudes.

(3) The city of Cleveland will continue to provide jobs for people who are skilled in various types of construction.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to describe and identify various jobs in the Construction Field. The student will be able to identify some of the basic tools used in the construction field.	Bricklayer Carpenter Construction Electrician Painter Plasterer Plumber Roofer Sheet metal worker Teamster	Pre-test Students will make bulletin boards depicting the various types of construction. Students will work with simple tools used in the construction industry. Post test (same as pre-test)	The student will have a more positive attitude toward self, others and the world of work. The student will be aware of the fact that most jobs require certain personal qualities as well as skills

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: CONSTRUCTION

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John. In These United States and Canada Boston: D.C. Heath & Co. 1965	Films: "Building Trade" "The House Builder" "Careers in the Building Trades" "Building a House"	Bricklayer Carpenter Electricians Painter Plasterer Plumber Teamster	Contact: Bureau of Apprenticeship Training, New Federal Bldg. Room 837, 522-3823	Contact: The field trips are planned in the Model Cities area as they they are requested by the vocational aids and teachers.	Pamphlets Posters SRA Kits

EVALUATION: Successful attainment of objective one will be based on the ability of all students to orally identify and describe at least seven out of ten different Construction jobs. Objective number two will be realized through the ability of all students to orally identify at least seven out of ten tools used in various construction jobs. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

CONSUMER AND HOMEMAKING

GENERAL DISCUSSION

Consumer and homemaking occupations deal directly with the well being of the home. These occupations may go on inside the home as well as outside. In today's market for jobs, the service industries represent an important source of employment to new, as well as experienced workers. These industries offer opportunities to those with varying degrees of education and training, and various levels of skills. Hotels and motels provide travelers with a home-away-from-home. More than 750,000 people worked in these hotels, motels, and other related businesses in 1968.

PRE-TEST

1. What is a Consumer?
2. What is a Homemaker?
3. What are vitamins?
4. How often should you take vitamins?
5. Do cooks only prepare foods?
6. Why do some people make their clothes?
7. Will you need a good credit record for purchasing goods and products?
8. Is there such a thing as "Safety in the Home"?
9. What is meant by adolescence?
10. What is meant by nutrition?

OCCUPATIONAL CLUSTER: Consumer and Homemaking Related Occupations

JOB FAMILY:

GRADE: 5 Social Studies

TITLE: Unit VIII - Ohio

BASIC CONCEPTS:

(1) Every occupation contributes to society.

(2) Every induvidual can have a meaningful, rewarding career.

(3) Careers require different knowledge, abilities and attitudes.

(4) Consumer and Homemaking occupations deal directly with the well being of the home.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe and identify the jobs and duties of individuals working at specific jobs listed in this unit.	Adolescence Butler Career Caretaker Chauffeur Consumer Home Economist Job Nursemaid Nutrition Occupation Vitamins	Pre-test Oral discussion of consumer and homemaking occupations Students will speak to their parents, and people in the community who have jobs in the area of homemaking and related occupations. Students will set up home situations, set up budget for running home etc. Post test (same as pre-test)	The students will have a more positive attitude about homemaking related jobs. The student will be more aware of the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: CONSUMER AND HOMEMAKING RELATED OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John. In These United States and Canada Boston: D.C. Heath & Co. 1965	FILMS: "Health Careers"	Butler Caretaker Chauffeur Housekeeper Home Economist Nursemaid	Contact: Consumer's Leagues of Cuyahoga County, Inc. Engineer's Building 44114, 621-1175 Consumer Protection Association 118 St. Clair Avenue Cleveland, Ohio 44114 241-0786 Central National Bank of Cleveland P.O. Box 6179 Cleveland, Ohio 44101 Credit Bureau of Cleveland Inc., 666 Euclid Ave., Cleveland, Ohio	Contact: Jane Addams Vocational School, East 30th and Euclid Ave., Cleveland, Ohio Emmanuel Baptist Church Nursing Home Contact: Rev. Glover	Pamphlets Leaflets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objective number one will be based on the ability of at least 80% of the students to orally identify and describe 75% of the jobs listed in this Unit.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

ENVIRONMENTAL CONTROL

General Discussion

The environmental sciences are concerned with the history, composition, and characteristics of the earth's land, water, interior, atmosphere, and space. Many scientists in this field explore for new sources of mineral fuels and ores, while some perform basic research to increase scientific knowledge. Still others use the science we know of to solve practical problems, such as the meteorologist, who uses his scientific know-how to forecast the weather. Some of these scientists teach in colleges and universities. They also may administer scientific programs and operations.

ENVIRONMENTAL CONTROL

PRE-TEST

Match letter to number

A. Climatologist

B. Meteorologist

C. Oceanographer

D. Geologist

E. Petroleum Geologist

F. Geodesist

1. Studies the structure, composition and history of the earth's crust.____

2. Studies involve the ocean.____

3. Weather satellite is of value to him.____

4. Specializes in the discovery and recovery of oil and natural gas.____

5. Measures the size and shape of the earth.____

6. Analyzes past records on wind rainfall, sunshine, temperature and other weather data.____

Answer the following True or False

7. Weather forecasts are always correct.____

8. Geologists never work inside.____

9. The ocean covers more than two-thirds of the earth's surface.____

10. Oceanographers have to be fishermen.____

OCCUPATIONAL CLUSTER: Environmental Control
JOB FAMILY:

GRADE: 6 Social Studies
TITLE: Unit V--Canada, Our Neighbors to the North
BASIC CONCEPTS: (1) Work is man's way of creating, preserving, changing, and for rebuilding his environment.

(2) Different occupations are interrelated in many ways.

(3) Every career requires some special preparation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe jobs in the environmental control field.	Climatologist Environment Geodesist Geologist Meteorologist Oceanographer Petroleum Geologist Weather Satellite	Pre-Test Open discussion on subject area. Assign TV observation of weather forecasting--compare forecast with actual weather conditions. Role-play situation dealing with pollution control. Students will collect current magazine and newspaper articles on the environment and pollution. These articles will be discussed in class. Students will prepare bulletin board. Post Test (same as pre test)	The student will be more aware of jobs in the area of environmental control. The student will demonstrate a more positive attitude towards the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: ENVIRONMENTAL CONTROL OCCUPATION

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY EVER OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston: D.C. Heath and Company 1965	Films: "Science and Technology" "Scientists at Work" "Erosion" "Earth Changes in Its Surface" "Face of the Earth" Filmstrip, "Conservation"	Geologist Geophysicist Meteorologist Oceanographer	Contact: Republic Steel Corp. P.O. Box 6778 Cleveland, Ohio 44101 Cleveland Speaker's Bureau, 574-4194	Contact: Gastemine Farm 9809 Washington St Chagrin Falls, Ohio 543-9477 Cleveland Metropolitan PK Dist., Trailside Museums North Chagrin, Ohio, 442-2848	Brochures Pamphlets Newspaper and Magazine Articles

EVALUATION: Successful attainment of objective number (1) will be based on the ability of at least 80% of the students to orally identify and describe at least five different environmental control careers. Student success on the post test will be based on the ability of 80% of the students to achieve a 10% accuracy increase over their intial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

FINE ARTS AND HUMANITIES

PRE-TEST

Matching

1. I'll make a character come to life for you on television or in motion pictures.

2. I'll entertain you with my voice.

3. I'll teach you how to entertain with your voice.

4. I create the artwork you see on billboard poster, commercials, and magazine advertisements.

5. I'll use my artistic talent to improve the appearance and functional design of machine-made products.

6. I'll use my artistic talent to make your home more attractive.

7. I'll play my instrument and entertain you.

8. I'll entertain you in the ballet, musicals and sometimes you use my talents.

9. I'll take charge of the set and tell the actor and actress what to do.

10. I'll make the role of a girl come to life for you on T.V. and motion pictures.

A. Actor	F. Industrial Designer
B. Actress	G. Commercial Artist
C. Singer	H. Musician
D. Singing Teacher	I. Dancer
E. Interior Decorator	J. Director

OCCUPATIONAL CLUSTER: Fine Arts and Humanities
JOB FAMILY:

GRADE: 5 Social Studies
TITLE: Unit IX - Lands and People of the Western States
BASIC CONCEPTS:

(1) Ohio has many outstanding cultural and educational opportunities.

(2) A person's relationships with other people, with his employer, and with society affect his own career as well as the careers of others.

(3) Careers in fine arts often require special training.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the various jobs discussed in this unit (Fine Arts and Humanities). The students will be able to identify pictures of people performing their duties in the fine arts and humanities field.	Actor Actress Commercial Artist Dancer Director Fine Arts Humanities Industrial Design Interior Decorator Musician Singing Teacher	Pre-test Students will produce and direct their own talent show. Students will design and produce their own bulletin boards. General class discussion Post test (same as pre test)	The student will have a more positive attitude toward the world of work. The student will have knowledge of the jobs available in the community in the area of fine arts and humanities.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: FINE ARTS AND HUMANITIES

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath & Co. 1965	Films: "First World Festival of Negro Arts" "Design for Growing"	Actor Actress Artist Commercial Dancer Designer Director Industrial Interior Decorator Singer Singing Teacher	Contact: WVIZ TV, 398-2800 Ext. 43	Contact: WVIZ TV Channel 25 3500 Brookpark Road 398-2800, Ext. 43	Brochures Pamphlets SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on the students' ability to orally identify and describe at least seven out of ten jobs listed in the Fine Arts and Humanities Cluster.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

HEALTH OCCUPATIONS

General Discussion

Health services rank third behind Agriculture and Construction in the employment field. Four major reasons for rapid and continuing growth of the health field include enormous scientific advances, growth in health consciousness on the part of the American public, the nation's prosperity and increased earning power, and the increase in population at the rate of two million persons per year. To put scientific and medical gains into wider applications and to assure that all citizens receive ample health care, more young women and men are needed in this field. Medicine's strongest appeal is that it is dedicated to safeguarding human life.

HEALTH OCCUPATIONS

PRE-TEST

1. List four major jobs pertaining to hospitals and clinics.

2. Circle the hospital that you are most familiar with: Mt. Sinai, Cleveland Clinic, University Hospitals, Forest City

3. Doctor's duties consist of what?

   A. leader of health team
   B. guardian of nation's health
   C. prevention and cure of diseases of mankind
   D. a person with a high intellect and alert mind
   E. research and understanding of the anatomy and functions of the human beings

4. Does a doctor have to go to school for a great period of time?

5. What is the difference between a Licensed Practical Nurse and a Registered Nurse?

6. What are the duties of aides and orderlies?

7. What are the duties of the dietitian?

8. What is an X-ray machine?

9. Do most hospitals have an emergency entrance?

10. Does the emergency department stay open 24 hrs. a day?

OCCUPATIONAL CLUSTER: Health Occupations
JOB FAMILY:

GRADE: 6 Social Studies
TITLE: Unit IV--Citizens In a Changing America
BASIC CONCEPTS: (1) Information and exploration of jobs are essential to wise career choices

(2) A person's best career direction develops over a long period of time.

(3) People change, and sometimes change careers as they go through life.

(4) Careers in the health field can be very rewarding.

(5) A healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
As a result of classroom discussion each student will be able to orally define two new words. The students will be able to identify and describe the duties of people seen in the slide presentation The students will be able to identify equipment used by a doctor, nurse, dentist, etc.	Dentist Dental Hygienist Dental Technician Dietitian Doctor Inhalation Therapist Medical records' secretary and librarian Medical Technician Nurse Nutritionist Pharmacist Physical Therapist X-ray Technician	Pre-Test Students will make an oral report on certain job titles. Students will role-play certain careers, doctors, nurses, etc. Open oral discussion on Health Career Topics. Slide presentation Display pictures of equipment used by people in career areas. Post Test (same as pre test)	The students will be more aware of the jobs available in the Health field. Students will be aware of minimum requirements for entrance into these fields. The students will be aware of various health facilities in their neighborhoods.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: HEALTH OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In these United States and Canada Boston: D.C. Heath and Company 1965	Films: Nurse "Health Careers, Parts I, II, III IV" "Horizon Unlimited" "Dentistry Through the Ages of Man"	Dentist Dietitian Doctor Medical Records Librarian Medical Records Secretary Nurse Nutritionist Pharmacist Physical Therapist X-Ray Technician	Contact: Health Careers Speakers--Greater Cleveland Hospital Association 1001 Huron Road 781-2944 Ext. 369	Contact: St Vincent Charity Hospital Contact Greater Cleveland Hospital Association Health Museum	Books Pamphlets Brochures Posters Bulletin Boards SRA Kits Popeye Career--Comics

EVALUATION: Successful attainment of objectives (2) and (3) will be based on (a) the ability of at least 80% of the students to orally describe and identify 10 out of 14 health careers listed in this unit and (b) the ability of at least 80% of the students to name at least one piece of equipment that would be used by a person working in each of the ten careers selected. Student success on the post-test will be based on the ability of 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

HOSPITALITY AND RECREATION

General Discussion

Hospitality and recreation workers contribute to the leisure and comfort of the public. Hospitality occupations usually involve restaurants and hotels. These establishments attempt to replace those comforts one usually enjoys at home. Therefore, the employees must make extra efforts to please. Recreation, of course, is important to most people, whether it is a night at the bowling alley or a week of skiing at a fancy resort. Many millions are employed in these two areas, and the need for good workers is increasing.

PRE-TEST

Fill in the blanks with the proper job title.

1. At the Brown Derby Restaurant, the _____served our dinner promptly.
2. The _____carried our luggage to the rooms.
3. The _____at Joe's Tavern mixed all types of drinks.
4. The _____supervises the children's playrooms.
5. We talked to the _____to reserve a hotel room.
6. When the film broke, the _____fixed it.
7. The _____was very pleased as he greeted us at the door of the hotel.
8. The _____kept the bowling pins set up.
9. Without the _____we couldn't swim safely in the pool.
10. The _____helped him learn all the new dances.

HOSPITALITY AND RECREATION

PRE-TEST KEY

1. waitress
2. bellboy
3. bartender
4. recreation leader
5. reservation clerk
6. motion picture projectionist
7. doorman
8. bowling pin setter
9. lifegurad
10. dance instructor

OCCUPATIONAL CLUSTER: Hospitality & Recreation
JOB FAMILY:

GRADE: 6 Social Studies
TITLE: Unit IV - Citizens in a Changing America
BASIC CONCEPTS:

(1) Most jobs require certain personal qualities as well as skills.

(2) Leisure time activities affect career choices.

(3) Recreational activities expand interest.

(4) Society needs both a producer of goods and a producer of services.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe various jobs in the area of hospitality and recreation. The student will be able to list personal qualities and skills one must have if he plans to work in the area of hospitality and recreation.	Bartender Bellboy Bowling Pin Setter Dance Instructor Doorman Lifeguard Maid Motion Picture Projectionist Recreation Leader Reservation Clerk Waitress	Pre-test Identification game--give students the name of an organization, they must name and describe duties of persons who work there. Students will prepare bulletin boards concerning hospitality and recreation occupations. Post test (same as pre test)	The students will have a more positive attitude toward work and preparation for work. The student will be aware of the fact that one can have dignity and satisfaction in any kind of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: HOSPITALITY AND RECREATION OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. & Tottle, John. In These United States and Canada Boston: D.C. Heath & Co. 1965		Bartender Bellboy Doorman Maid Motion Picture Projectionist Recreation Leader Reservation Clerk Waitress	Contact: East Cleveland Youth Director	Contact: East Cleveland YMCA, YWCA Manners Hospitality College, 16202 Euclid Ave., East Cleveland, Ohio	Brochures SRA Kits Pamphlets Popeye Career Comics

EVALUATION: The attainment of objectives one and two will be based on the ability of at least 80% of the students to orally describe 85% of the jobs discussed in this Unit. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

AIRCRAFT, MISSILE AND SPACECRAFT

General Discussion

Aerospace industry, the manufacture of aircraft, missile, and spacecraft is among the largest and most rapidly changing industry in the country. Because this industry's products are complex and changing, scientist, engineers and technicians represent a larger proportion of total employment, the workers will account for a higher proportion of the industry's work force through the 1970's.

PRE-TEST True or False

1. Aircraft is one of the largest and most rapidly changing industries in the country.
2. There are two million people employed in the industry.
3. Some private planes cost about the same as a car.
4. Missiles have more complex guidance and control systems than aircraft.
5. Special tools are not needed to fix these vehicles.
6. Aerospace jobs are very important jobs.
7. Aerospace factories branch off the large factories.
8. Technical Occupations are the most important jobs.
9. Professional Occupations are the second important jobs.
10. There is only one kind of engineer employed in the aerospace work.

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: Aircraft, Missile & Spacecraft

GRADE: 5 Social Studies
TITLE: Unit VIII Ohio
BASIC CONCEPTS:

(1) Careers require different knowledge, abilities and attitudes.

(2) Every individual can have a meaningful, rewarding career.

(3) Every career requires some special preparation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe various jobs in the aircraft, missile and spacecraft industry. The student will be able to identify pictures of various people on-the-job in the aircraft, missile and spacecraft industry.	Astronomer Chemist Draftman Electrical engineer Machinist Mathematician Mechanic Missile assembly Nuclear engineer Sheet metal worker Tool and die maker	Pre-test Students will bring in pictures of airplanes, jets, and missiles for a bulletin board. Assign groups of students to make a model airplane. Have the students bring in toy aircraft they might have at home, ask students to identify and state function of these parts. Post test (same as pre-test)	The students will have a more positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MANUFACTURING-Aircraft, Missile & Spacecraft

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath & Co. 1965	"Airplanes and How They Fly" "Airplanes Work for Us"	Astronomer Chemist Draftsman Electrical Engineer Machinist Mathematician Mechanic Missile Assembly Nuclear Engineer Sheet Metal-Worker Tool and Die-Maker	Contact: The National Aeronautics and Space Administration 433-4000	Contact: National Aeronautic and Space Administration 2100 Brookpark Road Cleveland, Ohio 433-4000	Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on the ability of all students to orally identify and describe seven out of eleven jobs in the area of Aircraft, Missile and Spacecraft. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

ALUMINUM INDUSTRY

General Discussion

In the past ten years the aluminum industry has gone from a limited speciality metal to a wide-spread commodity, second only to iron and steel. Aluminum is used in cars, homes, food packaging, and a thousand other things. Because this is a relatively new industry, the potential job situation is boundless.

Some of the jobs are: casting operators who have charge of the pouring station in which molten metal is cast into molds, scalper operators who run the scalper machine which cuts the metal into four inch layers, soaking pit operators who manage the furnace and sets controls to adjust temperature and heating, rolling mill operators who run a machine that flattens the strips of metal into the desired thickness, coiler operator who runs a machine which takes the strips of metal and puts them on a coil or roll.

ALUMINUM INDUSTRY

PRE-TEST

PART I

Match the definitions to the correct jobs.

A. Casting Machine operator

B. Scalper operator

C. Soaking pit operator

D. Rolling mill operator

E. Coiler operator

_____1. He manages the furnace and sets the temperature and heating controls.

_____2. He runs the machine that flattens the strips of metal.

_____3. He rolls the flattened metal on coils.

_____4. He runs a machine that cuts the metal into four inch layers.

_____5. He pours the molten metal into molds.

PART II

True or False

_____1. The aluminum industry is a closed field for job opportunities.

_____2. Aluminum is the second largest metal industry behind iron and steel.

_____3. Aluminum was always such a widespread commodity.

_____4. Aluminum is used in housing, cars, food packaging, etc.

_____5. A campaign has begun to recycle aluminum products. (BONUS)

KEY

PART I	PART II
1. C	1. F
2. D	2. T
3. E	3. F
4. B	4. T
5. A	5. T

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: Aluminum Industry

GRADE: 6 Social Studies
TITLE: Unit V Canada, Our Neighbor to the North
BASIC CONCEPTS:

(1) Canada's history, physical features, resources and industrial development are similar to those of the United States.

(2) The presence of abundant natural resources has been an important factor in Canada's industrial development.

(3) Cleveland employs the largest percent of its population in manufacturing jobs.

(4) Careers require different knowledge, abilities and attitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe various duties of people working in the Aluminum industry. The student will be able to list or state some of the uses of aluminum. After viewing slides, the students will be able to identify the jobs of persons on the slides.	Aluminum Casting operator Coiler operator Recycling Rolling mill operator Soaking pit operator	Pre-test Student will bring in an article made of aluminum, Discussion will follow. Student will organize a small campaign for recycling aluminum cans. Student will make bulletin boards displaying aluminum products. Post test (same as pre test)	The student will be aware of the importance of the aluminum industry in our daily lives. The student will have a more positive attitude about the many opportunities in the city of Cleveland.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MANUFACTURING-Aluminum Industry

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath & Co. 1965	Film: "Careers in Industry"	Casting operators Rolling mill-operators Coil operators Scalper operators Soaking Pit Operators	Contact: Public Relations Dept. at Alcoa Manufacturing	Contact: Alcoa Manufactoring 2210 Harvard Cleveland, Ohio 641-3600	Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and three will be based on the ability of at least 80% of the students to orally identify and describe 70% of Aluminum Industry jobs discussed in this Unit.

All students will be able to orally name four different uses of aluminum. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

APPAREL INDUSTRY

General Discussion

The apparel industry deals with the making of garments. The garment styles are created by designers. Afterwards a master pattern has to be made by the pattern makers. The patterns are marked and cut, then put together and sewed. Some garments have to be fitted or altered. After the garments are completed they are then pressed by the pressers, and ready for sale.

Designers - create original designs for new types of apparel.

Pattern makers - construct a full-size master pattern.

Markers - trace the pattern pieces on large sheets of paper.

Cutters - cut out various garment pieces from layers of cloth.

Sewing machine operators - Specialize in a single operation such as sewing shoulder seams.

Hand sewers - use needle and thread to perform various operations ranging from simple sewing to stitching.

Inspectors and checkers - examine garments for proper workmanship.

Tailors and Dressmakers - make personalized clothes, fitted to one individual.

Alterators - alter clothes for a perfect fit.

Pressers - persons who press a finished garment.

APPAREL INDUSTRY

PRE-TEST

Match the definitions with the word that it defines.

1. Designers _____
2. Pattern makers
3. Markers
4. Cutters
5. Sewing machine operators
6. Hand sewers
7. Inspectors and checkers
8. Tailors and dressmakers
9. Alterators
10. Pressers

Definitions

a. creates original designs for new clothes.

b. trace the pattern pieces on large sheets of paper.

c. constructs a full-size master pattern.

d. use needle and thread to do simple sewing or stitching.

e. cuts out various garment pieces from layers of cloth.

f. examine garments for proper workmanship.

g. specialize in one area like sewing shoulder seams.

h. person who presses garments.

i. make personalized clothes and fit them perfectly to one individual.

j. alter clothes to fit perfectly.

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: The Apparel Industry

GRADE: 5 Social Studies
TITLE: Unit V Lands and People of the Northeast-Middle Atlantic States
BASIC CONCEPTS:

(1) The apparel industry provides many different jobs for people living in the city of Cleveland.

(2) Various industries in Cleveland are in constant search for workers with qualifying skills.

(3) Every career requires some special preparation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the jobs in slides of people working in the apparel industry. The students will be able to identify some of the tools used by people working in the apparel industry.	Alteration Apparel Bushelmen Cutter Designer Marker Pattern maker Presser Tailor	Pre-test Classroom discussion Students will make a bulletin board with different materials and patterns. Students will organize their own fashion show to show various types of apparel. The students will check to see whether members of their family work in the apparel industry Post test (same as pre test)	The student will exhibit a more positive attitude towards self, others, and work. The student will be aware of the many apparel factories in the city of Cleveland.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MANUFACTURING-The Apparel Industry

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tobtle, John In These United States and Canada	Films: "Fiber to Fabric" "Mass Production" (How Clothing is Made) "Clothes Around the World"	Bushelmen Cutter Designer Dressmaker Hand Sewers Inspector and Checker Pattern Maker Presser Sewing Machine Operators Tailor Thread Trimmers and Cleaners	Contact: Bobbie Brooks Richmond Brothers	Contact: Bobbie Brooks Lyon Tailors Richmond Brothers	Posters Pamphlets SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on: (a) the ability of at least 80% of the students to visually identify seven out of ten tools used by workers in the Apparel Industry, and (b) the ability of at least 80% of the students to orally identify and describe 75% of the jobs listed in this Unit. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

INDUSTRY - PAPER AND ALLIED PRODUCTS

General Discussion

The paper and allied products industry yearly employs thousands of people to produce many paper products such as newsprint, business forms, facial tissues, building board, paper bags, writing paper, and paper-board containers and boxes. The industry employs workers in occupations ranging from unskilled to highly specialized technical and professional jobs, many found only in the paper industry. Many women work in this field working as machine operators and inspectors in the plants, and some in office jobs.

Workers in the field are employed in a wide variety of occupations, requiring a broad range of training and skills. Many operate special machines while others install and repair them. Truck and tractor drivers, guards, watchmen, janitors, bookkeepers, clerical personnel, sales and administrative personnel, are employed in the paper industry.

INDUSTRY - PAPER AND ALLIED PRODUCTS

PRE-TEST

PART I - Matching

1. This machine cleans the bark from tree logs. _____

2. These workers maintain, install, and repair the machines used to make paper. _____

3. This man cooks wood chips. _____

4. The quality of the paper depends largely on him. _____

5. The machine he operates gives paper a glossy look. _____

A. Millwright
B. Paper Machine Operator
C. Barker
D. Supercalendar Operator
E. Digester Operator

PART II - True or False

1. Women do not work in paper plants. _____

2. Pulp is a baby dog. _____

3. Paper workers are all unskilled. _____

4. The paper industry is highly mechanized. _____

5. Paper mills are found only in California. _____

KEY

PART I-Matching	PART II-True or False
1. C	1. F
2. A	2. F
3. E	3. F
4. B	4. T
5. D	5. F

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: Paper and Allied Products

GRADE: 5 Social Studies
TITLE: Unit IV Lands and People of the Southern and North Central States
BASIC CONCEPTS:

(1) Ohio is strategically located as a center for industry in the North Central States.

(2) Careers require different knowledge, abilities, attitudes.

(3) A person may be suited for several different careers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to list and state the function of at least five different paper products used in his home.	Barker Machine-Operator Digestor Operator Millwright Paper Machine-Operator Super Calendar-Operator	Pre-test Students will develop a chart showing how paper is made. Students will give oral reports on certain jobs in the paper industry. Students will list various paper products in their homes. Post test (Same as pre test)	The student will be more aware of the various levels of skills required for certain jobs. The student will have a more positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MANUFACTURING-Paper & Allied Products Industry

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada	Films: "How Trees Help Us"	Barker Machine Operator Digester Operator Millwright Paper Machine Operator Super Calendar Operator	Contact: International Paper Company, Rockefeller Building, 696-0620	Contact: International Paper Company, Rockefeller Building, 696-0620	Brochures Pamphlets SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on: (a) the ability of all students to orally state the names and functions of at least five different paper products used in the home, and (b) the ability of at least 80% of the students to orally identify and describe at least five different careers associated with the Paper and Allied Products Industry.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

INDUSTRY-IRON AND STEEL

GENERAL DESCRIPTION:

The nation's high and rising standard of living depends on its ability to produce great quantities of steel. Also its military strength depends upon this industry. It is one of the nation's largest employers. Employee's work in a wide range of jobs requiring a variety of skills-from unskilled to technical and professional jobs.

PRE-TEST

MATCHING

1. Forms dies by using machine tools
2. Records shipping and receiving of a company.
3. Operate welding equipment to join metal parts in repairing and rebuilding plant machinery.
4. Has responsibility of checking orders received and orders shipped out of a company.
5. Supervises the operation of electrical and electronic equipment and facilities that provide the power needed in modern steel mill operations.
6. They make and repair metal parts for machines and equipment.
7. Assist chemists and engineers in research and development work and in quality control.
8. Hands out assignments also, responsible for distributing materials.
9. Works in a laboratory, using chemicals.
10. Operates within an assigned area, and coordinates schedules.

IRON AND STEEL INDUSTRY

	Key
A. Chemist	(9)
B. Maintenance Mechanic	(6)
C. Die Makers	(1)
D. Engineer (Electrical)	(5)
E. Maintenance Welder	(3)
F. Distribution Clerk	(8)
G. Shipping Clerk	(2)
H. Order Checkers	(4)
I. Laboratory Technician	(7)
J. Dispatcher	(10)

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: Iron and Steel Industry

GRADE: 5 Social Studies
TITLE: Unit V - Lands and People of Northeast--Middle Atlantic States
BASIC CONCEPTS:

(1) Cleveland's image has been built as an "iron and steel" center.

(2) Information and exploration of jobs are essential to wise career decisions.

(3) Large centers of population provide markets for products and job opportunities that help satisfy both the basic needs and the desires of the people.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to list some of the products produced by the iron and steel industry. The student will be able to identify some of the tools and instruments used in the iron and steel industry. The student will be able to describe the duties of various workers discussed in this unit.	Chemical Engineer Die Maker Dispatcher Distribution Clerk Electrical Engineer Industrial Engineer Maintenance Mechanic Mechanical Engineer	Pre-test Ask students if any member of their family works for the iron and steel industry. If answer is yes, ask to make a report on the specific duties of that family member. Cross-word puzzles Design bulletin boards with pictures of different types of steel. Role-playing Post test (same as pre-test)	The student will be aware of the importance of the Iron and Steel Industry to Cleveland's business community. The student will have a more positive attitude toward the world of work. The student will be more aware of various jobs available in the city of Cleveland in the iron and steel industry.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MANUFACTURING-Iron and Steel Industry

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tootle, John In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Industry" "Careers in Industry" "Steel in America"	Chemist Die Maker Dispatcher Distribution Clerk Engineers (Chemical, mechanical, electrical, industrial) Lab Technicians Maintenance Mechanic Maintenance Welder Order Clerks	Contact: Warner & Swasey	Contact: Republic Steel Jones & Laughlin Co.	Posters Pamphlets SRA Kits Popeye Career Comics

EVALUATION: The attainment of objectives one and two will be based on the ability of at least 80% of the students to orally cite five different products produced by the iron and steel industry and orally describe at least 75% of the jobs listed in this Unit.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING-INDUSTRIAL CHEMICAL

GENERAL Discussion

The Industrial Chemical Industry is made up of plants which manufacture industrial inorganic and organic chemicals, plastic materials and synthetic resins, synthetic rubber and other man-made fibers, except glass. These chemicals are used mainly by other companies in the chemical industry, and by other manufacturing industries as raw materials or as processing agents to make their own products.

Industrial chemicals unlike other chemical products, such as drugs, soaps, detergents, cosmetics, perfumes, paints, and fertilizers, are not sold directly to the consumer without further processing.

Inorganic chemicals come from nonliving matter, such as salt, sulfur, mineral ores, and limestone. They are basic materials for making, or helping to make other chemicals as well as finished products, such as steel, glass, paper, and gasoline.

PRE-TEST

MATCHING

1. Make and repair parts for machines and equipment.
2. Maintain and repair wiring, motors, switches, and other electrical equipment.
3. Install and repair electrical and electronic instruments and control devices.
4. They lay, install, and repair pipes and pipefittings.
5. Work in research and development laboratories.

		Key
A.	Instrument Repairmen	(3)
B.	Pipefitters	(4)
C.	Maintenance Machinists	(1)
D.	Chemist	(5)
E.	Electrician	(2)

6. Name two types of engineers.

7. List several duties of a chemist.

8. A_____'s job is to control the various pieces of equipment which convert raw materials into chemical products by setting dials or devices that measure the exact amount of material to be processed and control temperature, pressure, and flow of materials.

9. _____work in research and development laboratories.

10. Describe the duties of the pipefitters.

INDUSTRIAL CHEMICAL INDUSTRY

STUDY SHEET

Maintenance Machinists - Make and repair parts for machines and equipment.

Electricians - Maintain and repair wiring motors, switches, and other electrical equipment.

Instrument repairmen - Install and repair electrical and electronic intruments and control devices.

Plant Worker - One who operates or maintains equipment and performs a variety of other task in industrial chemical plants.

a. Truck and Tractor Drivers

b. Inventory

C. Guards

D. Unloads and loads

E. Watchmen

F. Janitors

Chemical Operators & Helpers - They control the various pieces of equipment which convert raw materials into chemical products by setting dials or devices that measure the exact amount of material to be processed and control temperature, pressure, and flow of materials.

Pipefitters - They lay, install, and repair pipes and pipefitting.

Chemical Engineers - Apply their knowledge of both chemistry and engineering to the design, construction, operation, and improvement of chemical equipment and plants.

Electrical Engineers - Design and develop electrical and electronic machinery and equipment such as control devices and instruments, as well as facilities for generating and distributing electric powers.

Lab Technician - Assist chemists and engineers in research and development work, and in quality control.

Chemist - Works in research and development laboratories.

OCCUPATIONAL CLUSTER: Manufacturing
JOB FAMILY: Industrial Chemical

GRADE: 5 Social Studies
TITLE: Unit V - Land and People of the Northeast--Middle Atlantic States
BASIC CONCEPTS:

(1) Cleveland is a leader in the petroleum chemical industry.

(2) Cleveland's chemical industry provides more than 16,000 jobs for qualified people in the city of Cleveland.

(3) Every career requires some special preparations.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify in a general sense, some of the tools used by workers discussed in this unit. The students will be able to identify and describe the jobs and duties of individuals on slides produced by the DVEP office.	Chemical Engineer Chemical operators and Repairmen Chemist Draftsmen Electrician Instrument Repairmen Job Family Laboratory Technician Mechanical Engineer Pipefitter	Pre-test Students will prepare individual reports on chemical occupations. Students will bring in different advertisements for chemicals such as soap, bleach, etc. Post test (same as pre-test)	The student will be more aware of the world of work. The student will be more aware of the many different jobs that exist in a Job Family.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MANUFACTURING-Industrial Chemical

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle John In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Careers in Industry"	Chemical Engineer Chemical Operators and helpers Chemist Draftsmen Electricians Instrument Repairmen Lab Technicians Machinist Mechanical Engineers Pipefitters	Contact: Allied Chemical Co., Public Relations Office-241-7474	Contact: Allied Chemical Co., Contact Public Relations Office-241-7474	Brochures Pamphlets Popeye Career Comics (Manufacturing)

EVALUATION: The criteria for the successful attainment of objectives one and two will be based on the ability of 80% of the students to orally identify 70-75% of the jobs listed in the Industrial Chemical job family. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MARINE SCIENCE

General Discussion

The ocean which covers more than two-thirds of the earth's surface, provides valuable foods and minerals, influence the weather, serves as a "highway" for transportation, and offers many varieties of recreation.

Oceanographers study the ocean--its characteristics, movements, physical properties, and plant and animal life. Oceanographers plan extensive tests and observational programs, and conduct surveys and experiments to obtain information about the ocean.

Most oceanographers are specialists in one of the branches of the profession.

1. Biological Oceanographers (Marine biologists) study the ocean's plant and animal life and the environmental conditions affecting them.

2. Physical Oceanographers (Physicist and geophysicist) study the physical properties of the ocean, such as its density, temperature, and ability to transmit light and sound: the movements of the sea: and the relationship between the sea and the atmosphere.

3. Geological Oceanographers (Marine geologist) study the topographical (descriptive) features, rocks, and sediments of the ocean floor.

4. Chemical Oceanographers investigate the chemical composition of ocean water and sediments, and chemical reactions that occur in the sea.

5. Marine Meteorologists study the interaction of the atmosphere and the ocean, and the processes by which weather over the ocean is generated.

6A. Oceanographic Engineers and 6B. Electronic Specialists design and build the systems, devices, and instruments used in oceanographic research and operations.

MARINE SCIENCE

PRE-TEST

Matching

These people are specialists in one of the brauches of the Oceanography professions.

Match the job title with the duties of each scientist:

1. Biological Oceanographer
2. Physical Oceanographer
3. Geological Oceanographer
4. Chemical Oceanographer
5. Marine Meteorologist

_____A. Study the topographic (descriptive) features, rocks, and sediments of the ocean floor.

_____B. Study the interaction of the atmosphere and the ocean, and the processes by which weather over the ocean is generated.

_____C. Study the physical properties of the ocean, such as its density, temperature, and ability to transmit light and sound, the movements of the sea and the relationship between the sea and the atmosphere.

_____D. Study the ocean's plant and animal life and the environmental conditions affecting them.

_____E. Investigate the chemical composition of ocean water and sediments, and chemical reactions that occur in the sea.

Underline the correct answer.

6. Biological Oceanographers are sometimes called (A. Botanist, B. Nutritionist, C. Marine Biologists)

7. Physical Oceanographers are sometimes called (A. Pathologists, B. Physicist and Geophysicist, C. Biochemists)

8. Geological Oceanographers are sometimes called
(A. Marine Geologists, B. Geneticists,
C. Zoologists)

True or False

_____9. The ocean covers two-thirds of the earth's surface.

_____10. The ocean does not provide any valuable foods and minerals.

OCCUPATIONAL CLUSTER: Marine Science Occupations
JOB FAMILY:

GRADE: 6 Social Studies
TITLE: Unit VIII-Land of the Caribbean: Central America and the West Indies
BASIC CONCEPTS:

(1) An understanding of science helps people in their work.

(2) There are many interesting and exciting careers working above and below the sea.

(3) Careers require different knowledge, abilities, and attitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and state the function of various types of equipment used by people in Marine Science Occupations. The students will be able to identify and describe various marine science careers discussed in this unit.	Biological Oceanographer Chemical Oceanographer Geological Oceanographer Marine Biologist Marine Meteorologist Oceanography Physical Oceanographer Skin Diver Topography	Pre test Set up classroom aquarium Role-playing: Have student bring in large box. Make a moderate size porthole large enough for students to enter the box and play out certain parts of the oceanography profession. Let each student explain his own duties and tell what part he plays in the study of the ocean. Post test	The students will be more aware of the many marine science occupations. The student will be more aware of the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MARINE SCIENCE OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John. In These United States and Canada Boston: D.C. Heath & Co. 1965	Films: "Exploring the Ocean" "What's Under the Sea"	Marine Marine Biologist Marine Geologist Meteorologist Oceanographers Skin Diver	Contact: The Cleveland Aquarium, 391-1527 Cater Zone, School Science Coordination, Woodhill Quincy Building	Contact: The Cleveland Aquarium, 601 East 71st Cleveland, Ohio 391-1527 The Cleveland Zoological Park, Denison at Fulton Parkway 661-6500	Pamphlets Brochures Popeye Career Comics (Marine Science Careers) SRA Kits

EVALUATION: At least 85% of the students in fifth grade social studies, upon completion of the study of the Unit on Marine Science Occupations, will be able to orally describe at least 75% of the jobs listed in the Marine Science Cluster.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MARKETING AND DISTRIBUTION

GENERAL DISCUSSION

Marketing and distribution is one of our newer occupations. Previously, manufacturers developed products, which they hoped the public would buy, but had little or no evidence to support their hopes that they would sell. The need arose for reliable information regarding public attitudes toward their products, and to calculate future purchases. The market research man is basically a fact finder who gathers, analyzes and interprets information and prepares a report forecasting how much a product will sell. He may also help to choose an attractive brand name, suggest an appropriate price, and decide on the type of advertising that should stimulate sales best.

Research is supposed to answer such questions as: Is there a market for this product? If so, What are its limits? Who uses this product? Where, when, why, and how is it used? Where, when, why, and how do users choose among competing brands? Is the product made right? How can it be improved? Is it packaged right? Is it priced right? Is it distributed properly and sufficiently? When where, how should it be sold? When, where, and how should it be advertised? What selling appeals will be most effective? How effective is the advertising?

To gather, interpret, and report marketing and distribution of this information, the Research Department includes the following:

The planning groups, consisting of research account managers who serve as the middlemen for the client and the agency. They design research projects

and create research questionnaires in cooperation with the specialists of the operations group and under the guidance of the research director. The operations group is composed of specialists in all the various types of research.

The service group includes field interviewers, tabulators, statistical analysts, and research presentation writers. This group conducts interviews, in the field or by mail, and assembles, tabulates and reports its findings through the research director and account manager to the client.

PRE-TEST

TRUE OR FALSE

_____ 1. Distribution deals with selling, retailing, and wholesale merchandising.

_____ 2. Marketing usually happens on Friday at the grocery store.

_____ 3. The market researchers never makes decisions about a product.

_____ 4. Surveys conducted by the marketing researchers can tell how much a product will sell for.

_____ 5. Distribution workers decide if more or less merchandise should be placed in a store.

KEY

1. T
2. F
3. F
4. T
5. T

OCCUPATIONAL CLUSTER: Marketing and Distribution
JOB FAMILY:

GRADE: 5 Social Studies
TITLE: Unit IV - Lands and People of the Northeast
BASIC CONCEPTS:

(1) Cleveland is steadily growing as a distribution center--Cleveland is ideally situated close to markets and with motor, rail, air and water transportation readily available.

(2) Every individual can have a meaningful, rewarding career.

(3) Many kinds of careers are available in the Cleveland community.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify different kinds of jobs people have in the area of Marketing and Distribution and some contributions each one makes to the community. The students will be able to identify some of the basic tools used by individuals working in marketing and distribution careers--they should know the functions of some of these tools.	Account Manager Distribution Field Interviewer Marketing Marketing Researcher Research Presentation Statistical Analyst Survey Tabulator Writers	Pre-test Students will make bulletin boards dealing with marketing and distribution Occupations. Students will do posters. Oral discussions. The students will learn the tools used in marketing and distribution occupations. The students will set up mock store with emphasis on the way products are displayed. Post test (same as pre test)	The students will be more aware of marketing and distribution jobs that exist in their community. The students will have a more positive attitude toward the world of work. The student will be more aware of general requirements for obtaining jobs in this field.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John. In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Careers in Sales" "The Joys of Selling"	Account Manager Field Interviewer Marketing Researcher Research Presentation Writer Statistical Analyst	Contact: American Marketing Association The Wellman Company 1405 East 6th Street 241-6956 Griswold-Eshleman Co. 55 Public Square Cleveland, Ohio 44113	Contact: Sears, Roebuck & Co. 8501 Carnegie Avenue Cleveland, Ohio Eaton Corporation 35599 Curtis Blvd. Eastlake, Ohio 523-7255	Pamphlets Posters SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objective one will be based on the ability of at least 80% of the students to orally identify and describe at least 75% of the jobs listed in this Unit. All students will be able to identify seven out of ten tools used by individuals working in Marketing and Distribution careers. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

PERSONAL SERVICES

General Discussion

The long term growth in the American economy has created a growing demand for services of all kinds. Thus, in addition to the multitude of goods produced and distributed, a growing share of our national wealth and manpower is being devoted to needed services, resulting from greater emphasis on better medical care, quality education, personal services, and recreational activities. In many ways, the rapid growth in the importance of the service industries reflects the country's aspiration for a better and fuller life for all of its citizens.

PRE-TEST

Name these people:

1. I take care of hair. _____
2. I make sure your clothes are pressed, laid out, and ready for wear. _____
3. I may drive your limousine for you. _____
4. I take care of the household cleaning. _____
5. I keep the children. _____
6. I prepare the meals. _____
7. I clean and wash your household laundry. _____
8. I take charge of your children. _____
9. I take your orders when you eat in a restaurant. _____
10. I take care of your land and garden. _____

PERSONAL SERVICES

PRE-TEST KEY

1. Barber, Beautician
2. Maid, Valet
3. Chauffeur
4. Housekeeper
5. Babysitter
6. Cook
7. Laundress
8. Governess
9. Waitress
10. Landscaper

OCCUPATIONAL CLUSTER: Personal Services Occupations
JOB FAMILY:

GRADE: 5 Social Studies
TITLE: Unit V--Lands and People of the Northeast--New England States
BASIC CONCEPTS: (1) Fourteen percent of Cleveland's work force is employed in providing services

(2) The long term growth in the American Economy has created a growing demand for services of all kinds--people are paid to perform these services.

(3) Any career has different levels of responsibility.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to list personal service jobs performed by members of their families. The students will be able to describe and identify the jobs and duties of individuals presented in slide presentation on Personal Service Occupations.	Babysitter Barber Beautician Building custodian Chauffeur Companion Cook Cosmetologist Coverness Housekeeper Landscaper Laundress Odd Job Man Valet, maid Waitress	Pre-Test Hands on experience with Job Experience Kits. "Beauty Parlor Day"-- Students will roleplay the various duties of a beautician, barber, etc. Students will set up a household situation--assign roles of governess, valet, etc. Post Test (same as pre test)	The student will be aware of the fact that one can have pride and dignity in any kind of work. The student will demonstrate a positive attitude toward self, others, and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: PERSONAL SERVICES OCCUPATIONS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada. Boston: D.C. Heath and Company 1965	Films: "Beauty for a Career" "Careers in Personal Services"	Barber Beautician Governess Odd Job man Valet	Contact: Jane Addams Vocational High School East 30th and Community College Avenue Cleveland, Ohio 621-2131	Contact: Jane Addams Vocation High School East 30th and Community College Avenue Cleveland, Ohio 621-2131	Pamphlets Brochures SRA Kits Popeye Career Comics People and Choice Career Folios Occupational Outlook Handbook

EVALUATION: The attainment of behavioral objectives number (1) and (2) will be based on the ability of at least 80% of the students to write or orally discuss at least 75% of the jobs listed in this unit. Student success in this unit will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

PUBLIC SERVICES - UTILITIES (Lights and Telephone)

Nearly every American home is dependent on the telephone and electricity. Virtually no business or community could function without the use of these two utilities. Without the telephone, communicating with friends and business associates would be more difficult and probably take longer. Without electricity, most of us could not use the appliances in our homes and many factories would have to shut down.

Many people are involved in making the electricity available for our homes. Linemen construct and maintain the powerlines that carry electricity from the generators to our homes. The load dispatcher is the key operating worker of the transmission and distribution departments. The metermen install test, maintain and repair meters on customers' premises.

Many people are necessary to make the convenience of the telephone a reality. The lineman places the wires and cables leading from the central office to customers' premises. He also repairs and maintains these wires. After the lines are placed, the cable splicer completes the connection by matching wire colors within the cable. The installer and repairman make the phone in your home available and maintain it. The telephone operator assists in emergencies, information and making long distance calls.

Truly all of the light and telephone workers work for you and your convenience.

PUBLIC SERVICES - UTILITIES

PRE-TEST

NAME THESE PEOPLE FROM THE LIST BELOW

1. This person will place your long distance phone calls.

2. This man will install your phone or repair it if it is broken.

3. I complete the connection after the lineman places the cable on the phone.

4. I place wires and cables loading from the central office to the customer.

5. I construct and maintain the power lines which carry electricity.

6. I install, test, and maintain meters.

7. I control the amount of electricity throughout an area.

8. I control the output of materials used for doing a job.

9. Electricity operates your telephone. (TRUE OR FALSE)

10. The electric meter on your house is read by the meterman. (TRUE OR FALSE)

Cable splicer
Telephone operator
Stock clerk
Lineman
Installer & repairman
Lineman high & low
Meterman
Load dispatcher

OCCUPATIONAL CLUSTER: Public Services
JOB FAMILY: Utilities: Light & Telephone

GRADE: 6 Social Studies
TITLE: Unit III--How the Country Grew: A New America Grows Up
BASIC CONCEPTS:

(1) Cleveland's utilities are oriented toward providing continually improving customer service.

(2) Information and exploration of jobs are essential for wise career decisions.

(3) Every occupation contributes to society.

(4) Careers require different knowledge, abilities, and attitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe various jobs in light and telephone job family.	Cable Splicer Customer Electricity Job family Lineman (High & Low) Load dispatcher Meterman Sales Representative Stock Clerk Telephone operator	Pre-test Demonstration lesson on how to use a telephone General class discussion of slide presentation Students will collect pictures from newspaper and magazines of people working in light and telephone utilities Students will make a bulletin board Post test (same as pre test)	The students will have a more positive attitude toward the world of work. The student will have a general knowledge of how to use the phone. The student will have general knowledge of the services people working in the light and phone utilities render to the community.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: PUBLIC SERVICES - UTILITIES: LIGHT AND TELEPHONE

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston: D.C. Heath and Company 1965	Films: "The Telephone For Help" "Electricity and How It Works"	Cable Splicer Lights Lineman Lineman (High and Low) Load Dispatcher Meter Man Stock Clerk Telephone Telephone Operator	Contact: Ohio Bell's Speaker Bureau	Contact: Ohio Bell Telephone Company Municipal Light and Power Plant	Books Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objective (1) will be based on the students' ability to orally describe at least 75% of the jobs listed in this unit. The attainment of post test objectives will be based on the ability of at least 30% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL RESOURCE MATERIALS

PUBLIC SERVICES

GAS AND WATER

General Discussion

The transportation, communication, and public utilities industries make possible the smooth functions of our society and produce most of the energy that powers, heats, and lights our homes and factories. The transportation industry moves goods and people about the country by air, rail, water, and highways. The communication industry highway provide communications systems such as telephones, radio, and television broadcasting. Other public utilities supply the nation with electricity, gas, and the sanitation services. Transportation, communication, and public utility firms are all semi-public in character. Some state and local governments operate their own transit lines or electric companies as well as other types of utilities.

PRE-TEST

1. How are gas bills determined?
2. How are water bills determined?
3. Where does most of the power for utilities come from?
4. How often is the gas bill issued?
5. How often is the water bill issued?
6. Who is responsible for the payment of the water bill?
7. Who purifies the water?
8. How is gas transported to the home?
9. Where does the water that we use in our homes come from?
10. Where does the gasman get the gas from?

OCCUPATIONAL CLUSTER: Public Services
JOB FAMILY: Gas and water

GRADE: 6 Social Studies
TITLE: Unit III--A New America Grows Up--How The Country Grew
BASIC CONCEPTS: (1) Career education and training is an on-going process.

(2) Every occupation contributes to society.

(3) Cleveland's utilities are oriented toward providing continually improving customer service.

(4) A person may be suited for several different careers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe various jobs in the Cleveland Gas and Water department. The students will be able to list the duties of people shown in the slide presentation. The students will be able to identify various tools used by people working in gas and water utilities.	Chemist Construction Laborer Geologist Meter Reader Mining Engineer Public utilities Stationary Engineer Supervisor Welding Engineer	Pre-test Students will prepare reports on various jobs in gas and water utilities. General discussion of career topics. Post test (same as pre test)	The student will have a more positive attitude toward the world of work. The student will be more aware of the various gas and water utilities that exist in his community.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: Public Services - GAS AND WATER

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston; D.C. Heath and Company 1965	Films: "Simple Demonstrations With Water" "Conserving our Natural Resources"	Construction Chemist Gas Geologist Laborer Meter Reader Mining Engineer Stationary Engineer Supervisor Water Welding Engineer	Contact: City of Cleveland Department of Public Utilities	Contact: Cleveland Water Department Division of Water and Heat Room 104 Cleveland City Hall 861-4600 Ext 443-444	Pamphlets Brochures Books Popeye Career-Comics

EVALUATION: The attainment of objectives (1) and (2) will be based on the ability of at least 80% of the students' to orally describe at least 70-75% of the jobs discussed in this unit. Criteria for teacher rating of oral reports given in class will be that eight out of ten students must be able to identify at least 75% of the jobs listed in this unit. The attainment of post test objectives will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

PUBLIC SERVICES - POLICE DEPARTMENT

General Discussion

The policeman helps to preserve law and order. He prevents criminal activity, investigates crime, apprehends, and assists in the prosecution of criminals. Whether on or off duty, the policemen are expected to exercise authority whenever necessary. The Police Safety Aide, under supervision, assists police officers and other safety personnel in various locations.

Every city, town and village in the United States has some sort of police department, yet no two departments are alike. Each is working to preserve law and order. In each department policemen work to prevent criminal activity, investigate crime, apprehend criminals and assist in their prosecution.

The job of a policeman is big. Because it is so big, policemen often specialize in one area of police work such as burglary investigation, homicide, traffic control and safety, crowd control, juvenile investigation, etc. Before specializing, however, many policemen start out as patrolmen.

PRE-TEST

1. What are the duties of a patrolman?
2. What is a Public Safety Aide?
3. What does a radio dispatcher do?
4. What is the job of a dog warden?
5. What is the job of a blacksmith in a police department?
6. What is an institutional guard?
7. Name some equipment that the policeman uses.
8. Name some different jobs in the Police Department.
9. Where is the main police station located?
10. When a policeman is off duty is he expected to exercise authority?

OCCUPATIONAL CLUSTER: PUBLIC SERVICES
JOB FAMILY: POLICE DEPARTMENT

GRADE: 6 Social Studies
TITLE: Unit IV--Citizens In a Changing America
BASIC CONCEPTS: (1) Career Education and training is an on-going process

(2) Jobs and skills can be related to school work.

(3) Every occupation contributes to society.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify uniforms worn by members of fire department. The students will be able to identify various pieces of gear used by members of fire department. The students will be able to describe the various duties of individuals working in the police department.	Blacksmith Dog Warden Institutional guard Patrolman Public Relations Worker Public Safety aide Private Duty Policeman Radio Dispatcher Traffic Man	Pre-Test Role-playing of policemen and their role in the community Bulletin Boards Post test(same as pre-test)	The student will have a positive attitude toward self, others, and work. The student will be aware of the many public service jobs available in the city of Cleveland.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: PUBLIC SERVICES- POLICE DEPARTMENT

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. Tottle, John In These United States and Canada Boston: D.C. Heath and Company 1965	Films: "Policeman" "Careers in Public Service"	Blacksmith Dog Warden Guard Institutional Patrolman Public Safety Aide	Contact: Cleveland Police Dept. 621-1234	Contact: Cleveland Police Dept. East 21st & Payne 621-1234	Brochures Flyers SRA Kits Popeye Career Comics (Public Service)

EVALUATION: Successful attainment of objectives 1, 2, and 3 will be based on (a) the ability of at least 80% of the students to orally identify and describe at least 7 out of 10 jobs performed in a police department, and (b) the ability of all students to orally identify 7 out of 10 pictures of pieces of equipment used by the police department. Student success on the post test will be based on the ability of 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

PUBLIC SERVICES - FIRE DEPARTMENT

General Discussion

Most communities have some form of a fire department. In small towns and rural areas a volunteer fire fighting company may exist. The volunteer firemen rush to the site of the fire when the alarm is sounded and they also work without pay. In larger towns, firemen are paid by the municipal government. In both cases, the firemen are concerned with putting out fires, preventing fires, and preserving lives and property.

In extinguishing fires some firemen may specialize in those caused by chemicals or electricity. Some firemen specialize in looking for causes of fires before they happen. For this reason, public buildings such as theaters and factories are inspected for conditions that may cause fires. All firemen are concerned with the public's safety and for this reason take many courses in administering first aid. Educating the public about fire prevention and safety measures is also a part of the firefighter's job.

PUBLIC SERVICES - FIRE DEPARTMENT

PRE-TEST

True or False

1. Firemen sometimes give first aid. _____
2. Fire prevention is the job of the Health Department. _____
3. Firemen are not allowed to inspect private homes. _____
4. The need for firemen is decreasing. _____
5. A fireman cannot be promoted higher than captain. _____
6. Volunteer firemen serve with no pay. _____
7. Firefighting requires teamwork. _____
8. The commanding officer assigns jobs to firemen. _____
9. Firemen may inspect public buildings. _____
10. Between alarms, firemen may completely relax. _____

KEY

1.	T	6.	T
2.	F	7.	T
3.	F	8.	T
4.	F	9.	T
5.	F	10.	F

OCCUPATIONAL CLUSTER: Public Services
JOB FAMILY: Fire Department

GRADE: 5 Social Studies
TITLE: Unit VIII-Ohio
BASIC CONCEPTS: (1) Every occupation contributes to society.

(2) Some people specialize in their work to protect our health, home and property

(3) Special abilities may qualify an individual for an unusual job.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the duties of various individuals working a fire dept. The student will be able to list some of the personal qualities and skills a fireman must have. The student will be able to explain the function of various pieces of equipment used by firemen.	Batallion Chief Fireman High and Low Tension Man Lineman Helper Rescue Squad	Pre-test Students will bring in pictures for bulletin board. Role-playing (assign fire-fighter roles to students) Post test (same as pre-test)	The student will have a more positive attitude about the world of work and the importance of a fire dept. in a community The student will have some awareness of the importance of the fire dept. to their community.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER; PUBLIC SERVICES- FIRE DEPARMENT

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text Preston, Ralph C Tottle, John In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Fire Called Jeremiah" " Day with Fireman Bill"	Assistant Chief Batallion Chief Captain Fire Chief Fireman Lieutenant	Contact: Fire Station West 3rd & St.Clair Cleveland, Ohio	Contact: River Fire Boat 1801 Carter Rd. Station #2 or 21 621-1223 Main fire Department West 3rd & St. Clair Cleveland, Ohio	Pamphlets Brochures Flyers Popeye Career Comic (Public Services)

EVALUATION: The attainment of objectives numbers (1) and (2) will be based on the ability of at least 80% of the students to orally describe at least five different jobs performed by firemen, and to write or orally list at least three personal qualities or skills a fireman must have. Teacher rating of objective number (3) will be based on the ability of at least 80% of the students to visually identify 7 out of 10 pieces of equipment used by firemen. The attainment of post test objectives will be based on the ability of at least 80% of the students to achieve 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

TRANSPORTATION-TRUCKS

General Discussion -Driving Occupations

The men at the wheel of the big trucks on highways and turnpikes are the top professional drivers. They drive the largest and most expensive equipment and receive the highest wages of all drivers. They are on their own practically all the time and have much responsibility. The work requires initiative, because they must transport goods of great value which must be delivered safely and on time.

Over the Road Truckdrivers

Over the road truckdrivers are top professional drivers. They drive the largest and most expensive equipment. They receive high wages also. Mostly they operate gasoline or diesal power tractor-trailers. These truckdrivers drive practically all of their working time. They must have the ability to maneuver the trailers while driving in reverse, when backing up big trailers to loading docks.

Local Truckdrivers

When the local truckdriver reports to work at the terminal or warehouse, he receives his assignment to make deliveries, pick-ups or both. He also receives the delivery forms needed. He checks his truck's condition. These truckdrivers load and unload the merchandise themselves at the customer's place of business.

Routemen

These truckdrivers sometimes called driver-salesmen or route salesmen are as much salesmen as they are drivers. They must, through their selling ability, increase sales and obtain new business by canvassing potential customers within their territories. Routemen drive panel or light trucks over an assigned route, selling and delivering goods, or providing services such as collecting and delivering laundry and dry cleaning to retail establishments (wholesale routemen) or directly to the public (retail routemen).

Since much of the food, clothing, and other products required by consumers is transported by trucks, the men who move these goods from terminals, warehouses, mines, and factories to wholesalers, retailers and consumers in the local area must be very skilled drivers, must have initiative, and they must also be able to handle heavy equipment in making deliveries. Some of these drivers must also have the necessary selling abilities required for increasing sales of their business.

TRANSPORTATION - TRUCKS

PRE-TEST

Answer the ten questions using the three types of truckdrivers listed below.

1. Local Truckdrivers

2. Over-the-Road Drivers

3. Routemen--a. Retail
   b. Wholesale

1. _____must be able to maneuver big trucks or tractor trailers while driving in reverse, when backing up to loading docks.

2. _____are as much salesmen as they are drivers.

3. _____usually drive gasoline or diesel power tractor-trailers.

4. _____are top professional drivers, and drive the largest most expensive equipment.

5. _____receives his assignment to make deliveries, pick-ups or both.

6. _____must through their selling abilities increase sales.

7. _____checks the condition of his truck when reporting to work.

8. _____usually loads and unload the merchandise himself at the customer's place of business.

9. _____are sometimes called driver-salesmen or route-salesmen.

10. _____sells and delivers goods directly to the public.

Key

1.	2.	6.	3
2.	3	7.	1
3.	2	8.	1
4.	2	9.	3
5.	1	10.	3a

OCCUPATIONAL CLUSTER: Transportation
JOB FAMILY: Land Transportation (Motor-freight)

GRADE: 6 Social Studies
TITLE: Unit X - The Americas in a Changing World
BASIC CONCEPTS:
(1) Changes and conditions in the world affect careers.

(2) Any career has levels of responsibility.

(3) The Cleveland community provides many opportunities for individuals to develop skills and responsibilities in the area of land transportation.

(4) Every occupation contributes to society.

(5) The goods made in Cleveland and the world goods coming through the Port of Cleveland can be delivered by truck to half the population of the nation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe the duties of individuals working in the area of Land Transportation (Refer to vocabulary list). The student will demonstrate his knowledge of motor-freight transportation jobs by successfully answering questions on the "Riddle Your Way" transportation game.	Freight Handlers Mechanic Over-The-Road or Long-Distance Truck Driver Route Salesmen Routemen Helper Truck Driver Truck Mechanic	Pre-test Discuss driving occupations with class. The students will give oral reports on various motor-freight jobs. Students will set up mock Trucking Firms using toy trucks. Each student will play role of workers in the trucking industry (truck driver, mechanic, etc.). Game: Riddle Your Way (Questions and riddles dealing with the trucking industry) Post test (same as pre-test)	The student will have a better knowledge of transportation facilities in and out of the city of Cleveland. The students will be aware of special skills, work habits, and satisfactions of the occupations discussed. The students will illustrate a positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: TRANSPORTATION-Motor Freight

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath & Co. 1965.	Films: "Trucks and Trains" "Cities and Transportation Moving People and Goods" "Truck Driver"	Diesel Mechanic Route Salesmen Routemen Helper Truck Driver Truck Mechanic	Contact: White Motor Company East 79th & St. Clair	Contact: White Motor Company East 79th & St. Clair Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics (Transportation)

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80% of the students to identify and describe in writing or orally at least 75% of the jobs listed in this Unit. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

TRANSPORTATION - SHIPS

General Discussion

Transportation employment offers a wide variety of interesting and rewarding careers requiring diverse skills and levels of experience as well as an opportunity for travel and adventure. There are 160,000 persons employed on the inland waterways, divided equally between those on boats and those on shore. Growth of the industry has been nothing short of fantastic. In terms of tonnage carried, inland waterways rank third behind railroads and pipeways. The importance of the waterways lies in the fact that they serve 38 of the 50 states with almost 95% of the population.

A typical crew includes the pilot who navigates the ship, engineers who are responsible for the operation and maintenance of the vessel's power, the mate, who assists the master pilot in the operations of the ship, and the deck hands who perform the manual tasks involved in running the ship. Officers are promoted from below as their knowledge and experience increases.

TRANSPORTATION - SHIPS

PRE-TEST

PART I True or False

1. Shipping employees work only on the ships. _____

2. Engineers pilot the ships. _____

3. Ship officers work their way up from the bottom. _____

4. Deck hands perform manual tasks. _____

5. The mate assists the pilot. _____

PART II Multiple Choice

1. The shipping industry is _____. a) growing, b) closing down c) only for men

2. Transportation of cargo by ship costs _____. a) more than it does by truck, train, or plane, b) just as much as it does by truck, train, or plane, c) less than it does by truck, train, or plane.

3. Engineers are responsible for the ship's _____. a) power, b) food, c) navigation

4. A ship's kitchen is called the _____. a) deck, b) crew, c) galley

5. Most ships on inland waterways are inspected by the _____. a) Navy, b) Army, c) Coast Guard

KEY

PART I	PART II
1. F	1. A
2. F	2. C
3. T	3. A
4. T	4. C
5. T	5. A

OCCUPATIONAL CLUSTER: Transportation
JOB FAMILY: Waterways

GRADE: 5 Social Studies
TITLE: Unit IV - Lands and People of the Northeast-Middle Atlantic States
BASIC CONCEPTS:
(1) The initial development of the northeast occurred because waterpower was available, seaports were advantageously located in relation to Europe and inland routes provided access to continental markets.

(2) Ships leaving the Port of Cleveland are instrumental in supplying goods and services to people of distant lands.

(3) People have many kinds of careers.

(4) Cleveland as the number one port in Ohio, carries Ohio's aspirations to be the nation's leading state in world trade.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to describe the various duties one might encounter while working on a ship. The students will be able to identify pictures and slides of employees at work on a ship. Using slides and pictures, the students will be able to describe the duties of certain individuals working on a ship.	Crane Operator Deckhand Longshoreman Machine Operator Marine Attendant Merchant Seaman Navigator Ship Engineer Ship Mate Ship Pilot Shipping Clerk Signal Man	Pre-test Given newspapers and magazines students will make bulletin boards on Transportation on Waterways. Students will prepare and deliver oral reports on area of interest. Students will play games: Spin a Job, Travel connections, Riddle Your Way. (Developed by DVEP Office) Post test (same as pre-test)	The student will be more aware of the various careers that involve the movement of goods and services on our waterways. Students will be aware of the influence of the shipping industry in the city of Cleveland. Students will demonstrate a positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: TRANSPORTATION-WATERWAYS

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Sea Port" "Transportation by Inland Waterways" "Cleveland World Port"	Crane Operator Deck Hands Longshoreman Machine Operator Signalman	Contact: Cleveland World Port Cleveland, Ohio 241-8004	Contact: Cleveland Port Authorities, Public Relations Representative 241-8004	Pamphlets (Ship Yard) Brochures SRA Kits Career Comic Books (Popeye and Transportation careers)

EVALUATION: Successful attainment of objectives one, two and three will be based on the ability of at least 80% of the students to orally describe at least seven jobs performed on a ship.
Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

LAND TRANSPORTATION - BUSES

General Description

Buses transport millions of Americans to and from work, schools, and homes each day. These buses follow definite time schedules and routes over city and suburban streets to get passengers to their destination.

The bus driver is responsible for the safety, comfort and convenience of his passengers. For these reasons a bus driver is usually hired on the basis of his driving record, skill and courtesy. While the bus driver runs a safety check on his vehicle before it leaves the terminal, the maintenance department has already checked it over with the aid of the equipment electrician. The bus has also been washed and cleaned. To assist inter-city drivers, baggage clerks and hostlers aid in assuring the passengers' comfort.

PRE-TEST

1. What is the name of the bus system in Cleveland, Ohio?
2. Circle the three jobs which can be performed with the bus system.
   (a) Bus driver (b) Mechanic (c) Body repairman (d) Traffic Checker
3. The bus mechanic repairs _____. (a) lights (b) buses (c) cars (d) tractors
4. The bus driver plays an important part on buses. True or False
5. A baggage clerk may load luggage. True or False
6. A bus driver must have a definite route. True or False
7. Describe the duties of a hostler. _____

   _____
8. Circle the two commercial buses. (a) C.T.S. (b) Greyhound (c) Rapid
9. How does the Greyhound bus differ from Cleveland Transit System buses?
10. Describe a trip taken by bus with family or friends.

OCCUPATIONAL CLUSTER: Transportation
JOB FAMILY: Land Transportation (Buses)

GRADE: 5 Social Studies
TITLE: Unit IV - Lands and People of the Southern and North Central States
BASIC CONCEPTS:

(1) A man's occupation is often influenced by the geography of a region.

(2) A large number of people in the city of Cleveland depend on bus drivers for transportation to and from job sites, delivery of goods and services, pleasure trips, etc.

(3) Cleveland is the center of a transportation complex that daily moves a population of more than 116,000 to and from their jobs.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After viewing pictures of special uniforms or apparel worn by workers discussed in this unit, the students will be able to identify the specific occupations of the workers. After viewing films and visiting a bus terminal, the student will be able to describe the duties of individuals working in the area discussed.	Baggage Clerk Body Repairmen Bus Driver Electrician Hostler Mechanic Parts Counterman Traffic Checker	Pre-test Make Bulletin Boards Role-play Individual Reports Post Test (same as Pre-test)	The student will have improved their knowledge of the transportation cluster and specific jobs in the cluster The student will be more aware of various occupations in his community.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: TRANSPORTATION - Buses

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada	Films: "Careers in Transportation"	Baggage Clerk Buses Clerical Driver Equipment Electrician Hostler Janitor Maintenance Service Man Signal Mechanic Substation Telephone Operator Washer and Cleaner	Contact: Charter Service Dept. Cleveland Transit System	Contact: Cleveland Transit System Greyhound Bus Terminal Euclid Avenue Cleveland, Ohio Rapid Transit Station Fairhill Road and Cedar	Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on the students' ability to orally describe at least 70% of the jobs listed and discussed in this Unit.
The attainment of post test objectives will be based on the ability of at least 80% of the students to achieve a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

TRASPORTATION - RAILROADS

General Dicussion

The railroad with its network of more than 20,000 miles of rail line reaching into all parts of the country, was one of the nation's largest employers. Over 500,000 railroad workers were employed in 1968, operating trains, looking after the needs of the traveling public, maintaining and repairing facilities and equipment and performing the hundreds of other activities required in this industry. These activities offer a great variety of interesting careers requiring different kinds of skills and levels of education.

In most railroad occupations, a worker starts at the bottom and works his way up by learning his job, proving his ability and acquiring the seniority which will enable him to advance.

TRANSPORTATION - RAILROADS

PRE-TEST

PART I True or False

1. A Yard Clerks' duties consist of writing, filing, and calculating records and accounts. _____

2. A Fireman's duties entail calling signal indications, relaying hand signals, orders and messages. _____

3. Communications and Signal Helpers build, maintain and repair railroad freight and passenger cars. _____

PART II Multiple Choice

1. The person responsible for the maintenance, repair and construction of track, ties, switches, fences and anything pertaining to railway. _____ a) Firemen, b) Trackman, c) Carmen, d) Machinist

2. This person's responsibilities include scheduling the use of block tracks, interlocking switches and signals to ensure proper movement of the trains. a) Block Operator, b) Boilermaker, c) Policeman, d) Fireman _____

3. This person's responsibilities are building, maintaining and repairing railroad, freight, and passenger cars. _____
a) Mechanic, b) Carman, c) Trainmen, d) Machinist

4. This person assembles and dismantles equipment, replaces and repairs parts. _____ a) Machinist, b) Trackman, c) Yard Clerk, d) Signal Helper

5. This person's duties consist of writing, filing, and calculating record and accounts. _____ a) Yard Clerk, b) Secretary, c) Bookkeeper, d) Carman

6. This person's duties involve installation, maintenance, repairing and testing and communication and signal equipment. _____
a) Electrician, b) Repairman, c) Fireman, d) Communication and Signal Helper

7. This person's duties consist of construction, maintenance and repairing of tunnels, bridges, stations, and railway shops. _____
a) Boilermaker, b) Yard Clerk, c) Bridge & Building Workers, d) Trackman

TRANSPORTATION - RAILROADS

PRE-TEST KEY

TRUE OR FALSE	MULTIPLE CHOICE
1. True	1. B-Trackman
2. True	2. A-Block Operator
3. False	3. B-Carman
	4. A-Machinist
	5. A-Yard Clerk
	6. D-Communication & Signal Helper
	7. C-Bridge & Building Workers

OCCUPATIONAL CLUSTER: Transportation
JOB FAMILY: Transportation by Rail

GRADE: 5 Social Studies
TITLE: Unit III - A New America Grows Up
BASIC CONCEPTS:

(1) Since the middle of the Nineteenth Century, the city of Cleveland has grown in population, in area, in productivity and in common national purpose.

(2) Careers require different knowledge, abilities and attitudes.

(3) Cleveland is a vital link in the railroad system which bend together the industrial heartland of America.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe duties of various individuals discussed in this unit. The student will be able to describe the sequence of operations involved in the distribution of a familiar commodity by rail.	Black operator Bridge and Building-workers Car-men Communication and Signal Helper Firemen Machinist Trackmen Yard Clerk	Pre-test Students will give reports on jobs they think they would like to do in the railroad industry. Students will bring in newspaper clippings of different jobs available in the railroad industry. Students will draw pictures of different jobs available in the railroad industry. Post test (same as pre-test)	The student will have a better understanding of transportation workers and their duties. The student will have some knowledge of the levels of responsibility attached to any job family.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: Transportation-Transportation by Rail

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John In These United States and Canada Boston: D.C. Heath and Co. 1965	Films: "Railroad Builders" "Transportation by Freight Trains"	Black Operator Bridge and Building Workers Car-men Communication and Signal Helper Firemen Machinist Trackmen Yard Clerk	Contact: Penn Central Railroads Terminal Tower	Contact: Penn Central Railyard Rapid Transit Station	Pamphlets Brochures SRA Kits Popeye Career Comics (Transportation) Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives one and two will be based on the students' ability to orally describe or identify at least eight out of ten jobs associated with transportation by rails. Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Transportation
JOB FAMILY: Air Transportation

GRADE: 5 Social Studies
TITLE: Unit IX - Land and People of the Western States
BASIC CONCEPTS:

(1) Cleveland is an important center for air transportation.

(2) More and more people fly from place to place, and the air freight business is rapidly growing.

(3) Airports are gateways for people as well as goods.

(4) Every career requires some special preparation.

(5) Careers require different knowledge, abilities and attitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify personnel by their uniforms. The student will be able to state the name and location of the two major airports in the city of Cleveland. The students will be able to list some of the common and uncommon uses of aircraft. Using the Spin a Job game, the student will be able to correctly identify the job selected.	Airline Dispatcher Air Traffic Controllers Co-pilot Flight Engineer Ground Radio Operators Line Maintenance Mechanic Maintenance Base Mechanic Pilot Ramp Serviceman Reservation Clerk Sky Cap Stewardess Ticket Agent	Pre-test Students will make model planes. Visit Control Tower at Burke Lakefront Airport or Cleveland Hopkins Airport. Students will make bulletin board using pictures of various types of aircraft. Post test (same as pre-test)	The student will be aware of the many people necessary for operation of an airport. The student will be aware of the many services provided by the nation's airports (Pleasure and business). The students will have some knowledge of the special preparations needed for the various careers discussed. The students will be more aware of the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: TRANSPORTATION-Air Transportation

TEXT	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Basal Text: Preston, Ralph C. and Tottle, John. In These United States and Canada Boston: D.C. Heath and Co. 1965.	Films: "Airplanes and How They Fly" "Airplanes Work for Us"	Airplane Pilot and Co-pilot (seated in plane) Cleveland Hopkins Airport Control Tower	Contact: Public Relations American Airlines 861-8225 or United Airlines Public Relations Dept.	Contact: Burke Lakefront Airport Cleveland Hopkins Airport	Pamphlets (Airports) Brochures SRA Kits Popeye Career Comics (Transportation)

EVALUATION: At least 85% of the students will be able to raise and locate the two major airports in the city of Cleveland and orally identify pictures of seven out of ten airport personnel workers in their work uniforms.

All students will be able to cite at least three common and three uncommon uses of aircraft. Students will also be able to identify 70% of the jobs listed in this Unit.

Student success on the post test will be based on at least 75% of the students achieving a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

APPENDIX

DEVELOPMENTAL VOCATIONAL EDUCATION

Quincy-Woodhill Building
229-5310

Available Materials

Audio Visual Equipment

4	34 MM Cameras
3	Cassette Recorders
2	16 MM Projectors
3	Overhead Projectors
18	Sound-slide Projectors
1	Sound Filmstrip Projector

16 MM Films

Careers in Transportation	Careers in Skilled Services (Sales)
Money in the Hand and Out	Careers in Personal Services
Horizons Unlimited (Health Careers)	Careers in Industry
Building a House	Careers in Business & Office Occupations
The Joys of Selling	The City
Seaport	Our City Government
Careers in Machine Trades	Trucks in Our Neighborhood
Careers in Building Trades	Dairy: Farm to Door
Careers in Communication	Postman: Rain or Shine

Filmstrips

Who Are You?	Television
How Do You Get There?	The Newspaper
What Do You Like To Do?	The Telephone
What is A Job?	Books
What Good Is School	Communicating Ideas
Motion Pictures	Communicating Without Words
Radio	

Filmstrips Cont.

Conservation For Today's America (Series With Sound)

(a) Land Conservation Today

(b) Water Conservation Today

(c) Urban Conservation Today

(d) Wildlife Conservation Today

(e) Mineral Conservation Today

(f) Forest Conservation Today

(g) Soil Conservation Today

Sound-Slides

Airport

Railroad

Post Office

Police Department

Fire Department

Newspaper

Bus

Radio

Television

Ships

Home Economics

Posters

Business and Office

Manufacturing

Fine Arts & Humanities

Marine Science

Marketing & Distribution

Environmental Control

Hospitality and Recreation

Agri-Business & Natural Resources

Communication

Transportation - Ships

Manufacturing - Apparel

Health Services

RICHARD'S ROSEN PRESS

Careers in Depth Series Cont.

Journalism
Landscape Architecture
Law Enforcement
Librarian
Marines
Marketing
Medical Assisting
Medical Technology
Merchant Marine
Meteorology
Minister
Model
Museums
Music
NASA
Naval Architecture
Navy
Nuclear Energy Fields
Nun
Nursery Industry
Nursing
Occupation Therapy
Oceanography
Optician
Optometry
Own Business
Personnel Work
Physics
Pilot
Pharmacy
Photography
Physician
Printing
Public Relations
Rabbi
Radiologic Technology
Railroading
Real Estate
Retailing
School Psychology
Secretary
Shorthand Reporter
Social Work
Television
Temporary Office Worker
Traffic Management
Translating and Interpreting

JULIAN MESSNER SERIES

Your Career in Advertising
Your Career in Aerospace Industry
Beauty As A Career
Careers in Biological Science
Your Career in Chemistry
Your Career in Civil Service
Your Career in Computer Programming
Disease Detectives
Engineers Unlimited
Guide To Professional Careers
Fashion as a Career
Your Career in Film Making
Your Career in Foreign Service
Careers in the Health Field
Careers for Home Economists
Careers in Horticultural Sciences
Careers in Hotel Management
Your Career in Interior Design
Your Career in Journalism
Your Career in Law Enforcement
Careers in the Legal Profession
Careers in the Library World
Your Career in Medicine
Your Career in Nursing
Your Career in Oceanology
On The Job Training
Your Career in Parks & Recreation
Your Career in Public Relations
Your Career in Selling
Skyblazers
Social Service
Stagestruck (Theatre)
Your Career in Teaching
The Teen-Age Diet Book
Your Career in Transportation
Your Career in the World of Travel
Your Career in TV and Radio
What About Teen-Age Marriage?
You and Today's Troubled World
Your Career-If You're Not Goint to College
Your College Education-How to Pay for It
Your Handicap-Don't let it Handicap You
Your Personality and You

SRA Book Series

I. Our working world- Families at work (text and records)
Our working world - Cities at work
Our working world - Neighbors at work

II. Educational filmstrips and records
A. Conservation for today's america
(4 records and 4 filmstrips)

III. Career Opportunities
New York Life Insurance Company
Box 51, Madison Square Station
New York, N.Y. 10010 1958
(a series of articles designed to help guide young people to a better future)

Career Development Resource Materials

1. Occupational Exploration Kit
   Science Research Assoc. (Sr. High)
   259 W. Erie St.
   $99.50 (approx price)

2. Language Development Kit

3. Work (Widening Occupational) Kit

Note: (The above are available at the Visual Aid Center and the Cleveland Public Library)

Popeye Career Comics
King Features
235 E. 45th St.
N.Y. N.Y. 10017

Occupational Library, Chronicle, Moravia, N.Y.
Based on D.O.T.
DVEP Office

People and Choices Career Folios (Bernard C. Watson professor and Chairman Urban Educ. Temple University)
Division of Urban Education
a program to acquaint pre-high school students with career possibilities
Harcount Brace Jovanovich, Inc. N.Y.

Sound Filmstrips

Guidance Association of Pleasantville, N.Y.

I People who help others

Filmstrips:

A. Physical Theropist
B. Day care worker
C. Community Organizer
D. People who help others

II People who work in science

Filmstrips:

A. People who work in science
B. Recording Engineer
C. Laboratory Technician
D. Ocean Life Scientist

III People who make things

Filmstrips:

A. People who make things
B. Aircraft assembler
C. Chef
D. Model builder

IV People who create art

A. People who create art
B. Puppeteer
C. Musician
D. Designer

V People who influence others

Filmstrips:

A. People who influence others
B. Model (homemaking)
C. Creative director (art)
D. County agent (horticlture)

VI People who organize facts

A. People who organize facts
B. Bakery fore-woman
C. Automotive researcher
D. TV sports editor

ADDITIONAL MATERIALS AVAILABLE IN THE

DEVELOPMENTAL VOCATIONAL EDUCATION OFFICE

I. Posters:

1. They set their sights on careers at sea
2. Leisure and restaurants
3. Where people work
4. Trades and industrial
5. Home economics
6. Business education - General

II. Tapes (the world of work)

1. On the job (20tapes)
2. Getting a job (20 tapes)
3. Cross - Vocational skills and information (20 tapes)

III. Games

1. Travel Connection
2. Transportation
3. Riddle your way

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

VISUAL AIDS LIST

Careers in the Building Trades. 26 Minutes

Easy-to-follow language and lively action demonstrate some of the tasks carried on in the various trades practiced by the largest group of skilled workers in the nation.

Careers in Business and Office Occupations. 25 Minutes

Helps youngsters develop an understanding of what is required in office occupations. A number of these occupations were unknown only a few years ago.

Careers in Communications. 30 Minutes

What do workers in this essential area do? The film gives a close-up look at various opportunities available and some of the skills and talents required.

Careers in Industry. 26 Minutes

Ranges over some of the many opportunities American industry provides with a closer look at some specific occupations. It also emphasizes importance and satisfactions of jobs in this area.

Careers in Machine Trades. 29 Minutes

Portrays some of the skilled trades involving use of powerdriven machinery. The program relates the occupation to young people's own interests and future.

Careers in Personal Services. 29 Minutes

Looks at the jobs of those, from firemen and policement to beauticians and barbers, who want to work with people. It demonstrates their role in making life safer and pleasanter.

Careers in Sales--"The Joys of Selling". 26 Minutes

Every industry, business, and community employs sales people. So, the variety and opportunities are limitless. The film explores some of the directions young people with a bent for selling can follow.

Careers in Skilled Services. 25 Minutes

The people who install, maintain, and repair automobiles and machinery in homes, offices, and factories keep the nation running. The program shows some of the talents and skills used in a wide field with a shortage of trained personnel.

Careers in Transportation. 24 Minutes

These workers help move passengers and goods over highways, railways, airways, and seaways across continents and oceans, or inside cities and communities.

How Do You Get There. 26 Minutes

Here are the tips youngsters need on how to start looking for a job--newspaper ads, employment agencies, etc; how to apply and how to approach an interview. There is also information on technical courses at two-year colleges, apprenticeships, and on-the-job training.

Airplanes Work for Us. 11 Minutes

Depicts some of the common and uncommon uses of aircraft, pointing out that in addition to the carrying of passengers and freight, airplanes and helicopters are used for fire patrol, rescue work, weather patrol, construction of power lines and crop dusting. Describes air to ground communication and shows many auxiliary jobs other than the actual piloting of aircraft.

Building a House. 11 Minutes

Shows the main stages in building a house and pointing out the importance of each workman's special skill in following the architect's plans.

The City. 11 Minutes

Features a complex modern city with private homes, apartments, office buildings, schools, stores, and factories. Pictures the major transportation facilities, the huge suburban sprawl, the city's elected governmental body, and the city departments such as the fire and police departments.

Dairy Farm to Door. 11 Minutes

Presents the story of milk production and processing showing views of the dairy farm, the creamery, the distribution of processed milk and other dairy products to the home and market.

Exploring the Ocean. 11 Minutes

Uses drawings, diagrams, animation, and photographs of the ocean floor to reveal the wealth of the ocean in minerals as well as in plant and

animal life. Shows the work of oceanographers and describes the part played by the water cycle in depositing minerals in the ocean.

Industry. (filmstrip)

Discusses the growth and importance of industry in New England and describes various industries such as shoes, textiles, hardware, paper hats, silverware, firearms, electronics and others.

Money in The Bank and Out. 15 Minutes

Explains how a bank helps the community by keeping money in circulation and explains such procedures and terminology as deposits, checks, interest, loans, and money flow.

Our City Government. 10 Minutes

Views the urban community and its government. Considers how a city government provides services and makes and enforces laws. Discusses the functions of the city council, mayor or city manager, and courts.

Postman: Rain or Shine. 11 Minutes

Follows a letter from the time it is mailed in Kansas until it is delivered in California, describing the role of trains, trucks, planes, and the postman. Shows the use of automation in the post office.

Seaport. 16 Minutes

Gives an insight into the seaport area of a large city and such activities as loading and unloading of cargo, hiring of seamen, varied types of work and workers, and making a ship seaworthy for another trip.

Transportation. (filmstrip)

Illustrates the different types of transportation needed, including railroads, airlines, buses, automobiles, boats, and pipelines.

Trucks in our Neighborhood. 12 Minutes

Shows many kinds of trucks and how they work to help the neighborhood.

Communication: Books. (filmstrip)

Explains how a book is published and distributed and shows the role that libraries play.

Communication: Communicating Ideas. (filmstrip)

Points out that men in all societies have ways of communicating with each other and emphasizes that our modern society works because we have easy, rapid, and reconizable systems of communication.

Communication: Communicating Without Words. (filmstrip)

Illustrates some of the ways in which we communicate without words, including gestures, pictures, sounds, touch, signs and symbols, odors and appearance.

Communication: Motion Pictures. (filmstrip)

Explains how motion pictures are produced and discusses the motion picture as a particular type of communication.

Communication: Radio. (filmstrip)

Explains the importance of radio to people, businesses, and city agencies.

Communication: Television. (filmstrip)

Explains how television programs are produced and why television is important to people.

Communication: The Newspaper. (filmstrip)

Explains why newspapers are important and how they are produced.

Communication: The Telephone. (filmstrip)

Explains how the telephone establishes a network of communication that ties us in a city, across the country, and around the world.

Conservation for Today's America. (filmstrip)

Contains: soil, forest, water, wildlife, mineral, urban, and land conservation today.

STUDENT TOURS OF OFFICES

Attached is a list of companies which will accommodate students for tours of offices. When making arrangements in writing or by phone, it would be helpful if you would include the following information:

1. Make sure the date and time of the tour is accurate.

2. Ask your contact to furnish you with orientation information on the company so you can conduct an orientation session on the company before the tour. This information could include: brief company history; product or services; production processes; annual sales; payroll, profit, dividends, and taxes; employment of men and women in the plant and offices, product use and markets etc.

3. Give the person who is arranging the tour as much advance notice as possible. Two weeks notice is not uncommon.

4. Give the number of students who will be on the tour and the name or names of the teachers or other supervisory persons who will accompany the students. Remember most companies have a limit on the number of people they can accommodate.

5. Get the consent of your principal and the parents of the students.

6. Remind your students to ask pertinent questions and have one or more students react by making favorable comments to the company representatives at the end of the tour.

7. Have students write "thank you" letters.

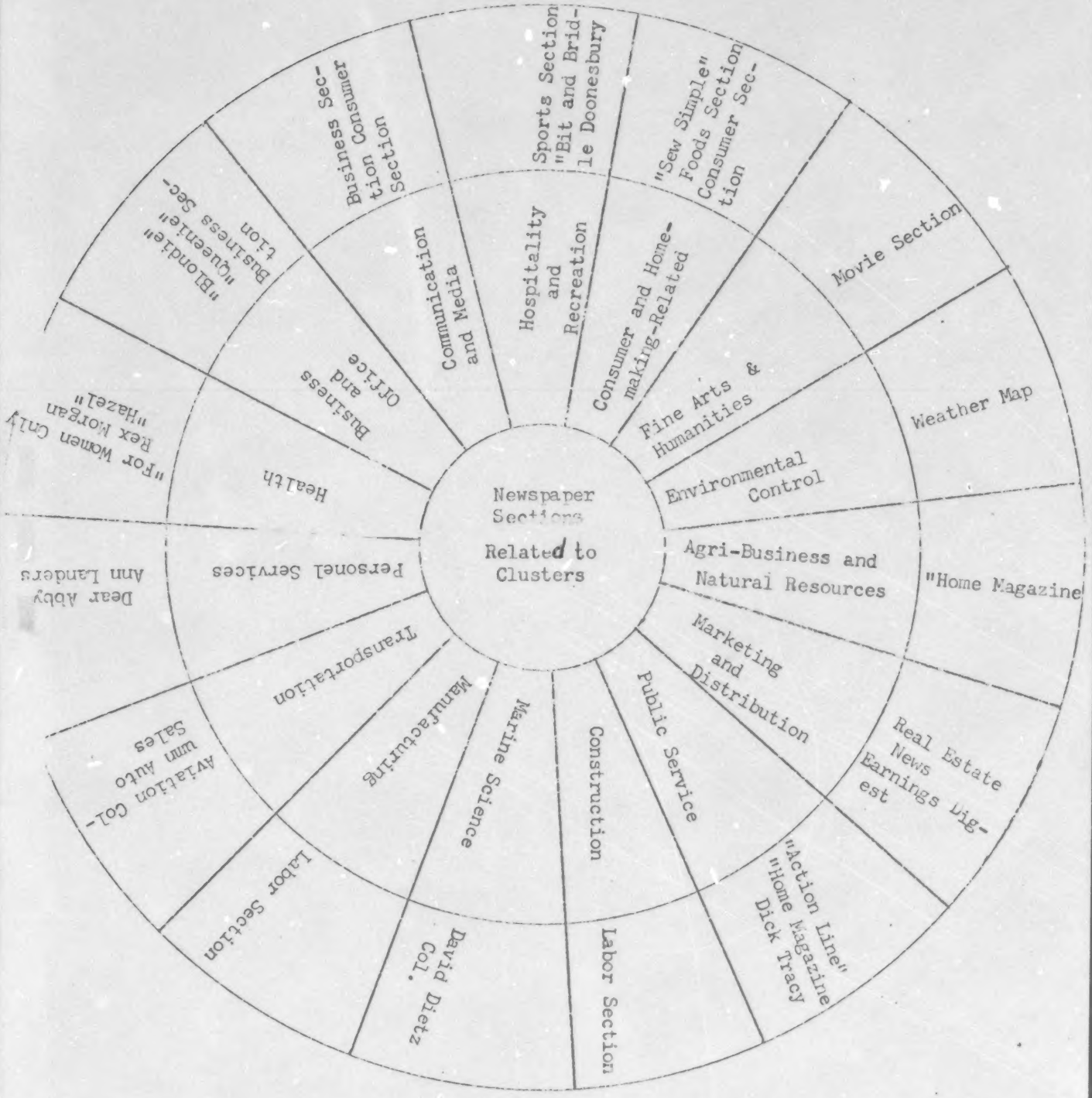
STUDENT TOURS OF OFFICES IN THE CLEVELAND AREA

Company and Address	Person to Contact	Special Information
Eaton Corp. 100 Erieview Plaza Cleveland, Ohio 44114	Mr. Leonard C. Jarvis Office Services Manager 523-5356	
The Standard Oil Co. Midland Building Cleveland, Ohio 44115	Mr. Andrew Molnor Employment Director 575-5948	
National Acme Corp. East 131 St. & Coit Rd. Cleveland, Ohio	Mr. Walter Bandlow Training Director 266-4200 Ext. 460	
The East Ohio Gas C. East Ninth & Superior Cleveland, Ohio 44113	Mrs. Marilyn Mize Public Relations Dept. 522-2949	Tour hours· 10 a.m. to 2 p.m. Tour includes three key departments: Energy Control Center, Customer Information and Data Processing
The Plain Dealer 1801 Superior Avenue Cleveland, Ohio 44114	Miss Genevieve Mohlor Promotion Dept. 523-4245	Tour includes: City Room, Company Room, Engraving Department, Stereotype Department, Press Room and wire Library
The Penn. Mutual Life Ins. Co. 33 Public Square Building Cleveland, Ohio 44113	Dorothy York Office Manager 861-7780	
New York Life Ins. Co. 55 Public Square Cleveland, Ohio 44113	Miss Frances Shinn Office Manager 969-2610	
Sears Roebuck and Co. 8501 Carnegie Avenue Cleveland, Ohio 44106	Mr. Earl D. Ellis Director of Urban Affairs 795-2233 Ext. 346	
The Buckeye Union Ins. Co. Rockefeller Building 614 Superior, West Cleveland, Ohio	Miss Christina Greive 861-660	

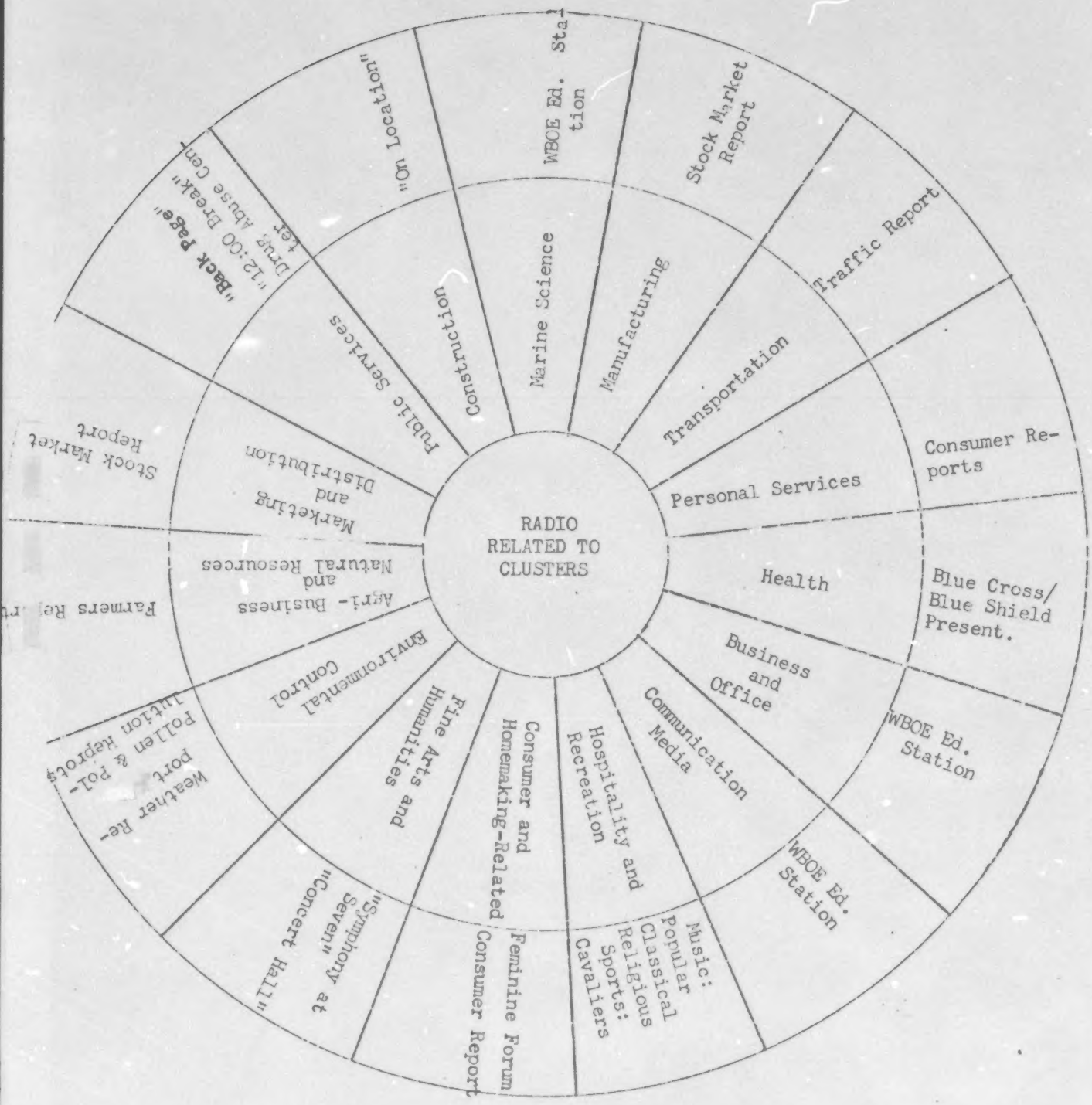
Company and Address	Person To Contact	Special Information
Glidden Durkee Div. Union Commerce Building East Ninth & Euclid Cleveland, Ohio	Miss Norma Thompson Employment Supervision 771-5121	
Federal Reserve Bank P.O. Box 6387 Cleveland, Ohio 44101	William Idsardi Public Information Director	Tours scheduled at 9:30 a.m. and 1:30 p.m. No more than 25 persons
The Cleveland Press 901 Lakeside Avenue Cleveland, Ohio 44114	Mr. Glen Rynearson 623-1111 Ext. 630	Tours scheduled at 9:30 a.m. and 1:30 p.m. Size of group· minimum-10, Maximum-25. Length of tour - 45 minutes.
The Warner & Swasey Co. 5701 Carnegie Avenue Cleveland, Ohio 44103	John Krisko Training Coordinator 431-5580 Ext. 304	Tours scheduled at: 9:30 a.m. to 11:00 a.m. Tour includes: orientation, plant offices, maximum - 10
Travelers Ins. Co. 1801 East Ninth St. Investment Plaza Cleveland, Ohio 44116	Marilyn Walton Personnel Assistant 241-4646 Ext. 302	
Harshaw Chemical Co. 1945 E. 97 St. Cleveland, Ohio 44106	Miss Doris Smith Manager of Research Administration	Tour includes: Computer center, office publicity, Magnetic Card Typewriter
Ford Motor Co. P.O. Box 9868 Cleveland, Ohio 44101	Mr. Richard A. Weiss Supervisor of Personnel 433-7000 Ext. 473	
The Geo. Worthington Co. P.O. Box 6028 Cleveland, Ohio 44101	Betty Urban 241-1600 Ext. 226	Will accommodate 10-15 students

Company and Address	Person To Contact	Special Information
Allstate Insurance 75 Executive Parkway Hudson, Ohio 44236	Jane Van Almen Personnel Manager 656-6120	
Addressograph-Multigraph 1200 Babbit Road Euclid, Ohio 44117	J.W. Fulton 731-8000 Ext. 418	

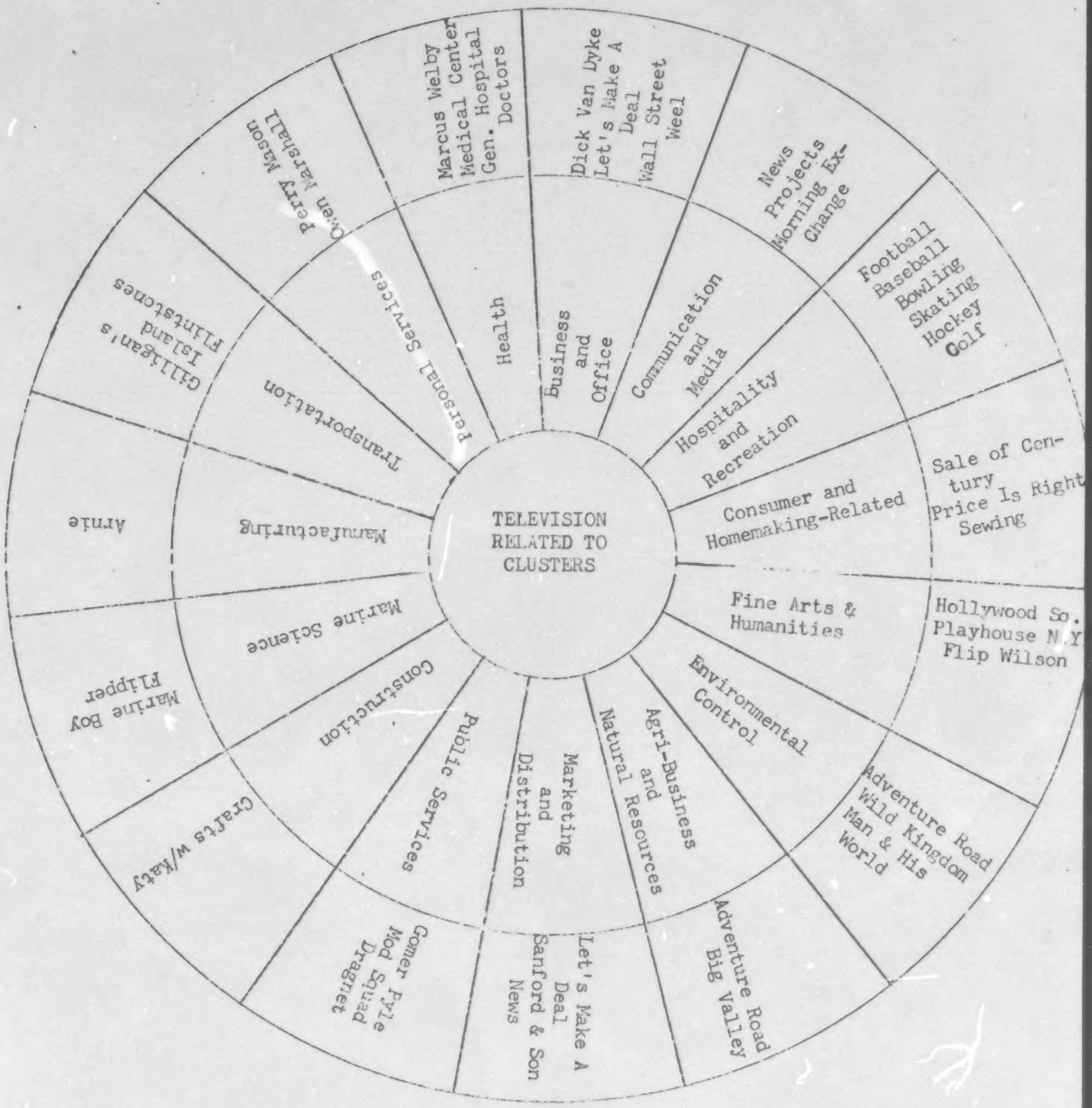
NEWSPAPER SECTIONS RELATED TO OCCUPATIONAL CLUSTERS



RADIO PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



TELEVISION PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



BIBLIOGRAPHY

Occupational Outlook Handbook
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C.

This handbook is a guide to employment opportunities in a broad range of occupations that covers all the principal areas of work. It brings together information of significant for those who are planning a career. Service as a basic tool in the vocational guidance process. We use this guide to gather comprehensive information on career opportunities.

Career Opportunities
New York Life Insurance Company
Career Information Service
Box 51, Madison Square
Station New York, N.Y. 10010

Soft back book composed of a series of articles designed to help guide young people to a better future. These books are easy reading material. They are used as a part of our careers library. We fine it good in that our students can easily relate to it, each article is based on the experience of one who has distinquished himself in his respective field.

English On The Job
Jerome Carlin
Globe Book Company, Inc.
New York 10 New York

This book capitalizes upon that interest by organizing the English activities around a core of vocational guidance. We use it because it not only improves the students' English expression, but it also helps them gain insight into some of the problems facing them. The students' learning proceeds simultaneously in two directions: A better understanding of his potentialities in the world of work, and a better command of the communication skills needed in all phases of everyday living.

The Story Steel
United State Steel Corporation
600 Grant Street
Pittsburgh, Pa. 15219

A pamphlet style book which describes how steel is made. We use it to stress the importance of steel, it takes you from smelting of metals in prehistoric through the fascinating development of the iron making processes.

Careers In Depth
Richards Rosen Press

This series covers all the careers in practical terms for the young man or woman who is interested in more than just a job. All books were written by prominent men and women who are successful in their chosen fields.

Handbooks Of Job Facts
Scientific Research Associates

An occupational summary which helps to pinpoint the basic features and trends of a variety of significant occupations, contains concise summaries of basic data on 300 major occupations.

Industrial and Commercial Wiring
Kennard C. Graham
American Technical Society - Chicago, USA

This book has been rewritten to reflect the latest developments in the electrical field covering new techniques and materials, and incorporating the latest additions and changes in the National electrical code. It's especially good that it begins with basic lighting terms and principles. Study guide also accompany the book.

Electrical Construction Wiring
Walter N. Alerick
American Technical Society
Chicago, Ill. 60637

This book includes the latest accepted changes in wiring, also the more traditional wiring procedures that are still recognized by the NEC. The text is very suitable for self study. Questions are found at the end of each chapter for personal check up, classroom discussion, or assignments. They are designed to reinforce the information given in the chapter and to aid in giving directions for the review of the material in the chapter.

Related Mathematics For Carpenters
L.S. Chamberlain
American Technical Society

This book deals with mathematics as it relates to a practical occupation. The authors teaching experience demonstrated that students found it easy to learn mathematics when the materials consisted of realistic problems such as one might encounter on a job.

Automotive Maintenance and Trouble Shooting
Leslie F. Goings and Edward D. Spicer
American Technical Society
Chicago, 60637

This hard back book is based upon three main objectives (1) To show how to prevent most troubles, (2) to find out how to quickly and adequately locate the cause of any trouble, (3) once it is known what is wrong, to show how to restore the care to satisfactory operations.

The Epic of Steel
United State Steel
Public Relations
100 Erieview Plaza
Cleveland, Ohio 44114

This is a resource book used to get more detailed information about the steel industry.

Your Future In Daily Newspapers

This is easy to read material describing the jobs in the newspapers field. It is used as a part of our career library.

Hospitality Program
(Food Service & Lodging Ed.)
Council on Hotel, Restaurant and
Institutional Education (1970)
1522 K. Street, N.W.
Washington, D.C. 20005

This book is used to gain information in the area of good service and lodging. It explains the requirements one needs if he or she is interested in managing a large hotel or motel. It also explains how one might go about getting into the areas of food catering.

Health Careers
The Greater Cleveland Hospital Association
1001 Huron Road
Cleveland, Ohio 44115

This guide provides minimum basic entry information about allied health education programs in Northeast Ohio. We have used this booklet as a reference tool for seeking information about an approved health career program. It explains in detail the jobs available, the requirements, the grants available and suggested places for training.

Aim High Vocational Series
Richards Rosen Press, Inc.,
New York, New York

The Aim High Vocational Guidance series is for the young person who is looking for a job. All of the books are written by experts in the occupations who know what the jobs are about. The series covers occupational opportunities for young people and will help them to make decisions concerning them.

A Guide To Professional Careers
Walter Duckat
Julian Messner, a division of Simon & Schuster Inc.
New York, New York 10018

This book is as it said a guide to professional careers. Many careers are mentioned in this book for college bound students. The requirements, training, duties, salaries and future outlook for each career are clearly detailed, with helpful cross references to other closely related professional careers. The book is unique in that each career description includes questions to determine the reader's interest in and capabilities for the profession.

How To Plan A House
G. Townsend & J. Dalzell

A multi purpose book written in a practical and authoritative manner. Designed to instruct the layman on house planning intelligently. The book is also written to be of value to builders, developers, apprentices and students wishing basic information on planning. The book provides an entire course in design in the residential field presenting plans, how plans are made, and factors involved in shopping plans.

Machine Shop - Operations & Setups
Porter Lascoe, & Nelson

A text written by professionals in the field, with the purpose of providing basic training in conventional machine operations and information regarding the lastest developments and machine book business. The book also provides the student with innovations which will be useful in the future using illustrations and language basic to the trainee.

Concrete Block Construction: For Home & Farm
J. Dalzell, Townsend

A guide written by professionals working in the field which carries the reader step by step through experience tested methods of erecting a structure designed to eliminate common errors in the use of concrete blocks, this book is filled with instruction valuable to the beginner as well as the mason inexperienced with the concrete block.

Steel Square
Townsend

A "How to do it" book with detailed instructions and illustrations for the carpenters or helper on the use of the steel square. The book is compiled in such a way as to explain lines and angles in a simple and practical manner· answering questions from "what is a steel square" to "how to build a roof." A valuable book in any carpenter's handbook.

ACCESSION NUMBER: VT101954

PUBLICATION DATE: 73

TITLE: CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. JUNIOR HIGH.

DESCRIPTOR: *CURRICULUM GUIDES; *CAREER EDUCATION; *GRADE 7; *GRADE 8; *GRADE 9; DEVELOPMENTAL PROGRAMS; INSTRUCTIONAL MATERIALS; ECONOMICALLY DISADVANTAGED

IDENTIFIER: CAREER ORIENTATION; CAREER EXPLORATION; CLEVELAND; OHIO; MODEL CITIES PROGRAM

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 226P.; SEE RELATED DOCUMENTS VT 101 953, 101 955 AND 102 189 IN THIS ISSUE.

ABSTRACT: THIS CURRICULUM GUIDE OUTLINES THE CLEVELAND PROGRAM OF TRAINING IN CAREER EDUCATION. THE PROGRAM IS DESIGNED TO INCREASE OPTIONS FOR MAKING OCCUPATIONAL DECISIONS; TO ELIMINATE REAL AND IMAGINED BARRIERS TO ATTAINING JOB SKILLS; AND TO ENHANCE LEARNING ACHIEVEMENT IN ALL SUBJECTS AND AT ALL LEVELS OF EDUCATION FOR THE YOUTH IN HIGH POVERTY MODEL CITIES AREA SCHOOLS. THE JUNIOR HIGH SCHOOL CURRICULUM INVOLVES LEARNING THE FUNCTIONAL INTERRELATIONSHIPS BETWEEN THE PRODUCTION, MANAGEMENT, AND THE SERVICE AREAS OF BUSINESS AND INDUSTRY. STUDENTS ALSO SAMPLE THE OPERATIONS AND SKILLS REQUIRED IN A NUMBER OF OCCUPATIONS THROUGH WORK-SITE TOURS AND EXPERIENCE. EACH UNIT IS PRECEDED BY A LIST OF GENERAL OBJECTIVES, FOLLOWED BY SPECIFIC BEHAVIORAL OBJECTIVES. GENERAL DISCUSSIONS, INFORMATION AND STUDY SHEETS, AND IN SOME CASES PRE- AND POST TESTS ARE PROVIDED. (VA)

CONTRACT NUMBER: OEC-0-71-0585(361)

INSTITUTION NAME: CLEVELAND PUBLIC SCHOOLS, OHIO.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 954

CAREER DEVELOPMENT CURRICULUM GUIDE

1970 - 1973

JUNIOR HIGH

Seventh thru Ninth Grades

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

(DVEP)

CLEVELAND PUBLIC SCHOOLS

CLEVELAND, OHIO

1973

Creating Bridges Between School and Earning a Living . . .

VT 101 954

CLEVELAND PUBLIC SCHOOLS

BEST COPY AVAILABLE

CLEVELAND BOARD OF EDUCATION

Arnold R. Pinkney, President

George Dobrea, Vice-President

Joseph M. Gallagher

Mary Ann Geraci

William B. Nagy

Gerald F. Sweeney

Ailene S. Taylor

Paul W. Briggs
Superintendent of Schools

Cleveland, Ohio

1973

"Strong claims are being made for career education's efficacy. To the extent that the concepts are not untried, there is already evidence in experiment and demonstration. But given the high mortality rate of panaceas in recent times, it is wise to leave room for uncertainty. Some of it may not work because of being improperly done. In such a broad concept some applications are likely to be unsuccessful. But the experiment is sufficient to promote reasonably high success probabilities to major aspects of the notion where they are carefully thought through and well administered".[1]

---

[1]Kenneth B. Hoyt, Rupert N. Evans, Edward F. Mackin, and Garth L. Mangum, "Career Education: What It Is," Career Education-What Is It and how to do it. Salt Lake City, Utah: Olympus Publishing Company, 1972, p. 16.

CURRICULUM COMMITTEE

Mabel M. Artis
East High School

Spellman Lane
East High School

Sharyl White
John Adams High School

ORGANIZATION

Margaret Fleming
Directing Supervisor
Division of Research and Development

Don V. Healas
Director
Technical-Vocational Education

William I. Sims
Project Director
Developmental Vocational Education Program

FOREWORD

A new emphasis is being placed on the development of technical-vocational programs in the Cleveland Public Schools in line with our goal of providing quality education to all Cleveland children.

A reevaluation of programs is being made, existing programs are being upgraded, and new programs are being offered.

This "five to twelve" Career Development Curriculum Guide outlines the Cleveland program of training in Career Education.

Paul W. Briggs
Superintendent of Schools

PREFACE

This curriculum guide has been developed by the co-ordinating teachers of the Developmental Vocational Education Program which is funded under Part D of the Vocational Education Amendments of 1968. This program is being administered and implemented by the Cleveland Board of Education in cooperation with the Model Cities Association of Cleveland.

The material and information that is needed to implement this program has been gathered by the Co-ordinating Teachers and Vocational Aides from the local business world.

STATEMENT

This Exemplary Project in Vocational Education is conducted under Part D of the Vocational Education Amendments of 1968, P.L. 90-576.

The schools in the Model Cities area in Cleveland, Ohio are presently bounded by East 55th on the West, East 79th on the East, Superior Avenue on the North, and Kinsbury Run on the South. This amendment was designed to assist the cities in raising the standards of living for those locked into the target areas of selected cities.

During the summer of 1972, approximately sixty classroom teachers, department chairmen and guidance counselors prepared curricula materials and selected visual aids that formed the nuclei for this Career Development Curriculum Guide.

The purpose of this guide is to strengthen the students' ability to select and acquire a positive attitude toward work, toward all levels of occupational choices found in society, and toward themselves as prospective employees and their employers.

The results of these individuals during the summer of 1972, warrants our thanks and appreciation.

William I. Sims
Project Director
Developmental Vocational Education-
Program

TABLE OF CONTENTS

	Page
Junior High School Career Development Units	142 - 312
English	145 - 155
Social Studies	156 - 171
Mathematics	172 - 201
Science	202 - 213
Typing	214 - 219
Home Economics	220 - 237
Industrial Arts	238 - 260
Art	261 - 282
Music	283 - 294
Physical Education	295 - 312
Appendixes	526 - 554
Materials Available at DVEP Office	527 - 533
DVEP Visual Aids Description	534 - 539
Student Office Tours	540 - 543
DVEP Career Pyramids	544 - 551
Career Wheels (Newspaper, Radio, Television)	552 - 554
Bibliography	555 - 558

PHILOSOPHY

Cleveland Public Schools

It is through education that a society not only transmits to individuals, but also reinforces for them, the values, skills, understandings, and standards of behavior through which society renews and repairs itself.

The responsibility for education is properly viewed as a partnership featuring a complementary and supplementary relationship among such agencies as organized religion, social and welfare agencies, cultural institutions, governmental agencies, and mass media as well as the schools. All these agencies support the family as the basic unit of personal and social development.

In a democratic society the school should create an environment in which young people will receive an integrated view of their culture, come to accept the basic assumptions of democratic behavior, and acquire a body of common knowledge essential for effective citizenship.

PHILOSOPHY

Developmental Vocational Education

Through the concept of career education all educational experiences, curriculum instruction, and counseling should be geared to preparation for economic independence and an appreciation for the dignity of work.

DVEP embodies the main thrust of career education, that is, to prepare all students for a successful life of work by increasing their options.

for occupational choice, by eliminating barriers, real and imagined, to attaining job skills, and by enhancing learning achievement in all subject areas and at all levels of education.

PROGRAM DESCRIPTION AND OBJECTIVES

In cooperation with the Model Cities, the overall goal of the DVEP project is to create a bridge between school and earning a living. This is done through a career development program beginning in elementary school and continuing through high school. It provides students with a broad base of vocational information and exploratory experiences on which to base career decisions, with skill training to enable them to secure employment or undertake future training in the field of their choice and with actual job placement. Thus, the program is designed to increase options for making occupational decisions; to eliminate real and imagined barriers to attaining job skills; and to enhance learning achievement in all subject areas and at all levels of education for the youth in high poverty Model Cities area schools.

The program is developmental in nature and pyramidal in design. It begins with a broad informational/organizational approach at the elementary level, and is narrowed to an exploratory/preparational approach at the senior high level. Such an approach is designed to put the student at each level in a position to make informed decisions as to the next step in his career development and successively narrow his vocational preference.

Beginning at the upper elementary school level, students in grade five and six acquire reliable and valid information on on the broad nature of available occupations and their requirements.

The program is worked in conjunction with the Social Studies classes. The emphasis is on occupational clusters rather than on specific jobs, including future occupational areas which are expected to emerge as a result of new technology. The students are to become oriented to the world of work through multi-faceted experiences including field trips, work simulation games, and role playing, and are to obtain experience in basic job skill operations.

At the junior high school level, the orientational-explorational aspect of the program involves learning the functional interrelationships between the production, management, and the service areas of business and industry. Students also sample the operations and skills required in a number of occupations through work-site tours and experience.

Finally, at the senior high level the program orientation is toward exploration and preparation for actual job placement beyond school. Students move from exploratory experiences in a number of occupational areas to intensive training in one skill area of their choice. High school students get on the job experience in work study programs.

PROGRAM DESCRIPTION AND OBJECTIVES

I. Specific Objectives For The Teacher

A. To assist students in identifying a variety of jobs in the 15 occupational clusters (elementary school level).

B. To cause an awareness through a description of various occupations (elementary school level).

C. To teach and demonstrate the relationship between specific vocational activities and "real" occupations (junior high school level).

D. To increase knowledge and functional interrelationships between management, production and service areas of business and industry (junior high school level)

E. To foster positive attitudes toward self, others, and the world of work (senior high school level).

II. Specific Outcome Objectives For Students

A. Increased ability to identify and describe a variety of occupations in a broad array of occupational areas (elementary school level).

B. Increased knowledge of equipment used in various occupations and their utility (elementary school level).

C. Increased knowledge of the operations of a functional interrelationship between management, production and service areas of business and industry (junior high school level).

D. Increased ability to describe the relationship between specific vocational activities and "real" occupations (junior high school level).

E. Increased positive attitudes toward vocational education (senior high school level).

INTRODUCTION

The Model Cities Developmental Vocational Education Program is directed toward meeting the occupational needs and aspirations of those youths in the Cleveland Model Cities area. This vocational education project embraces four basic components:

1. An informational-orientation program at the elementary school.
2. An orientational-exploratory component at the junior high school level.
3. An exploratory-preparational phase at the senior high school level.
4. An extensive short term job program.

The figure below illustrates a clearer picture of the above mentioned components:

INSTRUCTIONS FOR USE OF THIS GUIDE

All units in this guide have been developed around the fifteen occupational clusters as have been identified by the United States Office of Education's Bureau of Adult, Vocational and Technical Education.

The Developmental Vocational Education Program has made a concentrated effort to assist Model Cities area disadvantaged and handicapped youth who have been turned off by education. Since it is probable that many of these inner city youth will never leave the city of Cleveland, it becomes necessary to make these individuals aware of the many career opportunities available in other areas in general and the City of Cleveland in particular.

The various materials in the elementary section of this guide are designed for injection in the various fifth and sixth grade social studies units currently used in the schools participating in this program. Obviously use of all of the occupational clusters is not possible in any one social studies unit, nor are all of the social studies units equally amenable to use of all of the clusters. Certain clusters complement and enhance certain units better than others.

In using this guide, the elementary social studies teacher will have to decide which clusters to use in any given unit on the basis of how well the cluster fits [illegible] attitudes of his/her students. The use of the guide necessitates the use of teacher creativity and discretion in its implementation.

The time alloted to cover a regular social studies unit varies from two to six weeks. In selecting the time allowed for the "cluster" material, the teacher may find that a certain cluster can best be presented in one or two sessions; another cluster may be covered by the teacher bit by bit at various stages in the teacher's overall social studies schedule.

At the elementary level, the concentrated approach, followed by a list of materials by grade level clusters in [illegible] vocabulary lists, [illegible] [illegible] [illegible]

On the secondary level, each unit is preceded by a list of general objectives, followed by specific behavioral objectives. General discussions, information and study sheets, and in some cases pre tests and post tests are provided for the majority of the units in the secondary section. In many instances, answers are provided for pre tests and post-tests. In cases where answers are not given, it is suggested that teachers refer to their local and supplementary textbooks used in the classroom, and the array of educational resources available in the school's course library and resource office. At all levels, instructional and resource materials (films, slides, tapes, books, pamphlets, etc.) are indicated and available in either the school, the ESEP office, or the Audio-Visual Services office provided by the Cleveland Board of Education.

The teacher, vocational aide, or any other resource person is not expected to use all of the learning activities listed or to achieve all of the objectives and goals listed in any one section; only those which are applicable and appropriate should be used for a particular class. However, the teacher is encouraged to use his/her own objectives if he/she feels the need to do so.

In summary, for each unit in this curriculum guide, an effort has been made to supply the teacher with as much information as possible, such as Table of Sizes, Tools, and Equipment, contact points for resources and field trips, etc.. Teachers are also encouraged to call upon the school guidance staff, the librarian, and any other available school staff or community resources who may be more effective in aiding the students in [illegible] the world of work.

OUTLINE OF PROCEDURES

A. Elementary (Informational -- Orientation Component)

1. Involve or inject the 15 occupational clusters into fifth and sixth grade social studies.

2. Relate occupational areas to the subject matter.

3. Emphasize occupational areas rather than specific jobs.

4. Introduce future occupational areas.

5. Develop appropriate classroom activities:

   a. role playing
   b. simulated games
   c. time organization problems

6. Secure films, slides and other visual aids for reinforcement.

7. Secure speakers for informational purposes.

8. Organize field trips:

   a. local companies and businesses
   b. junior high and senior high school vocational education facilities.

B. Junior High (Orientational -- Exploratory Component)

1. Inject the 15 occupational clusters into all junior high high classes. (all classes and subject areas are involved)

2. Relate the full range of occupational requirements, opportunities and advantages.

3. Establish a model industrial system:

   a. management
   b. production
      1. production line
   c. service components
      1. related concepts to actual operations
      2. managing the production
   d. business office
      1. planning the production
      2. managing the production
   e. each student to have equal time in every department

BEST COPY AVAILABLE

4. Arrange field trips to local business and industrial work sites.

   a. Time spent by students talking with employees in different areas:

      1. get a feel of actual duties performed
      2. working conditions
      3. wages
      4. job requirements
      5. advantages of the occupation

5. Encourage student reactions to the field trips.

   a. Individual counseling sessions

      1. discuss reactions to field trips
      2. discuss and relate roles students play in the model industrial system (Vocational course of study will be an elective at grades eight and nine).

   b. Self-evaluation

      1. analyzing own abilities
      2. aptitudes
      3. interests in future employment possibilities

6. Provide special instruction and experiences in narrower work areas.

   a. Build competence in a number of skill areas

      1. woodwork
      2. mechanical drawing
      3. printing
      4. metal shop
      5. typing
      6. home economics

7. Instruct and teach by direction.

   a. Junior high students instruct elementary school pupils

      1. tools
      2. machinery
      3. shops
      4. operations

8. Establish a career information center

   a. books
   b. pamphlets
   c. brochures
   d. films
   e. filmstrips

C. High School (Exploratory-Preparational Component)

1. Establish a Career Information Center

   a. information on job opportunities
   b. post graduate training program
   c. job requirements
   d. career planning

2. Counsel for career and occupational choices

   a. students analyze their interest
   b. aptitudes
   c. abilities
   d. discuss the next step in career development
   e. select a small area to work in for one year

      1. visit work sites

         a. observe operations involved in related occupations

         b. demonstration by tradesmen

3. Selection of one major occupational skill by student

   a. intensive training
   b. continue to make work- life visits
   c. observe and talk to the advanced students in the program (work and study)

   d. enter work-study program (½ day school -- ½ day work)

      1. earn money
      2. put training to use in real work situation

4. Plan for post graduation

   a. finding a job

      1. employment office
      2. work orientation teacher
      3. high school vocational counselor
      4. newspapers

   b. furthering vocational training (Cleveland Board of Education)

      1. Max S. Hayes

         a. for males
         b. know specific industrial career he wants to train for

      2. Jane Addams High School

         a. for females
         b. know specific industrial career she wants to train for

3. Martin Luther King High School

a. for males
b. vocational training for interested and qualified students
c. high school diploma
d. academic instruction geared toward related occupational goals

OCCUPATIONAL CLUSTERS

1. Business and Office Occupations
2. Marketing and Distribution Occupations
3. Communications and Media Occupations
4. Construction Occupations
5. Manufacturing Occupations
6. Transportation Occupations
7. Agri-Business and Natural Resources Occupations
8. Marine Science Occupations
9. Environmental Control Occupations
10. Public Service Occupations
11. Health Occupations
12. Hospitality and Recreation Occupations
13. Personal Services Occupations
14. Consumer and Homemaking-Related Occupations
15. Fine Arts & Humanities

* The above clusters have been identified and codified by the United States Office of Education's Bureau of Adult, Vocational and Technical Education.

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM
MODEL CITIES
for
JUNIOR HIGH LEVEL

At the junior high level the program will move into an orientational exploratory phase, where the students will continue to learn about the range of occupational choices available but will begin to sample different job areas more deeply through study and actual experience. The activities are designed to enable the students to be in a better position to make the next step in their career development. All students in Grade 7 will participate. In Grades 8 and 9, participation will become optional, but students will be able to transfer between academic and vocational courses of study at any time.

The following ingredients will compose the junior high program.

Grade 7

1. All students in Grade 7 will take vocational education. Students will continue to learn the full range of occupational opportunities along with the requirements and advantages of each. Instruction will be organized around how different occupations fit into the production management-services cycle of business and industry so that students will see business and industry as a totality.

2. A model industrial system will be established with management, production, and service components to enable the students to relate the concepts they have learned to actual operations. A business office will give students experience in planning and managing the production of a product. A production line will actually produce the product and a service department will service and repair the product. Each student will spend 12 weeks learning the operations of each of the three areas.

3. A series of field trips to company work sites will enable the students to spend time with and talk to employees working in different areas to get a feel of the actual duties performed, working conditions, wages, job requirements, and advantages of the occupation.

4. The work orientation team will conduct group and individual counseling sessions in which students discuss their reactions to the field trips and the roles they play in the model industrial system. The team will assist the students in a self-evaluation procedure wherein the students begin analyzing their own abilities, aptitudes, and interests in the context of future employment possibilities. Counseling will be coordinated with activities of the Guidance Department. The team will be responsible for organizing and conducting the field trips, model industrial system activities, and instruction in the way an economic system functions.

5. A career information center will be established in the library of each participating junior high school. The centers will contain books, pamphlets, brochures, and films on the opportunities available in different occupational areas.

6. Parent-pupil clubs will be formed for after school or evening meetings using school facilities in which the parents will join their children in working on projects of interest to the students. The clubs will be organized and conducted by the work orientation team.

Grades 8 and 9

1. The vocational course of study will become optional to the student at Grades 8 and 9.

2. On the basis of his sampling of a broad range of occupations and his exposure to and experience with some of the operations involved, the student with the aid of the work orientation team will choose areas that are of interest to him for further study and experience.

3. Counseling, field trips, industrial speakers, use of the career information center, participation in the model industrial system, and in parent-pupil clubs will continue as in Grade 7, but more time will be spent on instruction and

experiences in narrower work areas. The orientation will remain exploratory, but on a deeper level and within a more restricted range.

OCCUPATIONAL CLUSTER: Business and Office
SPECIFIC JOB: Occupations

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help each student realize his own potential.

(2) To acquaint the student with a business vocabulary.

(3) To help the students realize the importance of accuracy in spelling, writing, listening and speaking.

(4) To acquaint the student with job availability.

(5) To teach the student the basic skills in job applications.

(6) To teach the students procedures to follow after filing applications.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to demonstrate his knowledge of job applications by completing sample applications. The students will be able to: (a) write compositions using business vocabulary. (b) write and answer want ads. (c) correctly address business envelopes. (d) solve work puzzles made up from words in the vocabulary list. The student will be able to list various Business and Office related jobs available in the city of Cleveland.	Clerk-Typist Computer Programer Job Family Occupational Cluster Office Manager Receptionist Secretary Typist Want-ad	Distribute survey to discover student interest--general discussion will follow. Student will solve word puzzles using business terms. Using flash cards, students will play word game. Student will role-play procedures of interviewing and being interviewed. Students will complete a booklet of available jobs in business and office occupations in the city of Cleveland--booklet will also include qualifications and salaries.	The students will be aware of the importance of the proper use of English (spelling, writing, speaking and listening) in any type of career. Students will be more aware of the requirements for a job in Business and Office occupations.

INSTRUCTIONAL AND RESOURCE MATERIALS — BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Planning Your Career" "Job Interview--Three Young Men" "Job Interview--Three Young Women" Filmstrips: "Your Job Interview" "Job Hunting--Where to Begin" "Your First Week on the Job"	Office Machine Operator Secretary Stenographer Typist	Contact: Ohio Bell Telephone Company, (Have speaker discuss proper use of telephone and the importance of English in Business and Office Careers)	Contact: Ohio Bell Telephone Company	<u>Materials</u> Daily Newspaper Applications Overhead projector Screen Word Games Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives one, two and three will be based on: (a) the ability of 90-95% of the students to correctly complete one sample job application, (b) the ability of 85-90% of the students to write a composition using business vocabulary, write and answer at least one want ad, correctly address eight out of ten business envelopes, and correctly solve a word puzzle using vocabulary discussed in class with a minimum of five errors, and (c) 85-90% of the students will be able to orally cite eight out of ten office related jobs available in the Cleveland community.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

ENGLISH-BUSINESS AND OFFICE OCCUPATIONS

POST-TEST

1. Complete the job application provided by the Higbee company. (Show Sample Job Application).

2. Define the following terms:

   (a) Job family

   (b) Occupational cluster

   (c) Want-ad

   (d) Receptionist

   (e) Stenographer

   (f) Secretary

   (g) Clerk-Typist

   (h) Office Manager

   (i) Computer Programer

3. Write a short composition (300 words) using business vocabulary terms.

4. Write an example of a want-ad

OCCUPATIONAL CLUSTER: Communication
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To make the student aware of the numerous jobs available in communication.

(2) To help the pupil become familiar with the vocabulary related to these jobs.

(3) To help the student become aware of the skills necessary to qualify him for a career in communication.

(4) To strive to help student develop skills in reading, writing and speaking.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to define and describe the duties of the people working on jobs listed in the vocabulary list. The students will be able to write a news article based on a short story he has read. The students will be able to write editorials and edit materials written by other students. Students will be able to correctly fill out telegrams. Students will be able to list the proper procedures for writing a school newspaper.	Announcers Communication Editors Interviewers Job Family Occupational Cluster Telephone Personnel Television Personnel Translators Underwriters	Give oral survey on "What Is Communication?" Through role-playing, dramatize difficult occupations in the area of Communication (e.g. the telephone supervisor and operator). Students will write editorials--they will edit other student's writing. Students will write a school paper. Students will collect feature and special stories for the newspapers and summarize them. Students will have a mock television program.	The students will be more aware of jobs available in the communication field. The students will have a general knowledge of the requirements and operations involved in the occupations discussed in this unit. The students will have developed better skills in reading, writing and spelling.

INSTRUCTIONAL AND RESOURCE MATERIALS

COMMUNICATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
"Television Serves its Community" "Careers in Communication" "Communication and Our Town" "Radio" "The Newspaper" "Newspaper Serves its Community"	Announcer Artists Cartoonist Disc Jockey Editor(Managing) Printing Pressman Reporters Salesman Sports Editor	Contact: Speakers' Bureau of The Plain Dealer or Contact the Call and Post Channel 25 Cleveland, Ohio WBOE Radio WJMO am Radio	Contact: The Press The Plain Dealer The Call and Post Radio and Television Station--Contact all	Brochures Pamphlets SRA Kits Popeye Career-Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful teacher evaluation of objectives in this Unit will be based on the ability of 80-85% of the students to: (a) write one news article based on a short story they have read, (b) write one editorial, (c) correctly complete a blank telegram form and (d) list, on paper, the proper procedures for writing a school newspaper. All the above will be done within a period of one week.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

ENGLISH-COMMUNICATION

POST-TEST

1. List the qualifications and skills required for the following: Telephone personel interpreter, TV personnel reporter, advertisers, editors announcers, translators.

2. State the basic differences between a short story and a news article.

3. What is an editoral: Write an example of one school subject of your choice.

OCCUPATIONAL CLUSTER: Fine Arts & Humanities
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students develop effective skills in reading, writing and speaking.

(2) To make the pupils aware of the numerous verbal and non-verbal ways of imitating real life.

(3) To help students draw, from their imaginations, solutions to real conflicts.

(4) To make the students aware of the many jobs connected with acting.

(5) To broaden the student's experiences in the varied fields of acting.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe the duties of actor, actress, director, stage director, producer, etc. The students will be able to write a brief review of a TV play or movie. Students will be able to write, produce and dramatize a play or skit. The students will be able to list or state requirements involved in acting, producing plays or skits and reviewing movies of plays.	Actor Actress Business Manager Fine Arts Job Family Occupational Cluster Producer Stage Director Technical Writer	Distribute opinion poll about acting field. Pre-test on vocabulary terms. Discuss the elements of a play (plot, setting, characters, theme, irony, etc.). Various groups will perform and direct a play or skit. This performance will be taped. Invite actors and actresses from local playhouses to put on skits for the students.	The students will have a greater knowledge of the various fields of acting. The students will be more aware of the many jobs connected with acting. The students will have developed more effective skills in reading, writing and speaking. The students will be aware of the interrelations between the activities in the classroom and real occupations.

INSTRUCTIONAL AND RESOURCE MATERIALS — FINE ARTS AND HUMANITIES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "First World Festival of Negro Art" "Design for Growing"	Actor Actress Dancer Director Singer Singing Teacher	Contact: Mr. Ruben Silver, Director, Karamu House	Contact: The Karamu House Cleveland, Ohio	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives one and four will be based on the ability of at least 85-90% of the students to write, in detail, or orally list and describe the duties, requirements, etc. of at least 90% of the jobs listed in this Unit. Within a period of four days, at least 85-90% of the students will turn in a brief review of a TV play or a movie. Teacher rating of play or skit presented in class will be that 85-90% of the students participated in the actual writing, producing and dramatizing of the play or skit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

FINE ARTS AND HUMANITIES

ADDITIONAL LEARNING EXPERIENCES OF ACTIVITIES

SUBJECT AREA: English
Grades : 7, 8, 9

1. Encourage students to take part in a play that will appear in one of the community theaters.

2. Have students put on a school play.

3. Students will read and discuss reviews of plays and movies that appear in the newspapers.

4. Students will watch plays on television and write reviews of them

5. Given a situation the entire class will develop and write a short story in class.

6. Students will read and discuss selected short stories.

7. Students will write their own short stories, skits will be written from the three of four best short stories.

8. Students will participate in a short story contest.

9. Students will read articles or write a play illustrating some kind of conflict(e.g. between sister, brother, parent, classmate, or teacher).

OCCUPATIONAL CLUSTER: Marketing and Distribution
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To develop in the student an awareness of marketing and its effect(s) on him.

(2) To familiarize the student with terms relating to marketing and distribution.

(3) To help students develop proper speech habits.

(4) To teach the students basic skills in advertising.

(5) To help students to read and interpret advertisements.

(6) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe the relation between English (speech, writing, listening) and the world of marketing and distribution. The students will be able to list general requirements for Careers in area of Stocks&Bonds. The students will be able to read and interpret advertisements. After viewing several TV stations, the student will be able to analyze the types of commercials appearing on the stations.	Advertisement Bonds Common Stock Consumer Distribution Distributor Dow Jones Industrial Job Family Marketing Mutual Funds Occupational Cluster Seller Stock Broker Stocks	Oral discussion of students' knowledge of marketing Using newspapers, make charts illustrating trends in marketing--read and discuss newspaper ads, stocks, bonds, watch evening news. Write paragraphs discussing Dow Jones, mutual funds, common stocks, etc. Using library, study local, national and international trades. After field trips to various areas of the city to compare marketing prices, write a comparative analysis paper.	The student will be familiar with terms related to marketing and distribution. The student will be more aware of the need to develop correct speech habits. The student will be more knowledgeable about the requirements and operations involved in marketing and distribution occupations. The student will be more aware of marketing and its effects on himself and others around him.

INSTRUCTIONAL AND RESOURCE MATERIALS

MARKETING AND DISTRIBUTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Tapes: (1) Broker (2) Stocks (3) Buyer Filmstrips: "What Do You Like to Do?"	Account Manager Field Interviewer Statistical Analyst Tabulator	Contact: American Marketing Association Cleveland Advertising Club, Statler Hotel, 241-4807 Invite former students in marketing and advertising to talk with small groups in the school.	Contact: WVIZ Station Channel 25 (3500 Brookpark Rd. Cleveland, Ohio) Purpose: To see how television commercials are made.	Newspapers Magazines--"Bust News World" Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of at least 85% of the students to define, in writing or orally, at least 75% of the vocabulary terms used in this Unit. Teacher evaluation of students' ability to read and interpret advertisements will be that at least 75% of the students will obtain a newspaper or magazine advertisement and write an analysis of that advertisement as a homework assignment. 75-80% of the students will be able to orally cite duties and educational requirements for individuals interested in careers dealing with stocks and bonds.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand how social studies relates to jobs in the Business and Office occupations cluster.

(2) To help students gain a knowledge of occupations in the Business and Office Occupations cluster.

(3) To give students the requirements for jobs in the Business and Office Occupations

(4) To help students understand the Social Studies qualifications for jobs in the Business and Office Occupations cluster.

(5) To create self-awareness of student's interest.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list or discuss at least four ways in which Business and Office Occupations are related to Social Studies. To demonstrate a knowledge of various jobs in business and how to interpret ads and press releases, the students will write ads for various products and write press releases on important Social Studies topics. The students will be able to describe and identify the duties, educational requirements, etc., of jobs listed in this unit.	Accountant Advertiser Bookkeeper Cashier Electronic Computer Operator Personnel Staff Public Relations Staff Receptionist Secretary Stenographer Telephone Operator Typist	Students will list jobs from the Business and Office Cluster on the board Each student conduct library research as to duties, qualifications, etc, of the jobs listed. Students will view the film, "Careers in Business and Office Occupations". Students will (a) write an ad for a trip to Ethiopia,--make it appeal to Black Americans. (b) write an ad for a Jackson-five Album. (c) write a press release for the Mayor of Cleveland. Explain why taxes are necessary.	The students will have a more positive attitude toward self, others, and the world of work The students will be more aware of sources of Business and Office jobs in the greater Cleveland area. The students will be able to perceive the relation between specific vocational activities related to this unit and "real" occupations The students will be aware of duties, requirements, etc., for jobs discussed in this unit.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Business and Office Occupations"	Accountant Cashier Office Machine Operator Personnel Staff Secretary Stenographer Typist	Contact: The Cleveland Advertising Club 241-4807 (Acquaint students with job qualifications and specifically how Social Studies Skills--would relate to these jobs.	Contact: The Ohio Bell Telephone Company--The Public Relations Divisions	Pamphlets Brochures SRA Kits Popeye Career Comic Chronicle Occupational Library Occupational Outlook Handbook DOT

EVALUATION: Attainment of objectives (1), (2), and (3) will be based on the ability of 80-85% of the students to (a) write or orally discuss at least four ways in which Business and Office occupations are related to social studies. (b) write ads for two products of their choice and write one press release on an important social studies topic. (c) write or orally identify and describe 80% of the jobs listed in this unit. (d) Correctly answer at least 80% of the items on the post test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER- BUSINESS AND OFFICE
SOCIAL STUDIES

Additional Learning Experiences or Activities

Discuss how various business and office careers are related to Social Studies.

Invite a speaker from the Cleveland Advertising Club.

Plan a field trip to a local public relations firm.

Have students write ads for speciality products in specific countries or areas. Students will also write press releases for special interest groups.

Post Test

OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations in communication.

(2) To help students understand how social studies relates to jobs in communication

(3) To give students the requirements for jobs in communication

(4) To help students understand the social studies qualificatons for jobs in communication.

(5) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will demonstrate their knowledge of various communication jobs by writing and preparing a newspaper article about a famous person. The students will be able to enumerate a variety of generalized job characteristics on which he can base comparisons of desirable careers. The students will be able to lis at least three ways in which Social Studies relates to jobs in communication. The students will be able to list and describe duties, qualifications for jobs listed in this unit.	Announcer Broadcast Technician Cable Splicer Camera Man Disc Jockey Guard Mail Carrier Morse Operator Music Director Make-up Artist News reporter Photographer Postal Clerk Sales Representative Telephone Coin-Collector	Pre-test Discuss the areas of communication and the jobs it provides. Show the film, "Careers in Communication. Each student will choose a job in communication and research its job description and qualifications. Discuss qualifications for jobs in communication and stress those requiring social studies skills--reporter (TV, Radio, Newspaper) Invite a speaker from WKYC TV Station. Plan a field trip to the Plain Dealer Newspaper office. Post Test	The students will be more aware of how school subjects relates to various communication jobs available in the Cleveland community. The students will be knowledgeable about the duties, responsibilities, training, etc., required for jobs discussed in this unit. The students will have a more positive attitude toward school, self, others, and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: COMMUNICATION & MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers In Communication	Broadcast Technician Cartoonist Copy Writer Delivery Man Disc Jockey Make-up Artist News Writer Newspaper Reporter Salesman Station Manager TV News Director Traffic Manager	Contact: WKYC TV Station Public Relations Department 646-1100	Contact: The Plain Dealer 1801 Superior Avenue Promotion Department Cleveland, Ohio 523-4245	Pamphlets Brochures SRA Kits Popeye Career-Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of post test objectives will be based on the ability of 80-85% of the students to (a) write in detail or orally list and describe duties, requirements, etc., of at least 80% of the jobs listed in this unit. (b) write three ways in which social studies relates to jobs in communication. (c) write one newspaper article about a famous person. (d) obtain on the post test, a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: FINE ARTS AND HUMANITIES
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations in Fine Arts and Humanities.

(2) To help students understand how social studies relates to jobs in Fine Arts and Humanities.

(3) To give students the requirements for jobs in Fine Arts and Humanities

(4) To help students understand the social studies qualifications for jobs in Fine Arts and Humanities.

(5) To develop and foster a positive attitude toward the value of fine art.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify duties, requirements, training, etc., for jobs listed in this unit. The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to demonstrate awareness of the diversity of employment in the area of Fine Arts and Humanities and the need for cooperation among all personnel.	Actor Actress Commercial Artist Dancer Director Industrial Designers Interior Decorator Producer Pop Man Set Designer Singer Stage Manager	Pre-test List and discuss various jobs in the area of Fine Arts and Humanities. Each student will have to research qualifications, duties, etc., of the jobs listed. Show the film "Careers in Art". Invite speaker from the Karamu House. Plan a field trip to the Hanna Theater, downtown Cleveland. Post test	The students will have knowledge of the requirements and operations involved in jobs listed in this unit The students will have a more positive attitude toward self, others, and the world of work. The students will have a greater appreciation of the fine arts.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER : FINE ARTS AND HUMANITIES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers In Art	Actor Actress Commercial Artist Dancer Director Industrial Designer Interior Decorator Singer Singing Teacher	Contact: Karamu House	Contact: Hanna Theater	Pamphlets Brochures Sra Kits Popeye Career Comics DOT Chronicle Occupational Library Occupational Outlook Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write in detail or orally identify and describe the duties, requirements, etc., of 80% of the jobs listed in this unit. (b) write at least three considerations involved in choosing a career. (c) obtain on the post test, at 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MANUFACTURING
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations in manufacturing

(2) To help students understand how social studies relates to jobs in manufacturing.

(3) To give students the requirements for jobs in manufacturing.

(4) To help students understand the social studies qualifications for jobs in manufacturing

(5) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe at least three different ways in which school subjects can be applied in the world of work. The students will be able to discuss a range of considerations that enter into career choice. The students will be able to list, describe and discuss the duties, educational requirements salary, job outlook, etc., of jobs discussed in this unit.	Assemblers Designer Dispatcher Draftsman Electrician Inspector Lab Technician Machinist Mechanical Engineer Pipefitter Sewing Machine Operator Sheet Metal Worker Shipping Clerk Time Clerk Tool and Die Maker Unskilled Plant workers	Pre-test Students will list various manufacturing jobs on the board. Show and discuss the film, "Careers in The Machine Trades". Have students contact various Manufacturing firms and ask what qualifications are necessary for two different types of jobs available in that firm. Discuss qualifications for jobs in manufacturing and social studies skills that may apply. Invite speakers from associated industries of Cleveland-Management relations Post test	The students will have a more positive attitude toward self, others, and the world of work, The students will have a greater knowledge of manufacturing occupations in the Cleveland Community. The students will have a greater understanding of the interrelations between the production, management, and service area of business and industry.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in the Machine Trades	Designer Dispatcher Draftsman Dressmaker Electrician Lab Technician Machinist Order Clerk Pipefitter Sewing Machine Operator Sheet Metal Worker Shipping Clerk	Contact: The Associated Industries of Cleveland 1740 East 12th Str. Cleveland, Ohio (Labor Management Relations) 861-3100	Contact: The Warner and Swasey Company 5701 Carnegie Avenue Cleveland, Ohio 431-5580 Ext 304	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Chronicle Occupational Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write orally, identify, and describe the duties, requirements, benefits, etc., of 80% of the jobs listed in this unit. (b) write or orally describe three ways in which school subjects can be applied to the world of work. (c) Obtain on the post test, a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations in marketing and distribution

(2) To help students understand how social studies relates to jobs in marketing and distribution.

(3) To give students the requirements for jobs in marketing and distribution

(4) To help students understand the social studies qualifications for jobs in marketing and distribution.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to demonstrate familiarity with the careers available in the Marketing and Distribution cluster and with the application of social studies in these jobs. The students will be able to identify and describe the duties educational requirements of jobs listed in this unit. The students will be able to perform the duties of some of the jobs listed in this unit or list the procedures involved in performing some of these duties.	Auto Salesman Cashier Clerk Insurance Salesman Marketing Researcher Public Relations Personnel Real Estate Salesman Receiving Clerk Service Station Attendant Shipping Clerk	Pre-test List various jobs in marketing and distribution Show the film, "Careers in Skilled Services" or "Joys of Selling". Each student will contact a person working in the area of Marketing and Distribution They will inquire about the duties, qualifications, etc., in a particular job. The students will discuss and describe jobs requiring social studies skills.	The students will be aware of duties, requirements, job out look, etc., of jobs listed in this unit. The students will have a better understanding of how social studies relate to Marketing and Distribution jobs. The students will have a more positive attitude toward school self, others and the world of work.

OCCUPATIONAL CLUSTER· MARKETING AND DISTRIBUTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: Careers in Skilled Services The Joys of Selling	Accountant Field Interviewers Marketing Researcher Shipping Clerk Statistical Analyst Stock Clerk	Contact: The American Marketing Association Griswold-Eshleman Company 55 Public Square Cleveland, Ohio	Contact: Research Department The Standard Oil Company 4440 Warrensville Center Road Warrensville Hgts. Ohio 66306200	Pamphlets Brochures SRA Kits Popeye Career Comics Chronicle Occupational Library Occupational Outlook Handbook DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write or orally identify and describe the duties, educational requirements, etc., of at least 80% of the jobs listed in this unit, and (b) obtain on the post test a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER- MARKETING AND DISTRIBUTION
SOCIAL STUDIES

Additional Learning Experiences or Activities

Invite speaker from The American Marketing Association.

Plan a field trip to the research department of the Standard Oil Company.

Students will work in groups to solve the following marketing problems. (a) In what areas of the United States would a manufacturer of combs try to sell his product? (b) In what areas of the United States could a ski manufacturer sell his product?

Post Test

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
JOB FAMILY: SALESMANSHIP

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES :

(1) To relate to students the importance of salesmanship, personality qualities, and qualifications

(2) To make students aware of the different types of salemen. Example· furniture. appliance apparel, accessories, drug stores, dept. stores, grocery stores, etc.,

(3) To show how experience is an important factor for future advancement in the retail field

(4) To make students aware of how on-the-job training and supervision is related to job classification.

(5) To make students aware of personal characteristics sought by employers.
(6) To stress to students the importance of home economic background for merchandising
(7) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to name a variety of occupations in the area of marketing and distribution and give a simple characterization of each one (refer to vocabulary list) The student will be able to identify and describe the duties of at least 7 different types of salesmen.	Advertising Manager Buyer Department manager Job Family Marketing and Distribution Occupational Cluster Personnel Manager Salesman Store Manager	Invite a buyer from a department store to explain jobs and responsibilities of qualified members of her department. Introduce and discuss vocabulary terms. Stress opportunities for advancement as available through interest and dedication. On a field trip to a department store, visit the training school and behind -the-scene operations, such as inventory, credit department, etc. Post Test	The student will be more aware of personal characteristics sought by employers in any field of work. The students will be able to demonstrate a greater knowledge of the interrelations between different functional areas of marketing and sales.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTUION - SALESMANSHIP

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: Cabbages to Kings and various things. Careers in Sales, "The Joy of Selling"	Field Interview	Contact: Invite buyer from a department store to explain jobs and responsibilities of qualified members of her department American Marketing Association	Contact: May Company (visit the training school and behind the scene operations, such as inventory, credit department etc.	Brochures Pamphlets SRA Kits Popeye-Career Comics Occupational Outlook Handbook Chronicle Occupational library DOT

EVALUATION: Successful attainment of objective (1) will be based on the ability of 80-85% of the students to write or orally identify and describe the duties, requirements, etc., of 80% of the jobs listed in this unit. Attainment of objective (2) will be based on the ability of 80-85% of the students to write a brief description of at least seven different types of salesmen. Teacher rating of post-test will be that at least 80-85% of the students will correctly answer 80% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: PUBLIC SERVICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 7, 8, 9,
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations in Public Service

(2) To help students understand how social studies relates to jobs in Public Service.

(3) To give students the requirements for jobs in Public Service

(4) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to state or discuss at least four different ways in which Social Studies relates to public service jobs. The students will be able to list ten Public Service Careers available in their community and to cite factors that influence the selection of a career. The students will be able to describe and identify the duties educational requirements, etc., of jobs listed in this unit.	Coin Collector Customer Information Fireman Judge Law Librarian Lawyer Meter Reader Playground Attendant Playground Director Policeman Probation Officer Storekeeper Telephone Operator	Pre-test Students will write a list of jobs in Public Service on the board. Show and discuss the film, "Careers In Public Service" Students will research the qualifications, duties, etc., of the Public Service job of their choice. Students will discuss how these jobs are related to Social Studies. Invite a lawyer or policeman to speak to the class. Students will visit city hall. post test	The students will have a better understanding of how Public Service jobs relate to Social Studies. The students will have a more positive attitude toward self, others, and the world of work. The students will be aware of the duties and requirements of various Public Service Jobs.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: PUBLIC SERVICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers In Public Service	Cable Splicer Captain (Fire) Chemist Dog Warden Fireman Meter Reader Policeman Public Safety Aide Stock Clerk Telephone Operator Welding Engineer	Contact: Cleveland Police Department, Public Relations Office Ward Councilmen	Contact: City Hall City Council Meeting	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write at least three different ways in which social studies relates to public service jobs. (b) write in detail or orally identify and describe the duties, educational requirements, etc., of at least ten public service jobs available in the Cleveland Community. (c) obtain on the post test a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To enable students to identify several occupations related to the agri-business and natural resources cluster.

(2) To acquaint students with requirements for various occupations in this cluster

(3) To help students develop a greater understanding of the various aspects of this cluster, and its relationship to mathematics.

(4) To familiarize students with the mathematical qualifications for various occupations in the Agri-business cluster.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the requirements and duties for at least 10 different jobs in the Agri-business and Natural Resources cluster. The students will be able to name one way that each of the workers studied, use mathematics in their occupations.	Agri-Business Dairy Farmers Drill Operator Extension Service Worker Farmers Geologist Horticulturist Machinist Mechanic Miner Mining Engineer Technician	Pre-Test In informal discussion identify various jobs in the agri-business and Natural Resource cluster, categorize them according to specific fields (e.g. agriculture mining etc) Show and discuss film "Our Natural Resources" Students will discuss educational requirements for jobs discussed in thie unit Plan field trip to East Ohio Gas Company.	The students will have a better understanding of various jobs in this cluster and their relationship to mathematics. The students will have a more positive attitude toward math and how it helps people in their work.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Our Natural Resources Conserving Our Natural Resources	Biophysicist Chemist Cutting Machine Operator Draftsman Driller Engineers Horticulturist Petroleum geologist	Contact: Morton Salt Company, Euclid Bldg. 241-7282 Natural Science Museum Ohio Agriculture Research and Development Center	Contact: East Ohio Gas Company East 9th and Superior Avenue. Public Relations Dept 522-2929 Natural Science Museum	Pamphlets Brochures SRA Kits Popeye Career comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective (1) will be based on the ability of 80-85% of the students to write or orally discuss the duties, requirements, etc., of eight out of ten agri-business and natural resource jobs. Attainment of objective No. (2) will be based on the ability of 80-85% of the students to write at least one way in which the accupations listed in No. (1) use mathematics. Teacher rating of pre-test will be that 80-85% of the students correctly answer 75-80% of pre-test problemcs and 80-85% of post test problems.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

MATHEMATICS - AGRI-BUSINESS AND NATURAL RESOURCES

POST TEST

GRADE LEVEL: 7, 8, 9

Match the following agri-business and natural resources occupations with their applicable minimum educational requirements:

Occupations	Minimum Educational Requirement
1. botanist a	a. college degree and post graduate work
2. cattlemen d	b. college degree
3. agricultural engineer b	c. high school diploma
4. mining engineer b	d. less than high school diploma
5. farmer d,c	
6. florist d,c	
7. gardener/groundskeeper d,c	
8. horticulturist b	
9. microbiologist b	
10. miner d,c	
11. nurseryman c	
12. poultryman d	
13. crop and soil scientist b	
14. dairy technologist b	
15. food technologist b	

OCCUPATIONAL CLUSTER: BUSINESS & OFFICE OCCUPATION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To inform students about careers in Business Administration and related fields.

(2) To assist students in formulating a list of mathematics requirements for the various occupations in the Business Administration field.

(3) To orient the students in all the mathematical aspects necessary to qualify for immediate employment in the Business Administration field.

(4) To emphasize the importance and usefulness of mathematical skills in pursuing a job in Business and Administration field.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe a variety of ways in which school subjects can be applied in the working world. Through participating in class discussions and role-playing sessions, the students will sample the operations and skills required in a number of occupations in the Business and Office Occupations Cluster.	Cashier Clerk-Typist Computer Operator Receptionist Secretary (legal, medical, etc.) Typist	Have students name as many careers related to the Business Administration field as possible. Each student will select one of the careers they would like to pursue. Describe for the students, the functioning of these jobs as they relate to the various areas of Business Administration and related fields. Invite a technician or specialist from one of the job categories to emphasize the use of mathematics in the performance of his particular job. Have students create a mock administration office and staff and role-play the various job categories.	The students will be more aware of their strengths and weaknesses and their interests and abilities. The students will have a greater knowledge of the interrelations between different functional areas of business and industry. The students will have greater knowledge of the requirements and operations involved in various business and office jobs and how math relates to these jobs.

Post-test

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER : BUSINESS AND OFFICE OCCUPATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Careers in Business and Office Occupations" Filmstrips: "Introduction to Business Machines" "What Do You Like to Do" "Careers, Clerical"	Office Machine Operator Secretary Stenographer Typist	Contact: Business teacher from high school to speak to junior high school students about careers in the field.	Contact: Public Relations Office of local business college.	Brochures Pamphlets SRA Kits Popeye Careers Comics Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write in detail or orally discuss at least four wyas in which school subjects such as math, can be applied in the world of work. Teacher evaluation of post test will be that at least 80-85% of the students correctly answer 80% of the post test questions.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: COMMUNICATIONS & MEDIA
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL: 7, 8, 9
GENERAL OBJECTIVES:

(1) To familiarize students with those qualities which distinguish communications and media occupations.

(2) To help the students identify important job requirements for various Communications and Media careers (especially those related to math).

(3) To acquaint the students with several communications occupations.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list various jobs involved in writing a newspaper. The students will be able to list the requirements and operations involved in various jobs discussed in this unit. The students will be able to list or discuss ways in which mathematics is used in the various communications and media jobs listed in this unit.	Disc Jockey Mail Carrier Newswriter Postal Clerk Radio Disc Jockey Radio/TV Broadcast Technician Radio/TV Serviceman Reporter Service Representative Telephone Operator Teletypist Translator TV Announcer	In informal class discussions, identify broad categories of communications and media jobs (newspaper, telephone, TV, Radio, etc.) Organize class into small groups. Each group will choose a category and identify as many jobs as possible. They will also underline any jobs in which they consider math skills important discussions will follow. Students will use slides and films in discussing the requirements and duties of various in the area of communications.	The students will have a more positive attitude toward self, others, and the world of work. The students will be able to perceive the relation between specific vocational education activities and real occupations in the communications and media occupations. The students will be more aware of communications and media jobs in the city of Cleveland and how they relate to math.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: COMMUNICATIONS & MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in Communication The Newspaper Communications and our Town Filmstrips: Radio Television The Newspaper The Telephone	Newspaper Post Office Radio & TV	Contact: The Plain Dealer WVIZ TV Channel 25 WKYC Radio Station	Contact: The Plain Dealer 18th Superior Avenue Cleveland, Ohio WVIZ Channel 25 500 Brookpark Rd. Cleveland, Ohio 398-2800 Ext. 43 WBOE Radio Station Cleveland Board of Education 1325 East 6th Street Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics Occupation Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Attainment of objectives (1) and (2) will be based on the ability of 80-85% of the students to write in detail or orally identify and describe at least ten of the fourteen jobs listed in this unit. Successful attainment of objective (3) will be that 80-85% of the students will write at least three ways in which mathematics can be used in communication and media jobs. Teacher rating of pre-test will be that 80-85% of students correctly answer 75-80% of pre-test items. Teacher rating of post-test will be that 80-85% of the students to correctly answer 85-90% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER - COMMUNICATIONS & MEDIA
MATHEMATICS

Additional Learning Experiences or Activities

Class version of "What's My Line" is played--dividing class into two groups. Distribute lists of possible jobs that may be used in the game. Students from one team will interview in turn a student from the opposing class team who has assumed the role of a worker in one of the occupations listed on the students' handout. One point is assessed for each indirect question (e.g. "Does your job require a statistics background") Two points for each direct question (E.g. "Are you a radio disc jockey) with 20 points maximum for each occupation. The team with the least number of points assesed against it wins.

Produce a class newspaper.If possible, coordinate with English and perhaps social studies classes. Emphasize the technical aspects of setting up a paper layout, distributuion cast, etc.

MATHEMATICS- COMMUNICATIONS AND MEDIA

PRE-TEST

GRADE LEVEL:

I. Check the occupations below which you feel might relate directly to communications.

_____mail carrier
_____TV announcer
_____X-Ray technician
_____life guard
_____telephone operator
_____beautician
_____radio disc jockey
_____news writer

POST TEST

II.

1. Name two occupations normally found in any four of the following communication categories:

a. newspaper
b. television
c. radio
d. post office
e. telephone
f. telegram

2. From the list of twelve occupations you named above, choose any three and state the general math requirements for each.

3. Identify three ways in which math was used in writing our student newspaper.

4. Match the following communications occupations with their applicable minimum educational requirements:

Occupations	Minimum Educational Requirement
1. reporter a	a. college degree
2. postal clerk d or c	b. high school diploma and special training
3. disc jockey a or broadcasting school	c. high school diploma
4. mail carrier d or c	d. less than high school diploma
5. radio/TV broadcast technician b	
6. radio/TV serviceman b	
7. teletypist c	
8. translator/interpreter a or c	

OCCUPATIONAL CLUSTER: Construction
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES :

(1) To assist the students in determining the types of careers they may decide to pursue.

(2) To assist students in understanding and defining the various aspects of how mathematics pertains or relates to the many career choices the students will be selecting.

(3) To inform students of the basic minimum mathematical qualifications necessary for success in particular job families.

(4) To create bridges between school and earning a living.

(5) To introduce students to apprenticeship and journeyman programs.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to describe a variety of occupations involved in building an apartment building and will be aware of the future employment possibilities in this industry in the city of Cleveland. With the use of "hands-on" occupational kits, tours and class discussions, the students will be able to sample the operations and skills required in various construction occupations.	Bricklayer Carpenter Cement Mason Electrician Glazier Iron Worker Lather Millwright Plasterer Plumber Pointer Roofer Sheet Metal Worker	Students will prepare a list of the construction jobs they have observed in progress in the Cleveland area--list jobs necessary to complete this construction. Discuss the following as side issues: redevelopment, union membership, apprenticeship, craft unions involved in the construction business Show slides and filmstrips on construction. Visit construction supply company.	The students will be able to demonstrate awareness of the diversity of employment in the construction industry and the need for cooperation among all personnel. The students will be aware of ways in which math is used in the construction industry. The students will have a more positive attitude toward math and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: Construction

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Building Trades" Filmstrips: "What is a Job?" "Building a House"	Bricklayer Carpenter Draftsman Electrician Sheet Metal Worker	Contact: Bureau of Apprenticeship and Training Federal Building	Contact: Construction job site	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 80-85% of the students to write, in detail, or orally identify and describe at least 80% of the jobs listed in this Unit and tell how each of these jobs are related to a knowledge of mathematics.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: CONSUMER AND HOMEMAKING
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To enable students to identify several occupations related to the consumer and homemaking cluster.

(2) To acquaint students with requirements for various occupations in the cluster.

(3) To help students develop a greater understanding of the various aspects of the homemaking cluster.

(4) To familiarize students with the mathematics qualifications for various occupations in the homemaking cluster.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe numerous consumer and homemaking careers that are dependent on math to some degree. The students will be able to identify and describe the duties and educational requirements for consumer and homemaking related jobs discussed in this unit.	Baker Butcher Chef Clothing designer Cook Dietician Dressmaker Economist Household worker Interior Decorator Tailor	Pre Test Have students identify as many occupations as possible occupations on the pre-test. Show sound slides on jobs related to homemaking and consumer education. Students will solve math problems that are related to the homemaking and sonsumer cluster Individual students or groups of students will conduct their own homemaking and consumer related field projects. Post Test	The students will be more aware of how math is related to consumer and homemaking occupations The students will be more aware of consumer and homemaking related jobs available in their community. The student will have a more positive attitude toward self, others, and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: CONSUMER AND HOMEMAKING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Mass Production (How Clothing is Made)"	Home Economist Pattern Maker Tailor And Dressmaker	Contact: School Home Economics Teacher Metropolitan Cleveland Jobs Council-Nation Alliance of Businessmen 1375 Euclid Avenue 861-6100	Contact: Bobbie Brooks	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 80-85% of the students to write a detailed description or orally identify at least 10 consumer and homemaking careers and state how each career is related to math. Teacher evaluation of pre test and post-test will be that at least 75-80% of pre test items and 80-85% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MATHEMATICS - CONSUMER AND HOMEMAKING

PRE-TEST

GRADE LEVEL: 7, 8, 9

I. Check the occupations below which you feel might relate directly to the consumer and homemaking cluster:

_____disc jockey	_____bartender
__X__chef	__X__butcher
__X__tailor	__X__dietitian
_____airline pilot	__X__clothing designer

POST TEST

II. Match these homemaking related occupations with their minimum educational requirements:

1. dietitian a
2. baker c often b
3. cook d often c or b
4. butcher d often c
5. fashion designer b
6. tailor c
7. dressmaker d often c
8. economist a
9. executive housekeeper c or a
10. home economist a
11. household worker d
12. interior decorator a or b

a. college

b. high school and trade or additional schooling

c. high school diploma

d. less than high school diploma

CONSUMER AND HOMEMAKING
RELATED MATH PROBLEMS

GRADE LEVEL: 7, 8, 9

1. The following are ingredients for a recipe for "Burgundy Beefburgers". The recipe makes <u>six servings</u>.

   1 lb. 8 oz. ground beef
   ½ cup soft bread crumbs
   1 egg
   ¼ cup burgundy
   2 tablespoons sliced green onions
   1 teaspoon salt

   Rewrite the ingredients for this recipe to serve the following amounts of people, converting measures to larger or smaller units as approprate:

   a. 48 people
   b. 2 people
   c. 300 people

2. At right is the seasonally adjusted consumer price index for the period June 1, 1971 to May 31, 1972. For all problems, round off to the nearest percent.

   a. Find the average percent increase for the year.
   b. Using the average percent increase from part (a), find the average increase and new price for the following items:

Item	Price in June '71	Increase	Price in May '72
TV set	$ 120		
Stereo	300		
Automobile	3,500		

OCCUPATIONAL CLUSTER: ENVIRONMENTAL CONTROL
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To assist students in determining the types of careers they may decide to pursue.

(2) To inform students of the basic minimum mathematical qualificat ons necessary for success in particular job families.

(3) To avail the students with information describing the various requirements for the many career job titles.

(4) To assist students in understanding and defining the various aspects of how mathe-- matics pertains or relates to the many career choices the student will be selecting

(5) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list or state the requirements for individuals interested in pursuing the jobs listed in the vocabulary. The students will be able to describe the general duties of the occupations listed.	Air pollution index Anthropologist Biochemist Botanist Job family Occupational Cluster Physicist Urban geographer	Students will list the many kinds of pollution they are familiar with and name a scientist who may be instrumental in preventing the increase of the kinds of pollution listed. Discuss the several types of environments inherent in a large Urban area and discuss these environments that are beneficial and those that are detrimental to humanity. Invite TV Weatherman to discuss the air pollution index and how it works. Post Test	The students have a better understanding of how mathematics relates to careers in Environmental Science. The students will have improved knowledge of the interrelations between the different functional areas of industry and business.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: ENVIRONMENT CONTROL

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Science and Technology" Filmstrips: "Conservation"	Oceanographer Meteorologist Geophysicist Geologist	Contact: persons from Air Pollutions or Water Pollution Control Contact: TV Weatherman	Contact: Tour Cleveland, East Side and the Lake for the purpose of discussing detrimental effects of pollution on the environment	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 80-85% of the students to write or orally describe the duties, requirements, etc., for at least five environmental control jobs. Teacher rating of post test will be that at least 80-85% of the students will correctly answer 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MANUFACTURING
JOB FAMILY:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL 7, 8, 9
GENERAL OBJECTIVES

(1) To assist students in determining the types of careers they may decide to pursue.

(2) To avail the students with information describing the various requirements for the many career job titles.

(3) To assist students in understanding and defining the various aspects of how mathematics pertains or relates to the many career choices the students will be selecting.

(4) To inform students of the basic minimum mathematical qualifications necessary for success in particular job families.

(5) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to name one way that each of the workers studied, use mathematics in their occupations. The students will be able to identify and describe the duties and skills required in various jobs in the area of manufacturing. The students will be able to identify a variety of considerations involved in choosing a career.	Blue Collar Worker Die Maker Draftsmen Electrician Industrial Engineer Instrument Repairmen Mechanical Engineer Skilled Worker Unskilled Worker Welder White Collar Worker	Have students define the term industrial. Students will list major industries in the U.S. and the major industries in Cleveland, Ohio. Students will list and define ten different types of scientists. Discuss Cleveland as a Major industrial City. List and discuss some of the new industries that result from advance technological needs in our society. Post test	The students will be aware of the duties and requirements for jobs in the manufacturing cluster. The students will be able to discuss the relationship between mathematics and jobs in the manufacturing cluster. The students will have a more positive attitude toward self, others, and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in Industry Careers in Machine Trades	Die Maker Dispatcher Draftsmen Electrician Instrument Repairman Maintenance Mechanic Mechanical Engineer Millwright Pipe Filter	Contact: Warner and Swasey	Contact: Bobbie Brooks Pepsi Cola Richmand Brothers Dandee Potatoe Chip and Pretzel Company	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Chronicle Occupational Library DOT (Dictionary of Occupational-Titles)

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write or orally identify and describe at least 80% of the manufacturing jobs listed in this unit, and name one way in which each of the careers named utilize mathematics. (b) Correctly answer at least 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES :

(1) To familiarize students with those qualities which distinguish marketing and distribution occupations.

(2) To acquaint the students with several marketing related occupations.

(3) To help the students identify outstanding job requirements for several marketing occupations, especially those related to mathematics.

(4) To acquaint the students with several marketing occupations which require mathematical skills.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Each student will pick five or more occupations from the vocabulary list and explain how each uses math in their everyday work. The students will be able to list or state the various requirements and basic operations involved in the various jobs listed in the vocabulary list. The students will be able to perform the basic operations involved in the occupations listed.	Account Manager Cashier Field Interviewer Job Family Marketing & Distribution Occupational Cluster Public Relations-Personnel Researchers Retail Clerk Salesmen Statistical Analyst Survey Tabulator	The teacher will initiate an informal class discussion on various marketing and distribution careers. Students will form groups and write brief descriptions of requirements, training, etc., for various jobs in this cluster. Visual aids will be used to give a inside picture of one or several marketing operations. Students will be given matching columns containing occupations and job requirements and asked to correctly match them.	The students will be more aware of the fact that all jobs have a need for mathematics. The students will have knowledge of requirement and basic operation of a large variety of jobs in the marketing and distribution cluster.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Sales" "The Joy of Selling"	Account Field Interviewer Manager Marketing Research Presentation Researcher Statistical Analyst Tabulator	Contact: American Marketing Association or, The Willmon Company 14053 6th Street Cleveland, Ohio 241-6956	Contact: Sears Roebuck & Co. 795-2233 Ext. 346 8501 Carnegie Avenue Cleveland, Ohio (Observe actual Marketing practice in operation and gain a first hand knowledge of several marketing occupations)	Pamphlets Posters SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write in detail or orally identify and describe requirements, duties, etc., of at least 80% of the jobs listed in this unit, and explain how at least five of these careers are related to math. Teacher rating of pre-test will be that at least 85% of the students should correctly answer 75%-85% of pre-test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MATHEMATICS - MARKETING AND DISTRIBUTION

PRE-TEST

GRADE LEVEL: 7, 8, 9

I. Place a check beside those occupations you would consider to be related to marketing and distribution.

_____cashier	_____nurse
_____dancer	_____real estate salesman
_____chemist	_____stock clerk
_____service station attendant	_____drill operator

II. Next to each occupation, mark the letter of two math requirements that are considered to be necessary for that occupation.

1. cashier a,d
2. marketing researcher a,b,c,d
3. service station attendant a,d
4. insurance salesman b,d
5. real estate salesman c,d
6. receiving and shipping clerk a,d

a. knowledge of decimal operations, facility in handling money
b. statistics
c. perimeter and area
d. computing with integers

MATHEMATICS - MARKETING AND DISTRIBUTION

POST TEST

GRADE LEVEL: 7, 8, 9

1. Name at least six occupations related to marketing and distribution.

2. Choose any two of the occupations you listed above, and indicate what mathematical skills are required by the job.

3. Indicate for each area below, two occupations that ordinarily exist on any level of a department store operator.

4. Match the following marketing and distribution occupations with the applicable minimum educational requirements:

   a. college degree
   b. junior college or business college degree
   c. high school diploma
   d. less than high school diploma

   1. accountant b
   2. actuary a
   3. advertising account executive a
   4. advertising copywriter a or c
   5. bookkeeper c
   6. buyer c or a
   7. cashier c or d
   8. shipping & receiving clerk c or d
   9. stock clerk d
   10. industrial or labor relations worker a
   11. public relations worker a
   12. purchasing agent a or c
   13. real estate agent c or a
   14. auto salesman c
   15. manufacturer's salesman c
   16. radio, TV time salesman a
   17. house-to-house salesman d
   18. retail store salesman c

OCCUPATIONAL CLUSTER: MARINE SCIENCE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To assist students in determing the types of careers they may decide to pursue.

(2) To avail the students with information describing the various requirements for the many career job titles.

(3) To assist students in understanding and defining the various aspects of how mathematics pertains or relates to the many careers choices the students will be selecting

(4) To inform students of the basic minimum mathematical qualifications necessary for success in particular job families.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to portray the large number of Marine Science occupations that contribute to the life of a community and to demonstrate an awareness of the interdependance of these occupations. After reading Popeye Career Comics (Marine Science) the students will be able to cite the requirements and basic operations involved in a variety of Marine Science occupations.	Aquanaut Biologist Deck Hand Deep Sea Diver Ecologist Fish Wholesaler Fishing Boat Captain Food Processor Marine Geologist Oceanographers Scuba diver	Students will visit Cleveland Aquarium and discuss the mathematics involved in the care and feeding the aquatic life living there. Discuss the volume of water necessary for survival of aquatic life. Discuss the temperature ranges aquariums and terrariums must maintain to sustain aquatic life. Discuss mathematics involved in food preparation for aquatic life.	The students will be more aware of various Marine Science Careers they might want to pursue. The students will have more positive attitudes toward math and its importance in any area. The students will be knowledgeable about the minimum mathematical qualifications necessary for success in particular job families.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MARINE SCIENCE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Seaport" Filmstrips: "What Good Is School"	Marine Biologist Marine Geologist Marine Meteorologist Oceanographer	Contact: The Cleveland Aquarium	Contact: The Cleveland World Port and discuss the lake's usefulness to the City of Cleveland and amount of annual upkeep to maintain an operable seaport Cleveland Aquarium Board of Education Classroom Ship	Occupational Outlook Handbook Chronicle Occupational Library SRA Career Information DOT Popeye Career Comics

EVALUATION: Successful attainment of objectives No (1) and (2) will be based on the ability of 80-85% of the students to write in detail or orally identify and describe the duties, requirements, importance, etc., of at least 10 Marine Science Careers.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER· MARINE SCIENCE
MATHEMATICS

Additional Learning Experiences or Activities

Discuss reading statistical charts and graphs on water depths.

Visit Submarine base at 9th Street, downtown Cleveland and Observe the gauges and meters that are utilized in submarine operations and how much mathematics is involved in this operation.

Have students discuss the consistency of temperatures of the water at certain ocean depths and the effect of the water pressure at certain depths.

OCCUPATIONAL CLUSTER: Public Service Cluster
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To enable students to identify several occupations related to the public service cluster.

(2) To acquaint students with requirements for various occupations in public service.

(3) To help students develop a greater understanding of the various aspects of the public service cluster, and its relationship to mathematics.

(4) To familiarize students with the mathematical qualifications for various occupations in the public service.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list ways in which public service jobs are related to mathematics. The students will be able to name and characterize a wide range of Public Service Occupations.	Clerk-Typist Director of Recreation Firemen Lawyer Librarian Meter Reader Playground attendant Policemen Policewomen Probation Officer Sanitarian Sewage Plant Attendant Telephone Operator	Pre-test Informal class discussion to identify jobs in public service according to services such as police, fire, gas, water, etc. Show film "Careers in Public Service". Plan field trip to Cleveland Water Department. Teacher will provide public service related to math problems for students to complete Use visual aids to explain public service jobs in more detail. Post test	The students will have a greater ability to describe the relation between specific vocational activities performed in class and real occupations in the Public Service Cluster. The student will have a more positive attitude toward math and its relation to the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: PUBLIC SERVICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Public Service" "Science & Technology" "Erosion" "Earth--Changes in its Surface"	Geologist Meteorologist Police	Contact: City Hall Department of City Government	Contact: Cleveland Water Dept. Division of Water and Heat, Rm. 104, City Hall, 861-4600 (Ext. 443 or 444) Cleveland Metropolitan Park District Trailside Museum	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80-85% of the students to orally discuss or write a detailed description of duties, requirements, etc. of 80% of the jobs listed in this Unit and also write or state at least one way in which each of the jobs are related to math. Teacher rating of post test will be based on the ability of at least 80% of the students to score a ten percent accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: TRANSPORTATION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To enable students to identify several occupations related to transportation.

(2) To acquaint students with requirements for various occupations in transportation.

(3) To help students develop a greater understanding of the various aspects of the transportation cluster, and their relationship to mathematics.

(4) To familiarize students with the mathematics qualifications for various occupations in the transportation cluster.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to demonstrate familiarity with the careers available in the transportation industry and with the extensive application of mathematics in these jobs. The students will correctly solve at least 80% of the math problems related to transportation. The students will be able to identify and describe jobs in the four differetn areas of transportation.	Air Traffic Controller Airline Dispatcher Flight Engineer Line Maintenance Mechanic Maintenance Base Mechanic Pilot, Co-Pilot Reservation Clerk	Students will identify various jobs in transportation, and categorize according to air, land, rail, water. Show and discuss film "Careers in Transportation". Compile list of air transportation jobs and their requirements, emphasize mathematical requirements. Plan a field trip to Hopkins' Airport to observe workers performing their duties. Have students solve mathematical problems related to transportation. Post Test	The students will have a more positive attitude towards self, others and the world of work. The students will be aware of a variety of jobs in the transportation cluster and how these jobs relate to math.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: TRANSPORTATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Transportation" "Airplanes Work for Us" "Trucks in Our Neighborhood" "Careers in Mathematics"	Airport Railroad Ships Crane Operator Diesel Mechanic Equipment Electrician	Contact: Public Relations Department of Cleveland Hopkins Airport Cleveland Port Authority or White Motor Company	Contact: Cleveland Hopkins Airport Cleveland Port Authority, Public Relations Representative 241-8004 White Motor Company East 9th and St. Clair	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write detailed descriptions or orally discuss five jobs in each of the four different areas of transportation. Teacher rating of post test will be that at least 80% of the students correctly solve at least 75-80% of the post-test problems.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: Agri-Business and Natural Resources Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Life Sciences
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To show a relationship between school subjects and opportunities that exist throughout life.

(2) To expose students to a full range of occupational opportunities available in the Cleveland community and Cuyahoga County.

(3) To create self-awareness of students' abilities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to explain and describe the duties, educational requirements, fringe benefits, etc. for jobs listed in this Unit. The students will be able to identify and discuss a variety of considerations involved in choosing a career. The students will be able to enumerate a variety of generalized job characteristics on which he can base comparisons or desirable careers.	Agricultural Economist Agricultural Engineer Agronomist Biochemist Entomologist Geneticist Home Economist Horticulturist Human Nutritionist Inspector Microbiologist Pathologist School Teacher Soil Conservationist Soil Scientist Veterinarians	Pre-test -- Post test The students will make a list of various jobs in the agri-business and natural resource occupations which are related to science. Show visual aids that point up other related jobs and describe their significance. Add the list of new jobs from the filmstrip to those previously mentioned and list or state the educational and job requirements. Invite speaker from a local company to speak to the class about job opportunities in the area of Agri-Business and Natural Resources. Plan a field trip.	The students will have more positive attitudes toward the world of work. The students will be aware of Natural Resource jobs available in the Cleveland community. The students know the general duties, educational requirements and benefits offered in the career areas listed.

INSTRUCTIONAL AND RESOURCE MATERIALS — AGRI-BUSINESS AND NATURAL RESOURCES OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Health Careers" "Horizon Unlimited" "Earth--Resources in its Crust" "Insects in a Garden" "Garden Plants and How They Grow"	Biophysicist Corn Farmer Dairy Farmer Ecologist Geneticist Horticulturist Live Stock Farmer Plant Propagator Poultry Farmer	Contact: John Carroll University Biology Department City of Cleveland Greenhouse	Contact: Case Western Reserve University, Genetics Department and Biology Department Natural Science Museum Etomology Department Department of Environmental Control, City of Cleveland	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT People and Choices-Career Folios

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 80-85% of the students to: (a) write or orally explain and describe the duties, educational requirements, etc. of 80% of the jobs listed in this Unit, (b) write at least three considerations involved in one's career choice.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

LIFE SCIENCE - AGRI-BUSINESS AND NATURAL RESOURCES

PRE-TEST

GRADE LEVEL: 7, 8, 9

1. What is a natural resource and how is it related to agriculture?
2. Name some of the different jobs in conservation.
3. Why is there a need for conservation?
4. Have you ever practiced conservation on a farm?
5. Name five different types of conservation programs.
6. What is the job of a conservationist or agriculturalist?
7. What are the benefits of a conservation career?
8. Do you know someone who is a conversationist or agriculturalist?
9. Name three types of soil.
10. Where does acid soil come from and how is it made?

OCCUPATIONAL CLUSTER: Environmental Control
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students gain a better knowledge of the enviornmental control program and its related occupations.

(2) To show a relationship between school subjects and opportunities that exist throughout life.

(3) To broaden the occupational aspirations of youth in the high-poverty Model-cities area schools.

(4) To acquaint students with Cleveland community resources leading to jobs.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe a number of occupations that have changed or developed recently in response to the need to improve man's use of the environment. The students will be able to describe the duties and requirements of jobs listed in this Unit. The students will be able to list and explain all fringe benefits and job opportunities available for advancement in Environmental Control Occupations.	Conservation Environmental-Control Fire Warden Forest Aide Forest Technician Forest Technology Occupational Cluster Pruner Science Sprayer Tree Planter	Pre test --- Post test Students will list various jobs in environmental control--they will work in groups to determine the need for the specialities listed. Show filmstrip that depicts related jobs--discuss educational job requirements. Invite speaker to discuss environmental control careers. Plan a field trip down the Cuyahoga River and observe effects of environmental control	The students will be more knowledgable about the concept of environmental control and the occupations therein. The students will be more aware of environmental control jobs available in the city of Cleveland. The students will have a more positive attitude toward self, others and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

ENVIRONMENTAL CONTROL CLUSTER

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Scientist at Work" "Science and Technology" "Conservation" Filmstrip: "Man's Natural Environment: Crisis Through Abuse"	Geologist Geophysicist Meteorologist Oceanographer	Contact: State Agency-Environmental Control Agent	Contact: A boat cruise down the Cuhahoga River Contact: The Good-time Cruise Line 150 East 209, Cleveland, Ohio, 531-1505	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on: (a) the ability of 80-85% of the students to orally describe and identify 80% of the environmental control jobs listed in this Unit, and (b) the ability of at least 80% of the students to show, on the post test, a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Health Service Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To show a relationship between school subjects and opportunities that exist throughout life.

(2) To enable students to gain a better knowledge of the requirements and qualifications for Health Service Occupations.

(3) To create bridges between school and earning a living.

(4) To create self-awareness of students' abilities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Students will be able to explain the functions and duties of each Health Service Occupation listed in this Unit. Through tours, games and occupational kits, the students will sample the operations and skills required in a large number of health careers.	Audiologist Chiropractor Dental Hygienist Dietitian Lab Technician Medical Lab Assistant Medical Records Librarian Nurse Optometrist Pharmacist Physical Therapist Physician Podiatrist Sanitarians Speech Pathologist X-Ray Technician	Pre-test -- Post test Using lists of various jobs in the Health Service Cluster, the students will form small groups and discuss the need for the occupations listed. Show and discuss the importance of related jobs in the health service field. Discuss the educational requirements for the jobs discussed. Make bulletin board of various health careers.	The students will be aware of the minimum requirements, minimum salary, fringe benefits and job opportunities in the Health Careers listed in this Unit. The student will have some knowledge of Cleveland community resources leading to jobs.

INSTRUCTIONAL AND RESOURCE MATERIALS

HEALTH SERVICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "About the Human Body" "Good Health Practices" "Health and Families" "Dentistry Through the Ages"	Dentist Dietitian Doctor Librarian Medical Records Nurse Nutritionist Pharmacist Physical Therapist X-Ray Technician	Contact: Greater Cleveland Hospital Association City of Cleveland Health Service Department	Contact: Cleveland Clinic Cleveland Metropolitan General Hospital City of Cleveland Health Service Department Health Museum	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: After participating in activities in this Unit, at least 80% of the students will be able to write or orally identify and describe duties, requirements, descriptions, etc. of 80% of the health careers listed in this Unit. Successful attainment of post test objectives will be based on the ability of 80% of the students to obtain a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE - HEALTH SERVICE OCCUPATIONS

PRE-TEST

GRADE LEVEL: 7, 8, 9

1. Define the term Health.

2. Why is Health an important issue?

3. Name some of the different jobs in the Health Service Occupations.

4. Why is there a need for Health Service Occupations?

5. What Health Services have you used?

6. Do you know someone who has selected or chosen a Health Service Occupation as a career?

7. What basic skills are needed in the Health Service Occupation field?

8. What future services must Health Service Occupations provide?

9. How would you evaluate a Health Service Occupation?

10. What suggestion would you incorporate in the objectives or goals of the Health Service Program?

OCCUPATIONAL CLUSTER: Marine Science Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Natural Science
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES :

(1) To enable students to develop a greater ability to describe the relation between specific vocational activities and real occupations.

(2) To improve the students' knowledge of the requirements and operations involved in a variety of occupations.

(3) To create self awareness of students' aptitudes.

(4) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to explain and describe the functions, skills and minimum educational requirements needed for various marine science occupations. The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to list and describe various marine science jobs available in the city of Cleveland.	Biological Chemical Geological Marine Meteorologist Oceanographer Oceanographic Engineers Physical Science Teacher (Biology)	Pre test Post test Students will list various jobs in the oceanographic profession and will work in groups to determine the need for the specialities listed. Show visual aids that point up other related jobs and describe their significance. Invite a speaker from a local company to speak to the class about job opportunities in the field of oceanography. Plan field trip to oceanography laboratory or to a university which offers course in oceanography.	The students will be knowledgeable about the duties and requirements for jobs in the area of marine science. The students will have a more positive attitude toward others, self and the world of work. The students will be more aware of job opportunities available in the city of Cleveland.

INSTRUCTIONAL AND RESOURCE MATERIALS

MARINE SCIENCE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Oceanography" "Exploring the Ocean" "What's Under the Ocean"	Marine Biologist Marine Geologist Skin Diver	Contact: Case Western Reserve University Biology Department	Contact: Case Western Reserve University's Biology of Oceanographic Department	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Chronicle Occupational Library Occupational Outlook Handbook People and Choices-Career Folios

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of at least 80-85% of the students to write, in detail, or orally describe the duties, requirements, benefit, etc. of 80% of the Marine Science jobs listed in this Unit and write at least three considerations involved in choosing their future careers. Attainment of post test objectives will be based on the ability of 80% of the students to obtain a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Public Services
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To make students aware of the vastness of the field of science, and to help each student gain a better knowledge of Public Service Occupations through:

a. explaining the function and duties of each public service occupation listed.
b. describing the minimum educational requirements needed for the occupations.
c. describing the experiences needed for minimum and maximum pay.
d. listing and explaining all fringe benefits and job opportunities for advancement within the field.

(2) To acquaint students with Cleveland Community Resources leading to jobs.

(3) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to cite the functions, duties and minimum educational requirements for Public Service jobs discussed in this Unit. After touring various health facilities, participating in various group discussions and viewing slides and films, the students will be able to list or state the duties, educational requirements, and various fringe benefits for one working in the Public Service areas discussed.	Bacteriologist Doctor Biologist Botanist Dietitian Nurse Nurse's Aide Occupational Cluster Sanitation Engineer Chemist X-Ray Technician Zoologist	Pre test --- Post test List and discuss the need for various jobs in the Public Service cluster. Working in small groups, the students will determine the need for the occupations listed. Show visual aids that point up other related jobs in this cluster. Discuss educational and job requirements for the public service jobs. Invite a speaker to discuss opportunities in the field of Public Service.	The students will have a greater knowledge of the educational requirements and job opportunities available in the area of Public Services in Cleveland. The students will be more aware of employment trends and outlook in Public Service Careers.

INSTRUCTIONAL AND RESOURCE MATERIALS

PUBLIC SERVICES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "About the Human Body" "Simple Demonstration With Water'	Chemist Dietitian Doctor Dog Warden Geologist Medical Records Secretary Nurse Nutritionist X-Ray Technician	Contact: Public Health Service Department City of Cleveland	Contact: Chester Clinic St. Lukes Hospital	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80-85% of the students to write, in detail, or orally discuss the functions, duties, educational requirements, etc. of 80% of the Public Service jobs listed in this Unit. Teacher rating of post test will be based on the ability of 80% of the students to score a 10% accuracy increase over their initial scores on the pre-test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Business and Office
SPECIFIC JOB: Receptionist

SUGGESTED SUBJECT AREA: Typing
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand how typing is related to the job of a receptionist.

(2) To help the student to acquire knowledge of the nature of the work done by a receptionist.

(3) To introduce training, other qualifications and advancements to the students.

(4) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to sample the skills and operations involved in a job as a receptionist through field trips and actual practice in the classroom. The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to describe the duties and requirements for one interested in becoming a receptionist.	Receptionist	Students will list and discuss the personal characteristics, duties, etc. of a receptionist. Students will name the different places and types of offices where receptionists are found. Show film, "Careers in Business and Office Occupations." Plan a trip to an office so that students can actually see how a receptionist's job would differ from a secretary's job. Post test	The students will have a more positive attitude toward self, others and the world of work. The students will be aware of the importance of developing a wide variety of marketable skills.

INSTRUCTIONAL AND RESOURCE MATERIALS

BUSINESS AND OFFICE - Receptionist

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Business and Office Occupations"		Contact: Metropolitan Cleveland Jobs Council 1375 Euclid Avenue Addressograph Multigraph	Contact: Addressograph Multigraph, Babbitt Road Warner and Swasey Eaton Corporation 100 Erieview Plaza	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80-85% of the students to take turns serving as receptionist in a mock office set-up in the classroom, the same percentage of students will also be able to write three considerations involved in choosing a career as a receptionist. Attainment of post test objectives will be based on the ability of at least 80-85% of the students to correctly answer 80% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB: Secretary

SUGGESTED SUBJECT AREA: Typing
SUGGESTED GRADE LEVEL : 8,9
GENERAL OBJECTIVES : (1) To show students the various tasks involved in secretarial jobs other than typing and taking shorthand.

(2) To acquaint students with the various places of employment.

(3) To help students acquire knowledge as to the amount of training, the qualifications and the advancements that are related to the job.

(4) To create self-awareness of students' aptitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe the varied duties and requirements of one interested in becoming a secretary. Through role-playing and class discussions and "hands on experience", the students will sample the operations and skills required in the secretarial field.	Secretary	Invite a secretary to class, discuss his/her duties and other pertinent information that may be helpful to the students. Plan a trip to the Cleveland Trust Bank to show students how secretaries perform in the office and how their work may vary from day to day. Assuming that each student is a secretary, have each one demonstrate one of the roles of a secretary.	The students will be aware of the various places in Cleveland that employ qualified secretaries. The students will have a more positive attitude toward self, others and the world of work. The students will be aware of duties and requirements for one interested in becoming a secretary.

INSTRUCTIONAL AND RESOURCE MATERIALS

BUSINESS AND OFFICE - Secretary

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Your Career as a Secretary" "Careers--Clerical"	Office Machine Operator Secretary Typist	Contact: National City Bank Ohio Bell U.S. Federal Civil Service Job Information Center	Contact: Cleveland Trust Bank	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Chronicle Occupational Library Occupational Outlook Handbook

EVALUATION: Successful attainment of objective one will be based on the ability of at least 80-85% of the students to write, in detail, or orally describe the requirements, duties, training, etc. necessary for a career as a secretary. Teacher rating of students' "hand-on" secretarial experience will be that at least 80-85% of the students will role-play and perform some of the duties of a secretaty in varied classroom activities.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB: Typist

SUGGESTED SUBJECT AREA: Typing
SUGGESTED GRADE LEVEL : 8,9
GENERAL OBJECTIVES : (1) To help students to be able to distinguish between a junior typist, a senior typist and a clerk typist, and the duties of each.

(2) To make students aware of the basic requirements of a good typist.

(3) To help students to understand the difference between tele-typewriters, proportional spacing typewriters, electric typewriters, and manual typewriters.

(4) To create self-awareness of students' aptitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to type at least 30 words per minute with a minimum of five errors. The students will be able to distinguish between a tele-typewriter, a proportional spacing typewriter, an electric typewriter and a manual typewriter. The student will be able to describe the various duties and requirements for one interested in becoming a typist.	Clerk Typist Junior Typist Senior Typist	Pre test -- Post test Explain the duties of a junior typist, senior typist and a clerk typist. Discuss the requirements of a typist. Invite a speaker to answer any questions the students may have. The speaker will give a brief lecture on the duties of a typist. Have students make a chart listing the differences and similarities of the receptionist, secretary and the typist.	The students will have a more positive attitude toward self, others and the world of work. The students will be more aware of the importance of developing typing in school. The students will be aware of how typing skills can be helpful in other school subjects and in obtaining part-time and summer jobs.

INSTRUCTIONAL AND RESOURCE MATERIALS

BUSINESS AND OFFICE - Typist

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Careers--Clerical"	Typist	Contact: National City Bank US Federal Civil Service: Job Information Center Ohio Bell Standard Oil Company	Contact: Ohio Bell Federal Building	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives one, two and three will be based on: (a) the ability of at least 80% of the students to type at least 30 words per minute with a minimum of three errors, (b) the ability of at least 80% of the students to give a brief oral description of four kinds of typewriters listed in objectives number two, and (c) the ability of at least 80% of the students to write, in detail, or orally describe the duties, requirements, etc. for one interested in becoming a typist.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: COMMUNICATION & MEDIA
JOB FAMILY: NEWSPAPER REPORTER FOR FOODS

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL: 7,8,9,
GENERAL OBJECTIVES: (1) To expose students to the interests daily newspapers provide for us

(2) To make students aware of personal characteristics that would be important in the newspaper world--"Nose for News," curiosity, persistence, initiative, accurate memory, and and the physical stamina necessary for an active life.

(3) To help students be aware of the importance of a good background in nutrition and cooking skills.

(4) To acquaint students with special writing skills involved in writing newspaper articles

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list or state at least six personal characteristics that would be important in the newspaper world. The student will be able to list or discuss the various operations of value in reporting for the foods section of a newspaper.	Communication Job family News reporter Occupational cluster	Introduce students to different types of articles that appear in the food section of the newspaper. Have students evaluate newspaper food section in reference to reasons they feel the editor picked this particular subject. After viewing a demonstration on cooking foreign food, the student will write an article summarizing the presentation. Visit test kitchen of the Plain Dealer. Interview a reporter from the Plain Dealer. Post test	The students will be more aware of the various jobs available in the newspaper business. The students will be able to percieve the relation between specific vocational educational education activities and "real" occupations.

Home Economics 7, 8, 9

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films; Filmstrip, Communication, The Newspaper	Reporter Home Economist	Contact: Invite East Ohio Gas Representative to give a demonstration on cooking foreign food. Local Newspapers	Contact: Test kitchen of the Plain Dealer (watch reporter testing the recipes.	Occupational Outlook Handbook Chronicle Occupational Library SRA Kits DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write a list of at least five personal characteristics that would be important in newspaper careers. (b) write or orally discuss the duties, operations, and requirements for a reporter interested in working for the foods section of a newspaper. Teacher evaluation of post test will be that at least 80-85% of the students will correctly answer 80% of post test items

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Agri-Business and Natural Resources
SPECIFIC JOB: County Extension Worker

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students to become aware of the importance of a good background in home economics.

(2) To introduce students to the idea of extension workers helping people with their home problems: (The main objective is helping people to help themselves).

(3) To expose students to the personal characteristics that are important (good speaking ability, creativity, well-groomed, friendly).

(4) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe and identify the various duties performed by a County Extension Worker. The student will be able to identify a variety of considerations involved in choosing a career as a County Extension Worker.	Agri-Business County Extension Worker Home Economics Job Family Occupational Cluster	Pre-test Introduce students to the idea of Extension Workers helping themselves. Discuss ways in which Extension Workers inform people of latest research in home economics field. Student reports on subjects that would be of interest to Extension Workers (e.g. F.H.A., civics class, Mother's clubs, etc.). Post test (Same as Pre-test)	Students will be aware of the personal characteristics that are important in working with people. The students will be able to preceive the importance of a good background in home economics in relation to related careers. The students will have a greater ability to describe the relations between specific vocational activities and real occupations.

INSTRUCTIONAL AND RESOURCE MATERIALS

AGRI-BUSINESS AND NATURAL RESOURCES - County Extension Worker

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
		Contact: Cooperative Extension Services Cleveland, Ohio 631-1890	Contact: Cooperative Extension Services, Cleveland, Ohio, 631-1890	Occupational Outlook Handbook Chronicle Occupational Library SRA Kits DOT

EVALUATION: Successful attainment of objectives number one and two will be based on: (a) the ability of 80-85% of the students to write in detail or orally identify and describe the duties, personal and educational requirements, etc. of a County Extension Worker, and (b) the ability of all students to orally cite at least three considerations involved in choosing a career as a County Extension Worker.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: COMMUNICATIONS AND MEDIA
JOB FAMILY: RADIO AND TV BROADCASTING

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVE :

(1) To create an awareness of the important part radio and television play in our daily living.

(2) To expose students to the types of jobs available to women in a field that at one time was exclusively male.

(3) To make students aware of personal characteristics and educational requirements by employers.

(4) To help students understand how a good knowledge of the field of home economics would be helpful in specific areas of broadcasting.

(5) To create bridges between school and earning a living.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the requirements for individuals interested in careers in the Radio and TV broadcasting field. The student will be able to identify a variety of considerations involved in choosing a career in the communications and media cluster.	Broadcaster Casting director Costumes or set designer Job family Newswriter Occupational Cluster Producer (Radio and TV) Production assistant Supervisor (Of religious and childrens programs) Time Salesman	Introduce Students to the different areas of communication. Have students list different ways television is both entertaining and educational Aquaint girls to type of jobs in the broadcasting field they may be interested in. Invite costume designer to discuss past experiences in home economics and how it helped. List her particular job. Field trip-WVIZ TV Station Post Test	The students will have knowledge of the basic requirements and operation of occupations in the area of radio and TV broadcasting. The students will be more aware of the role radio and TV plays in providing information about goods and service.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: COMMUNICATIONS & MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Television is What You Make It" "Communication and Our Town" "Radio" "Television Serves its Community"	Announcer Broadcast-Technician Chief Engineer Consultant Director Disc Jockey Field Technician Make-up Artist Music Director News Director News Writer Program Director Public Relations Producer Station Manager Traffic Manager Video Technician	Contact: Costume Designer Radio and Television Stations	Contact: WVIZ TV Station	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 80-85% of the students to (a) write or orally identify, and describe the duties, requirements, benefits,etc., of all jobs listed in this unit, and write at least three considerations involved in choosing a career in communications and media jobs. Teacher evaluation of post test will be that at least 80-85% of the students will correctly answer at least 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: FINE ARTS AND HUMANITIES
JOB FAMILY: COSMETOLOGIST

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES :

(1) To help students gain a knowledge of the increasing importance of the occupations available in the field of cosmetology.

(2) To focus attention on the various qualifications required for occupations in the field.

(3) To help students understand how good personality characteristics are significant in this field.

(4) To show students how home economics is cosmetology.

(5) To help students understand various aspects of the fields of cosmetology.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list various jobs in the field of cosmetology. They will also be able to list the types of training required. The students will be able to orally state the difference between a cosmetologist and a beautician. The students will be able to define all vocabulary terms in this unit.	Beautician Beauty Operator Cosmetologist Fine Arts Hair Stylist Humanities Job Family Manicurist Occupational Cluster	Discuss vocabulary terms Difference between a cosmetologist and a beautician. Make a bulletin board showing various jobs in the field of cosmetology. Role-play a situation related to a phase of cosmetology. Students will plan, list, and discuss the operation involved in operating a beauty shop. Post test	The students will have gained more knowledge of the skills and personal qualities required for jobs in the cosmetology field. Students will be able to describe the relation between home economics and the field of cosmetology

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: FINE ARTS AND HUMANITIES

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: "World of Work" "Hair Dresser" "Beauty for a Career"	Beautician	Contact: Wilkins School of Cosmetology Erma Lee Beauty School	Contact: Jane Addams Vocational High School Cosmetology Department Barber College Erma Lee Beauty School Wilkins' School of Cosmetology	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational out look Handbook Chronical Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of participating students to write or orally discuss the job description, duties, etc., of the careers listed in this unit. Teacher rating of post test will be that 80-85% of the students will correctly answer 80% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MANUFACTURING
JOB FAMILY: APPAREL INDUSTRY

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL: 7, 8, 9,
GENERAL OBJECTIVES: (1) To make students aware of the fact that the garment industry employs more women than any other industry.

(2) To acquaint the student with the different jobs available in the garment industry - designer pattern maker, cutter, hand sewer, bushelmen or alterators, tailors, makers, sewing machine operators, thread trimmers and cleaners, pressers, inspectors and checkers

(3) To inform students of reasons for a good employment outlook in the garment industry.

(4) To help students understand the home economics qualifications needed in the garment industry

(5) To guide the students in choosing the proper courses needed in junior high school and senior high school to help them qualify for their desired job.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to cite some of the complexities of the apparel industry and identify various occupations involved in preparing a garment for the market. After role playing, specific persons in charge of making a garment, the students will identify the various tasks involved in making the garment.	Bushelman Checkers Cutter Designer Hand sewer Inspector Job Family Occupational Cluster Pattern maker Presser Sewing machine operator Tailor Thread trimmer	Pre-test Have students work in groups each playing the role of specific persons in charge of making a garment. Make a bulletin board of articles found in newspapers about fashion changes. Plan a comparative study of field trips made to determine exact job opportunities and qualifications. Examine the leading fashion magazines to pull. Post test	The students will be aquainted with the different jobs available in the garment industry, and the various level of skills required The student will be more aware of the relationship between school subjects and opportunities that exist throughout life.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MANUFACTURING-APPAREL INDUSTRY

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: Careers in Industry "Mass Production How Clothing is Made" "Clothes around the world" "Fiber to Fabric"	Designer Pattern Maker Inspector and Checker Tailors and dress makers Sewing Machine Operators Hand Sewers Thread Trimmers and Cleaners Bushelmen	Contact: Bamberger Rental Co. Bobbie Brooks	Contact: Richmond Brothers Bobbie Brooks Jane Addams Vocational High School Explore the training and courses of study relating to the clothing courses	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write or orally identify and describe at least 10 occupations involved in preparing a garment for market. Teacher rating of post test will be that at least 80% of the students will obtain a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTURCTIONAL AND RESOURCE MATERIALS:

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES :

OCCUPATIONAL CLUSTER: Marketing and Distribution
JOB FAMILY: Marketing Research

(1) To create an interest and awareness of rapidly increasing field of marketing research its importance in the '70's.

(2) To give the students the requirements for various occupations in marketing

(3) To help students relate their knowledge of home economics to marketing.

(4) To help students understand the home economics qualifications of various jobs in the marketing area.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to enumerate a variety of generalized job characteristics on which he can have comparison of desirable careers The students will sample skills and operations involved various careers in marketing research by actually conducting interviews conducting surveys, conducting research and recording or tabulating the results of the above.	Advertising Availability Competition Consumer Interviewer Job Family Marketing Occupational Cluster Producer Product Research Presentation Statistical Analyst Tabulators Writer	Class discussions Make bulletin board showing products that could be researched and why. Using library sources and couselors, list places in the area of Marketing research that may be secured. Discuss the importance that research has on the producer and the consumer. Students will survey classmates on two food products. Post Test	The students will be able to relate knowledge of home economics to marketing The students will be cognizant of the operations and skills required in various marketing careers.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION- RESEARCH

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: "Careers in Sales"	Marketing Researchers Statistical Analyst Tabulator Field Interviewer Account Manager	Contact: Sears Roebuck & Co. May Company Higbee Company Pick-n-pay	Contact: Stouffer's (observe advertising and research department) Department Stores	Pamphlets Brochures SRA Kits Popeye Career comics Occupational outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to orally identify and describe at least 80% of the jobs listed in this unit. Teacher rating of post-test will be that at least 80% of the students correctly answer 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MARKETING & DISTRIBUTION
JOB FAMILY: COMPARISON SHOPPER

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL: 7, 8, 9
GENERAL OBJECTIVES: (1) To make students aware that the role of the comparison shopper is to report on the merchandise and business stores in competition with the store employing her.

(2) To stress the importance of good home economics knowledge in household equipment, clothing, fabrics, etc.

(3) To expose students to necessary qualifications - good actress to give a good imitation of a woman shopping for herself rather than looking like a paid-comparison shopper.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Through role playing and actual comparison shopping, the students will sample the skills and operate required in the area of comparison shopping. The students will be able to list the difference between a merchandise shopper, price shopper and a response shopper.	Comparison shopper Home economics Job family Merchandise shopping Occupational cluster Price shopping Response shopper	Students will discuss reasons why characteristic such or good memory, natural curosity, out-going personality, etc., are good for this type of work. Students will role play the parts of a comparison shopper and a sale clerk Invite a comparison shopper to relate her experience to the students. Students will pick five items and compare price shopping in different stores	The students will be aware of the role and qualifications required for that of a comparison shopper. The students will be more aware of the role of home economics in the production, management, and service areas of business and industry.

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION - COMPARISON SHOPPER

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: Filmstrips:		Contact: The Public Relations Department of a local department store	Contact: The Public Relations Department of a local department store	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook handbook Chronicle Occupational Library DOT

EVALUATION: Attainment of objectives in this unit will be based on the ability of 80% of the students to write or orally identify and describe the duties, requirements, etc., of a comparison shopper and write the difference between a price shopper and a response shopper. Teacher rating of post test will be that at least 80-85% of the students will correctly answer 80% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Personal Service
SPECIFIC JOB: Private Household Workers

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To guide students to types of jobs available as household workers. (General maid, nursemaid, personal maid, infant's nurse, housekeeper, working companion, governess, cook, laundress, companion).

(2) To expose students to the needs of certain people.

(3) To stress the importance of good personal qualifications such as being neat, clean, trustworthy, healthy, etc.

(4) To demonstrate increased needs of people in our modern society to employ household workers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the requirements and general operations involved in the various jobs listed in the area of household workers. The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to list and characterize a wide range of careers related to Personal Services.	Companion Cook General Maid Governess Housekeeper Job Family Laundress Nursemaid Occupational Cluster Personal Maid Personal Service Private Household Worker	Students will write and orally discuss reports on various types of household occupations. List on board examples of how home economics background is helpful in various household occupations.	The students have more insight into the importance of personality and attitudes in seeking jobs in any area. The students will be aware of the satisfaction gained from providing personal service for others. The students will be able to evaluate an occupation in terms of its actual contributions to society rather than its prestige stereotypes.

INSTRUCTIONAL AND RESOURCE MATERIALS PERSONAL SERVICE - Private Household Workers

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Personal Services" "Beauty for a Career"	Barber Beautician Governess Odd Job Man Valet	Contact: Representative from employment agency	Contact: Cleveland Sheraton Hotel	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 80-85% of the students to write, in detail, or orally discuss the requirements and general operations involved in at least 80% of the Personal Service jobs listed in this Unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: TRANSPORTATION (AIR)
JOB FAMILY: STEWARDESS

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES :

(1) To make students aware of the increasing need for stewardesses and the availability of jobs due to great turnover (40%) Yearly.

(2) To stress the qualities airlines demand such as attractiveness, personality, and intelligence.

(3) To inform students of the duties of airline stewardesses.

(4) To inform students of the necessary educational background and training.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list requirements and duties of one interested in becoming an airline stewardess. The students will be able to list and actually perform some of the duties performed by airline stewardesses.	Job Family Occupational Cluster Steward Stewardess	Students will list on the board the advantages and disadvantages of being an airline stewardess. Show 3M slides on Airport. Discuss ways home economic background will be beneficial to an airline stewardess (manners, good grooming, cooking knowledge. Invite a stewardess to class for the purpose of relating her traing and Job experience. Students will have prepared questions. Post Test	The students will have knowledge of the requirements and basic operations involved in performing the duties of an airline stewardess. The student will be aware of the employment trends.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: TRANSPORTATION (AIR) --Stewardess

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: Filmstrips:	Hopkins Airport	Contact: American Airlines United Airlines Eastern Airlines An Airline Stewardess	Contact: Cleveland Hopkins Airport (to see total operations of work environment)	Brochures Pamphlets SRA Kits Popeye Career comics Occupational Outlook Handbook Chronicle occupational Library DOT

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 80-85% of participating students to write in detail or orally discuss the duties, requirements, benefits, etc., of an airline stewardess, and to perform at least two job activities carried out by a stewardess. Teacher rating of post-test will be that 80-85% of the students will correctly answer 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB: Electronic Computer Operator and Service Repairman.

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students gain knowledge of occupations involved in the Business and Office Occupations Cluster.

(2) To acquaint the students with requirements for jobs as electronic computer operators, repairmen and servicemen for the computers.

(3) To help students develop an understanding of the jobs and how industrial arts relates to the jobs.

(4) To help students understand how industrial arts can help in qualifying them for these jobs.

(5) To create self-awareness of students' interests.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list ways in which a knowledge of techniques learned in an industrial arts class can help one in a job as an electronic computer operator and service repairman. The students will be able to identify the duties and educational requirements for a job as an electronic computer operator and service repairman.	Electronic Computer Operator Service Repairman	Have students research and find out what an electronic computer operator is and what he does. Students will discuss the duties and educational requirements for an electronic computer operator and service repairman. Use visual aids to relate these two jobs to industrial arts. (Electronic Computer Operator and Service Repairman) Post test	The students will be aware of the requirements and skills needed for the two jobs listed in this Unit. The students will be more aware of the relationship between school subjects and opportunities that exist throughout life. The students will have a more positive attitude toward self, others and the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS - BUSINESS AND OFFICE OCCUPATIONS - Electronic Computer Operator & Service Repairman

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Business and Office Occupations" "So You Want to be an Electronics Technician"		Contact: Electronic Computer Operator, Eaton Corporation Repair and Serviceman, Eaton Corp. IBM AT & T (American Telephone and Telegraph)	Contact: Eaton Corporation Cuyahoga Community College--IBM Department IBM Greyhound Computer Center	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives one and two will be based on: (a) the ability of 80% of the students to write or orally discuss at least three ways in which a knowledge of techniques learned in an industrial arts class can be helpful in jobs listed in this Unit, and (b) the ability of 80% of the students to accurately write or orally describe and identify the duties, requirements, etc. of jobs listed in this Unit. Teacher rating of post test will be based on the ability of 75-80% of the students to correctly answer at least 80-85% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

INDUSTRIAL ARTS - BUSINESS AND OFFICE OCCUPATIONS

POST TEST

1. What are the duties of an electronics computer operator?
2. What qualifications does an operator need for the job?
3. Name three companies in Cleveland, Ohio where electronic computers are used.
4. Do you feel you could qualify for this job providing training was available to you?
5. Is an electronic computer operator's job important? Give reasons for your answer whether it is yes or no.
6. What is the salary of computer operators?
7. What qualifications do the electronic computer repairman and serviceman need?
8. Can one man handle the two jobs listed in # 7?
9. Does our work in the shop relate in any way to these jobs?
10. How would our work in the shop qualify you for these jobs?

OCCUPATIONAL CLUSTER: Communication and Media Occupations
SPECIFIC JOB: Newspaper Photographer

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand what a photographer does.

(2) To acquaint students with requirements for the job.

(3) To acquaint students with a camera and show them the process which evolves from the time the picture is taken until the time it shows up in a newspaper.

(4) To show students that photographers are used in many industries not only on a newspaper. Show how fundamentals can carry from one job to another.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to take pictures with a simple camera and develop them in a dark room. The students will be able to list or describe ways in which a photography job relates to production of a newspaper. The students will be able to list various jobs in the city of Cleveland that use photographers.	Camera Dark Room Distributor Newsman (Reporter) Newspaper Editor Photoengraver Photographer Printing Pressman	Students will take pictures related to a prescribed theme (cameras will be provided). Set up dark room and go through developing process with students. Have students make a list of different industries who use photographers. Show movie on careers in communication. Invite a newspaper photographer to talk to class. Plan a field trip to a newspaper and follow the steps of a photographer and see how his job relates to the entire production of the paper.	The students will have pleasure and satisfaction from taking and developing their own pictures. Students will be familiar with a camera and how it works. The students will be aware of the operations and skills required in a newspaper photographer's job.

(POST TEST)

INSTRUCTIONAL AND RESOURCE MATERIALS COMMUNICATION AND MEDIA OCCUPATIONS - Newspaper Photographer

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Careers in Communication" Filmstrips: "Newspaper"	Newspaper Reporter	Contact: Newspaper Photographer, contact: Plain Dealer Call and Post The Press	Contact: Local Newspaper Companies	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Attainment of objectives in this Unit will be based on the ability of 80-85% of the students to: (a) write detailed descriptions or orally identify all jobs listed in this Unit, (b) follow proper procedures and accurately develop one print in the dark room, and (c) orally discuss at least three ways in which jobs listed in this Unit relate to the total production of a newspaper. Attainment of post test objectives will be based on the ability of at least 80-85% of the students to correctly answer 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

INDUSTRIAL ARTS - COMMUNICATIONS AND MEDIA

NEWSPAPER PHOTOGRAPHER - PRINTING PRESSMAN

POST TEST

1. List the duties of a newspaper photographer.
2. Name the chemicals needed in developing pictures.
3. Explain the importance of a dark room in the picture developing process.
4. Name five different industries that employ photographers.
5. Write a short resume of what you saw on our field trip to one of our local newspaper establishments.
6. Are all cameras alike? What are some of the differences in fine in cameras?
7. What is a printing pressman? What qualifications are necessary for this job?
8. How important is the printing pressman's job in relation to the overall production of a newspaper?
9. How does your experience in the print shop help you toward obtaining a job as a printing pressman?
10. Name at least two places where one can go to observe a printing pressman in action.
11. List the educational requirements for a printing pressman and a newspaper photographer.

OCCUPATIONAL CLUSTER: Communication and Media
SPECIFIC JOB: Post Office Worker and Auto Mechanic

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To create self awareness of students' interests.

(2) To help students realize that an auto mechanic is needed in many occupations not just in the post office.

(3) To acquaint students with basic components of an engine.

(4) To help students realize what qualifications are necessary for post office workers and auto mechanics.

(5) To introduce students to basic small engine in the shop, study basic parts and discuss parts where repair is frequently needed.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
With the aid of plastic models, tours and discussions, the students will be able to sample the operations and skills required in the area of auto mechanics. The students will be able to identify and describe the requirements of individuals working in a post office (mail carrier, postal clerk, etc.). The students will be able to identify the various tasks involved in safely delivering mail to their homes.	Auto Mechanic Guard Mail Carrier Mail Handler Postal Clerk	Students will list various industries where auto mechanics can find employment. Invite an auto mechanic to talk to class about his duties. Visit post office garage and observe an auto mechanic at work. Buy V-8 Engine project and have class construct an engine. Emphasize step by step process. (Renwal, Nimeola, N.Y.-visual V-8 engine, Plastic model) Make bulletin board dealing with motors. Post test	The student will have some knowledge of the basic components and functioning of an engine. The students will be aware of the requirements and duties of various post office jobs. Students will be more aware of their own interest and abilities. The students will have a more positive attitude toward others and the world of work.

RESOURCE MATERIALS

COMMUNICATION AND MEDIA - Post Office Worker and Auto Mechanic

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "ABC of Internal Combustion" "ABC of Automobile Engines"		Contact: Director of Cleveland Post Office	Contact: Main Post Office Downtown Cleveland	Pamphlets Brochures SRA Kits Popeye Career Comics Plastic model or V-8 Engine Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: After completing this Unit, 80-85% of the students will be able to: (a) dismantle a small auto engine, identify and orally state the functions of 80% of the parts of the engine. With the instructor's help, the students will reassemble the engine, (b) orally discuss the duties, requirements, etc. of jobs listed in this Unit, and (c) correctly answer 75-80% of post test items (post test will be prepared by the instructor)

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Communication and Media
SPECIFIC JOB: Telephone Occupation

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To make students aware of occupations open to them in the telephone industry.

(2) To inform students of the necessary requirements for these jobs.

(3) To show the students how work in the shop can carry over into a job with the telephone company.

(4) To make students aware of the things installers, repairmen, and cable splicers do.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe the duties of people working in telephone occupations. The students will be able to discuss a range of considerations that enter into career choice.	Apparatus Man Cable Splicer Coin Collector Installer Lineman Repairman Supply Man	Have students write a paper on an installer, repairman or cable splicer explaining <u>what</u> each job consists of. Bring in a telephone, remove the face and show the class <u>how</u> the various parts function. Invite an installer, repairman and a cable splicer in to talk to class. Show movie on communications. Make a bulletin board showing various careers in communication. Plan a field trip to the telephone company.	The students will be aware of telephone occupations available in the city of Cleveland. The students will have a greater ability to describe the relation between specific vocational activities and real occupations.

INSTRUCTIONAL AND RESOURCE MATERIALS COMMUNICATION AND MEDIA - Telephone Occupations

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Communication" "Communicating Ideas"	Artist Copywriter Printing Pressman	Contact: Installer and repairman (contact Ohio Bell Telephone Company) Cable Splicer (Contact Ohio Bell Telephone Company)	Contact: Ohio Bell Telephone Company Western Electric	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective number one will be based on the ability of 80% of the students to write or orally identify and describe duties, requirements, etc. of at least seven occupations associated with the rendering of telephone services to the public. Attainment of number two will be based on the ability of 80% of the students to write or orally cite at least three considerations that enter into any career choice.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Construction
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To examine each job career extensively enough to give the students an idea of what each job entails.

(2) To examine the qualifications needed for each job.

(3) To examine the salary and benefits required for each job.

(4) In construction these career jobs are very closely related; we want to inform students how they progress and show them what occurs when a breakdown occurs in a phase of construction.

(5) To help students understand how industrial arts aids the students in qualifying for some of these jobs.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe at least ten different construction occupations and give examples of the need for teamwork on the job. The student will be able to describe a variety of ways in which industrial arts can be applied in the working world The students will be able to discuss or give examples of how industrial arts aids in qualifying for some of the construction jobs.	Abestos and Insulating Workers Bricklayers Carpenters Cement Mason Glazier Ironworker Laborer Lather Operating Engineer Painter Plaster Plumber Roofer Sheet Metal Worker Teamster	Have class list some of the things a bricklayer does--the class will also discuss qualifications, salaries and benefits. Students will list tools needed by a bricklayer and tell what each one is used for. Invite bricklayer to speak to class. Visit a construction site--have students observe and list various construction jobs. Give demonstration on how bricks are laid. Allow students to lay a few bricks, experiencing the problems that may arise.	The students will be aware of a variety of construction jobs available in the city of Cleveland. The students will be aware of the various construction skills he can learn in the classroom. The student will be aware of operations and skills involved in some of the jobs discussed.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: CONSTRUCTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Building Trades" "Building a House" "Building Trades--The House Builders" "American Harvest"	Bricklayer Carpenters Electricians Painter Plasterer Plumber Teamster	Contact: Recruitment and Training Program 10609 Euclid Avenue 795-3900 Bureau of Apprenticeship and Training 1240 East 9th St. 552-3823 Youth Opportunity Center, Apprenticeship Information 579-7800	Contact: Visit several construction sites (residential and commercial)	Occupational Outlook Handbook Chronicle Occupational Library DOT SRA Career Informational

EVALUATION: Successful attainment of objectives one, two and three will be based on the ability of 80-85% of the students to write, in detail, or orally identify and describe at least ten Construction jobs and state how a knowledge acquired in industrial arts classes can benefit individuals interested in the jobs listed.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

INDUSTRIAL ARTS - CONSTRUCTION

POST TEST

1. What is a bricklayer?
2. List some of the materials that bricklayers use on their job.
3. Is it possible for you to become a bricklayer?
4. What qualifications do you need to become a bricklayer?
5. If a bricklayer falls behind on his schedule, what happens to the construction job?
6. List several careers that are directly related to that of a bricklayer.
7. Name two jobs that must be performed before the bricklayer can start work.
8. What impressed you most about our guest speaker?
9. What impressed you most about our field trip to the construction site?
10. Problem: We are constructing a school. List in order of performance the seventeen careers involved in the construction of the school building.

OCCUPATIONAL CLUSTER: Manufacturing
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,
GENERAL OBJECTIVES : (1) To cover four industries on a superficial basis helping students understand the various jobs available.

(2) To acquaint the students with the importance of each job and how each one hinges on the other.

(3) To help students develop a greater understanding of the various aspects of the Aluminum industry and the Iron and Steel industry and how industrial arts relate to them.

(4) To aid the student in understanding the qualifications needed to obtain positions in the manufacturing cluster.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe a variety of occupations involved in the mass production of a basic commodity. After completing research assignments and observing workers on the job in Manufacturing jobs the students will be able to discuss, identify or summarize the basic requirements and operations involved in the occupations discussed in this Unit.	Anode Men Casting Operator Chemist Design Engineer Die Maker Draftsmen Instrument Repairman Order Checkers Plumber and Pipefitter Rough Neck, Scout Shipping Clerk Silk Screen Printer Technician	Student groups will research each job listed in objective number 5 (Refer to Popeye Career Comics-Manufacturing) Students will discuss how jobs relate to each other. Use visual aids to point out what each job entails. Invite guest from Aluminum industry to discuss jobs, job opportunitues and how these jobs can be obtained. Post test on materials covered in this Unit.	The student will be aware of the future employment possibilities in the jobs discussed in this Unit. The students will have a greater knowledge of the requirements and manufacturing opportunities available in the city of Cleveland. The students will be aware of the relationship between industrial arts and opportunities exsisting in the area of manufacturing.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Aluminum of Many Faces" "Drilling for Oil" "Fahrenheit 3300" "How Electricity is Produced" "Steelmaking Today"	Chemist Draftsman Electrical Engineer Machinist Mathematician Tool and Die Maker	Contact: Aluminum Company Supervisor (Alcoa) J&L Steel Ryerson Steel Addressograph Multigraph Republic Steel Warner & Swasey	Contact: Visit Alcoa Aluminum Company in Cleveland Addressograph Multigraph, Babbitt Road Warner & Swasey	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library Dictionary of Occupational Titles

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80-85% of the students to accurately write, in detail, or orally discuss at least 80% of the jobs listed in this Unit. Teacher rating of test at the end of this Unit will be based on the ability of 80-85% of students to correctly answer at least 80% of test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

INDUSTRIAL ARTS - MANUFACTURING

POST TEST

GRADE LEVEL: 7, 8, 9

1. Name seven jobs which are connected with the aluminum industry.

2. Which job do you think you could qualify for?

3. Do you see any relationship between the jobs at the aluminum company and our work in the shop?

4. What impressed you most on our field trip?

5. What basic qualifications are needed to qualify for most of these jobs?

6. Twenty-one jobs were covered in the aluminum industry, which one do you feel is the most important?

7. Does a relationship exist between the jobs?

8. How important is schooling in obtaining a position in the aluminum industry?

OCCUPATIONAL CLUSTER: Marketing & Distribution
SPECIFIC JOB: (1) Auto Salesman
(2) Auto Parts Salesman

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To introduce the students to what each job requires.

(2) To show the students how a class in small motors can be valuable in obtaining these two jobs.

(3) To introduce the students to the qualifications needed for these jobs.

(4) To show students that a course in auto mechanics can lead in more than one direction.

(5) To arrange with an automobile agency to have groups of students spend a few hours with salesmen to observe actual job setting.

(6) To broaden the occupational aspirations of youth in the high-poverty Model cities area schools.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Through role-play, and actual observations, the students will be able to sample the operations and skills required for jobs as an automobile salesman and an auto parts salesman. The student will be able to identify a variety of considerations involved in choosing a career.	Auto Parts Salesman Automobile Salesman	Have students list duties of an auto salesman. List additional duties. Set up mock car agency and parts department. Students will role-play the parts of car salesmen. Invite an auto salesman and an auto parts salesman to give students first hand information about their jobs. Visit large car agency and observe the auto salesman and the auto parts salesman in action. Students will write a paper centered around qualifications needed for these jobs.	The students will understand how school subjects (auto mechanics, English, Business, etc.) can prepare them for jobs such as an auto salesman and auto parts salesman. Students will have knowledge of the requirements and operations involved in the area of auto and auto parts sales. The students will have a more positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS - MARKETING AND DISTRIBUTION - Auto Salesman and Auto Parts Salesman

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Skilled Service (Sales)" "The Joys of Selling" "Up From Clay"		Contact: Car Salesman Car Parts Salesman	Contact: A large car agency (one that contains its own parts and service area)	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objectives one and two will be based on the ability of at least 80-85% of the students to write a detailed description of the duties, educational requirements and various operations performed by automobile salesmen and auto parts salesmen. All students will be able to write or orally discuss at least three considerations involved in choosing a career as a salesman in the automobile industry.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
JOB FAMILY: SERVICE STATION ATTENDANT

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL: 7, 8, 9
GENERAL OBJECTIVES (1) To aid the students in developing a knowledge of an occupation related to marketing and distribution.

(2) To give the student knowledge of the qualifications needed to be a service station attendant

(3) To give the student an insight into how industrial arts relates to the job

(4) To show students that a carry over does exist between industrial arts and job as gas station attendant.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the various tasks performed by a service station attendant. Through role-playing the duties of a service station attendant visiting a service station and talking to the attendant, the students will be able to sample some of the operations and skills required by a service station attendant.	Mechanic Service Station Attendant	Have students make a list of the duties of service station attendant and act out role of attendant. Students will visit a service station attendant to discuss his job. Invite a service station attendant to discuss his job. The students will discuss the relationship between Industrial Arts and the job of a gas station attendant.	The students will be more aware of their own abilities and interest The students will have more knowledge of the requirements of and operations involved in the work of a service station attendant Students will be aware of other jobs performed at a service station. The students will be able to relate industrial arts to the job of Service Station attendant.

Industrial Arts 7, 8, 9

INSTRUCTIONAL AND RESOURCE MATERIALS — OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION- Service Station

	FILMS AND FILMSTRIPS	SOUND SLIDES DEVELOPED BY DVEP OFFICE	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Films: Engine Tune-up Ignition System Engine Tune-up Primary		Contact: A local service station attendant	Contact: Main office of the Standard Oil Company Cleveland, Ohio	Pamphlets SRA Kits Popeye Career comics Occupational outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write or orally identify and describe the duties, training, benefits, etc., needed by ore interested in pursuing a career as a mechanic or a service station attendant.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Personal Services
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Industrial Arts
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand what these jobs consist of.

(2) To acquaint the students with the qualifications needed for these jobs.

(3) To help students understand how shop courses are directly related to the jobs in question.

(4) To help students become acquainted with jobs in the personal service area and how these jobs can be carried over into other career jobs.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the duties and requirements for the jobs listed in this Unit. In their own school building, the students will be able to sample some of the operations and skills involved in the jobs listed in this Unit.	Building Custodian Maintenance Man Odd Job Man	Students will list the duties of a building custodian, odd job man and maintenance man on the board. Students will list qualifications for jobs listed on the board. Invite speakers in the three occupational areas listed. Have student to see whether the three occupations listed have anything in common. Students will talk to individuals in their school who perform the duties listed in the vocabulary.	The students will have more knowledge of the operations involved in the occupations discussed in this Unit. The students will have a more positive attitude toward his school, others and the world of work. The students will have a greater ability to describe the relation between specific vocational activities in the area of personal service and real occupations.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: PERSONAL SERVICES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Building Trades"		Contact: Building Custodian Maintenance Man Odd Job Man (Note: Contact individuals working in students' present school)	Contact: Tour own school building with building custodian explaining the duties and skills required for various jobs.	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective one will be based on the ability of at least 80-85% of the students to write, in detail, or orally discuss the duties, requirements, training, etc. of the jobs listed in this Unit. Teacher rating of objective number two will be that within a period of six weeks at least 80% of the students will submit a report describing the various custodial and maintenance operations and skills they took part in. The school custodian will verify students' participation in this project. Teacher rating of post test will be that at least 80% of the students will correctly answer or at least 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

INDUSTRIAL ARTS - PERSONAL SERVICES

POST TEST

GRADE LEVEL: 7, 8, 9

1. What does a building custodian do?
2. What does an odd job man do?
3. What does a maintenance man do?
4. Do all these jobs have anything in common?
5. What qualifications are needed for these jobs?
6. How do salaries compare?
7. Did any of your industrial arts courses prepare you for these jobs?

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB: Interior Decorator for Commercial Business

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES :
(1) To create bridges between school and earning a living.
(2) To help students become aware of the opportunities involved in interior decorating for business purposes.
(3) To help students acquire a greater appreciation of good design.
(4) To help students gain greater sensitivity to form and color, and their role in designing.
(5) To help students expand their knowledge as to types of furniture including styles and function.
(6) To help students gain knowledge of some of the basic materials an interior designer must work with (e.g. textiles, woods, metals, plastics, paints, paper, ceramics).

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to explain or describe the relation between various commercial decorating activities in the classroom and "real" occupations in this area. The students will be able to identify various styles of furniture suitable for commercial purposes. The students will be able to identify and classify various types of fabrics studied. The students will be able to explain differences between "warm colors" and "cool colors".	Antique Satin Brocade Burlap Ceramics Chintz Complementary Corduroy Crushed Velvet Form Herculon Interior Decorator Interior Designer Job Family Naugahide-vinyl Occupational Cluster Split Complementary Textiles Traid, Analogous Velveteen	General discussion describing the function and work of an interior designer. Students will compile and classify a notebook on various styles of furniture that would be suitable for commercial purposes. (Use cataloges, magazines, books, etc.) Students will study and classify fabrics into groups as to which are to be used in formar or casual settings.	The student will be more knowledgeable about the requirements and operations involved in decoration for commercial business. The student will be aware of school subjects and opportunities that exist throughout life. The student will be more aware of his abilities. The student will be aware of the role of form and color in interior designing.

INSTRUCTIONAL AND RESOURCE MATERIALS BUSINESS AND OFFICE OCCUPATIONS-Interior Decorator for Commercial Business

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Art"	Interior Decorator Commercial Artist	Contact: The Ohio Desk Co. Irvin & Co. Inc. J.L. Hunt Company Halle Bros. Co. The Plain Dealer (Ask speaker to speak about commercial Interiors)	Contact: May Company Halle Bros. Company	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on: (a) the ability of 80-85% of the students to identify, in writing or orally, eight out of ten types of fabric; and seven out of ten pictures of different styles of furniture and (b) the ability of 80-85% of the students to write or orally define 80% of the vocabulary terms listed in this Unit. Teacher evaluation of the post test will be based on the ability of 75-80% of the students to correctly answer at least 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BUSINESS AND OFFICE OCCUPATIONS

INTERIOR DECORATOR FOR COMMERCIAL BUSINESSES

Additional Learning Experiences of Activities

Subject Area: Art
Grade Level: 7,8,9

1. Students will complete library research on nine commonly used fabrics for upholstery.

2. Given the floor plans for the reception room for a hospital, students will select the color scheme, the period of furniture, accessories for the room and placement of furniture, etc.

Post Test

1. Do you think your room design was a success?

2. What style of furniture did you select?

3. What fabric was chosen for the upholstery? Is it durable, functional, and attractive?

4. What color scheme did you choose? Does your color sceme create the proper atmosphere?

5. What have you learned from this unit? Was it informative?

6. What is an interior designer? What roles does he play in our society? Does the interior designer have an important role? Give examples of the types of assignments a commercial decorator may design.

7. Identify the nine commonly used fabrics for upholstery as to (a) content (b) general description (c) wearing qualities (d) how fabric can be used (e) unusual characteristics the fabric may have (f) type of texture the fabric displays.

OCCUPATIONAL CLUSTER: Communication and Media
SPECIFIC JOB: Designing for Mass Media

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES :

(1) To create bridges between school and earning a living.

(2) To help students understand the qualifications needed for a job in designing mass media.

(3) To help students develop an awareness of the various job possibilities in this area.

(4) To help students learn the various skills needed for a job in mass media designing, such as television set designer, movie set designer, and stage designer for plays and musicals.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to list or state qualifications needed for a job in designing for mass media. The student will be able to design and build a simple set for a school play or suitable event. The student will be able to list or discuss job possibilities in the area of set designing in the city of Cleveland.	Communication Job Family Mass Media Occupational Cluster Set Designers	Students will design stage settings for a school play or a similar event. Students will attend movie which is favorably recognized for its set design (ex. 2001 B.C.) Student will be divided into groups, each group will be responsible for various stages of the set design.	The student will have improved his knowledge of the requirements for a designing career for mass media. The students will have a general knowledge on how to design and build a set for a play or suitable event.

INSTRUCTIONAL AND RESOURCE MATERIALS

COMMUNICATION AND MEDIA-Designing for Mass Media

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Career in Art"	Commercial Artist Director Make-up Artist	Contact: Karamu House	Contact: Musicarnival The Playhouse Karamu House Purpose: To see stage being set up.	Occupational Outlook Handbook Pamphlets Brochures SRA Kits Popeye Career Comics Chronical Occupational Library DOT

EVALUATION: Successful attainment of objectives one, two and three will be based on the ability of 80-85% of the students to: (a) write, in detail, or orally discuss the duties, requirements, job possibilities in the Greater Cleveland area, etc. for one interested in a career as designer for mass media, and (b) design and construct a simple set for a school play or suitable event within a period of six weeks (students will work in groups).

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Construction Occupations
SPECIFIC JOB: House Painter

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand the qualifications for a career in house painting.

(2) To create bridges between school and earning a living.

(3) To help students learn the skills needed for a job in house painting, such as color harmony, and understanding of space.

(4) To help students learn how to use the various types and brands of paint, such as water and oil based products, as well as acrylic paint.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to demonstrate their knowledge and use of various types and brands of paint by painting various samples on cardboard squares. Each student will be able to select one color and expand it from a tint to a shade using 20 square for painting. The students will be able to mix dry paints to form tempera and oils. The student will be able to sample skills and operations involved in house painting.	Acrylic paint House Painter Interior Decorator Job Family Occupation Cluster Oil based paint Oils, tint, shade Pigments Primary Color Secondary Color Tempera Water Based Paint	Students will practice mixing primary colors to intermediate colors. Students will write reports on the history of color. On large cardboard square, student will paint samples of five shades of a water based paint and six shades of an oil based paint. While enjoying visit from house painter the speaker will be asked to discuss harmony, painting, as it is affected by weather conditions and enlarging and decreasing space with paint.	The students will know how to mix and use various types of paint. The students will know the requirements and skills needed for house painting. The student will be able to relate their knowledge to similar jobs requiring basic knowledge about colors and paint.

INSTRUCTIONAL AND RESOURCE MATERIALS CONSTRUCTION OCCUPATIONS - House Painter

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Color and Pigment in Art"	Painter	Contact: An experienced house painter Contact: The Apprenticeship Information Center 579-7802 Interior Decorating Firm (Note use of colors and their relationship with surrounding areas)	Contact: A house painting site	Occupational Outlook Handbook Chronicle Occupational Library SRA Kits DOT

EVALUATION: Teacher evaluation of students' knowledge of the skills and operations involved in house painting will be that 80-85% of the students will mix various paints and paint at least five samples of their work on card-board squares. Evaluation of post test will be based on the ability of at least 80-85% of the students to correctly answer 80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

ART - CONSTRUCTION(HOUSE PAINTER)

POST TEST

1. What did you enjoy most about this unit? Why?

2. What type of paint is required for painting the exterior of a building? List three reasons why the paint used on the exterior of a building must differ from the type of paint used on the interior of a building.

3. What is a primer? What is the primer reason for using a primer?

4. Why is it mandatory when mixing paint for a job to mix enough paint to complete the job? Why is it almost impossible to mix a matching batch of paint?

5. Define the following terms:

   a. color harmonies
   b. analogous
   c. split complimentary
   d. triad
   e. primary colors
   f. neutrals
   g. primer
   h. complements
   i. tertiary colors
   j. tint
   k. shade
   l. color wheel
   m. turpentine
   n. secondary colors

OCCUPATIONAL CLUSTER: Consumer and Homemaking Related Occupations
SPECIFIC JOB: Interior Decorator for the Home

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand the qualifications needed for a job in interior decorating of the home.

(2) To help students learn the various skills needed for a job in interior decoration such as proportion, color harmony, drawing fibers, line, and understanding space.

(3) To help students learn about the various media used in home decoration--textiles, woods, papers, plastics, patines, ceramics, fibers and plasters.

(4) To create bridges between school and earning a living.

(5) To help students understand the personal requirements for a job in home decorating such as artistic talent, imagination, creative ability, and a keen interest in the field.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Student groups will be able to design a miniature model home made from cardboard. The home must also be furnished and decorated. The students will be able to identify and describe various media used in home decorating. The students will be able to list some of the personal requirements for a job in home decorating.	Ceramics Consumer Interior Design Job Family Occupational Cluster Plasterers Textiles	Students will complete library research concerned with the various types of fabrics. Students will identify fibers found in piece of fabric they bring in--bulletin board will be made from pieces of fabrics. Students will study rooms of their homes and draw up plans on how to make them as attractive as possible. Students will view and discuss interior decorating styles at the Cleveland Museum of Art. Each student will design and decorate a miniature model house.	The students will have a greater knowledge of the requirements and skills needed in the area of interior decorating. The students will be able to perceive relation between the vocational activities in the classroom and "real" occupations in interior decoration in the home.

INSTRUCTIONAL AND RESOURCE MATERIALS - CONSUMER AND HOMEMAKING RELATED OCCUPATIONS - Interior Decorator for the Home

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Interior Decorator Home Economist	Contact: Designer for Higbee Company	Contact: Cleveland Museum of Art	Pamphlets Brochures SRA Kits Popeye Career Comics Chronicle Occupational Library Occupational Outlook Handbook DOT

EVALUATION: Teacher rating of students' model home projects will be that 80-85% of the students will (working in groups) make, decorate and furnish a miniature, cardboard model home within a period of six weeks. All students will be able to write or orally discuss a detailed list of requirement, duties, job outlook, etc. for interior decorators (home).

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: Fine Arts & Humanities
SPECIFIC JOB: Artist

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To create bridges between school and earning a living.

(2) To help students become aware of the various opportunities involved in being an artist.

(3) To help students become aware of the various disciplines an artist can choose from.

(4) To help students find a direction which they may successfully follow.

(5) To help students gain skill and knowledge in the artistic discipline of their choice.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will select a discipline from which an artist has to choose (e.g. sculpture, painting, ceramics, etc.) and follow the necessary steps to complete the project. Sample: 1. Sketch of what is to be sculpted. 2. Pouring of plaster into block cast. 3. Carving subtraction method. 4. Addition of texture or paint for final touch. 5. Coat with Sealant	Artist Carving Subtraction Method Ceramics Fine Arts Humanities Job Family Occupational Cluster Painter Printer Sealant Sculptor	After visiting Cooper School of Art and viewing the disciplines from which the artist has to choose, each student will write a report on the discipline that most impressed him. Each student will complete a project dealing with one of the artistic disciplines. Class discussion and field trip.	The students will be able to relate the procedures and knowledge of the basic artistic disciplines. The student will have a knowledge of the basic skills and operations required in occupations dealing with artistic disciplines. Students will be aware of the educational requirements for various artistic disciplines.

INSTRUCTIONAL AND RESOURCE MATERIALS — FINE ARTS AND HUMANITIES - Artist

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Art in Action--Form" "Henry Moore--Man of Form" "Fine Britch. Work and Talk" "Michelangelo, the Last Giant" "Careers in Art"	Artist Commercial Artist Industrial Designer	Contact: Cooper School of Art Art Department Case Western Reserve School Art Teacher	Contact: Cooper School of Art	Occupational Outlook Handbook Chronicle Occupational Library SRA Kits DOT

EVALUATION: Successful attainment of objective one will be based on the ability of at least 85-90% of the students to produce one completed project from the area of sculpture, painting, or ceramics, etc. within a period of six weeks.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Health Occupations
SPECIFIC JOB: Medical Illustrator

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES :

(1) To inform students about the various opportunities involved in becoming a medical illustrator.

(2) To create bridges between school and earning a living.

(3) To create bridges between school and earning a living while sketching.

(4) To create a self-awareness of students' interests.

(5) To help students attain skill in depicting what he sees because it provides the basis for his work.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to demonstrate their sketching abilities by rapidly and accurately sketching a subject of their choice. The students will be able to orally state or list the principal duties of a medical illustrator. The students will be able to list educational requirements for a medical illustrator.	Contour Drawing Figure Painting Job Family Medical Illustrator Occupational Cluster Skeletal System Sketch	Class discussion of slides of pictures of various types of medical illustrators. Students will label and discuss charts showing a scale of proportions for the human body and the skeletal system. Students will draw a series of quick schematic sketches (stressing proportion) of a student model. Students will later stress speed, accuracy and detail.	The student will have a greater knowledge of the functional areas of art and health occupations. The students will be aware of the requirements for a medical illustrator. The student will have greater knowledge of the basic operations involved in the area of medical illustrating.

INSTRUCTIONAL AND RESOURCE MATERIALS

HEALTH OCCUPATIONS - Medical Illustrator

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Introduction to Contour Drawing" "Figures" "Figure Painting"	Foot	Contact: Health Careers Speakers: Greater Cleveland Hospital Assoc. 1001 Huron Road 781-2944, Ext. 369	Contact: Medical Museum Health Museum Hospitals	Health Careers Handbook Occupational Outlook Handbook SRA Kits Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective one will be based on the ability of 80-85% of the students to complete one sketch of the subject of their choice within a period of one week. Attainment of objectives two and three will be based on the ability of 80-85% of the students to write detailed descriptions or orally identify and describe the duties, requirements, etc. of a Medical Illustrator.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Hospitality and Recreation
SPECIFIC JOB: Arts and Craft Playground Instructor

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL: 7,8,9
GENERAL OBJECTIVES:

(1) To create bridges between school and earning a living.
(2) To help students understand the qualifications needed for a job as an arts and crafts playground instructor.
(3) To help students learn the various skills needed for such vocations as serving, embroidery and ceramics.
(4) To help students understand the relationship between art and the environment.
(5) To help students learn the importance of developing activities to suit the needs of a particular age group.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will illustrate their basic knowledge of embroidery by completing six of the basic embroidery stitches. The student will be able to describe and give examples of the relationship between art and the environment. The students will have basic skills so that she/he can teach basic sewing, embroidery and ceramics to smaller children.	Art Arts and Crafts Ceramics Embroidery Environment Hospitality Job Family Occupational Cluster Playground Instructor Recreation Sculpture	Students will visit near-by playground, a discussion of art and the environment will follow. Students will learn the six basic embroidery stitches. Students will make three dimensional animals with clay. Students will design wall hangings on burlap. Students will collect miscellaneous, discarded masks with these objects.	The students will have gained general skilled and knowledge in the area of embroidery sewing and ceramics. The students will have broadened their occupational aspirations. The students will have greater knowledge of the requirements and operations involved in arts, playground careers.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Black Artist"	Embroidery and Applique	Contact: Karamu House Phyllis Wheatley Association Other Community Centers	Contact: Community Centers	Pamphlets Brochures SRA Kits Popeye Career Comics Chronicle Occupational Library Occupational Outlook Handbook DOT

EVALUATION: Successful attainment of objectives one, two and three will be based on: (a) the ability of 80-85% of the students to successfully complete the six basic embroidery stitches, and (b) the ability of 80-85% of the students to write or orally discuss three examples of the relationship between art and the environment.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Manufacturing Occupations
SPECIFIC JOB: Trademark Designer

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand the qualifications needed for a job in trademark designing.

(2) To help students learn the various skills needed for such a job (e.g. calligraphy, color theory).

(3) To create bridges between school and earning a living (design such as acrylics, tempera, poster paint, oils, artist colors, and graphic design).

(4) To help students understand how to appeal to public taste in order to promote a product.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to demonstrate their skills in designing original trademarks for items of their choice. Each student will be able to orally promote a product that appeals to the public taste. The students will be able to list various levels of skills required for a career in trademark designing. The students will be able to name and distinguish various media used in trademark designing (ex. acrylics, tempera, poster paint, graphic design etc.).	Acrylics Advertisement Artist Colors Calligraphy Color Theory Graphic Design Job Family Logos Occupational Cluster Oil Poster Paint Tempera Trademark	Students will collect pictures of various trademarks (ex. Coca Cola--notice how the product is placed in a stream for summer ads to make the viewer hot and thirsty. Notice how its winter ad places it in a warm setting). Discussion will follow. Students discuss how advertisement has changed through the years. Students will design new trademark for Lay's Potato Chips and any company product--containers must be functional.	The student will have greater confidence in his ability to relate to others and to promote a product. The student will have a greater knowledge of qualifications for a job in trademark designing. Each student will have sampled the operations and skills required in trademark designing.

INSTRUCTIONAL AND RESOURCE MATERIALS MANUFACTURING OCCUPATIONS - Trademark Designer

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Art Development"		Contact: Cracker Jack Company Discuss how advertisements have changed through the years.	Contact: Ohio Bell (Yellow Pages)	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 80-85% of the students to: (a) design and promote at least two original trademarks for the products of their choice, (b) write, in detail, or orally discuss the level of skills, duties, etc. required for one interested in a career as a trademark designer, and (c) write, in detail, or orally describe at least three different types of media used in trademark and designing.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Marketing & Distribution
SPECIFIC JOB: Commercial Designer

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand the qualifications needed for a job in commerical design.

(2) To help students learn the various skills, (e.g. calligraphy, design, color theory) needed for a job in commercial design.

(3) To help students learn the various media (e.g. graphic design, collage and paint types).

(4) To help students learn the various media (e.g. graphic design, collage and paint types.

(5) To create bridges between school and earning a living.

(6) To help students understand how commercial art influences society in regard to the buying and selling of products.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and discuss the requirements and operations involved in designing for a business establishment. The student will be able to demonstrate his knowledge of various media needed for a job in commercial design by completing projects using graphic designs, collages and various paint types.	Calligraphy Collage Color Theory Design Graphic Design Job Family Marketing and Distribution Occupational Cluster	Visit art director of a large department store, discuss the aspects of commercial art in the business world. Discuss open house and providing it with an interesting theme and correlating decor, students will form groups to discuss how to make theme appeal to public. Student will be assigned to groups to discuss supplementary needs (advertisement of an event, decoration of desired places in school, clean-up committee, etc.).	The student will have a better understanding of how art influences society in regard to the buying and selling of products. The student will be aware of the qualifications needed for a job in commercial design.

INSTRUCTIONAL AND RESOURCE MATERIALS

MARKETING AND DISTRIBUTION - Commercial Designer

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Advertisement at Work--Color" "Advertising is a Long Word"	Commercial Artist Industrial Designer	Contact: Layout designer from local newspaper	Contact: Halle's Department Store--Contact Art Director	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective number one will be based on the ability of at least 85-90% of the students to write a detailed description of the requirements and operations involved in designing the interior of a business establishment of their choice. Teacher rating of projects mentioned in objective number two will be that 85-90% of the students will turn in a completed project within a period of six weeks.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Public Service Occupations
SPECIFIC JOB: Commercial Illustrator

SUGGESTED SUBJECT AREA: Art
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand the qualifications needed for a job in illustrating.

(2) To help students learn the various skills needed for a job in illustrating such as calligraphy, printing and cartooning.

(3) To create bridges between school and earning a living.

(4) To improve students' knowledge of the interrelations between different functional areas of business and industry.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Given samples of various brochures, the students will be able to note various styles and cuts of brochures. The student will be able to demonstrate his knowledge of various media used in commercial illustrating such as painting, printing, watercolor, etc. The student will be able to identify,describe and use different modes of advertising such as books, magazines, posters.	Advertising Calligraphy Commercial Illustrating Creative Art Caricature Hooks Job Family Monoprint Occupational Cluster Printing Public Service	After reading instructions prepared by teacher, students will draw and paint six and one sequence cartoons which tell the story and methods used in cartooning Using monoprint designs, students will design appreciation cards for instructors, family or friends. Students will orally discuss and define vocabulary terms listed in this unit.	The student will have some knowledge of the requirements and abilities needed in the area of commercial illustrating The student will be able to use at least three types of lettering--he must be able to use at least one type in cartooning.

INSTRUCTIONAL AND RESOURCE MATERIALS

PUBLIC SERVICE OCCUPATIONS - Commercial Illustrator

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Creative Art Monoprints" "Painting With Calligraphy"		Contact: Hallmark Cards Ohio Bell Newspapers Department Stores	Contact: Cleveland Call and Post The Plain Dealer The Press Ohio Bell	SRA Kits Occupational Outlook Handbook Chronicle Occupational Library DOT People and Choices Career Folios

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 80-85% of the students to: (a) use at least three different types of lettering in the designing, drawing and painting of at least three cartoons, (b) demonstrate their knowledge of at least three types of media used in commercial illustrating by completing at least three samples using the media chosen, and (c) orally describe or write a detailed description of at least three different modes of advertising.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To aid the student in the selection of Business and Office Occupations related to music.

(2) To acquaint students with requirements and skills necessary to master these jobs.

(3) To develop, in detail, the knowledge and requirements necessary to perform duties necessary to fill positions that are necessary to the music field.

(4) To help the student develop music awareness to Business and Office Occupations.

(5) To show a relationship between school subjects and opportunities that exist throughout life.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to identify and describe various Business and Office occupations involved in the field of music. The students will be able to describe at least three ways in which school subjects can be applied in the working world. The students will be able to discuss a range of considerations that enter into career choice.	Accountant Advertiser Bookkeeper Librarian Operator Receptionist Sales Clerk Secretary Sound Engineer Telephone Typist	Students will list Business and Office occupations (publicity, public relations, retail store clerks, etc.) Students will conduct group discussions on various business and office jobs and the requirements needed to fulfill these jobs.	The students will be aware of the many business skills and operations involved in the field of music. The students will have a greater knowledge of careers that exist in the Cleveland community. The students will be cognizant of the relationship that exist between school subjects and career opportunities that exist throughout life.

INSTRUCTIONAL AND RESOURCE MATERIALS

BUSINESS AND OFFICE Cluster

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Your Career as a Secretary" "Careers--Clerical"	Secretary Stenographer Typist	Contact: Metropolitan Jobs Council--National Alliance of Businessmen, 1375 Euclid Ave. 861-6100	Contact: Local Radio Station Local TV Station	Pamphlets Brochures SRA Kits Popeye Career Comics People and Choices Career Folios Chronicle Occupational Library Occupational Outlook Handbook

EVALUATION: Successful attainment of objective one will be based on the ability of at least 80% of the students to write, in detail, or orally describe at least eight out of eleven jobs listed in this Unit. Attainment of objectives two and three will be based on the ability of all students to list three ways in which school subjects can be applied to the working world, and at least three considerations that enter into their personal career choices.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Communication and Media
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To acquaint students with jobs in Communication that relate to music.

(2) To assist students in understanding how jobs in Communication may also utilize musical knowledge.

(3) To make students aware of the musical qualifications that will raise the level of performance in various jobs in the Communication and Media Cluster.

(4) To understand goals, values and aspirations and how they relate to the choice of a career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe the various jobs involved in operating an educational radio or television station. The students will demonstrate their knowledge of communication and media jobs related to the field of music by planning, producing and presenting a talent show. The students will be able to discuss qualifications and requirements for careers listed in this Unit.	Affiliated Broadcast Technician Commercial Disc Jockey Music Director Music Librarian National Non-Commercial Radio Announcer Regional Station Manager WHF-FM-VHF	Students will review activities in Business and Office and Marketing and Distribution clusters to determine those that would be included in communication. Give students a vocabulary listing for pronunciation and spelling of professional terminology and tools used in the radio and television media. Divide class into two groups, each group will set up an educational radio station and an educational television station. A discussion of various jobs involved will follow. Post test	The students will have a more positive attitude toward self, others and the world of work. The students will be more aware of skills and operations involved in jobs discussed in this Unit.

INSTRUCTIONAL AND RESOURCE MATERIALS — COMMUNICATION AND MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Music in Motion" "First World Festival of Negro Arts" "Design for Growing"	Actor Actress Dancer Director Musician Singer Singing Teacher	Contact: WVIZ TV 398-2800, Ext. 43	Contact: WVIZ TV, Channel 25 3500 Brookpark Road 398-2800, Ext. 43 WBOE Radio Station Administration Bldg. Cleveland Board of Education, Cleveland Ohio, 696-2929	Pamphlets Brochures SRA Kits Popeye Career Comics People and Choices Career Folios DOT Chronicle Occupational Library Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives one and three will be based on the ability of at least 80-85% of the students to write, in detail, or orally describe the duties, requirements, training, etc. of at least 80% of the music related communications and media jobs listed in this Unit. Teacher rating of objective number two will be based on whether at least 80% of the students actually took part in some stage of the planning, production, etc. of a talent show, and whether the show was planned, produced and presented in its entirety either to the entire student body or just the members of the class. Attainment of post test objectives will be that at least 80-85% of the students will correctly answer at least 80% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

COMMUNICATION - MUSIC

GRADE LEVEL: 7, 8, 9

Program Director - (1) Makes or reads commercial announcements - (Must know how to use his voice) Plays the records used each day.

Announcers - Must have pleasant, well-controlled voice. May double as Disc Jockey requiring knowledge of music. Might be a music hobbyist. In this capacity he selects and plays recordings. He may also fill in otherwise open spots by playing and singing a few bars of a current hit songs. Do commercial and ad-lib whenever needed, may do something (that he himself has composed.)

Broadcast Technician - Operate sound equipment such as: (1) Microphones (2) Recording equipment; Record Player, Sound effect devices. television cameras, Projectors, Phonograph record, Turn tables, Video tape recording.

Audio Control Technician - Operates controls that regulate sound pick-up, transmission and switching.

Music Librarian - Maintains music files, fills requests for a specific music selection or a particular type of music.

Music Director - Selects music, arranges music, selects musicians for the live shows, directs music in rehearsal and on broadcast.

POST-EVALUATION

Students to be judged on the following performances:

(1) Talent show - which will include: Actors, Actresses, Set Designers, Directors of Music and Dramatics, Librarians for Music and Play-Writes, Dancers and Choreographers if needed, Electricians, Musicians (Orchestra, accompanists), Publicity Staff.

(2) Posters (Publicity Staff)

(3) Bulletin Boards - (Again the Publicity Staff might handle the Bulletin Boards.

OCCUPATIONAL CLUSTER: Fine Arts and Humanities
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To develop the potential of the students who have exhibited talent in the Performing Arts.

A. Musicians-Instrumental and Vocal
B. Actors and Actresses
C. Dancers and Choreography
D. Directors--Musical and Dramatics

(2) To develop basic skills and techniques of the Artists listed in number one.

A. Vocabulary--Terminology used in Show Business
B. Performance--Musicianship, Poise-Stage
C. Repertoire

(3) To develop skills in the areas associated with the Arts.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe a variety of careers that relate directly or indirectly to the production of a play. The students will demonstrate their knowledge of various fine arts careers by actually selecting, directing and performing a play that includes workers such as those listed in the vocabulary.	Actor Actress Ballet Dancer Choreographer Classical Dancer Dancer Musician Music Teacher Opera Singer Stage Manager	Students will attend a symphony concert. Attend the Lake Erie Opera Co. performance (Reduced rates to schools). Attend the Cleveland Institute of Music performances. Read them scripts and select a play. Student will perform the play selected. Attend Metropolitan Opera performances	The students will be familiar with the vocabulary used in the music world. The student will be able to relate music to Fine Arts and Humanities. Students will be more aware of jobs available in the city of Cleveland. The students will have a more positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

FINE ARTS AND HUMANITIES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Design for Growing" "First World Festival of Negro Arts"	Actor Actress Dancer Director Musician Singer Singing Teacher	Contact: Director, Karamu House	Contact: The Lake Erie Opera Company The Cleveland Institute of Music Symphony Concert Severance Hall Metropolitan Opera Public Hall Play Productions Karamu Theaters	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Chronicle Occupational Library Occupational Outlook Handbook

EVALUATION: Attainment of objective number one will be based on the ability of 80-85% of the students to write, in detail, or orally describe at least five careers that are related directly or indirectly to the production of a play. Teacher rating of play presented, produced and performed in class will be that at least eighty percent of the students participate in some stage of the production, and that this same percentage of students effectively portray (in the play) the area of Fine Arts and Humanities through music.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Manufacturing
SPECIFIC JOB: -

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students develop a knowledge of the various occupations in manufacturing that are related to music.

(2) To give the students an understanding of the requirements and skills necessary for jobs in manufacturing.

(3) To help the students develop an awareness of the various aspects of manufacturing and how music relates to them.

(4) To help students understand that music plays a vital role in certain manufacturing occupations.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe jobs that are needed in the manufacturing of musical instruments. The students will be able to name materials used in making certain musical instruments. The students will be able to identify the parts of various musical instruments. The students will be able to name at least three companies that make musical instruments.	Assembler Automatic Machine Operator Bassoon Bell Spinner Buffer Mechanic Percussion Instruments Plater String Instruments Welder Woodwind Instruments	Students will do library research assignments on manufacturing jobs that require musical knowledge. Divide the class into four groups. Each group will do research on one section of the orchestra and how these instruments are made.	The students will be more aware of the skills and operations required in the making of musical instruments. The students will be more aware of the interrelations between the production, management, and service areas of business and industry.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
	Draftsman Machinist Mathematician Metal Worker Tool and Die Maker	Contact: King Music Company 33999 Curtis Blvd. East Lake, Ohio 946-6100	Contact: King Music Company 33999 Curtis Blvd. East Lake, Ohio 946-6100	Pamphlets Brochures SRA Kits Popeye Career Comics Chronicle Occupational Library DOT Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives one through four will be based on the ability of at least 80-85% of the students to: (a) list, in writing, and describe at least eight jobs associated with the manufacture of musical instruments, and (b) correctly answer 75-80% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MANUFACTURING

Additional Learning Experiences or Activities

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9

1. Show slide pictures of people in factories manufacturing musical instruments.

2. Each student will prepare a list of jobs that are needed in the manufacturing of instruments.

3. Plan a field trip to local manufacturing company to see how instruments are made.

4. Each student will select one job in manufacturing of instruments and their parts and do research on the machines and skills needed to perform the job.

OCCUPATIONAL CLUSTER: Marketing & Distribution
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Music
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help the students gain a knowledge of occupations in Marketing and Distribution that are related to music.

(2) To acquaint students with the requirements necessary to perform these jobs.

(3) To develop in detail the knowledge of the requirements necessary to perform these jobs.

(4) To help the student develop music awareness and relate it to Marketing and Distribution

(5) To broaden the occupational aspirations of youth in the high-poverty Model cities area schools.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list various careers that might be required in operating a music store or a record company. The students will be able to identify and describe the duties and educational requirements for the various Marketing and Distribution jobs listed in this Unit.	Advertising Copy-writer Buyer Cashier Clerk Manufacturers Marketing Researcher Salesman Salesman for Musical Goods Shipping Clerk Stock Clerk Warehouse Manager	Have students list jobs in Marketing and Distribution that a person with a musical background could fulfill. Show pictures of various musical instruments. Investigate making simple musical instruments from materials such as tin cans, cereal boxes, cigar boxes. (Maracas, Ukelele, etc.)	The students will be more aware of how Marketing and Distribution careers relate to music. The students will know more about the interrelations between the production, management, and service areas of business and industry.

INSTRUCTIONAL AND RESOURCE MATERIALS

MARKETING AND DISTRIBUTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Sales--The Joys of Selling"	Account Manager Marketing Research Statistical Analyst Tabulator	Contact: Metropolitan Cleveland Jobs Council National Alliance of Businessmen 1375 Euclid Avenue 861-6100	Contact: Whitney Music Company 3570 Fulton Avenue Cleveland, Ohio 961-2962 Electronic Music Corp. 1230 East 286 Street Cleveland, Ohio 261-7110 Grossman Music Corp. 1278 W. 9th Street Cleveland, Ohio 696-1234	Brochures Pamphlets Popeye Career Comics SRA Kits DOT Chronicle Occupational Library Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives one and two will be based on the ability of 80-85% of the students to list, in writing, or orally identify and describe eight out of ten jobs listed in this Unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: BUSINESS &OFFICE
SPECIFIC JOB: RECEPTIONIST

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To help students understand how typing is related to the job of a receptionist

(2) To help the students to acquire knowledge of the nature of the duties of a receptionist

(3) To introduce training, other qualifications, and advancements to the student

(4) To create self awareness of students' abilities.

(5) To understand goals, values, and aspirations, and how they relate to the choice of a career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The student will be able to list and describe the various duties of a receptionist. Through class discussions, field trips and role playing, students will be able to sample the operations and skills involved in a career as a receptionist. The students will be able to describe a variety of ways in which school subjects (physical education) can be applied in the working world.	Receptionist	Students will list and discuss personal characteristics, and duties of a receptionist. Students will name the different places and types of offices that would employ a receptionist. Show and discuss the film "Career in Business and Office Occupations" Plan a trip to an office to observe how a secretary's job would differ from a receptionist's job. Discuss how the employment outlook will increase or decrease within the next few years. Post-Test	The students will have a more positive attitude toward self, others, and the world of work. The students will have a greater ability to perceive the relation between specific vocational activities and "real" occupations. The students will be aware of the many different establishments in Cleveland that employs receptionists. The students will be aware of the duties and requirements for a job as a receptionist.

INSTRUCTIONAL AND RESOURCE MATERIALS OCCUPATIONAL CLUSTER: BUSINESS & OFFICE RECEPTIONIST

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers In Business and Office Occupations	Personnel Staff	Contact: Metropolitan Cleveland Jobs Council - National Alliance of Businessmen	Contact: The National Alliance of Businessmen, Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Attainment of behavioral objectives will be based on the ability of 80 85% of the students to be able to write detailed descriptions of the duties, requirements, training, etc., required by a receptionist. Teacher rating of post-test will be at least 80-85% of the students will correctly answer at least 80% of post-test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

PHYSICAL EDUCATION - BUSINESS AND OFFICE CLUSTER

RECEPTIONIST
POST TEST

1. List five things a receptionist might do while performing her duties.
2. Name three business establishments that might find it necessary to hire a receptionist.
3. List the minimum requirements required by employers who are considering a receptionist for employment purposes.
4. List three personal characteristics a receptionist should have.
5. The number of receptionists is expected to increase/decrease(choose one) very rapidly.

KEY

1. work on swithchboard, type, sort mail, keep books, direct offic traffic
2. hospital, beauty shop, office
3. high school
4. pleasant speaking voice, attractive personal appearance, puntuality
5. increase

OCCUPATIONAL CLUSTER: FINE ARTS & HUMANITIES
SPECIFIC JOB: DANCING

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To enlighten students of the availability of jobs in regard to fine arts and humanities.

(2) To relate physical education with the occupations in the area of Fine Arts & Humanities.

(3) To encourage students to seek jobs in the area of Fine Arts & Humanities while enjoying the physical education program.

(4) To review the qualifications for jobs in the fine arts with special emphasis placed on physical fitness.

(5) To create self awareness of students aptitudes.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe a broad range of eventualities that can affect career and career planning. The students will be able to cite at least five factors that influence the selection of a career. The students will be able to list the duties, necessary training, employment outlook, etc., of careers discussed in this unit. The students will be able to describe the basic techniques involved in performing the jobs listed in this unit.	Actor Actress Dancers (tap, ballet modern, creative) Music Teacher Musician	Students will list and discuss qualifications, employment outlook, earning and working conditions in the are of Fine Arts and Humanities Students will make oral reports on the artist of his or her choice. Students will bring in pictures and newspaper clippings of their favorite dances and make a bulletin board. Post test	The students will be aware of various community resources leading to jobs in the area of Fine Arts & Humanities The students will have a greater knowledge of the requirements and operation involved in the area of fine arts & humanities. The students will have a more positive attitude toward self others, and the world of work

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: FINE ARTS & HUMANITIES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Lets Dance Modern Dance Composition	Actor Actress Dancer Musician	Contact: The BEA Fried - Carol Landis Academy of Dance 5929 May field Rd. Cleveland, Ohio Karamu House	Contact: BEA Fried-Carol Landis Academy of Dance 5929 Mayfield R. Cleveland, Ohio Attend a Professional Dance Recital if one is booked in the area	Pamphlets Brochures SRA Kits Popeye Career Comics People and Choices Career Folios DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write in detail or orally identify and describe the duties, techniques, training, etc., of all jobs listed in this unit. (b) write or orally cite at least three out of five factors that influence one's selection of a career. Teacher evaluation of post test will be based on the ability of 75-80% of the students to correctly anser at least 80-85% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER- FINE ARTS & HUMANITIES
SPECIFIC JOB- DANCING

Additional Learning Experiences or Activities

Students will present a talent show displaying his or her talent in the field of their choice.

Discuss and demonstrate the seven basic dancing positions and how to lead and follow the patterns of a typical dance step

Show the class some of the techniques necessary for preparing the body for modern dance movements.

Describe the basic techniques of singing, such as good posture and controlled breathing. Emphasize the jobs requiring a good singing voice.

Invite a professional dancer to speak to the class.

Post-test

PHYSICAL EDUCATION - FINE ARTS & HUMANITIES

POST TEST

GRADE LEVEL: 7, 8, 9

Match column A with column B

1. Creating a dance to fit one's mood	A. actor
2. Teach people to sing	B. dancer
3. A female that portrays other characters	C. Musician
4. teaches people to dance	D. singing teacher
5. A male that portrays other people's character	E. creative dancing
6. sings for a living	F. dancing instructor
7. plays some type of instrument	G. dance director
8. dances for a living	H. actress
9. dancing is usually a phase of their course	I. singer
10. Trains dancer in new production	J. physical education

KEY

1. E
2. D
3. H
4. F
5. A
6. I
7. C
8. B
9. J
10. G

OCCUPATIONAL CLUSTER: PERSONAL SERVICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7, 8, 9
GENERAL OBJECTIVES : (1) To acquaint the students with the list of jobs available in the Personal Services cluster.

(2) To relate physical Education to personal services occupations.

(3) To review the qualifications needed to obtain a job in the field of Personal Services

(4) To acquaint students with community resources leading to jobs.

(5) To create self-awareness of students' abilities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list the duties and qualifications for occupations listed in this unit. The students will be able to list ways in which Personal Service Careers are related to Physical Education.	Babysitter Barber Beautician Building Custodian Companion Cosmetologist Domestic Worker Government Laundress Life Guard Valet	Have students make their own list of jobs in the area of personal service. Each student will choose one job and go to the library and research the qualifications, training needed, employment trends, salary trends, etc Students will present oral reports on materials researched in the library--discussion will follow The teacher will attempt to relate physical education to the Personal Service Cluster through a lecture. Students will plan a recreational activity for each personal service job listed. Post-Test	The student will have a more positive attitude toward self, others, and the world of work. The students will be more aware of personal service jobs available in their community The students will have someknowledge of the requirements and operations involved in the occupations listed in this unit.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER : PERSONAL SERVICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Filmstrips: "Careers in Personal Service"		Contact: Metropolitan Cleveland Jobs Council 1375 Euclid Avenue	Contact: Community Swimming Pool YWCA - YMCA	Pamphlets Brochures SRA Kits Popeye Career comics

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 80-85% of the students to write in detail or orally describe the duties, requirements, etc., of at least eight of the jobs listed in this unit, and write or discuss three ways in which personal service careers are related to physical education. Teacher rating of post-test objectives will be that 80-85% of the students correctly answer 75-80% of post-test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

PERSONAL SERVICE OCCUPATIONS - PHYSICAL EDUCATION

POST TEST

GRADE LEVEL: 7, 8, 9

1. List five jobs available in the Personal Service occupational cluster.

2. Why does an individual need to be physically fit to occupy positions in personal service?

3. Which of the following can be used in a recreation center;

a. barber
*b. babysitter
*c. arts and craft teacher
*d. dance instructor
*e. policeman
f. beautician
g. companion
h. governess
i. valet
j. laundress
*k. custodian
l. fireman
*m. maid

*Ones that can be used.

OCCUPATIONAL CLUSTER: Public Service
SPECIFIC JOB: Recreation

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To acquaint the students with the various jobs classified under Public Service.

(2) To create a desire for employment in the area of Public Service.

(3) To relate Public Service jobs to one phase of physical education.

(4) To review the qualifications needed to obtain a job in the Public Service Field.

(5) To create self-awareness of students' abilities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify different types of physical work demanded by jobs discussed in this Unit and to assess his present level of skill development. Through role-playing various jobs would be performed in a recreation center, the students will sample the operations and skills required in the public service occupations listed in this Unit. The students will be able to portray the increasing importance of leisure-time activities and expanding opportunities for related careers.	Checkroom attendant Cook Director of Recreation Janitor Maintenance Man Play attendant Play director Physical director Receptionist Ticket Takers Waitress	Students will make a list of various jobs available in the area of Public Service with emphasis placed on recreation. The students will discuss the importance of good physical and mental health in Recreation jobs. Students will listen to tapes which will give a brief description of duties, qualifications, work study experiences, etc. of jobs in the area of recreation. Post test	The students will have a greater knowledge of the requirements and operations involved in various recreation careers. The students will be aware of the relationship between public service jobs and physical education. The students will be more aware of jobs available in the city of Cleveland. The students will have a more positive attitude toward the world of work.

INSTRUCTIONAL AND RESOURCE MATERIALS

PUBLIC SERVICE - Recreation

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Filmstrips: "Park and Recreation Assistant" "Careers in Public Service"	Public Safety Aide	Contact: Addison YWCA Metropolitan Cleveland Job Council 1375 Euclid Avenue	Contact: Addison YWCA	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of at least 80-85% of the students to write, in detail, or orally discuss the duties, requirements, etc. of jobs listed in this unit.
Teacher evaluation of post test will that at least 75-80% of the students correctly answer 80-85% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

PHYSICAL EDUCATION - PUBLIC SERVICE(RECREATION)

STUDY SHEET

Duties of a Recreation Worker

1. Recreation workers help people to enjoy and use their leisure time constructively by organizing individual and group activities, and by administering physical, social, and cultural programs for all age groups at camps, playgrounds, community centers, and hospitals.
2. They operate recreational facilities and study the recreational needs of individuals and communities.
3. Recreation workers employed by local government and voluntary agencies direct activities at neighborhood playgrounds and indoor recreation centers.
4. They provide instructions in the arts and crafts and in sports such as tennis and basketball.
5. They may supervise recreational activities at correctional institutions, and work closely with social workers in organizing programs of recreation for the young and the aged at community centers and social welfare agencies.
6. Recreation workers in industry plan the recreation programs for company employers and organize bowling leagues, softball teams, and similar activities. Sometimes they plan fund drives and company social functions.
7. Hospital recreation workers plan recreation programs for the ill and the handicapped in hospitals, convalescent homes, and other institutions. Working under medical directions, they organize and direct sports, dramatics, and arts and crafts for persons suffering from mental problems and physical disabilities.
8. School recreation workers organize the leisure-time activities of school-age children during school days, weekends, and vacation periods.

PHYSICAL EDUCATION - PUBLIC SERVICE(RECREATION)

I. Additional learning experiences or activities

Students will discuss the duties, employment outlook, fringe benefits etc., of jobs listed in this unit.

Visit a local YWCA to observe their recreational program in action.

Using the gym, set up a recreation center. Appoint a student to act as Director of Recreation. The student in turn will select a physical director, a play director, a recreation instructor, and a playground attendant. Each person will role-play his job title.

Show and discuss the filmstrip, "Park and Recreation Assistant".

II. Post Test

Which of the following sentences apply to a recreation worker:

1. Organizes arts and crafts for persons suffering from mental problems and physical disabilities.
2. Enforces rules and regulations of the building (acts in an administrative capacity).
3. Does the hiring for the company.
4. Plans company picnics from time to time.
5. Plans social programs for the handicapped.
6. Helps people enjoy their leisure time constructively.
7. Cleans the building.
8. Organizes bowling leagues, softball teams, and similar activities.
9. On some occasions, may organize fund raising projects.
10. Plans meals for the staff.

KEY
1
4
5
6
8
9

OCCUPATIONAL CLUSTER: Recreation & Hospitality
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7,8,9
GENERAL OBJECTIVES : (1) To correlate physical education with the Hospitality and Recreation Cluster.

(2) To inform the students of the qualifications required to obtain a job in the field of Hospitality and Recreation.

(3) To foster interest in an effort to motivate the students to seek jobs in the Hospitality and Recreation Cluster.

(4) To create an awareness that a strong background in physical education is essential in the field of Hospitality and Recreation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to portray the increasing importance of leisure time activities and expanding opportunities for related careers. The students will be able to list three different ways in which physical education is related to Hospitality and Recreation jobs. The students will be able to list and characterize a wide range of careers in the area of Hospitality and Recreation. The student will also be able to name and describe the facilities offered by at least three recreation centers in the Cleveland community	Camp Counselor Life Guard Park Ranger Playground Instructor Physical Education Teacher YMCA/YWCA Director	The students will discuss the duties and qualifications of jobs listed in this Unit. Each student will select one of the jobs listed and act out the role in class. In acting out the roles, students will discuss what the job entails. Show and discuss filmstrips relating to recreation jobs. Post Test	The students will have a greater knowledge of Hospitality and Recreation jobs available in the Cleveland community. The students will have more positive attitudes toward self, others and the world of work. The students will be aware of the duties and requirements of individuals working in jobs discussed in this Unit.

INSTRUCTIONAL AND RESOURCE MATERIALS

RECREATION AND HOSPITALITY

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Filmstrips: "Learning How to Swim" "How to Do Rescue Breathing" "Physical Fitness for Boys and Girls" "Safety on the Playground"	Tapes: Park Director Recreation Worker	Contact: Director of the Addison YWCA Cuyahoga Community College	Contact: Thurgood Marshall Recreation Center Addison YWCA	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this Unit will be based on the ability of 30-85% of the students to list three different ways in which physical education is related to Hospitality and Recreation jobs. At least 80-85% of the students will be able to write, in detail, or orally list and characterize at least seven out of ten jobs in the area of Hospitality and Recreation. Teacher rating of post test will be that at least 75-80% of the students correctly answer 80-85% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

RECREATION AND HOSPITALITY

Additional Learning Experiences or Activities

SUGGESTED SUBJECT AREA: Physical Education
SUGGESTED GRADE LEVEL : 7,8,9

1. The class will list and discuss the various recreation centers available to students in their neighborhood (Thurgood Marshall Recreation Center, Addison YMCA, Addison's Intramural Program, etc.)

2. Invite speaker from neighborhood recreation center.

3. Visit a neighborhood recreation center to observe individuals on the job.

PHYSICAL EDUCATION - HOSPITALITY AND RECREATION

POST TEST

Essay

1. What are some of the duties of hospital recreation workers?
2. Should recreation workers possess leadership skills? Explain.
3. List five jobs that may be classified as a recreation type job.
4. What specifically do recreation workers do?
5. List three qualifications necessary for one interested in becoming a lifeguard.

TRUE OR FALSE

1. You must have a Bachelor of Science degree to become a recreational worker.
2. Because of increased leisure time by Americans, there will be a decrease in employment for recreation workers.
3. Good health, emotional maturity, and a warm personality are essential qualities for recreation workers.
4. Opportunities for advancement to administrative positions in the field of recreation often are limited for persons who have no graduate school training.
5. Recreation workers help people enjoy and use their leisure time constructively.

APPENDIX

DEVELOPMENTAL VOCATIONAL EDUCATION

Quincy-Woodhill Building
229-5310

Available Materials

Audio Visual Equipment

4	34 MM Cameras
3	Cassette Recorders
2	16 MM Projectors
3	Overhead Projectors
18	Sound-slide Projectors
1	Sound Filmstrip Projector

16 MM Films

Careers in Transportation	Careers in Skilled Services (Sales)
Money in the Hand and Out	Careers in Personal Services
Horizons Unlimited (Health Careers)	Careers in Industry
Building a House	Careers in Business & Office Occupations
The Joys of Selling	The City
Seaport	Our City Government
Careers in Machine Trades	Trucks in Our Neighborhood
Careers in Building Trades	Dairy: Farm to Door
Careers in Communication	Postman: Rain or Shine

Filmstrips

Who Are You?	Television
How Do You Get There?	The Newspaper
What Do You Like To Do?	The Telephone
What is A Job?	Books
What Good Is School	Communicating Ideas
Motion Pictures	Communicating Without Words
Radio	

Filmstrips Cont.

Conservation For Today's America (Series With Sound)

(a) Land Conservation Today

(b) Water Conservation Today

(c) Urban Conservation Today

(d) Wildlife Conservation Today

(e) Mineral Conservation Today

(f) Forest Conservation Today

(g) Soil Conservation Today

Sound-Slides

Airport

Railroad

Post Office

Police Department

Fire Department

Newspaper

Bus

Radio

Television

Ships

Home Economics

Posters

Business and Office

Manufacturing

Fine Arts & Humanities

Marine Science

Marketing & Distribution

Environmental Control

Hospitality and Recreation

Agri-Business & Natural Resources

Communication

Transportation - Ships

Manufacturing - Apparel

Health Services

RICHARD'S ROSEN PRESS

Careers in Depth Series Cont.

Journalism
Landscape Architecture
Law Enforcement
Librarian
Marines
Marketing
Medical Assisting
Medical Technology
Merchant Marine
Meteorology
Minister
Model
Museums
Music
NASA
Naval Architecture
Navy
Nuclear Energy Fields
Nun
Nursery Industry
Nursing
Occupation Therapy
Oceanography
Optician
Optometry
Own Business
Personnel Work
Physics
Pilot
Pharmacy
Photography
Physician
Printing
Public Relations
Rabbi
Radiologic Technology
Railroading
Real Estate
Retailing
School Psychology
Secretary
Shorthand Reporter
Social Work
Television
Temporary Office Worker
Traffic Management
Translating and Interpreting

JULIAN MESSNER SERIES

Your Career in Advertising
Your Career in Aerospace Industry
Beauty As A Career
Careers in Biological Science
Your Career in Chemistry
Your Career in Civil Service
Your Career in Computer Programming
Disease Detectives
Engineers Unlimited
Guide To Professional Careers
Fashion as a Career
Your Career in Film Making
Your Career in Foreign Service
Careers in the Health Field
Careers for Home Economists
Careers in Horticultural Sciences
Careers in Hotel Management
Your Career in Interior Design
Your Career in Journalism
Your Career in Law Enforcement
Careers in the Legal Profession
Careers in the Library World
Your Career in Medicine
Your Career in Nursing
Your Career in Oceanology
On The Job Training
Your Career in Parks & Recreation
Your Career in Public Relations
Your Career in Selling
Skyblazers
Social Service
Stagestruck (Theatre)
Your Career in Teaching
The Teen-Age Diet Book
Your Career in Transportation
Your Career in the World of Travel
Your Career in TV and Radio
What About Teen-Age Marriage?
You and Today's Troubled World
Your Career-If You're Not Goint to College
Your College Education-How to Pay for It
Your Handicap-Don't let it Handicap You
Your Personality and You

SRA Book Series

I. Our working world- Families at work (text and records)
Our working world - Cities at work
Our working world - Neighbors at work

II. Educational filmstrips and records
A. Conservation for today's america
(4 records and 4 filmstrips)

III. Career Opportunities
New York Life Insurance Company
Box 51, Madison Square Station
New York, N.Y. 10010 1958
(a series of articles designed to help guide young people to a better future)

Career Development Resource Materials

1. Occupational Exploration Kit
   Science Research Assoc. (Sr. High)
   259 W. Erie St.
   $99.50 (approx price)

2. Language Development Kit

3. Work (Widening Occupational) Kit

Note: (The above are available at the Visual Aid Center and the Cleveland Public Library)

Popeye Career Comics
King Features
235 E. 45th St.
N.Y. N.Y. 10017

Occupational Library, Chronicle, Moravia, N.Y.
Based on D.O.T.
DVEP Office

People and Choices Career Folios (Bernard C. Watson professor and Chairman Urban Educ. Temple University)
Division of Urban Education
a program to acquaint pre-high school students with career possibilities
Harcount Brace Jovanovich, Inc. N.Y.

Sound Filmstrips

Guidance Association of Pleasantville, N.Y.

I People who help others

Filmstrips:

A. Physical Theropist
B. Day care worker
C. Community Organizer
D. People who help others

II People who work in science

Filmstrips:

A. People who work in science
B. Recording Engineer
C. Laboratory Technician
D. Ocean Life Scientist

III People who make things

Filmstrips:

A. People who make things
B. Aircraft assembler
C. Chef
D. Model builder

IV People who create art

A. People who create art
B. Puppeteer
C. Musician
D. Designer

V People who influence others

Filmstrips:

A. People who influence others
B. Model (homemaking)
C. Creative director (art)
D. County agent (horticlture)

VI People who organize facts

A. People who organize facts
B. Bakery fore-woman
C. Automotive researcher
D. TV sports editor

ADDITIONAL MATERIALS AVAILABLE IN THE

DEVELOPMENTAL VOCATIONAL EDUCATION OFFICE

I. Posters:

1. They set their sights on careers at sea
2. Leisure and restaurants
3. Where people work
4. Trades and industrial
5. Home economics
6. Business education - General

II. Tapes (the world of work)

1. On the job (20tapes)
2. Getting a job (20 tapes)
3. Cross - Vocational skills and information (20 tapes)

III. Games

1. Travel Connection
2. Transportation
3. Riddle your way

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

VISUAL AIDS LIST

Careers in the Building Trades. 26 Minutes

Easy-to-follow language and lively action demonstrate some of the tasks carried on in the various trades practiced by the largest group of skilled workers in the nation.

Careers in Business and Office Occupations. 25 Minutes

Helps youngsters develop an understanding of what is required in office occupations. A number of these occupations were unknown only a few years ago.

Careers in Communications. 30 Minutes

What do workers in this essential area do? The film gives a close-up look at various opportunities available and some of the skills and talents required.

Careers in Industry. 26 Minutes

Ranges over some of the many opportunities American industry provides with a closer look at some specific occupations. It also emphasizes importance and satisfactions of jobs in this area.

Careers in Machine Trades. 29 Minutes

Portrays some of the skilled trades involving use of powerdriven machinery. The program relates the occupation to young people's own interests and future.

Careers in Personal Services. 29 Minutes

Looks at the jobs of those, from firemen and policement to beauticians and barbers, who want to work with people. It demonstrates their role in making life safer and pleasanter.

Careers in Sales--"The Joys of Selling". 26 Minutes

Every industry, business, and community employs sales people. So, the variety and opportunities are limitless. The film explores some of the directions young people with a bent for selling can follow.

Careers in Skilled Services. 25 Minutes

The people who install, maintain, and repair automobiles and machinery in homes, offices, and factories keep the nation running. The program shows some of the talents and skills used in a wide field with a shortage of trained personnel.

Careers in Transportation. 24 Minutes

These workers help move passengers and goods over highways, railways, airways, and seaways across continents and oceans, or inside cities and communities.

How Do You Get There. 26 Minutes

Here are the tips youngsters need on how to start looking for a job--newspaper ads, employment agencies, etc; how to apply and how to approach an interview. There is also information on technical courses at two-year colleges, apprenticeships, and on-the-job training.

Airplanes Work for Us. 11 Minutes

Depicts some of the common and uncommon uses of aircraft, pointing out that in addition to the carrying of passengers and freight, airplanes and helicopters are used for fire patrol, rescue work, weather patrol, construction of power lines and crop dusting. Describes air to ground communication and shows many auxiliary jobs other than the actual piloting of aircraft.

Building a House. 11 Minutes

Shows the main stages in building a house and pointing out the importance of each workman's special skill in following the architect's plans.

The City. 11 Minutes

Features a complex modern city with private homes, apartments, office buildings, schools, stores, and factories. Pictures the major transportation facilities, the huge suburban sprawl, the city's elected governmental body, and the city departments such as the fire and police departments.

Dairy Farm to Door. 11 Minutes

Presents the story of milk production and processing showing views of the dairy farm, the creamery, the distribution of processed milk and other dairy products to the home and market.

Exploring the Ocean. 11 Minutes

Uses drawings, diagrams, animation, and photographs of the ocean floor to reveal the wealth of the ocean in minerals as well as in plant and

animal life. Shows the work of oceanographers and describes the part played by the water cycle in depositing minerals in the ocean.

Industry. (filmstrip)

Discusses the growth and importance of industry in New England and describes various industries such as shoes, textiles, hardware, paper hats, silverware, firearms, electronics and others.

Money in The Bank and Out. 15 Minutes

Explains how a bank helps the community by keeping money in circulation and explains such procedures and terminology as deposits, checks, interest, loans, and money flow.

Our City Government. 10 Minutes

Views the urban community and its government. Considers how a city government provides services and makes and enforces laws. Discusses the functions of the city council, mayor or city manager, and courts.

Postman: Rain or Shine. 11 Minutes

Follows a letter from the time it is mailed in Kansas until it is delivered in California, describing the role of trains, trucks, planes, and the postman. Shows the use of automation in the post office.

Seaport. 16 Minutes

Gives an insight into the seaport area of a large city and such activities as loading and unloading of cargo, hiring of seamen, varied types of work and workers, and making a ship seaworthy for another trip.

Transportation. (filmstrip)

Illustrates the different types of transportation needed, including railroads, airlines, buses, automobiles, boats, and pipelines.

Trucks in our Neighborhood. 12 Minutes

Shows many kinds of trucks and how they work to help the neighborhood.

Communication: Books. (filmstrip)

Explains how a book is published and distributed and shows the role that libraries play.

Communication: Communicating Ideas. (filmstrip)

Points out that men in all societies have ways of communicating with each other and emphasizes that our modern society works because we have easy, rapid, and reconizable systems of communication.

Communication: Communicating Without Words. (filmstrip)

Illustrates some of the ways in which we communicate without words, including gestures, pictures, sounds, touch, signs and symbols, odors and appearance.

Communication: Motion Pictures. (filmstrip)

Explains how motion pictures are produced and discusses the motion picture as a particular type of communication.

Communication: Radio. (filmstrip)

Explains the importance of radio to people, businesses, and city agencies.

Communication: Television. (filmstrip)

Explains how television programs are produced and why television is important to people.

Communication: The Newspaper. (filmstrip)

Explains why newspapers are important and how they are produced.

Communication: The Telephone. (filmstrip)

Explains how the telephone establishes a network of communication that ties us in a city, across the country, and around the world.

Conservation for Today's America. (filmstrip)

Contains: soil, forest, water, wildlife, mineral, urban, and land conservation today.

STUDENT TOURS OF OFFICES

Attached is a list of companies which will accommodate students for tours of offices. When making arrangements in writing or by phone, it would be helpful if you would include the following information:

1. Make sure the date and time of the tour is accurate.

2. Ask your contact to furnish you with orientation information on the company so you can conduct an orientation session on the company before the tour. This information could include: brief company history, product or services, production processes, annual sales, payroll, profit, dividends, and taxes, employment of men and women in the plant and offices, product use and markets etc.

3. Give the person who is arranging the tour as much advance notice as possible. Two weeks notice is not uncommon.

4. Give the number of students who will be on the tour and the name or names of the teachers or other supervisory persons who will accompany the students. Remember most companies have a limit on the number of people they can accommodate.

5. Get the consent of your principal and the parents of the students.

6. Remind your students to ask pertinent questions and have one or more students react by making favorable comments to the company representatives at the end of the tour.

7. Have students write "thank you" letters.

STUDENT TOURS OF OFFICES IN THE CLEVELAND AREA

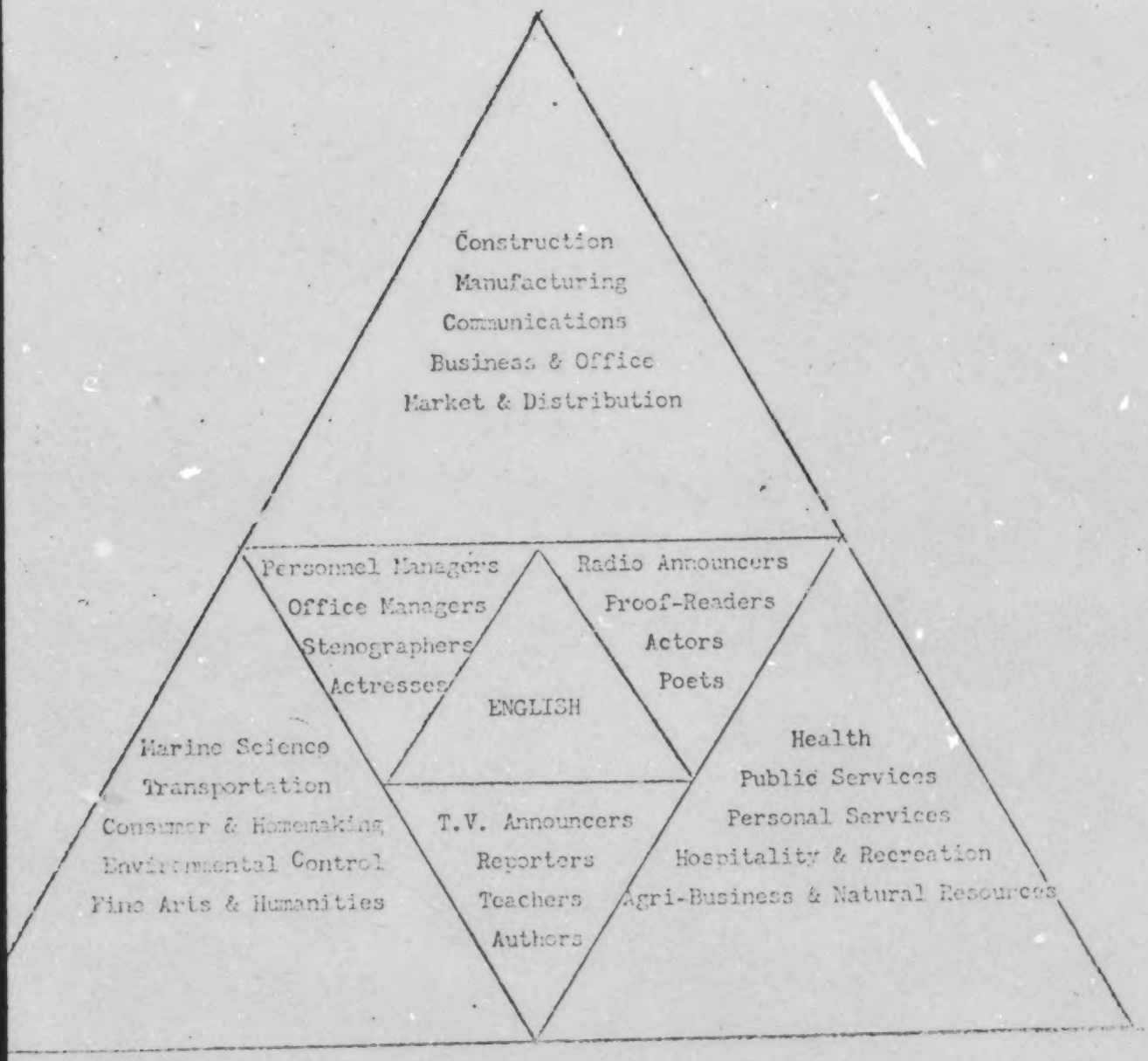
Company and Address	Person to Contact	Special Information
Eaton Corp. 100 Erieview Plaza Cleveland, Ohio 44114	Mr. Leonard C. Jarvis Office Services Manager 523-5356	
The Standard Oil Co. Midland Building Cleveland, Ohio 44115	Mr. Andrew Molnor Employment Director 575-5948	
National Acme Corp. East 131 St. & Coit Rd. Cleveland, Ohio	Mr. Walter Bandlow Training Director 268-4200 Ext. 460	
The East Ohio Gas C. East Ninth & Superior Cleveland, Ohio 44113	Mrs. Marilyn Mize Public Relations Dept. 522-2949	Tour hours: 10 a.m. to 2 p.m. Tour includes three key departments: Energy Control Center, Customer Information and Data Processing
The Plain Dealer 1801 Superior Avenue Cleveland, Ohio 44114	Miss Genevieve Mohlor Promotion Dept. 523-4245	Tour includes: City Room, Company Room, Engraving Department, Stereo-type Department, Press Room and wire Library
The Penn. Mutual Life Ins. Co. 33 Public Square Building Cleveland, Ohio 44113	Dorothy York Office Manager 861-7780	
New York Life Ins. Co. 55 Public Square Cleveland, Ohio 44113	Miss Frances Shinn Office Manager 969-2610	
Sears Roebuck and Co. 8501 Carnegie Avenue Cleveland, Ohio 44106	Mr. Earl D. Ellis Director of Urban Affairs 795-2233 Ext. 346	
The Buckeye Union Ins. Co. Rockefeller Building 614 Superior, West Cleveland, Ohio	Miss Christina Grove 861-660	

Company and Address	Person To Contact	Special Information
Glidden Durkee Div. Union Commerce Building East Ninth & Euclid Cleveland, Ohio	Miss Norma Thompson Employment Supervision 771-5121	
Federal Reserve Bank P.O. Box 6387 Cleveland, Ohio 44101	William Idsardi Public Information Director	Tours scheduled at 9:30 a.m. and 1:30 p.m. No more than 25 persons
The Cleveland Press 901 Lakeside Avenue Cleveland, Ohio 44114	Mr. Glen Rynearson 623-1111 Ext. 630	Tours scheduled at 9:30 a.m. and 1:30 p.m. Size of group: minimum-10, Maximum-25. Length of tour - 45 minutes.
The Warner & Swasey Co. 5701 Carnegie Avenue Cleveland, Ohio 44103	John Krisko Training Coordinator 431-5580 Ext. 304	Tours scheduled at: 9:30 a.m. to 11:00 a.m. Tour includes: orientation, plant offices, maximum - 10
Travelers Ins. Co. 1801 East Ninth St. Investment Plaza Cleveland, Ohio 44116	Marilyn Walton Personnel Assistant 241-4646 Ext. 302	
Harshaw Chemical Co. 1945 E. 97 St. Cleveland, Ohio 44106	Miss Doris Smith Manager of Research Administration	Tour includes: Computer center, office publicity, Magnetic Card Typewriter
Ford Motor Co. P.O. Box 9868 Cleveland, Ohio 44101	Mr. Richard A. Weiss Supervisor of Personnel 433-7000 Fxt. 473	
The Geo. Worthington Co. P.O. Box 6028 Cleveland, Ohio 44101	Betty Urban 241-1600 Ext. 226	Will accommodate 10-15 students

Company and Address	Person To Contact	Special Information
Allstate Insurance 75 Executive Parkway Hudson, Ohio 44236	Jane Van Almen Personnel Manager 656-6120	
Addressograph-Multigraph 1200 Babbit Road Euclid, Ohio 44117	J.W. Fulton 731-8000 Ext. 418	

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

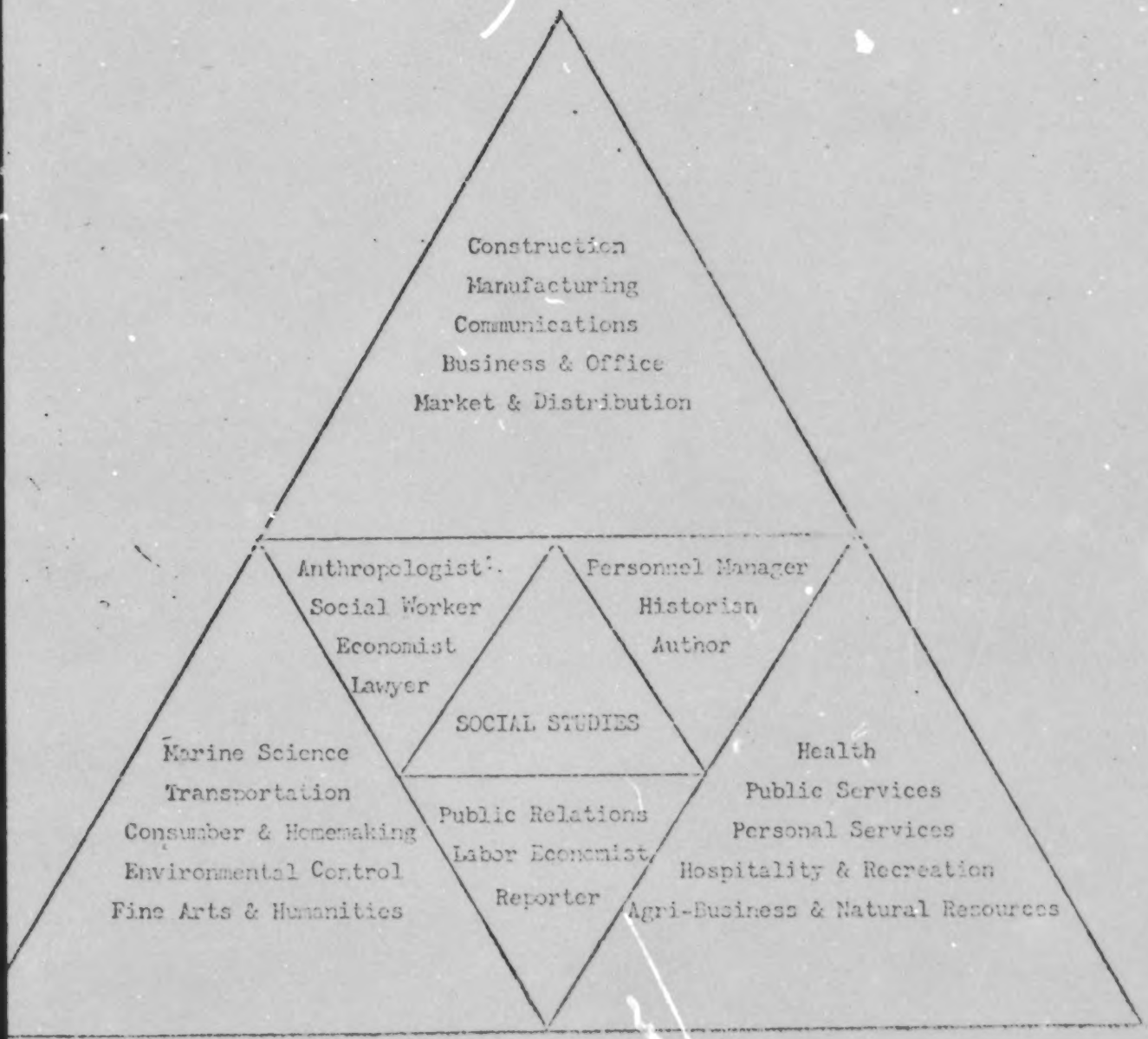
PHASE II - III



OCCUPATIONS RELATED TO ENGLISH

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

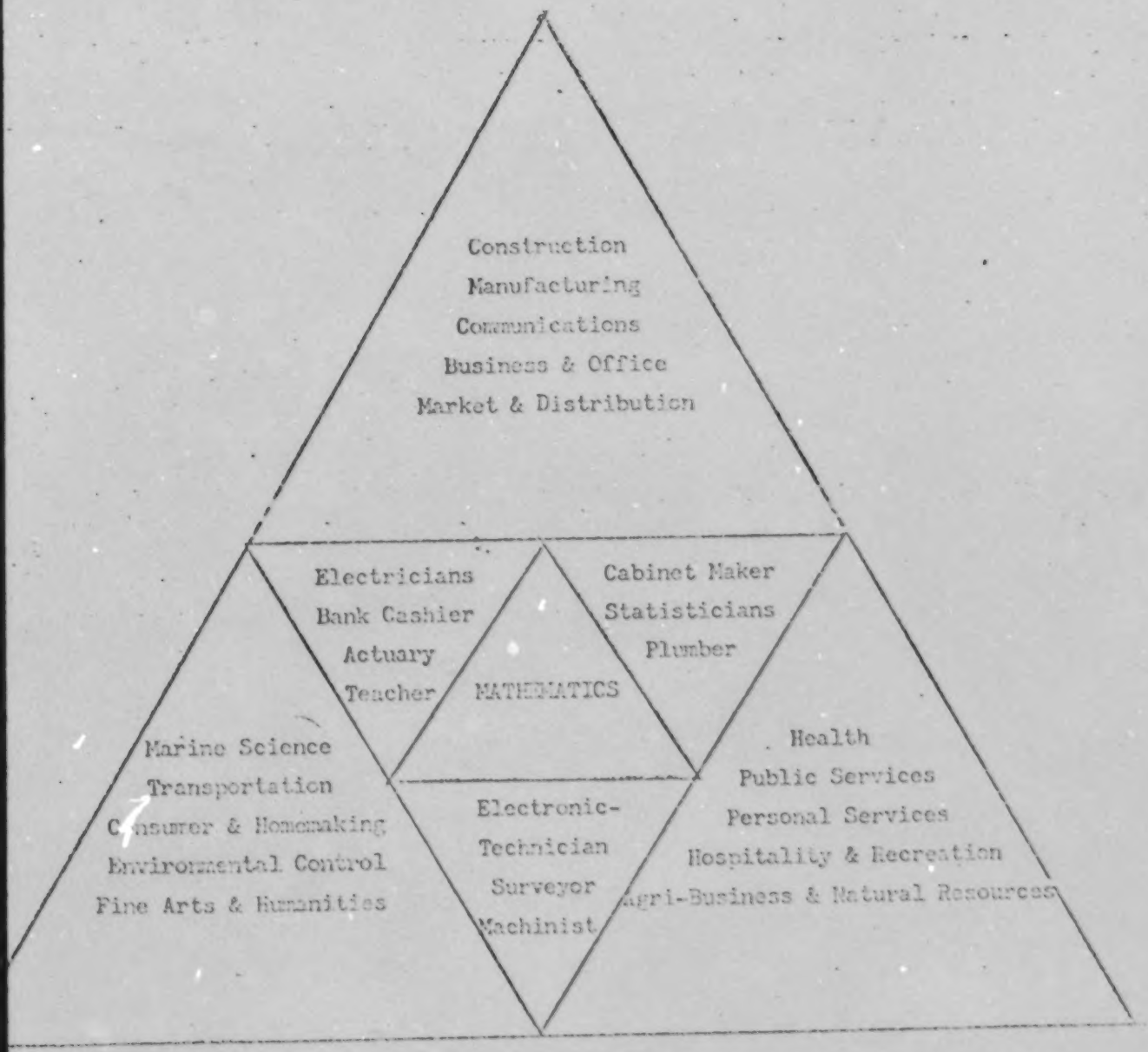
PHASE II-III



OCCUPATIONS RELATED TO SOCIAL STUDIES

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

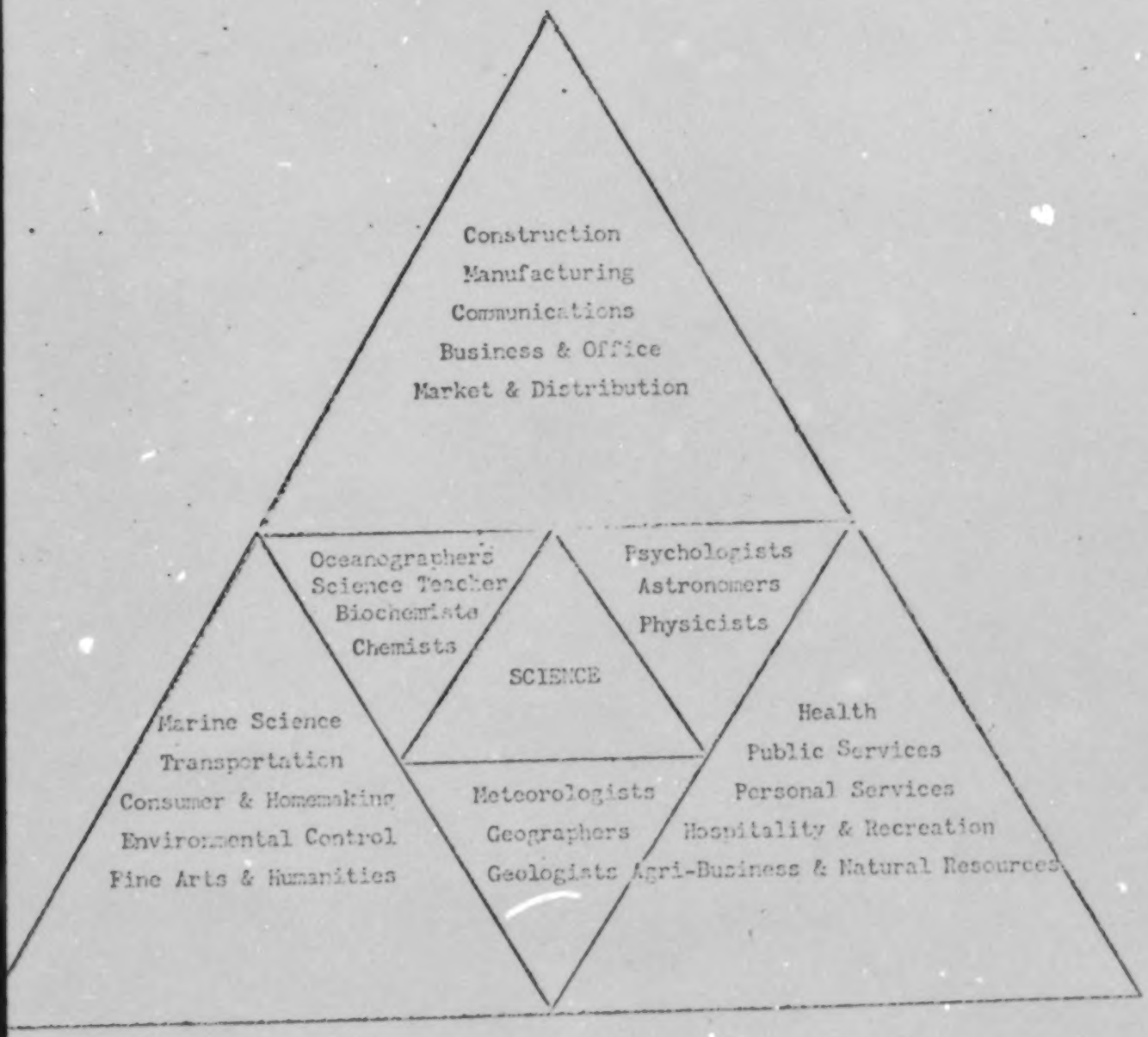
PHASE II - III



OCCUPATIONS RELATED TO MATHEMATICS

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

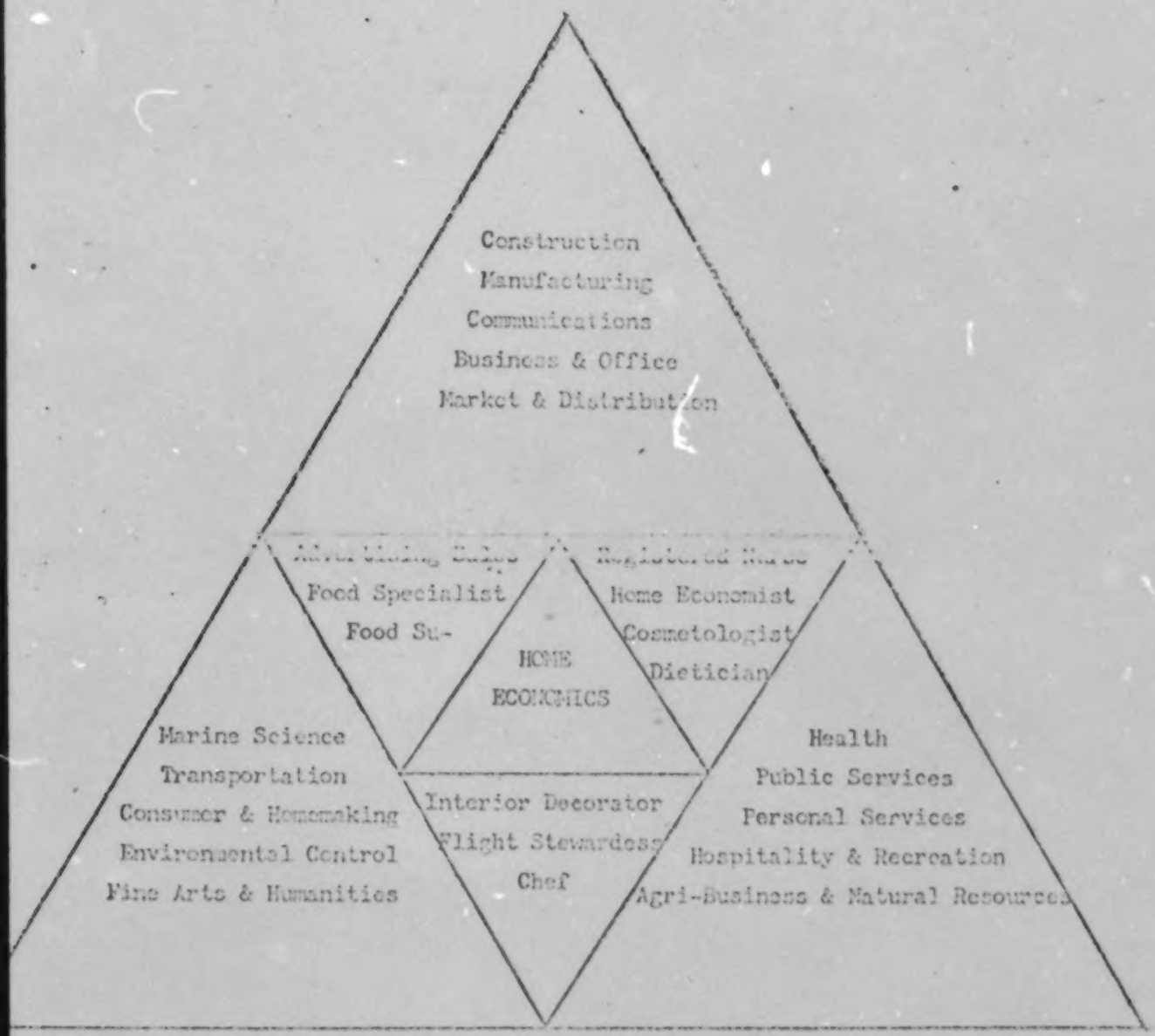
PHASE II- III



OCCUPATIONS RELATED TO SCIENCE

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

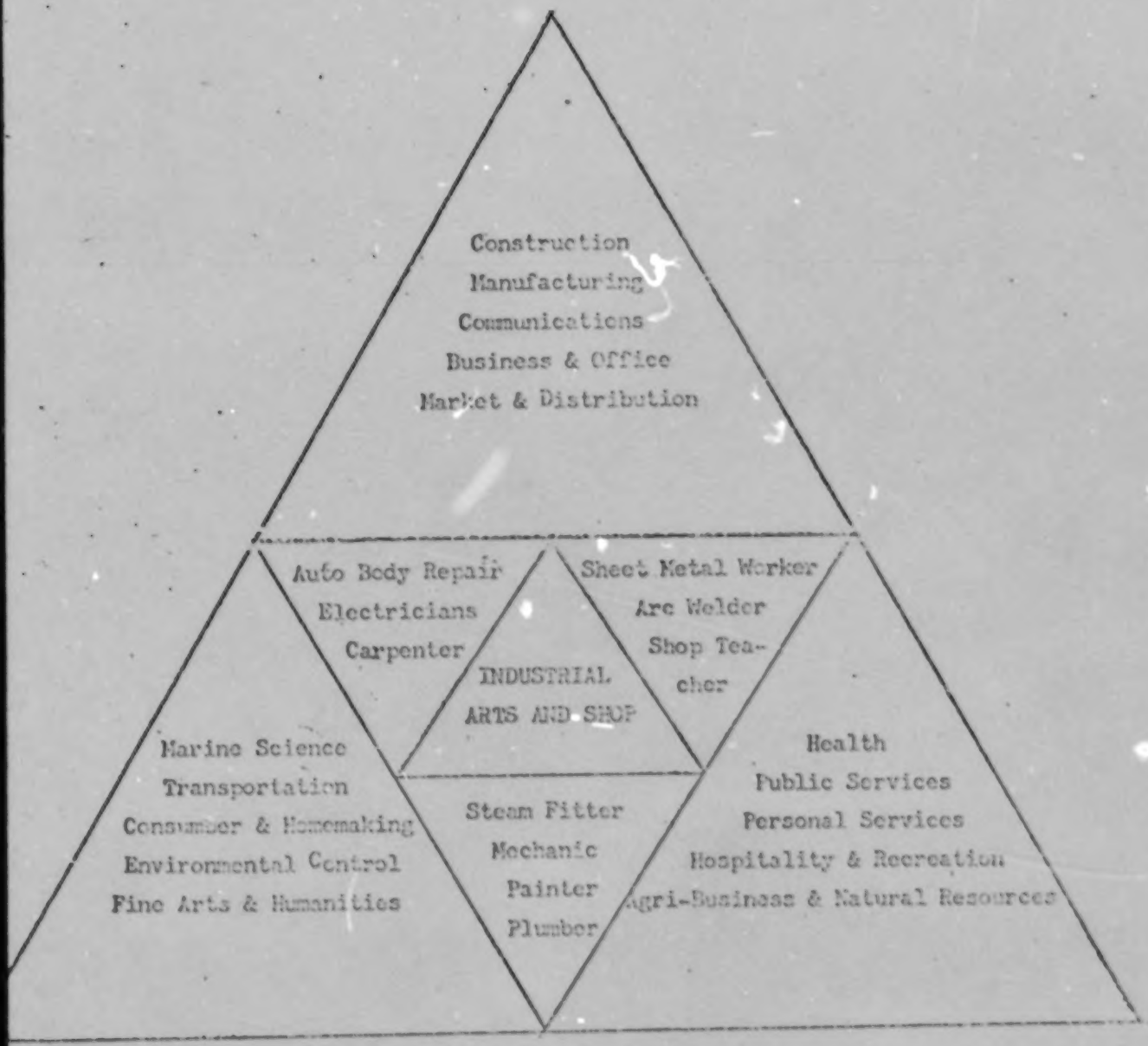
PHASE II- III



OCCUPATIONS RELATED TO HOME ECONOMICS

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

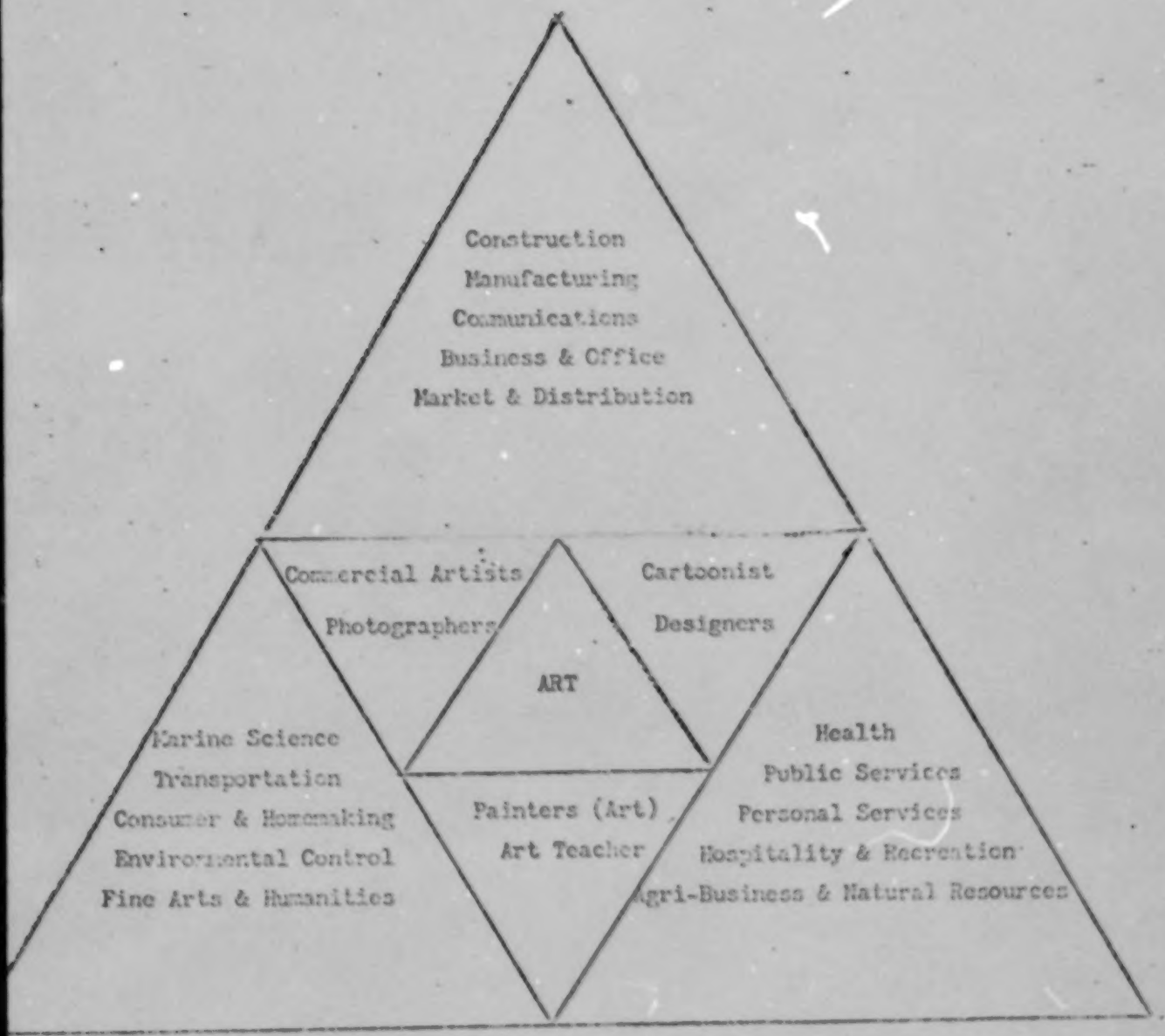
PHASE II - III



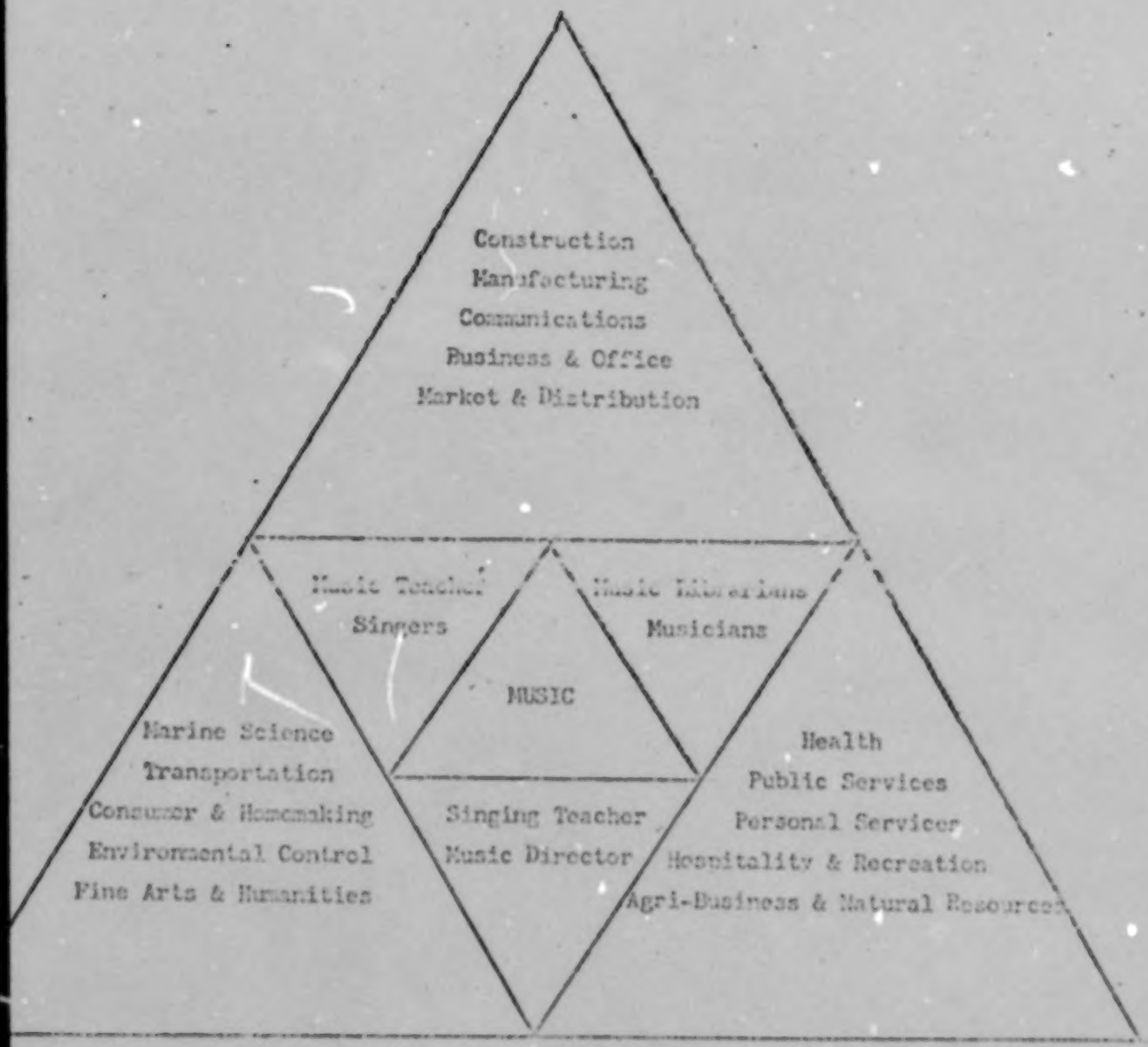
OCCUPATIONS RELATED TO INDUSTRIAL ARTS AND SHOP

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II - III

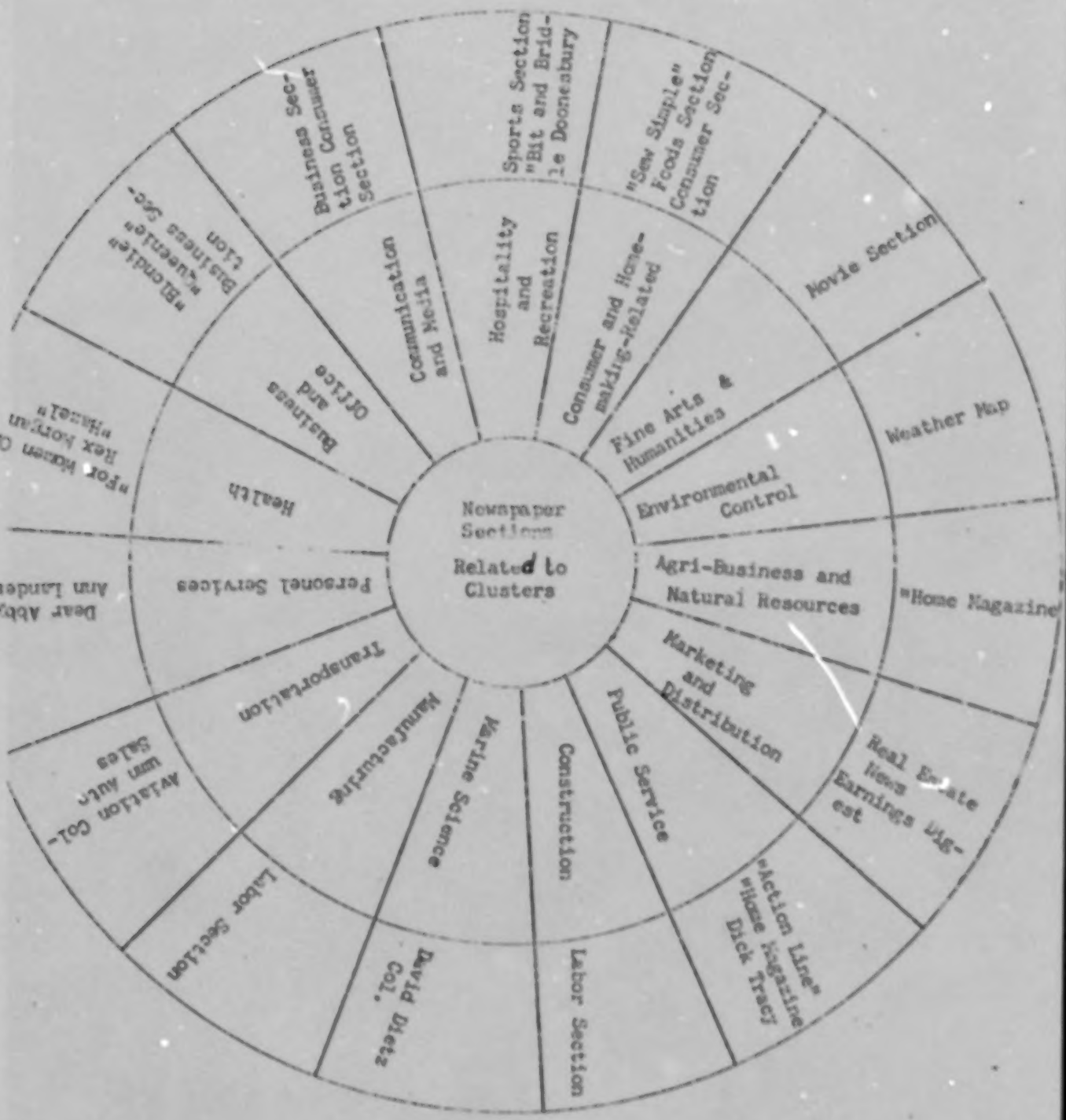


OCCUPATIONS RELATED TO ART

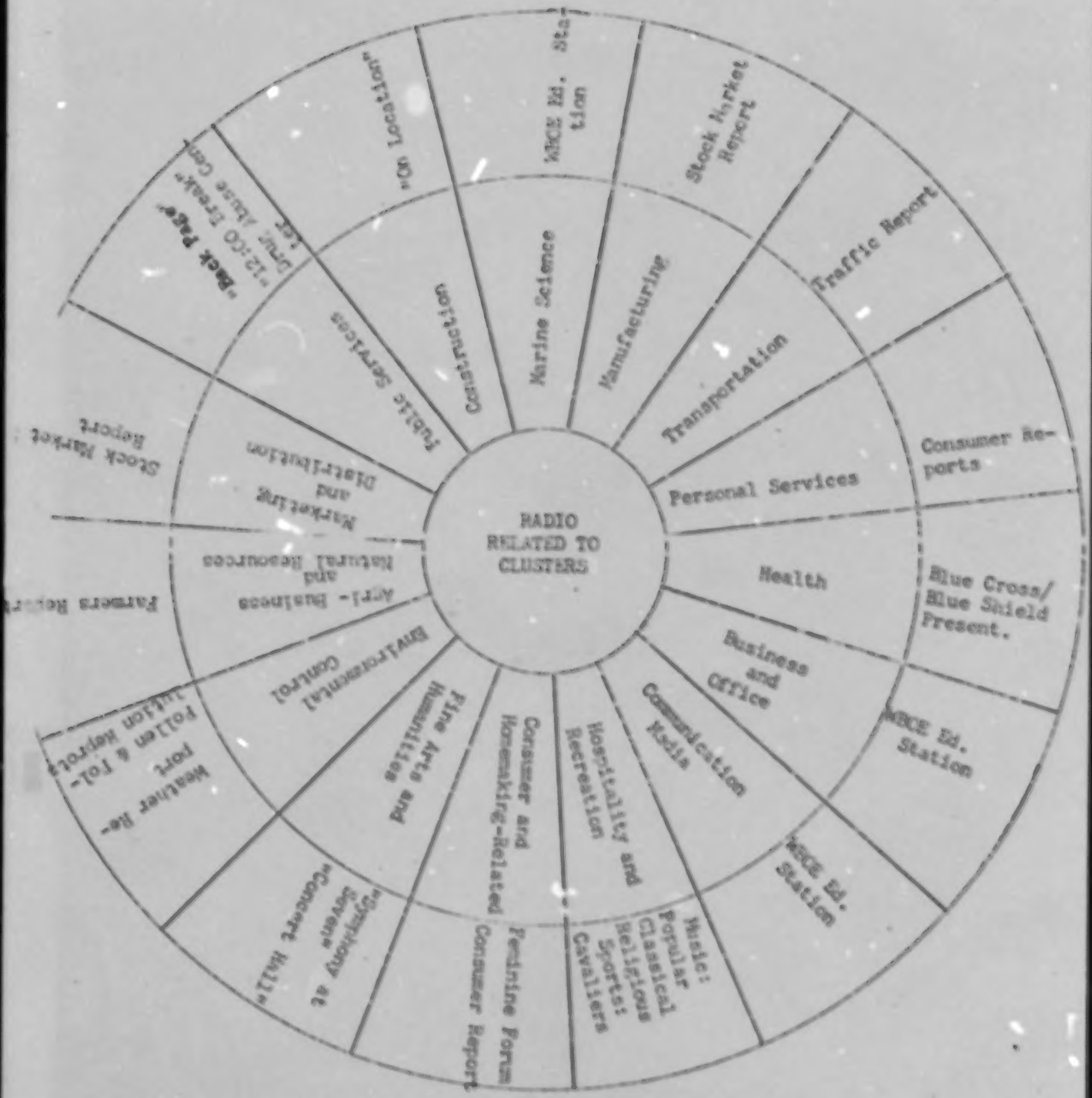


OCCUPATIONS RELATED TO MUSIC

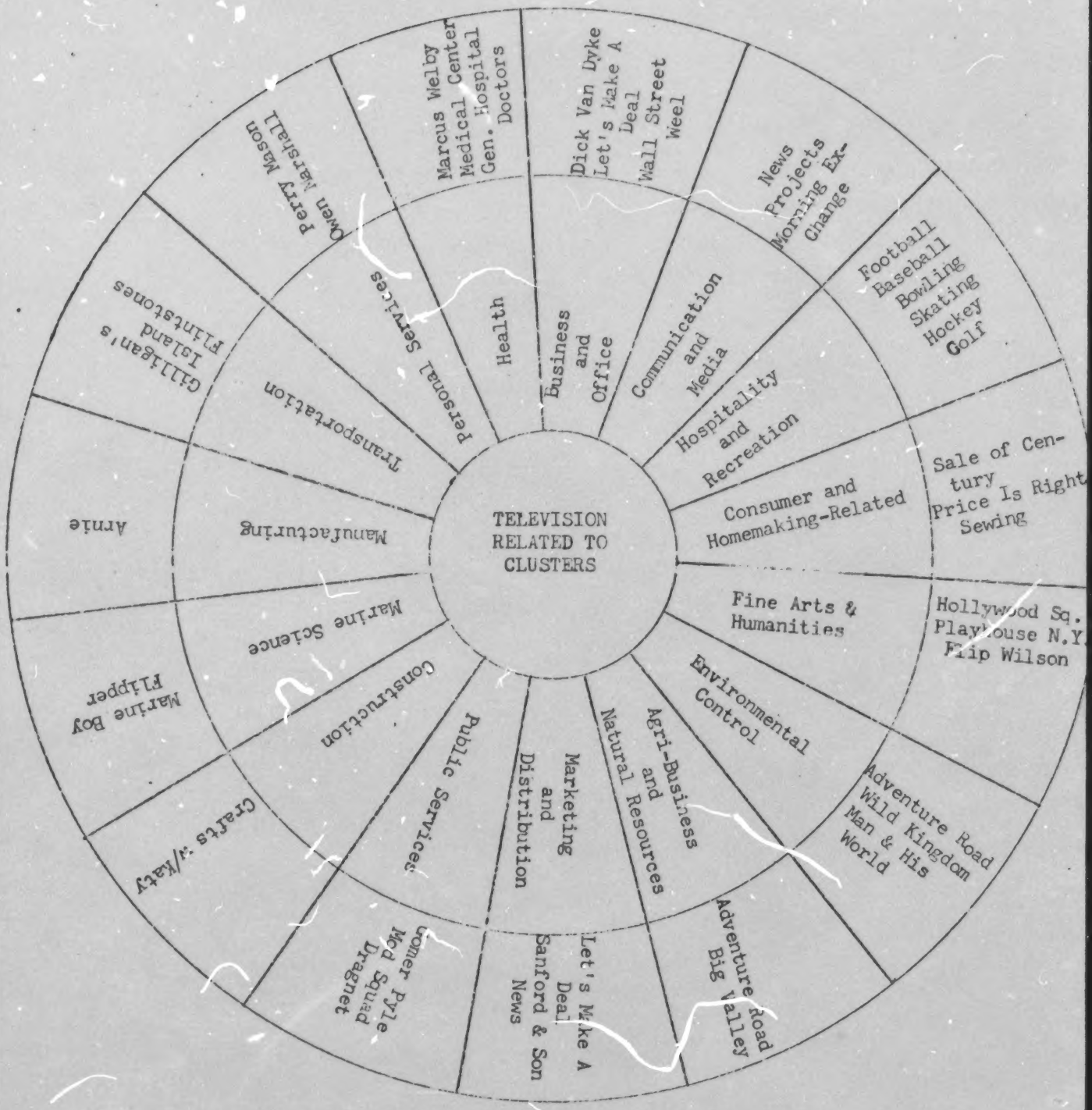
NEWSPAPER SECTIONS RELATED TO OCCUPATIONAL CLUSTERS



RADIO PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



TELEVISION PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



BIBLIOGRAPHY

Occupational Outlook Handbook
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C.

This handbook is a guide to employment opportunities in a broad range of occupations that covers all the principal areas of work. It brings together information of significant for those who are planning a career. Service as a basic tool in the vocational guidance process. We use this guide to gather comprehensive information on career opportunities.

Career Opportunities
New York Life Insurance Company
Career Information Service
Box 51, Madison Square
Station New York, N.Y. 10010

Soft back book composed of a series of articles designed to help guide young people to a better future. These books are easy reading material. They are used as a part of our careers library. We fine it good in that our students can easily relate to it, each article is based on the experience of one who has distinquished himself in his respective field.

English On The Job
Jerome Carlin
Globe Book Company, Inc.
New York 10 New York

This book capitalizes upon that interest by organizing the English activities around a core of vocational guidance. We use it because it not only improves the students' English expression, but it also helps them gain insight into some of the problems facing them. The students' learning proceeds simultaneously in two directions: A better understanding of his potentialities in the world of work, and a better command of the communication skills needed in all phases of everyday living.

The Story Steel
United State Steel Corporation
600 Grant Street
Pittsburgh, Pa. 15219

A pamphlet style book which describes how steel is made. We use it to stress the importance of steel, it takes you from smelting of metals in prehistoric through the fascinating development of the iron making processes.

Careers In Depth
Richards Rosen Press

This series covers all the careers in practical terms for the young man or woman who is interested in more than just a job. All books were written by prominent men and women who are successful in their chosen fields.

Handbooks Of Job Facts
Scientific Research Associates

An occupational summary which helps to pinpoint the basic features and trends of a variety of significant occupations, contains concise summaries of basic data on 300 major occupations.

Industrial and Commercial Wiring
Kennard C. Graham
American Technical Society - Chicago, USA

This book has been rewritten to reflect the latest developments in the electrical field covering new techniques and materials, and incorporating the latest additions and changes in the National electrical code. It's especially good that it begins with basic lighting terms and principles. Study guide also accompany the book.

Electrical Construction Wiring
Walter N. Alerick
American Technical Society
Chicago, Ill. 60637

This book includes the latest accepted changes in wiring, also the more traditional wiring procedures that are still recognized by the NEC. The text is very suitable for self study. Questions are found at the end of each chapter for personal check up, classroom discussion, or assignments. They are designed to reinforce the information given in the chapter and to aid in giving directions for the review of the material in the chapter.

Related Mathematics For Carpenters
L.S. Chamberlain
American Technical Society

This book deals with mathematics as it relates to a practical occupation. The authors teaching experience demonstrated that students found it easy to learn mathematics when the materials consisted of realistic problems such as one might encounter on a job.

Automotive Maintenance and Trouble Shooting
Leslie F. Goings and Edward D. Spicer
American Technical Society
Chicago, 60637

This hard back book is based upon three main objectives (1) To show how to prevent most troubles, (2) to find out how to quickly and adequately locate the cause of any trouble, (3) once it is known what is wrong, to show how to restore the care to satisfactory operations.

The Epic of Steel
United State Steel
Public Relations
100 Erieview Plaza
Cleveland, Ohio 44114

This is a resource book used to get more detailed information about the steel industry.

Your Future In Daily Newspapers

This is easy to read material describing the jobs in the newspapers field. It is used as a part of our career library.

Hospitality Program
(Food Service & Lodging Ed.)
Council on Hotel, Restaurant and
Institutional Education (1970)
1522 K. Street, N.W.
Washington, D.C. 20005

This book is used to gain information in the area of good service and lodging. It explains the requirements one needs if he or she is interested in managing a large hotel or motel. It also explains how one might go about getting into the areas of food catering.

Health Careers
The Greater Cleveland Hospital Association
1001 Huron Road
Cleveland, Ohio 44115

This guide provides minimum basic entry information about allied health education programs in Northeast Ohio. We have used this booklet as a reference tool for seeking information about an approved health career program. It explains in detail the jobs available, the requirements, the grants available and suggested places for training.

Aim High Vocational Series
Richards Rosen Press, Inc.,
New York, New York

The Aim High Vocational Guidance series is for the young person who is looking for a job. All of the books are written by experts in the occupations who know what the jobs are about. The series covers occupational opportunities for young people and will help them to make decisions concerning them.

A Guide To Professional Careers
Walter Duckat
Julian Messner, a division of Simon & Schuster Inc.
New York, New York 10018

This book is as it said a guide to professional careers. Many careers are mentioned in this book for college bound students. The requirements, training, duties, salaries and future outlook for each career are clearly detailed, with helpful cross references to other closely related professional careers. The book is unique in that each career description includes questions to determine the reader's interest in and capabilities for the profession.

How To Plan A House
G. Townsend & J. Dalzell

A multi purpose book written in a practical and authoritative manner. Designed to instruct the layman on house planning intelligently. The book is also written to be of value to builders, developers, apprentices and students wishing basic information on planning. The book provides an entire course in design in the residential field presenting plans, how plans are made, and factors involved in shopping plans.

Machine Shop - Operations & Setups
Porter Lascoe, & Nelson

A text written by professionals in the field, with the purpose of providing basic training in conventional machine operations and information regarding the lastest developments and machine book business. The book also provides the student with innovations which will be useful in the future using illustrations and language basic to the trainee.

Concrete Block Construction: For Home & Farm
J. Dalzell, Townsend

A guide written by professionals working in the field which carries the reader step by step through experience tested methods of erecting a structure designed to eliminate common errors in the use of concrete blocks, this book is filled with instruction valuable to the beginner as well as the mason inexperienced with the concrete block.

Steel Square
Townsend

A "How to do it" book with detailed instructions and illustrations for the carpenters or helper on the use of the steel square. The book is compiled in such a way as to explain lines and angles in a simple and practical manner· answering questions from "what is a steel square" to "how to build a roof." A valuable book in any carpenter's handbook.

ACCESSION NUMBER: VT101955

PUBLICATION DATE: 73

TITLE: CAREER DEVELOPMENT CURRICULUM GUIDE 1970-1973. SENIOR HIGH.

DESCRIPTOR: *CURRICULUM GUIDES; *CAREER EDUCATION; DEVELOPMENTAL PROGRAMS; *GRADE 10; *GRADE 11; *GRADE 12; INSTRUCTIONAL MATERIALS; ECONOMICALLY DISADVANTAGED

IDENTIFIER: CLEVELAND; OHIO; MODEL CITIES PROGRAM

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 205P.; SEE RELATED DOCUMENTS VT 101 953, 101 954 AND 102 189 IN THIS ISSUE.

ABSTRACT: THE PURPOSE OF THIS GUIDE IS TO STRENGTHEN THE STUDENT'S ABILITY TO SELECT AND ACQUIRE A POSITIVE ATTITUDE TOWARD WORK, TOWARD ALL LEVELS OF OCCUPATIONAL CHOICES FOUND IN SOCIETY, AND TOWARD THEMSELVES AS PROSPECTIVE EMPLOYEES AND THEIR EMPLOYERS. THE POPULATION OF STUDENTS FOR WHOM THIS GUIDE WAS DEVELOPED IS THE YOUTH OF CLEVELAND IN THE HIGH POVERTY MODEL CITIES AREA SCHOOLS. THE HIGH SCHOOL CURRICULUM IS DESIGNED TO PUT THE STUDENTS IN A POSITION TO OBTAIN A JOB AFTER GRADUATION OR TO GO ON FOR FURTHER TRAINING. BASED ON OCCUPATIONAL CLUSTERS, THE GUIDE LISTS SUGGESTED SUBJECT AREAS, GENERAL OBJECTIVES, AND SPECIFIC BEHAVIORAL OBJECTIVES. (VA)

CONTRACT NUMBER: OEC-0-71-0585(361)

INSTITUTION NAME: CLEVELAND PUBLIC SCHOOLS, OHIO.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 955

Made Possible by Professional Power

CAREER DEVELOPMENT CURRICULUM GUIDE

1970 - 1973

SENIOR HIGH

Tenth thru Twelfth Grades

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

(DVEP)

CLEVELAND PUBLIC SCHOOLS

CLEVELAND, OHIO

1973

Creating Bridges Between School and Earning a Living

VT 101 955

CLEVELAND PUBLIC SCHOOLS

BEST COPY AVAILABLE

CLEVELAND BOARD OF EDUCATION

Arnold R. Pinkney, President

George Dobrea, Vice-President

Joseph M. Gallagher

Mary Ann Geraci

William B. Hasty

Gerald F. Sweeney

Ailene S. Taylor

Paul W. Briggs
Superintendent of Schools

Cleveland, Ohio

1973

"Strong claims are being made for career education's efficacy. To the extent that the concepts are not untried, there is already evidence in experiment and demonstration. But given the high mortality rate of panaceas in recent times, it is wise to leave room for uncertainty. Some of it may not work because of being improperly done. In such a broad concept some applications are likely to be unsuccessful. But the experiment is sufficient to promote reasonably high success probabilities to major aspects of the notion where they are carefully thought through and well administered".[1]

---

[1]Kenneth B. Hoyt, Rupert N. Evans, Edward F. Mobley, and Garth L. Mangum, "Career Education: What It Is, [illegible] it is and how to do it. Salt Lake City, Utah: Olympus Publishing Company, 1972, p. 16.

CURRICULUM COMMITTEE

Mabel M. Artis
East High School

Spellman Lane
East High School

Sheryl White
John Adams High School

ORGANIZATION

Margaret Fleming
Directing Supervisor
Division of Research and Development

Donald V. Healas
Director
Technical-Vocational Education

William I. Sims
Project Director
Developmental Vocational Education Program

FOREWORD

A new emphasis is being placed on the development of technical-vocational programs in the Cleveland Public Schools in line with our goal of providing quality education to all Cleveland children.

A reevaluation of programs is being made, existing programs are being upgraded, and new programs are being offered.

This "Five to twelve" Career Development Curriculum Guide outlines the Cleveland program of training in Career Education.

Paul W. Briggs
Superintendent of Schools

PREFACE

This curriculum guide has been developed by the co-ordinating teachers of the Developmental Vocational Education Program which is funded under Part D of the Vocational Education Amendments of 1968. This program is being administered and implemented by the Cleveland Board of Education in cooperation with the Model Cities Association of Cleveland.

The material and information that is needed to implement this program has been gathered by the Co-ordinating Teachers and Vocational Aides from the local business world.

STATEMENT

This Exemplary Project in Vocational Education is conducted under Part D of the Vocational Education Amendments of 1968, P.L. 90-576.

The schools in the Model Cities area in Cleveland, Ohio are presently bounded by East 55th on the West, East 79th on the East, Superior Avenue on the North, and Kingsbury Run on the South. This amendment was designed to assist the cities in raising the standards of living for those locked into the target areas of selected cities.

During the summer of 1972, approximately sixty classroom teachers, department chairmen and guidance counselors prepared curricula materials and selected visual aids that formed the nuclei for this Career Development Curriculum Guide.

The purpose of this guide is to strengthen the students' ability to select and acquire a positive attitude toward work, toward all levels of occupational choices found in society, and toward themselves as prospective employees and their employers.

The results of these individuals during the summer of 1972, warrants our thanks and appreciation.

William I. Sims
Project Director
Developmental Vocational -
Education Program

TABLE OF CONTENTS

	Page
Senior High School Career Development Units	313 - 525
English	316 - 328
Social Studies	329 - 361
Mathematics	362 - 381
Science	382 - 409
Business	410 - 430
Home Economics	431 - 521
Foreign Languages	522 - 525
Appendixes	526 - 554
Materials Available at DVEP Office	527 - 533
DVEP Visual Aids Description	534 - 539
Student Office Tours	540 - 543
DVEP Career Pyramids	544 - 551
Career Wheels (Newspaper, Radio, Television)	552 - 554
Bibliography	[illegible]

HIGH SCHOOL LEVEL

At the high school level the program will move into an exploratory-preparational phase designed to put the students in a position to obtain a job after graduation or to go on for further training. The vocational course of study will be optional at all grade levels with provision for students to transfer freely between vocational and academic courses. The outline of the senior high program is as follows:

1. A career information center will be established in the senior high school with a broad array of information on job opportunities, post graduate training programs, job requirements, and career planning.

2. At each grade level the work orientation team will provide intensive occupational counseling to help the student analyze his interests, aptitudes and abilities, make decisions as to the next step to take in his career development. Such counseling will be coordinated with the activities of the Department of Guidance.

3. At Grade 10 the students will sample among different job skills. Guided by the work orientation team each student will choose four occupation areas among which to rotate on a nine-week basis. Instruction will be offered in the following areas:

    a. Typing, Shorthand, and Office Practice
    b. Bookkeeping
    c. Retailing and Sales
    d. Wood Shop
    e. Metal Shop
    f. Drafting
    g. Appliance Mechanics

4. In Grade 10 the work orientation team will instruct the students in how the particular skills they are learning from the basis for the operations involved in particular occupations. This instruction will be supplemented by work site visits to observe the operations involved in related occupations and by demonstration visits by tradesmen and other employees from cooperating companies to reinforce the idea that the skills being learned bear a real relation to the opportunities available in the world of work.

5. At Grade 11, on the basis of their previous experiences and with the guidance of the work orientation team the students will choose one major occupational skill in which to major for intensive training. Instruction will be offered in the following areas:

   a. Cooperative Office Education (typing, shorthand, bookkeeping, office programming)
   b. Merchandizing, Retailing, and Sales
   c. Banking
   d. Home Economics (foods and food service, clothing and clothing service, home nursing, vocational homemaking)
   e. Carpentry
   f. Appliance Mechanics
   g. Auto Mechanics
   h. Machine Shop
   i. Mechanical Drawing and Drafting
   j. Graphic Arts and Printing
   k. Building Maintenance

6. In Grade 11 sutdents majoring in different work areas will continue to make work-site visits to observe how the skills they are learning match those used by employees working in different occupations. They will also observe at work and talk to students in Grade 12 who are involved in a work-study program, so that they may see first-hand that the skills they learn in school are saleable skills and form the basis for earning a living.

7. At Grade 12, the students will enter a work-study program in which they will attend school for ½ day and hold a part-time job with a cooperating company for the other half. The job will enable them to earn money while putting their training to use in a real work situation. Placement for work-study will be the responsibility of the work orientation team who will monitor the students' performance on the job, provide guidance and support and assist the student in interpreting his work experience in terms of what his next step in career development will be.

8. The work orientation team will play a large role in helping the student find employment or plan for further vocational training following graduation. These efforts will be coordinated with the job placement program operated by the Job Development Project, a program currently operating under state funds which has a record of placing 97% of its student clientele in jobs after graduation.

ENGLISH

We would like to suggest several facets of a Career Development Program which seem to call for the special competence of English teachers. These are, in a sense, outside the area of work laid out for us in the occupational clusters, where we are developing lesson plans for instruction about career areas and their relationship to our subject areas. These facets of the program meet needs other than strictly informational needs:

1. Young people should learn how to write good letters of application and letters requesting information about jobs. Well-written personal biographies and resumes are useful job-seeking tools.

2. Neat, accurate, and clearly executed application blanks are an aid to employment. Hopefully some skill in the use of these blanks can be developed.

3. Perhaps somewhere in the English curriculum, skills in the taking of oral and written examinations can be practiced.

4. The reading of newspapers, especially the want-ads, is an important job-seeking activity.

5. Practice with forms of oral address in introductions and inquires would be of help to young people in business and employment situations. Public speaking in general is helpful. The inability to speak coherently and to the point hampers many of our young people.

6. This item is perhaps most important of all. Role playing, skit writing, and compositions around topics relating to life plans and career goals can help to stimulate, clarify, and deepen the thinking of youn people in regard to their careers. Book reports on career topics could be a part of this thrust.

OCCUPATIONAL CLUSTER: Business and Office Occupations

SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English

SUGGESTED GRADE LEVEL : 10,11,12

GENERAL OBJECTIVES : (1) To acquaint students with career opportunities available in the area of Business and Office occupations.

(2) To introduce students to skills essential for qualifying for career opportunities available.

(3) To provide mini experiences with the skills essential in several occupations.

(4) To visit several job sites for on-the-spot observation and information.

(5) To improve school achievement and motivation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to perform some of the basic skills and operations required in various office jobs. The students will be able to list and discuss ways in which English can be applied in the working world. Those 11th and 12th grade students who are working in Co-op programs will be able to evaluate the program in which he is involved and effectively describe it to others. The students will be able to list and describe various career opportunities in his community. The student will be able to list the location of the job site.	Accountant Advertiser Bookkeeper Cashier Electronic Computer Operator Office Machine Operator Receptionist Secretary Stenographer Typist	Pre-test for skills and career information. Administer an interest inventory. Give each student a career opportunities list. Compare interest inventories with career opportunities list.	The students will have a greater ability to describe the relation between specific vocational activities and real occupations. The students will be more aware of the English skills required for success in any career. The students will be familiar with Business Career opportunities available in the greater Cleveland area. The students will have a more positive attitude toward school and the work world.

English - 10,11,12

BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Your Career as a Secretary" "Careers Clerical"	Accountant Cashier Office Machine Operator Secretary Stenographer Typist	Contact: Addressograph Multigraph Company Cleveland, Ohio Public Relations Department	Contact: Cleveland Trust Bldg. 9th and Prospect Ave. Cleveland, Ohio	Pamphlets Brochures SRA Kits Occupational Exploration Kit Popeye Career-Comics People and Choices-Career Folios Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to be able to list, in writing, the location and description of at least ten different business and office jobs located in his/her community. Teacher evaluation of pre-test and post test will be that at least 75-80% of the students correctly answer at least 75-80% of the pre-test items and 80-85% of the students correctly answer at least 85% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BUSINESS AND OFFICE OCCUPATIONS

ADDITIONAL LEARNING EXPERIENCES OR ACTIVITIES

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 10,11,12

1. Take a field trip to the Cleveland Trust Bank, 9th and Prospect Ave., Cleveland, Ohio.

2. Create skills competition with the use of word games and puzzles for oral and written vocabulary enrichment.

3. Use several filing systems for classroom practice involving student teams.

4. Take students on a field trip to Stock Exchange for observation of the more advanced aspects of business careers.

5. Post test for skills and career knowledge.

MATERIALS

1. Interest inventories

2. Various filing systems and boxes with file cards

3. Word games and puzzles (vocabulary)

4. Flash cards

5. Classroom sets of dictionaries

6. Monopoly games

OCCUPATIONAL CLUSTER: Communication and Media Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To introduce students to career opportunities available in the Communication and Media Cluster.

(2) To involve students in simulated career experiences utilizing the four essential communication skills.

(3) To emphasize the importance of the listening, speaking, reading and writing skills.

(4) To acquaint students with experts in several communications career opportunities.

(5) To improve school achievement and motivation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe the operational structure and jobs performed in producing a variety show and a radio program. The students will be able to identify and discuss a variety of considerations involved in choosing a career. Through class activities (produced and performed by the students), the students will be able to sample the operations and skills required in some of the Communication and Media careers discussed in this unit. The students will be able to describe at least five different ways in which English can be applied in the working world.	Broadcast Technician Cable Splicer Camera Man Coin Collector Directory Clerk Disc Jockey Mail Carrier News Reporter Newspaper Editor Postal Clerk Telephone Operator TV News Writer TV Producer	The class will observe and listen to select radio and TV programs--show the film "Careers in Communication". Elicit from students their opinions of skills essential to success in various media occupations--show and discuss the filmstrip "Communicating Without Words". Develop a half hour radio program including commercials news, weather reports, human interest stories and interviews.	The students will have a greater ability to perceive the relation between specific vocational education activities and "real" occupations. The students will be more aware of listening, speaking, reading and writing skills in any kind of job. The students will be more equipped to assess themselves in terms of personal and career goals. The students will have a more positive attitude toward self, others and the world of work.

COMMUNICATION AND MEDIA OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Careers in Communication" Filmstrips: "Communicating Without Words"	Broadcast Technician Disc Jockey Newspaper Reporter TV Director TV News Writer	Contact: WBOE Radio Station or WJMO WVIZ TV Station Channel 25 368-2800, ext. 43 The Cleveland Plain Dealer	Contact: TV Station WVIZ	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Exploration Kit Chronicle Occupational Library Occupational Outlook Handbook DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write, in detail, or orally identify and describe at least 80% of the jobs listed in this unit, and list, in writing, at least three ways in which English can be applied to Communication and Media careers.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

COMMUNICATIONS AND MEDIA OCCUPATIONS

ADDITIONAL LEARNING EXPERIENCES OR ACTIVITIES

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 10,11,12

1. Produce and video-tape a variety show using student creativity and talent.

2. Orally read several one act plays.

3. Use home version of TV games and quiz shows.

4. Ask students to view a play, TV show, or movie and write a critical review.

5. Students will plan and construct their own sets and make their own costumes for various productions.

6. Invite representatives from TV, radio and newspapers to conduct a panel discussion on careers in media.

7. Culminate the unit with an assembly presenting the class video-taped project.

MATERIALS

1. Tape recorders
2. Tapes
3. Video-tape equipment
4. Movie Cameras (8mm), movie projector (8mm)
5. Building jobs (saws, hammers, nails, wood, etc.)
6. Scissors, construction paper, magic markers
7. Daily newspaper (Cleveland Plain Dealer)
8. Games: Password, The Match Game, Jeopardy, Concentration

OCCUPATIONAL CLUSTER: Fine Arts and Humanities
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To develop an appreciation for the heritage of working throughout the ages.

(2) To encourage the development of self-image.

(3) To help students develop their own sense of social and moral responsibility.

(4) To aid each student in articulating his role in the present social order.

(5) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe, in some detail, occupational opportunities in the Fine Arts and Humanities Occupational Cluster. The students will be able to describe and list some of the attitudes, work habits and personal qualities necessary for gainful employment. The students will be able to list various duties and qualifications for jobs listed in this unit and how these jobs relate to classroom study of English.	Actor Actress Artist Commercial Artist Fine Arts and Humanities Industrial Designer Interior Decorator Musician Singing Teacher	Begin the unit with posters and prints of art masterpieces to trace the movement and philosophy of civilization from East to West. Visit the Art Museum and the Museum of Natural History--emphasize career opportunities. Invite curators and lecturers from various museums and schools in the area to bring slides, samples, information and know-how to students. Read several period pieces of literature emphasizing the theme--"The Plight of the Common Man".	The students will show more positive attitudes toward their career goals and continuing education. The students will have a more positive attitude toward self, others and the world of work. The students will have a greater appreciation of how school subjects relate to the occupational clusters The students will be aware of jobs available in the Cleveland community.

OCCUPATIONAL CLUSTER FINE ARTS AND HUMANITIES

English - 10,11,12

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Design for Growing World Festival of Negro Arts	Actor Actress Commercial Artist Dancer Director Interior Decorator Musician Singer Singing Teacher	Contact: Museum of Natural History, Public Relations Dept, Cleveland, Ohio Cleveland Institute of Music	Contact: Art Museum Museum of Natural History Dearborn, Michigan, The Henry Ford Museum and Greenfield Village	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Exploration Kit People and Choices Career Folios DOT Chronicle Occupationa Library Occupational Outlook Handbook

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to: (a) write a detailed description including duties, requirements, opportunities, etc. of at least seven careers in the area of fine arts and humanities, and (b) list, in writing, at least five attitudes, work habits or personal qualities necessary for gainful employment.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

FINE ARTS AND HUMANITIES

ENGLISH

GRADE LEVEL: 10,11,12

I. Additional Experiences or Activities

1. Read several period pieces of literature emphasizing the theme--"The Plight of the Common Man".

2. Show movies based on novels when available.

3. Create a movie based on the theme of one of the contemporary novels as a class project.

II. Materials

1. Humanities prints

2. Quips and Quotes A & B

3. Reproductions of masterpieces

Cameras
Projectors
Screen
Camera Lights
Film
Tape Recorder
Editing Machine
Field Trip - Buses - Dearborn, Michigan
Henry Ford Museum
Greenfield Village

LITERATURE FOR ENGLISH UNIT ON FINE ARTS AND HUMANITIES

Grade 10:

(1) Short Stories----------Anton Chekov

(2) The Good Earth---------Pearl S. Buck

(3) Things Fall Apart------(African Author)

Grade 11:

(1) A Lantern In Her Hand----------Aldridge

(2) Tobacco Road----------E. Caldwell

(3) Me Street----------Ann Petry

(4) The Thread That Runs So True--------Stuart

(5) Coming of Age in Mississippi--------Ann Moody

(6) To Be Young, Gifted and Black-------Lorraine Hansberry

Grade 12:

(1) To Sir With Love----------Brailhwaite

(2) Tess D'Urhervilles----------Thomas Hardy

(3) Jane Eyre----------Bronte

(4) The Razor's Edge----------S. Maugham

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
JOB FAMILY:

SUGGESTED SUBJECT AREA: English
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To observe first-hand operations in the marketing and distribution departments of a major industry.

(2) To pin-point career opportunities in the Marketing and Distribution Occupational Cluster.

(3) To practice the speaking and writing skills paramoun to marketing and distribution careers.

(4) To promote experience in sales, display, research and survey techniques.

(5) To assist students in assessing themselves in terms of personal and career goals.
(6) To develop a high degree of work habits and attitudes nessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Through role-playing, distributing questionnaires and telephone campaigns, the students will be able to sample various skills and operations required in certain Marketing and distribution careers. The students will be able to describe and identify marketing and distribution jobs listed in this unit and relate them to the study of English. The students will be able to list and discuss a variety of considerations that enter into career choice.	Account Manager Field Interviewer Marketing Researcher Research Presentation Writer Statistical Analyst Tabulator	Show film depicting various career opportunities in marketing. Prepare a questionnaire about student reactions to product sold in the school bookstore Conduct the reation survey and tabulate results. Create displays and sales promotion posters and campaigns to increase acceptance of that product. (Use radio, commercials, and newspaper, and, as models)	The students will be able to relate marketing and distribution careers to the study of English. The students will be aware of the duties and requirements for careers of this cluster and where to find them. The students will show more positive attitudes toward their career goals and continuing education The students will have a more positive attitude toward school, self, others, and the world of work.

English - 10,11,12

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: The Joys of Selling Poster Making--Design and Techniques Communicating Ideas Careers In Art	Account Manager Field Interviewer Marketing Researcher Research Presentation Writer Statistical Analyst Tabulator	Contact: The American Marketing and Association Cleveland, Ohio	Contact: The American Greeting Corporation	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write, in detail, or orally identify the five marketing and distribution jobs listed in this unit, and list. in writing. at least three considerations involved in their personal career choices.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MARKETING AND DISTRIBUTION OCCUPATIONS

ENGLISH

GRADE LEVEL: 10,11,12

I. Additional Experiences or Activities

1. Explore various sales techniques

2. Role-play the multiple sales methods to determine effectiveness of each.

3. Present telephone marketing and sales skills via telephone company kits and personnel.

4. Conduct a telephone campaign to promote a school activity (open house, concert, etc.). Follow up with a questionnaire or activity to determine reason for attendance and effect of calls.

5. Co-ordinate marketing and distribution information with a visit to the American Greetings Corporation.

II. Materials Needed

1. Bulletin Boards

2. Poster Boards

3. Magic Markers

4. Ditto Masters

5. Duplicating paper

6. Newsprint

7. Phone Kits

8. The Hidden Persuaders, Vance Packard

SOCIAL STUDIES FROM GUIDANCE

We would like to suggest several facts of a good career development program which call for the special competence of the Social Studies teacher. These are, in a sense, outside the area of work laid out for use in the occupational clusters, where we are developing lesson plans for instruction about career areas and their relationship to our subject areas. These other facts of the program meet needs other than strictly informational needs.

1. Students should realize the importance of having one or two alternate career plans or contingency career plans. The Social Studies teacher is uniquely qualified to help them see the effect of job market supply and demand on career choices.

2. The Social Studies teacher can explain the Government, Local, State, and Federal, employs more people than any industry or business. Government employs workers in almost all the occupational clusters.

OCCUPATIONAL CLUSTER: Agri-Business and Natural Resources
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES :

(1) To show how social studies is related to careers in the Natural Resources.

(2) To gain insight into the various Natural Resources fields such as forestry, oceanography, and soil conservation.

(3) To stimulate interest in the Agri-Business and Natural Resources Occupations.

(4) To make students aware of occupational and educational opportunities by providing a broad base of career information and explanatory experiences on which to make wise career choices.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After participating in research projects, class discussions and field trips, etc., at least 90% of the students will be able to write detailed descriptions as to duties, requirements, job availability, etc. of jobs discussed in this Unit. All students will be able to orally discuss or write at least three different ways in which social studies is related to Agri-Business and Natural Resource Occupation.	Agri-Business Agricultural-Scientist Ecologist Farmer Forester Geologist Horticulturist Oceanographer Soil Scientist	Discuss conserving natural resources and occupations involved. Have a field trip to A.G. Heinrich Greenhouse, 211 E. Schaof Road Cleveland, Ohio. Show and discuss film on our Natural Resources. Students will research requirements duties, training, etc. for jobs listed in this Unit. Invite speakers from the Metropolitan Parks Division and the Ohio State University Agricultural Division to speak to the class on Agri-Business and Natural Resources Occupations.	The students will have a more positive attitude toward self, school and continuing education. The students will have a detailed knowledge of the duties, requirements, job outlook, etc. for a large number of jobs in the Agri-Business and Natural Resource Cluster. The students will be aware of a variety of ways in which social studies can be applied in the working world.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Forest Conservation" "Conserving Our Water Resources Today" "Waterfowl Resources in Danger"		Contact: The Ohio State University Agricultural Division Metropolitan Parks Division	Contact: Wooster Agricultural Station, Wooster, Ohio A.G. Heinrich Greenhouse, 211 East Schaof Road	Occupational Outlook Handbook Chronicle Occupational Library DOT Pamphlets Brochures SRA Kits Popeye Career Comics People and Choices-Career Folios Occupational Exploration Kit

EVALUATION: Successful attainment of objective number one will be based on the ability of 85-90% of the students to write detailed descriptions of 90% of the jobs listed in this unit. Attainment of objective number two will be based on the ability of all students to list, in writing, at least three different ways in which social studies is related to the area of Agri-Business and Natural Resource occupations.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To familiarize students with the requirements, duties, sources of job information, etc., of jobs in the Business and Office Occupational Cluster.

(2) To show students how Social Studies is related to jobs in the business cluster (advertiser, accountant, Public Relations worker, receptionist etc.)

(3) To motivate or inspire students' desire to consider the world of business as a career.

(4) To prepare students to cope with the continued change in the world of work.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Eighty-five to ninety percent of the students will be able to orally discuss or write detailed descriptions of all Business and Office Careers discussed in this unit. All students will be able to list at least ten businesses and office jobs available in the greater Cleveland area and tell where information about these jobs can be found. Through classroom activities, reports, field trips and speakers, all students will be able to sample the operations and skills required in all Business and Office careers	Accountant Advertiser Bookkeeper Cashier Clerk Electronic Computer-Operator Office Machine Operator Personnel Staff Public Relations Staff Receptionist Secretary Shipping & Receiving Clerk Stenographer Telephone Operator Typist	Students will make a list and describe the different jobs included in the Business and Office Occupations cluster and show the possible contributions social studies can make. Have students research the requirements for business and office jobs relating to economics, geography, government, and social problems.	Through participation in part-time jobs, high school business classes and co-op programs, a large majority of the students will get a chance to sample some of the skills and operations required in various business and office occupations The students will have a more positive attitude toward self others, and the world of work. Students will have a detailed knowledge of the duties requirements, job source, application procedure, etc., of all jobs listed in this unit.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in Business and Office Occupations--How Do You Get There Goodwill Ambassader Careers--Clerical Sales Building Role	Accountant Personnel Staff Secretary Stenographer Typist	Contact: Addressograph Multigraph Co. The Cleveland Advertising Club The Plan Dealer Speakers Bureau	Contact: East Ohio Gas Company Eaton Corp 100 Erieview	Occupational Outlook Handbook Chronicle Occupational Library DOT SRA Career Information Kits Pamphlets Brochures Popeye Career Comics People and Choices Career Folios

EVALUATION: Teacher rating of objectives in this unit will be based on the ability of 85-90% of the students to write detailed descriptions or orally discuss 80-85% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER : BUSINESS AND OFFICE OCCUPATIONS
SOCIAL STUDIES

Additional Learning Experiences or Activities

Arrange a field trip to the East Ohio Gas Company.

Have students prepare and maintain bulletin boards and illistrative materials on jobs in this cluster.

Students will summarize their findings on jobs in this cluster in a notebook.

Have students write a report on a particular career in the area of business they find interesting.

OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To learn how Social Studies can help students successfully pursue careers such as Reporter, Photographer, Sales Representative, Program Director, Public Relations Consultant, T.V. Director, Communications Producer, Announcer and Newswriter.

(2) To know the requirements of those occupations in the field of communication in which Social Studies can be helpful.

(3) To know where the requirements can be found.

(4) To promote pupil interest in Communication and Media Careers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to write or orally name and characterize in detail 95% of the jobs listed in this unit. Through class projects, field trips and guest speakers all students will be able to sample the operations and skills required in 80-90% of the communication and media jobs listed in this unit.	Auto Mechanic Broadcast Tecnician Cable Splicer Camera Man Coin Collector Delivery man Disc Jockey Mail Carrier Make-up Artist Morse Operator News Reporter Newspaper Editor Photoengraver Postal Clerk Radio Station Manager Sales Representative Telephone Operator Telephone Repairman TV Producer	Students will list different jobs in the field of communication and Show how social studies, government history, economics and social problems can be helpful. Have students become aware of the requirements for successful careers in the area of Communication and Media. Arrange field trips to the Call & Post Newspaper Building, The Cleveland Press, and WJMD Radion Station Invite a speaker from the Speakers' bureau of the Cleveland Plain Dealer.	The students will be more aware of jobs available in their community and duties, requirements, and procedures for applying for these jobs. Students will be stimulated to seek additional information on some of the jobs discussed in this unit. Some students will be able to decide whether they would like to pursue a career in the area of Communication and Media. The students will have detailed knowledge of the requirements and operations involved in each of the six job families in the communication and media cluster.

OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films;	Artist	Contact;	Contact;	Pamphlets
Careers in Communication.	Broadcast-Technician	The Plain Dealer Speakers Bureau	The Call and Post	Brochures
Television is What You Make It.	Cartoonist		The Cleveland Press	Career Ref. Books
Television Serves Its Community	Newswriter		WJMO	Occupational Outlook Handbook
Communication and Our Town.	Reporter			Chronicle Occupational Library
Filmstrips;	Video Technician			DOT
Communication, Books, Television Ideas, The Newspaper,				SRA Information Kits
				Popeye Career Comics
				People and Choices Career Folios

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to (a) submit notebook summarizations of their research on at least 10 communication and media careers. (b) submit materials and prepare a classroom bulletin board within a period of one week. (c) write detail descriptions or orally discuss at least 15 of the communication and media jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: COMMUNICATION AND MEDIA
SOCIAL STUDIES

Additional Learning Experiences or Activities

Have students prepare and maintain bulletin boards and illustrate materials related to communication and media occupations.

Have students submit a report on one occupation of their choice in the area of Communication and Media.

Have students maintain a notebook and summarize their general findings on Communication and Medial Careers.

OCCUPATIONAL CLUSTER: CONSTRUCTION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10. 11, 12
GENERAL OBJECTIVES : (1) To learn how social studies is related to construction occupations such as architecture, engineering, construction occupations, and building trades in general.

(2) To understand how such subjects as government, economics, social problems and history can prepare one for successful careers in construction occupations.

(3) To learn what the requirements for success are.

(4) To learn where more information about this field of work can be obtained.

(5) To stimulate further interest in construction as a career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will relate verbally or in writing how social studies classes are related to the world of work and name a construction career of their choice in which a knowledge of social studies is used. Ninty percent of the students will be able to list or orally cite detailed descriptions of 95% of the jobs listed in this unit. Through field trips, speakers, class projects, etc., all students will be able to sample some of the skills and operations of construction jobs listed in this unit.	Abestos and Insulating workers Bricklayer Carpenter Cement Mason Electrician Glazier Ironworker Laborer Lather Millwright Operating Engineer Painter Plasterer Plumber Roofer Sheet Metal Worker Teamster	Students will list and describe the specific activities and responsibilities of Architects, Engineers Contractors, and Building Tradesmen. Have students learn the requirements of the careers in No (1) above and the jobs listed in the vocabulary list and try to relate these jobs to social studies government, history and economics. Arrange to have speakers from various building trade unions and the Bureau of Apprenticeship and Training. Have students keep a notebook of information clippings and summarizations of their findins on Careers.	Students will have detailed knowledge of the requirements, and operations involved in jobs discussed in the Construction cluster. Students will be motivated to explore additional information and Cleveland job sources in careers in the Construction Cluster. The students will have more positive attitudes toward school, Vocational education and education beyond high school.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Building Trades - The House Builders Careers in the Building Trades Building A House	Bricklayer Carpenters Electricians Painter Plasterer Plumber Teamster	Contact: Building Trades Unions Bureau of Apprenticeship and Training Federal Bldg. Federal Housing Administration	Contact: A Construction Company currently building to arrange a visit to the building site	DOT Occupational outlook Handbook Chronicle Occupational Library SRA Career Kit Pamphlets Brochures Popeye Career-Comics People and Choices Career Folios

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write in detail or orally identify and describe the duties, requirements, relation to social studies, etc., of 80-85% of the construction jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: CONSUMER AND HOMEMAKING RELATED OCCUPATIONS
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10 11 12
GENERAL OBJECTIVES : (1) To learn what relationship there is between Social Studies and the various careers such as the food industry, the clothing industry and the consumer education field.

(2) To understand how such subjects as government, economics, social problems, history and geography can help prepare students for successful careers in consumer and homemaking related occupations.

(3) To learn what the requirements for successful careers in dietetics, home economics, nursing, home care, housekeeping, cooing, baking, and other related jobs are.

(4) To learn where more information about these occupations is obtainable.

(5) To motivate pupils to consider a career in this area.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After completing individual reports, making bulletin boards, class discussions and listening to speakers, discussing consumer and homemaking occupations, all students will be able to write or verbally give detailed descriptions of 90-95% of the consumer and homemaking careers listed in this unit. Those students in part-time jobs in the area of consumer and homemaking, will know where to go to get job information and applications for these jobs (Guidance office, youth opportunity Center etc.)	Baker Bushelman Butcher Chef Cook Clothing Assembler Designer Dietitian Dish Washer Dress Maker Economist Home Economics-Teacher Nutritionist Pattern Maker Presser marker Tailor Teachers' aid	Students will list and discuss the main responsibilities of the careers listed in this unit. Have students understand the requirements of these careers and their relationship to government economics, and social problems. Arrange a field trip to Jane Addams Vocational School Manners Hospitality College, and/or the Emmanuel Baptist Church Care Center. Invite speakers from the consummers League of Ohio, The Consummer Protection Association and/or the Bakers Union of the Brotherhood of teamsters.	The students will be more aware of how a course like social studies can server as pathways to future careers in the consumer and homemaking cluster. The students will have more positive attitudes toward self, others, and the world of work. The students will know the requirements, duties, places of full time or part-time employment, job outlook, etc., of all jobs listed in this unit.

Social Studies 10, 11, 12

OCCUPATIONAL CLUSTER: CONSUMER AND HOMEMAKING RELATED CAREERS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Nursing Care of The Sick and Injured Consumer Education on Budgeting Consumer Education on Installment Buying Consumer Education Retail Credit Buying	Home Economist Nursemaid	Contact: Consumer League of Ohio 940 Engineers Bldg. Consummer Protection Association 118 St Clair 44114 241 0186 Bakers Union of The Brotherhood of Teamsters East 22nd & Prospect Depart. of Consumer Affairs City of Cleveland	Contact: Jane Addams Vocational School East 30th & Community College Ave. Manners Hospitality College 1620 Euclid Ave Emmanuel Care Center 88 Carnegie Ave Cleveland, Ohio	Occupation Outlook Handbook Chronicle Occupational Library DOT Pamphlets Brochures SRA Kits People and Choices-Career Folios Popeye Career Comics

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write detailed descriptions of the duties, requirements, job sources, etc., for at least 85% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: ENVIRONMENTAL CONTROL
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To help students understand how Social Studies can be helpful in pursuing careers in this cluster such as Archeologist, Anthropologist, Geographer, Urban Geographer or Agronomist.

(2) To enable students to see the relationship between these careers and Social Studies especially History, Geography.

(3) To enable students to learn what the requirements are for a successful career in this cluster of occupations and to know where information about environmental occupations can be obtained.

(4) To motivate students to consider preparing for a career in this area of work

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to verbally describe or write at least three geographical factors that can affect or influence his choice of a career Ninety to Ninety-five percent of the students upon completion of this unit on the Environmental Control Cluster will be able to orally describe or write detailed descriptions of 90% of the jobs listed in this unit.	Agronomist Anthropologist-geographer Archeologist Biologist Chemist Climatologist Laboratory Technician Meteorologist Microbiologist Physicist Urban Geographer Waste water treatment plant operator Zoologist	Students will list and describe the work of archeologists, Geographers, and Agronomists to understand how Social Studies can help in preparing for these careers. Have students acquaint themselves with requirements, duties etc. of jobs listed in No (1) above. Arrange field trips to the National History Museum or the Cleveland Zoo Invite speakers from the National Weather Service, Cuyahoga Community College Humanities Department or the Human Relations Center, Kent State University	The students will be knowledgeable about job descriptions, training, personal and educational requirements of jobs listed in this unit. The students will have improved their attitudes toward vocational education and real occupations they will seek outside information about jobs in this cluster and inquire about post high school training in Environmental control occupations The students will be able to orally relate various ways in which Social Studies can be beneficial to a student interested in pursuing a career in the Environmental Control Cluster

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: House of Man - Our Crowded Environment Problems of Conservation, Air Science and Technology Changing City Face of the Earth Erosion Earth Changes in its Surface	Geologist Geophysicist	Contact: The National Weather Service Community Development Improvement Program, City of Cleveland	Contact: The Cleveland Zoo	Occupational Outlook Handbook Chronicle Occupational Library DOT Pamphlets Brochures SRA Kits Popeye Career-Comics People and Choices-Career Folios

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 85-90% of the students to list in writing at least three geographical factors that can affect one's career choice, and write in detail or orally identify and describe 80-85% of jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: FINE ARTS AND HUMANITES
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10 11, 12
GENERAL OBJECTIVES : (1) To inform students about the duties, requirements, etc., of Humanities and Fine Arts Jobs such as that of an actor, actress, dancer, decorator and designer.

(2) To help students understand how Social Studies is related to the Fine Arts & Humanities.

(3) To make students aware of the employment outlook and requirements of jobs in the Fine Arts & Humanities Cluster.

(4) To improve school achievement and motivation on the part of the students.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Through classroom activities (plays listening to recordings etc.), speakers and field trips, all students will be able to sample the operations and skills required in at least 90% of the Fine Arts & Humanities careers discussed in this unit Without the aid of resource materials, all students will be able to write a detailed description of the personal duties job outlook, etc., of 90% of the fine arts & humanities jobs listed in this unit.	Actor Actress Commercial Artist Dancer Industrial designer Interior Decorator Singer Singing Instructor	Students will listen to musical recordings peculiar to various sections of the country. Students will organize and produce a historical play. Students will plan a festival of African Art. Invite a representative from Belkin productions to talk to the class about the qualities and requirements for success in the area of Fine Arts and Humanities Show and discuss a filmstrip on the workings of a television studio.	The students will have an increased ability to describe the relation between specific vocational activities and real occupations The students will be more aware of Fine Arts & Humanities jobs available in the City of Cleveland and how to prepare and apply for some of these jobs The students will know the requirements, duties, etc. of the Fine Arts & humanities jobs listed in this unit. The student will have more positive attitudes toward self, others, and the world of work.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films:	Actor	Contact:	Contact: Karamu House	Pamphlets
Discovering the Music of Africa	Actress	Karamu House	A Television Studio	Brochures
Discovering the Music of Latin America	Dancer	The Playhouse		SRA Kits
Frederic Douglas - The Home on Cedar Hill	Industrial Designer	The Plain Dealer Speakers Burear		Occupational Outlook Handbook
American Vision	Interior Decorator			Chronicle Occupational Library
Marian Anderson	TV Studio			Popeye Career Comics
Changing Art in a Changing World				People and Choices Career Folios
				DOT

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 85-90% of the students to (a) organize and produce a historical play that will be presented in class or for the student body. (b) Write detailed descriptions of 80% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: HEATH OCCUPATIONS
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To show the importance of health careers in everyday life.

(2) To show requirements for success in health careers.

(3) To show how Social Studies can be an aid to the development of a health career.

(4) To stimulate interest in the field of health careers,

(5) To help students acquire needed information for job hunting applications, job interviews and post secondary training.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to list and write or verbally describe 90% of the health careers listed in this unit and list places in the greater Cleveland area that offer post high school training and/or jobs in the various health careers discussed in this Unit. Through guest speakers, classroom activities, visual aids etc., all students will be able to sample the skills and operations required in 90 95% of the health careers listed in the Health Career occupational Cluster.	Anesthesiologist Circulation Technologist Dental Hygienist Dental Technician Dietary Technician Doctor Laboratory Technician Nurse Nurse's aide Optometrist Orderly Physical Therapist Physicians assistant X-Ray Technician	Show and discuss the health career film "Horizons Unlimited" Students will make a display bulletin board dealing with health careers. Invite a guest speaker from Mt. Sinai or the Veterans'Hospital to speak to class students about careers in health. Show and discuss the filmstrip series Health Careers Part I IV Have students obtain journals from the library on the health field of their interest. Invite a speaker from the Greater Cleveland Hospital Assoc to speak to the students.	The students will have detailed knowledge of the vast number of Health Careers available in the greater Cleveland area, training required, benefits where to get additional information The students will be more aware of how school subjects can serve as pathways to career exploration The students will have more positive attitudes towards self, others, school, and continuing education.

Social Studies 10, 11, 12

OCCUPATIONAL CLUSTER: HEALTH OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films:	Dietitian	Contact:	Contact:	Occupational Outlook Handbook
Health Careers I - IV	Doctor	Mt. Sinai Hospital and/or Veterans Hospital	Cleveland Clinic Foundation	Chronicle Occupational Library
Good Health Practices	Librarian	Greater Cleveland Hospital Assoc 1001 Huron Rd		DOT
Community Media Health and You	Nurse	Health Division, City of Cleveland		Pamphlets
	Nutritionist			Brochures
	Pharmacist			SRA Kits
				Popeye Career Comics
				People and Choices. Career Folios

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write in detail or orally identify and describe 80-90% of the health careers listed in this unit and name at least one establishment in the city of Cleveland where an individual could obtain such a career.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: HOSPITALITY AND RECREATION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To learn how Social Studies can help students prepare for careers such as recreation leader, social worker, hotel manager, and others that may be classified as hospitality and recreation occupations.

(2) To understand how such subjects as government, social problems, economics and history can help prepare for successful careers in this cluster of occupations.

(3) To learn what the requirements are for success in this area.

(4) To be able to obtain information about hospitality and recreation occupations.

(5) To promote student interest in considering a career in this area of endeavor.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
At least 90-95% of the students will be able to list or orally cite the jobs discussed in this unit (duties, requirements, job outlook, where to apply for job etc.) Through field trips, tours, quest speakers, and classroom activities, all students will be able to sample some of the operations and skills required in various hospitality and recreation jobs discussed in this unit.	Baggage Porter Bartender Bell Boy Bell Captain Bus Boy Dishwasher Doorman Life Guard Manager Motion Picture Projectionist Playground Instructor Reservation Clerk Waiter	Students will list and describe the specific features of the work of social workers in settlement houses, recreation leaders and programmers, hotel managers, and hosts and hostesses. Students will learn requirements of careers listed in No. (1) above. Arrange field trips to Karamu House, Manners Hospitality College and The Salvation Army. Invite speakers from the Hiram House Camp, employment agencies, and the School of Applied Social Science, Case Western Reserve.	The students will be more aware of how school subjects can serve as pathways to career exploration. The students will have detailed knowledge of jobs in this cluster and they will seek additional information on their own. Those students considering co-op jobs will be able to decide whether they would like to pursure a job in the area of hospitality and recreation

Social Studies 10, 11, 12 OCCUPATIONAL CLUSTER: HOSPITALITY AND RECREATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "On time work and Leisure" "Social Worker" Fimstrip, "If you're not going to College"	Recreation Leader	Contact: Hiram House School of Applied Social Science, Case Western-Reserve University Hospitality Management Cuyahoga Community College Recreation Department City of Cleveland	Contact: Karamu House, YMCA and YWCA Phyllis Wheatley Assoc. Manners Hospitality College The Salvation Army 59th and Hough Ave. Cleveland, Ohio	Occupational Outlook Handbook Chroncicle Occupational Library DOT Pamphlets Brochures SRA Kits Popeye Career Comics People and Choices Career Folios

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 85-90% of the students to write detailed descriptions and orally discuss the duties, requirements, etc., of 80-85% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER, HOSPITALITY AND RECREATION
Social Studies

Additional Learning Experience or Activities

Have students keep up-to-date bulletin boards showing material pertaining to employment in hospitality and recreation occupations.

Require students to keep notebooks and summarize finding and job information on hospitality and recreation careers.

Students will submit a detailed report on the hospitality and recreation career of their choice.

Test students on their understanding of how geography, government, economics and social problems can be helpful in their choice of a career.

OCCUPATIONAL CLUSTER: Manufacturing
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To gain information concerning available jobs in manufacturing such as engineers, mechanics, electricians, plant workers, and chemists.

(2) To show the relationship of Social Studies to occupations in manufacturing.

(3) To give students the requirements for success in manufacturing.

(4) To show how natural resources play a part in manufacturing.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to orally discuss or write detailed descriptions (duties, requirements, job availability, etc.) of at least ten different manufacturing jobs available in greater Cleveland area. All students will be able to orally discuss at least three different ways in which social studies can be applied in various manufacturing occupations.	Bricklayer Dispatcher Draftsman Electrician Engineers (electrical, mechanical, aerospace) File Clerk Inspector Machinist Pattern Maker Sewing Machine-Operator Sheet Metal Worker Shipping & Receiving Clerk Time Clerk Tool & Die Maker Welder	Show and discuss the film "Careers in Industry" Have students research what manufacturing means to the community, city, state and national life. Students will prepare a bulletin board showing various occupations in manufacturing. Students will consult and compare journals from different vocational schools to compare requirements, course of study and quality of the schools. Invite a speaker from the Republic Steel Company to speak to the class.	The students will have a more positive attitude toward self, others and the world of work. Through discussions and class performance the students will indicate a better understanding of the interrelation between the production, management and service area of business and industry. The students will be more aware of their personal and career goals.

Social Studies 10, 11, 12 OCCUPATIONAL CLUSTER: MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Industry"		Contact: Republic Steel Co. A small business (teacher's choice)	Contact: Addressograph Multigraph, Babbitt Road Warner & Swasey Co.	Pamphlets Brochures SRA Kits DOT Occupational Outlook Handbook Chronicle Occupational Library People and Choices-Career Folios Popeye Career Comics

EVALUATION: Successful attainment of objective one will be based on the ability of 85-90% of the students to write in detail or orally discuss at least ten manufacturing careers. Evaluation of objective two will be that students be able to cite at least three ways in which social studies can be applied in various manufacturing careers.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: MARKETING AND DISTRIBUTION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To learn how social studies can help students pursue successful careers in such jobs as Marketing Research, Public Relations, Sales, Real Estate, Insurance.

(2) To know the requirements of those occupations in which social studies can be helpful

(3) To know where the requirements can be found.

(4) To stimulate interest in Marketing and Distribution Occupations as a career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to list at least four different ways in which a knowledge of social studies can be helpful in pursuing a career in the area of Marketing and Distribution. Through research assignments and classroom discussion, etc, all students will be able to sample some of the skills and operations required in various marketing and distribution jobs.	Auto Parts Repairman Auto Salesman Attendant Cashier Clerk Insurance Salesmen Marketing Personnel Public Relations Receiving and Shipping Clerk Researcher Routemen Service Station	Students will list the various jobs included in the marketing and distribution cluster and show the contributions that social studies can make toward a successful career Have students research the requirement especially those relating to economics, geography, government, history, and social problem. Show and discuss the film "The Joys of Selling" Invite speakers from A.W. Fenton Inc, The Wellman Co, The American Marketing Association.	The students will have a more positive attitude toward self, others, and the world of work. The students will have detailed knowledge as to duties, requirements and how to apply for jobs in the area of marketing and distribution. Through part-time jobs, co-op programs and activities in the classes some of the students will get a chance to sample some of the skills and operations required in some of the marketing and distribution jobs listed in this unit.

Social Studies 10, 11, 12 Occupation Cluster: Marketing and Distribution

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "The Joys of Selling"		Contact: A W. Fenton Inc. Society National Bank Bldg 127 Public Square 861-234 The Wellman Company 1405 East 6th St. 241-6956 Dept. of Markets-Weights and Measures City of Cleveland American Marketing Assoc. Grisworld-Eshelman Co 55 Public Sq 696-2400	Contact: Sears Robuck and Company 795-2223	Occupational Outlook Handbook Chronicle Occupational Library DOT Pamphlets Brochures Books on Careers SRA Kits Popeye Career Co

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write at least four ways in which a knowledge of social studies can be helpful in pursuing a career in the area of marketing and distribution, and write in detail or orally identify and describe at least 80% of the jobs listed in this area.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER, MARKETING AND DISTRIBUTION
SOCIAL STUDIES

Additional Learning Experiences or Activities

Arrange a field trip to Sears Roebuck & Company.

Have students prepare and maintain bulletin boards with materials related to these careers

Have students keep an up-to-date notebook on marketing and distribution occupations.

Students will turn in a report on an occupation in this cluster that he/she might consider as a career.

OCCUPATIONAL CLUSTER: Personal Services
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To find out how Social Studies--especially government, economics and social problems--can help students prepare for careers in personal services occupations.

(2) To learn what the requirements are for success in such careers as cosmetology, beauty operator, barber, and other personal service jobs.

(3) To find out where and how specific information about these careers can be obtained.

(4) To stimulate further interest in these careers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
85-90% of the students will be able to orally explain or write detailed descriptions of 90% of the Personal Service jobs mentioned in this Unit. Through field trips, films, class reports and actual observation of people working in personal service careers, etc. the students will be able to sample some of the operations and skills required in a variety of Personal service jobs.	Babysitter Barber Beautician Beauty Operator Building Custodian Caretaker Companion Cosmetologist Governess Housekeeper Laundress Maid Odd Job Man Valet	Students will list and describe, in detail, the work activities of jobs in the Personal Service Cluster. Plan field trips to Jane Addams Vocational High School. Invite a speaker from the Ohio State Employment Service to speak to students about Personal Service careers and job opportunities in greater Cleveland. Show and discuss the films, Careers in Personal Services and Beauty for a Career.	Hopefully, as a result of class discussions, reports, etc. the students will be aware of the requirements for successful pursuit of careers discussed in this Unit. The students will be more aware of how high school subjects can relate to a career cluster. The students will have a greater ability to describe the relation between specific vocational activities and real occupations.

PERSONAL SERVICES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Beauty for a Career" "Careers in Personal Services"		Contact: Hough Bakeries--Catering Service	Contact: Jane Addams Vocational High School	Occupational Outlook Handbook Chronicle Occupational Library DOT Pamphlets Brochures SRA Kits People and Choices-Career Folios Popeye Career Comics

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write, in detail, or orally describe at least 90% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Public Service
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To show available occupations in Public Services.

(2) To show requirements for careers in Public Services.

(3) To gain an understanding of the relationship of Social Studies to Public Services.

(4) To improve school achievement and motivation.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to write and describe in detail the duties, requirements, job outlook and availability of at least ten of the Public Service jobs discussed in this Unit. Through speakers, field trips and class discussions the students will be able to sample the operations and skills required in the majority of jobs listed in this Unit.	Aquarist Coin Collector Curator Engine and Pump-Crew Fire-Rescue Squad Man Judge Law Librarian Lawyer Meter Reader Playground Attendant Probation Officer Recreation Director Sewage Plant Attendant Telephone Installer and Repairman Telephone Operator	Show and discuss the film, "The City". Students will list careers that they would classify as public service careers--the teacher will add to this list, discussion will follow. Have a speaker from the police department speak to students on careers in police work. Have someone from the Civil Service Commission speak to students on careers in Civil Service. Show and discuss the filmstrip, "Our City Government.	The students will be more aware of public service jobs available in the city of Cleveland, where to find then and proper procedures for applying for these jobs on a part-time or full-time basis. The students will be more equipped to assess themselves in terms of personal and career choices. The students will show a more positive attitude toward their career goals and continuing education.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "The City" "Our City Government" "A Day With Fireman Bill" "Social Worker"	Assistant Chief Chief Dog Warden Fireman Institutional Guard Meterman Patrolman	Contact: Cleveland Police Department--Public Relations Dept. U.S. Federal Civil Service Commission of Cleveland	Contact: The Service Director for the city of Cleveland	Occupational Outlook Handbook Chronicle Occupational Library DOT People and Choices Career Folios Pamphlets Brochures SRA Kits Popeye Career Comics

EVALUATION: Successful attainment of objectives one and two will be based on the ability of 80-85% of the students to write detailed descriptions of at least 80% of the public service jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: TRANSPORTATION
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Social Studies
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To gain information about some specific jobs involving Social Studies that are included in Transportation Occupation such as, Pilot, Co-Pilot, Stewards, and Stewardessess Air-Traffic, Controllers, Ship Officers, and Travel Agents.

(2) To learn in what particulars, Geography, Government, and Economics for example are related or involved in this field.

(3) To become acquainted with the requirements of the jobs in transportation occupations,

(4) To know where specific information about these occupations can be found,

(5) To encourage students interested in the field of transportation to consider it as a career.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
At least 90% of the students will be able to orally discuss or write detailed descriptions of at least 5 jobs in each of the four different areas of transportation (land, air, water, rail)--descriptions will include job duties, requirements how to apply for part-time and full-time jobs, etc. All students will be able to write at least four different ways in which the four different transportation areas can be related to Social Studies--the students will do this in no more than 20 minutes.	Airline Dispatcher Block Operator Flight Engineer Machinist Marina Attendant Mechanic Merchant Seaman Pilot Reservation Clerk Ship Pilot Shipping Clerk Sky Cap Stewardess Ticket Agent Trackmen Truck Driver Longshoreman	Students will list and describe specifically the jobs that may be classified as transportation occupations that require or are related to Social Studies Students will used resources in career library and school library to research requirements and avail ability of jobs listed in No. (1) above. Invite speakers from Greyhound Bus Co, Cleveland World Port, Penn Central Railroad, Cleveland Transit Arrange a field trip to Hopkins International Airport and/or Grey-Hound Bus Station. Have students prepare and Maintain bulletin boards, keep a notebook and/or submit reports on these jobs	The students will have detailed knowledge of jobs in the four different areas of transportation and how jobs in the transportation cluster influenced the growth of Cleveland The students will have added knowledge and insights with which to continue assessing their personal and career goals The students will have more positive attitudes toward school and continuing education.

Social Studies 10, 11, 12

OCCUPATIONAL CLUSTER TRANSPORTATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films;	Block Operator	Contact:	Contact:	Occupational Outlook Hanbook
Careers in Transportation	Longshoremen	Greyhound Bus Co. Department of Transportation--Federal Bldg.	Hopkins International Airport	Chronicle Occupational Library
Seaport	Machinist		Greyhound Bus Station	DOT
Filmstrips;	Trackmen	Pan American Airlines		Pamphlets
Transportation Crisis	Truck Driver	Cleveland World Port--241-8004		Brochures
Transportation by Water		Cleveland Transit System 621-8601		SRA Kits
Transportation on by Air		Penn Central R.R. Terminal Tower		Popeye Career Comics
				People and Choices-Career Folios

EVALUATION: Successful attainment of objectives (1) and (2) will be based on the ability of 85-90% of the students to write in detail or orally identify the duties, requirements, relationship to social studies, etc., of at least five jobs in each of the four different areas of transportation. (land, air, water, rail).

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MATHEMATICS FROM GUIDANCE

We would like to point out a general area of importance to career development in which Mathematics teachers have much to offer. The general discipline involved in the study of Mathematics -- following a problem through to a successful conclusion -- analyzing, interpreting, speed, accuracy, spatial visualization -- is much needed in the development of most careers.

OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL-RESOURCES
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To introduce students to jobs available in agriculture and natural resources

(2) To give students ideas about educational and training requirements and salary ranges

(3) To teach how mathematics is used in some of these jobs

(4) To assist students in determing the types of careers they may decide to pursue

(5) To make students aware of occupational and educational opportunities by providing a broad base of career information and explanatory experiences in which to make wise career choices.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify, describe, and discuss the duties, requirements, etc., of the jobs listed in this unit. The students will be able to perform various math operations discussed in class. The students will be able to list a variety of ways in which jobs discussed in this unit relates to math. The students will be able to list and discuss a variety of considerations that enter into career choices.	Cutting Machine-Operator Draftsman Drill Operator Driller Extension Service-Worker Farmer (Diary) Geologist Horticulturist Machinist Mining Engineer Technician	Discuss the meaning of the term, Agri-Business. Students will make bulletin board showing how mathematics relates to career in the Agri Business and Natural Resource Cluster. Teach and discuss units related to (1) problems of the farmer (2) input, output and profit and loss, (3) the petroleum industry. Plan field trip to Holden Arboretum and the Standard Oil Company. Post Test: Career types of problem-solving taught in this unit.	The students will have a more positive attitude toward vocational education. The students will be aware of jobs available in the Cleveland area and where to find them. Students will know how to perform some of the operations required in jobs discussed in this unit. The students will have a more positive attitude toward self, work, and continuing education.

INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: AGRI-BUSINESS AND NATURAL RESOURCES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Our Natural Resources Man Uses and Changes the Land	Cutting Machine Operator Draftsman Driller Farmer (dairy, livestock etc) Mechanic Horticulturist Technician	Contact: Standard Oil Company Speaker's Bureau 1701 Midland Bldg Cleveland Ohio 575-5549	Contact: Holden Arboretum Standard Oil Company - Main Office	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Out look Handbook People and Choices Career Folios DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to (a) write in detail or orally describe at least 8 of the jobs listed in this unit, and write at least one way in which each of the jobs is related to math. (b) correctly solve at least 75-80% of post test math problems.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

Additional INSTRUCTIONAL RESOURCE MATERIALS:

BUSINESS AND OFFICE OCCUPATIONS

MATHEMATICS

General Information

List of job clusters will be given to each student.

The following meaning is to be given to the phrase "Teach a Unit":

> The teacher will give background material and solve sample problems after which the students will be given problems to solve. Students will be told which kind of worker solves these particular kinds of problems. Questions will be answered during the teaching session.

A quiz is to be given after each specific type of problem solving is learned and a comprehensive test is to be given when the cluster is completed.

The following is to be included as one of the questions on each comprehensive test.

> Choose a job within the cluster and give the following information about it:
>
> 1. Name and describe the duties of the job.
> 2. Tell whether the job is professional or paraprofessional, skilled or unskilled and tell whether it requires formal or on-the-job training.
> 3. Discuss salary ranges.
> 4. Tell how this particular job uses math, then describe and solve a sample problem.

The remainder of the test will be mathematical problems of the type taught in the unit.

Note: Ask guest speaker to include information as to whether there is both a professional and paraprofessional level, and whether there are skilled, semi-skilled and unskilled positions in the Business and Office Occupations Cluster. Salary ranges and demand and/or over-supply of workers in specific jobs should also be discussed.

OCCUPATIONAL CLUSTER: BUSINESS & OFFICE OCCUPA
SPECIFIC JOB: TIONS

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL :
GENERAL OBJECTIVES : (1) To acquaint students with some business jobs that regularly use Mathematics,

(2) To introduce students to the type of Math used in these jobs.

(3) To give students practice in some of these Mathematical activities.

(4) To help students to understand that all educational cultural experiences affect personal development and career development.

(5) To provide opportunities for students to examine personal and career goals.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe various Businesses and Office jobs that depend on Math to some degree. The students will be able to solve business related Math problems. Through classroom activities, films, speakers, etc the students will be able to sample the operations and skills required in jobs listed in this unit. The students will be able to list duties, requirements and where to find jobs listed in this unit,	Accountant Advertiser Bookkeeper Cashier Clerk Electronic Computer Operator Office Machine Operator Receptionist Shipping & Receiving Clerk Secretary Stenographer Telephone Operator Typist	Show and discuss the film "Careers in Business and Office Occupations" Invite speaker to discuss information about training and education required for various business jobs A question and answer period will follow, The teacher will teach a unit on business related mathematical problem solving: (a) budgets and percentages, (b) tax problems including take home pay, federal city, and state taxes, (c) profit- loss problems, making change, counting money etc.. Post test	The students will be more aware of how school subjects such as Math relate to various types of careers The students will have a greater ability to describe the relation between specific vocational activities and real occupations. The students will have a more positive attitude toward self, others, the world of work and continuing education.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in Business and Office Education	Accountant Cashier Office Machine Operator Personnel Staff Secretary Stenographer Typist	Contact: Case Western Reserve University Speaker's Bureau 1701 Midland Bldg Cleveland Ohio 575-5549	Contact: Greyhound Computer Corp 2203 Superior Ave 861-1300	Pamphlets Brochures SRA Kits Popeye Career Comic Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write in detail or orally identify and describe 80% of the jobs listed in this unit. Tecaher rating of post test will be that at least 85-90% of the students correctly answer 80% of post test math problems.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCSTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Construction
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To introduce students to some of the different construction jobs and types of construction, i.e. domestic, commercial, bridges, roadways, etc.

(2) To introduce students to some of the materials used, salary ranges and training and educational requirements for specific jobs.

(3) To introduce students to the types of mathematical problems solved or encountered by construction workers.

(4) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list ways in which the jobs listed in this Unit are dependent on Mathematics. Through field trips, classroom activities and speakers, the students will be able to sample the operations and skills involved in a variety of construction occupations. The students will be able to list and identify a variety of Construction careers available in his/her community and cite factors that influence the selection of a career.	Bricklayer Carpenter Cement Mason Electrician Laborer Millwright Painter Plasterer Plumber Roofer Sheet Metal Worker Teamster	Show and discuss films, "Careers in Building Trades" and "Building a House". Discuss training and educational requirements for specific jobs, apprenticeships, beginning salaries for craftsmen and their helpers. Discuss and relate school subjects to jobs: Shop Math, Wood and Metal Shop, Mechanical Drawing, etc. Practice working problems related to construction. (Background work in area, volume, and board feet should be taught)	The students will have a greater ability to describe the relation between specific vocational activities and real occupations. Students will have a more positive attitude toward vocational education. The students will have a more positive attitude towards self, others and the world of work.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Building a Home" "Careers in Building Trades"	Bricklayer Carpenter Electrician Painter Plasterer Plumber Teamster	Contact: The Apprenticeship Information Center 579-7802 Recruitment and Planning Program 10609 Euclid Ave. 795-3900	Contact: The Apprenticeship Information Center 579-7802 The Urban League of Cleveland, 861-4200	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library People and Choices-Career Folios DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-90% of the students to correctly solve at least eight out of ten construction problems dealing with math, and write detailed descriptions of the duties, requirements, training, benefits, etc. of 85% of the jobs listed in this unit.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS

OCCUPATIONAL CLUSTER: Environmental Control
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To let students know about some of the various jobs and professions within environmental control.

(2) To inform students of the levels of employment, salary ranges and demand and/or over-supply for workers in specific jobs.

(3) To make students aware of occupational and educational opportunities by providing a broad base of career information and explanatory experiences on which to make wise career choices.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list ways in which workers who studied this unit use Mathematics in their jobs. The students will be able to list and discuss the duties, requirements, etc. of various jobs dealing with environmental control. The students will be able to perform some of the math skills required in various jobs related to environmental control.	Astronomer Chemist Geodesists Geophysics Hydrologist Radiation Seisniologist	Show and discuss transparencies dealing with soil depletion, flooding and pollution. Teach unit on meteorology (reading weather maps, temperature, extremes and averages). Teach scientific notation and if possible, the use of slide rules for multiplication and division. Discuss the relationship between Metric and English units. Teach scale measurements and topography map reading. Students will study and complete problems dealing with ratios (include Mendelian ratios)	The students will have a greater knowledge of jobs available in the area of environmental control. The students will be aware of ways in which math can be used in any occupation. The students will know where to go to find information on any kind of job. The students will have a more positive attitude toward self, school and continuing education.

ENVIRONMENTAL CONTROL

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Conserving Our Water Resources" "Crooked River Dies--Cuyahoga River" "Good Riddance Pollution"	Chemist Geologist Geophysicist Oceanographer	Contact: The Environmental Protection Agency Cleveland, Ohio 333-7000	Contact: Natural History Museum Water Filtration Plant	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to: (a) list, in writing, at least three ways in which workers in the jobs listed in this unit use math, (b) write detailed descriptions of duties, requirements, etc. of at least five environmental control jobs, and (c) solve at least seven out of ten problems dealing with the use of the slide rule, metric system and ratios, etc.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: HOMEMAKING AND RELATED OCCUPATIONS
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10, 11 12
GENERAL OBJECTIVES : (1) To give students information about various jobs, the salary ranges, training requirements and availability of jobs.

(2) To give students practice in working mathematical problems relevant to those jobs.

(3) To provide opportunities for students to examine personal and career choices.

(4) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to correctly use a thermometer. Students will be able to use the metric system. The student will be able to list and describe ways in which math can be used in careers listed in this unit. The students will be able to identify requirements, duties etc., of jobs discussed in this unit and where to find these jobs. The students will be able to discuss factors that influence career choice.	Chef Cook Cutter Designer Dietitian Home Economist Marker Metric System Nutritionist Pattern Maker Tailor	Students will study unit on recipe measurements - this includes increasing and decreasing measurements. Students will practice using and reading themometers and measuring tapes. Teacher will teach unit dealing with time clocks, hourly workers and piece work rates. The class will discuss and complete problems dealing with measuring height and weight, using English and Metric units Post Test- Students will complete math related problems dealing with careers discussed in this unit.	The students will be aware of the many different ways in which math is used in any kind of job. The students will be knowledgable about the duties, salaries, etc., of jobs discussed in this unit. The students will be able to list or discuss the basic skills and operations involved in jobs listed in this unit. Students will show more positive attitudes toward their career goals and continuing education.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Cooking Measuring" "How to Measure for Your Dress" "Metric System"	Cook Cutter Designer Marker Pattern Maker Tailor	Contact: Metropolitan Jobs Council 1375 Euclid Ave Cleveland Ohio 861 6100	Contact: Director of Modern Home Makers The Tom Davis Agency Cleveland Ohio 621 6093	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to (a) answer at least 85% of post-test problems dealing with the use of thermometers, the metric system etc., (b) write in detail or orally describe at least 80% of the jobs listed in this unit, and describe how math is used in these careers.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: PUBLIC SERVICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10 11, 12
GENERAL OBJECTIVES : (1) To give students knowledge of the variety of jobs listed under public service.

(2) To give studetns information about educational training requirements and salary ranges.

(3) To give students practice in solving mathematical problems relevant to specific public service jobs.

(4) To improve school achievement and motivation.

(5) To assist students in assessing themselves at this stage in their development in terms of personal and career goals.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify a variety of considerations involved in choosing a career. The students will be able to list various ways workers discussed in this unit used math on their jobs. The students will be able to compute monthly bills, change or convert recipe measurements, and convert from the Englist to the Metric System. The students will be able to list and describe various public Service jobs available in their communities.	Cable Splicer Coin Collector Fireman Load Dispatcher Meter Reader Policeman Stationary Engineer Stock Clerk Telephone Operator	Teach and encourage class participation on unit dealing with computing long distance phone charges. Teach unit on meter reading and computing monthly bills. Teach and discuss unit on home economics which includes thrift in buying, meal planning, changing recipes to increase or decrease serving portions and in changing from English to Metric Units of measure. Discuss salary ranges and convert from annual salary to monthly, weekly and hourly rates Post-Test	The students will have knowledge of various mathematical concepts and operations. The students will be more aware of how knowledge and operations learned in class will help them on various jobs. The students will have a knowledge of the requirements and operations involved in a variety of Public Service Jobs.

Mathematics 10, 11, 12 OCCUPATIONAL CLUSTER: PUBLIC SERVICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers in Public Service	Cable Splicer Coin Collector Fireman Load Dispatcher Meter Reader Stationary Engineer Telephone Operator Stock Clerk Welding Engineer	Contact: Director of Public Service City of Cleveland 694-2231	Contact: Ohio Bell Telephone Co Cleveland Water Department (Div of Water and Heat) Municipal Light and Power Plant Cleveland Fire Dept Main Station	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to (a) write in detail or orally describe at least 8 out of 10 public service jobs and state how these jobs are related to math. (b) correctly answer 85-90% of post test mathematical problems.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

Additional INSTRUCTIONAL AND RESOURE MATERIALS:

MATHEMATICS - PUBLIC SERVICE

POST TEST

GRADE LEVEL: 10,11,12

Match the following public service occupations with their minimum educational requirements:

Occupations	Minimum Educational Requirements
1. detective c	a. college degree
2. FBI Agent a	b. high school diploma plus special training
3. federal government examiner a or b	c. high school diploma
4. fire fighter c	d. less than high school
5. librarian a	
6. policeman b or c	
7. probation officer a	
8. telephone installer c or b	
9. telephone operator c or d	
10. service representative for public utilities c	

OCCUPATIONAL CLUSTER: Transportation
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Mathematics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To make students aware of the many jobs existing within the area of transportation.

(2) To make students aware of the salary range in some of the occupations.

(3) To give students information about educational and/or training requirements for specific jobs in the area of air, rail, water, or land transportation.

(4) To provide opportunities for students to examine personal and career goals.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Through class participation, research and observation of various transportation workers, the students will be able to sample some of the skills and operations required in various transportation careers. The students will be able to list a large number of jobs in the four different areas of transportation--they will also be able to discuss duties, requirements, training, salaries, job outlook, etc. of jobs in transportation. The students will be able to assess and discuss their future career goals to some degree.	Airline Dispatcher Airplane Mechanic Air Traffic Controller Bus Driver Craftsman Flight Engineer Foremen Locomotive Engineer Motor Vehicle Mechanic Pilot - Copilot Steward Stewardess Taxi Driver Traffic Agents and Clerks	Give students a list of transportation occupations. Have each student choose a job they might like to hold and have them research the job. Students will form groups and each group will research jobs in the four different areas of transportation--class reporting and discussion will follow (reports should include training, educational requirements, duties, etc.) Show and discuss films related to this cluster. Plan field trip to Hopkins Airport, Greyhound Bus Co. or Yellow Cab Co.	The students will have some idea of the variety of jobs available in the area of transportation and whether he has an interest in this area. The students will have a more positive attitude toward "real" occupations. The students will have a greater knowledge of the interrelations between different functional areas of industry and business. The students will have a knowledge of the requirements and operations involved in jobs discussed in this Unit.

Mathematic 10, 11, 12

OCCUPATIONAL CLUSTER: TRANSPORTATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Transportation" "Working With Scale"		For air or rail transportation, contact: REA Express, 1325 St. Clair Avenue Cleveland, Ohio 241-1260	Contact: Cleveland Hopkins Airport The Greyhound Bus Station The Yellow Cab Company Cleveland, Ohio CTS	Pamphlets Brochures People and Choices Career Folios SRA Kits Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Teacher evaluation of this unit will be based on the ability of 80-85% of the students to write detailed descriptions of duties, requirements, job outlook, etc. of 85-90% of the transportation jobs listed in this unit, and solve at least seven out of ten math problems dealing with transportation by land, rail, air or water.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MATHEMATICS - TRANSPORTATION

TRANSPORTATION-RELATED MATH PROBLEMS

GRADE LEVEL: 10,11,12

1. On any given day, the approximate number of flights scheduled at Hopkins International Airport by the major carriers are as follows:

TWA:	40 flights
United:	55 flights
Northwest:	35 flights
Eastern:	25 flights
American:	75 flights
Smaller commercial airlines:	70 flights
Total:	300 flights

   a. Of the 300 total flights scheduled, find the per cent utilized by each category above.

   b. Draw a bar graph to depict the above information.

2. As maintenance foreman for a Chrysler repair facility, you must check your men's payroll. Compute the following payroll:

NAME	HOURS WORKED	HOURLY RATE	SALARY
Jack Perkins	40	$ 3.25	
Phil Jackson	38	3.35	
Joseph Johnson	39	3.55	
John Phillips	40	3.88	
Paul Anderson	37½	3.80	
Robert Andrews	35	4.25	
Total			

3. Enrichment
   Conduct your own traffic or facility usage survey. Students may work in teams of two or three persons each. Collect data, organize it, and if possible, graph the results. You may make up your own survey, or use a suggestion below.

   Some possible examples are:
   a. Conduct a traffic survey on a frequently used street. Record

TRANSPORTATION-RELATED MATH PROBLEMS

GRADE LEVEL: 10,11,12

the number of cars, trucks and buses which pass you during a given time period (from 10 to 30 minutes). You may even want to record your data at different times to get a broader picture. Then organize your data in a chart and make a graph of it.

b. Record the number of vehicles crossing a four-way intersection at which there is a traffic light. Follow the procedure outlined in (a) above, and then include your own observations as to whether the light is being efficiently used. For example, if one road is used much more frequently than the other, perhaps only a stop sign is necessary, or perhaps a longer light cycle for one street would be better.

MATHEMATICS - TRANSPORTATION

POST TEST

GRADE LEVEL: 10,11,12

1. Name any two occupations normally found in each of these transportation categories.

   a. air
   b. land
   c. sea
   d. rail

2. Using any of the eight occupations named above, or any other transportation occupation, list at least one job for each of the following educational levels:

Minimum Educational Requirement	Occupation (sample answers)
college degree	air traffic controller
high school diploma plus special schooling	stewardess, ground radio operator
high school diploma	airline ticket agent
less than a high school diploma	sky cap, mechanic

3. Match the following transportation occupations with their applicable minimum educational requirements:

1. air traffic controller	c	a. college degree
2. airline pilot, copilot	c	b. some college work (no degree)
3. airline radio operator	d	c. high school diploma and special training
4. airline dispatcher	b	d. high school diploma
5. airline stewardess	c	e. less than high school diploma
6. bus driver, local	e or d	
7. airline traffic agent and clerk	d	
8. bus driver, long distance	e or d	
9. aerospace engineer	a	
10. flight engineer	b or c	
11. airplane mechanic	c	
12. automotive mechanic	d	
13. railroad brakeman/conductor	e or d	
14. travel agent	d	
15. truck driver, local	e	
16. truck driver, long distance	e	
17. taxicab driver	e	

SCIENCE

GUIDANCE

We would like to point out a general role which science teachers can play in a good career development program.

Since science and technology are causing very quickening changes in employment and career patterns, the science teacher is well equipped to help all students to appreciate these rapidly changing career patterns and the importance of good background preparation.

The scientific method, being the tool of the scientist, might well be applied to all facets of human endeavor. It is important that young people recognize problems and reach satisfactory conclusions. This is as important in career development as in any other area of live.

SCIENCE

GRADE LEVEL: 10,11,12

AGRI-BUSINESS AND NATURAL RESOURCES

I. Introduction

With the continual increase of the world's population, man will soon find that his supply of food and natural resources in not inexhaustable. Even today, we find extensive research going on, trying to increase food production and to better use our dwindling supply of natural resources. In both of these fields the need for scientifically trained workers is on the increase.

In the agricultural fields, because of the increased scale and complexity of modern farming, farmers are turning more and more to off-farm sources of technology. Thus, the number of people needed in agricultural related occupations is ever increasing. All fields of science are encompassed in these career opportunities. These careers run from agricultural engineers, to geneticists, to rural sociologists.

In the field of natural resources, career opportunities are found in a variety of interests. There are needs for engineers in the mining and natural gas processing occupations. The increased awareness of the shortage of natural resources will make available new opportunities for many different, yet science related, occupations.

OCCUPATIONAL CLUSTER: Agri-Business and Natural Resources
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To have the students become aware of the problems facing the world in both a shortage of food and resources, whether or not they choose a career in these fields.

(2) To assist students in becoming aware of the career opportunities available in the area of gri-business and natural resources.

(3) To dispel the belief that agriculture means "being a farmer".

(4) To enable students to imagine how certain careers might help alleviate some of these problems.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After viewing films, class discussions and group research on Agri-Business and Natural Resource Occupations, each student will be able to orally discuss and list duties, requirements, job outlook, etc. of at least 85% of the careers discussed in this Unit.	Agricultural-Engineer Agricultural-Economist Entomologist Geneticist Geologist Horticulturist Microbiologist Mineralogist Natural Gas Engineer Petroleum Engineer Soil Scientist Veterinarian	Pre-test Students will list careers which are related to agriculture and natural resources. Add to the students' list and show how science is directly related to the various careers listed. Have the students research present day problems in agriculture and natural resources and suggest paths that researchers might take. (example: Increase in planned genetics) Post test	The students will be more aware of the variety of interesting jobs in the area of Agri-Business and Natural Resources. The students will be more equipped to assess themselves in terms of personal and career goals. The students will have a more positive attitude toward self, others and the world of work.

Science 10, 11, 12

AGRI-BUSINESS AND NATURAL RESOURCES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Our Natural Resources"	Agricultural Economist Agricultural Engineer Geneticist Horticulturist Soil Scientist	Contact: The Ohio University Agricultural Division	Contact: The Wooster Agricultural Station, Wooster, Ohio	Brochures Pamphlets Occupational Outlook Handbook SRA Kits Popeye Career Comics People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful evaluation of objective one will be based on the ability of 85-90% of the students to write detailed descriptions or oral discussions of the duties, requirements, etc. of at least 85% of the jobs listed in this unit. Teacher rating of pre-test and post test will be that at least 80-85% of the students correctly answer 75-80% of pre-test items and 85-90% of the post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

BUSINESS AND OFFICE OCCUPATIONS

I. Introduction

Scientific research will prove to be of little value, even when directed by the most learned investigators and performed by the most skilled technicians, if records are not carefully and accurately kept, reports prepared, and final results made available to others. Here is the point at which a scientific secretary enters the picture.

Clerical assistants are first and foremost trained in the techniques and skills of secretarial work. It is possible to get such a job in science with no formal training in the sciences, but this inexperience may very well prove to be something of a handicap. Your chances of landing such a job will be much better if you have a working knowledge of the science.

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES :

(1) To help students gain a knowledge of business occupations related to science.

(2) To inform the students of the basic requirements that workers in science oriented bussinesses should command.

(3) To help students develop a greater understanding of the various aspects of the occupations related to them.

(4) To help students understand the business qualifications for various jobs in the scientific field.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to orally discuss at least 90% of the business jobs discussed in this Unit and how these jobs relate to science. 85-90% of the students, upon the completion of the study of this Unit, will be able to orally cite or write detailed descriptions of at least ten Business and Office jobs that are related to science.	Bookkeeper Cashier Computer Programer File Clerk Medical Librarian Medical Secrecary Receptionist Shipping and Receiving Clerk Typist	Arrange class activities that will provide students with the basic materials to supplement the curriculum as prescribed by the business department. Conduct a series of lessons on the understanding of science and other science related terms. Plan field trips to various medical and other science oriented businesses, emphasis will be placed on clerical and administrative jobs. Invite a speaker from a local concern to speak to class and acquaint the students with first hand information about hospital and related enterprises.	The students will be more aware of how people working in various scientific fields rely on the people skilled in business and office procedures. The students will have added information and experiences on which to base their future career choices. The students will be able to list and describe various scientific and business related careers.

BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Business and Office Occupations"	Cashier Office Machine Operator Secretary Typist	Contact: The Sherwin Williams Chemical Plant--Public Relations Office	Contact: The Urban League of Cleveland--Public Relations Office	Brochures Pamphlets SRA Kits Occupational Outlook Handbook People and Choices Career-Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objective number one will be based on the ability of at least 85-90% of the students to write, in detail, or orally discuss the requirements, duties, etc. of 90-95% of the jobs listed in this unit and explain how these jobs are related to science.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

CONSTRUCTION AND MANUFACTURING OCCUPATIONS

I. Introduction

Science can best be related to careers in construction and manufacturing by discussing various fields of engineering. Both the construction and manufacturing industries rely upon the engineer to convert resources into beneficial goods and services.

The construction engineers deal with the conversion of designs or plans into reality. He deals with the purchasing of materials, the equipment needed to be used and he must at all times consider the time and cost factor.

The manufacturing (Production) engineer plan, supervise and evaluate the making of whatever product or products their company provides. They deal with many technical phases of operation and test the manufactured product to insure that the standards or specifications are met. If the students' career choice is in these fields, the necessity of a good science background is unquestionable.

OCCUPATIONAL CLUSTER: Construction & Manufacturing
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To help students gain a knowledge of the various, science related, careers in the construction and manufacturing fields.

(2) To inform students of the various requirements that workers in these fields must meet.

(3) To have students be able to understand the planning, research and testing that goes on before a product is put on the market.

(4) To have the students be able to solve job related problems faced by career engineers in the construction and manufacturing business.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Upon completion of this Unit, at least 90% of the students will be able to list the sequence of events that would occur before a new building has been constructed and made ready for occupancy. All students will be able to write or orally discuss the job requirements, duties, benefits, availability, etc. of at least 90% of jobs discussed in this Unit.	Aerospace Engineers Ceramic (nonmetal)-Engineers Civil Engineers Construction Electrical Engineer Industrial Engineer Manufacturing Mechanical Engineer Metalurgical-Engineers Mining Engineers	Pre-test -- Post test Have the students make a list of products they use everyday and discuss how an engineer might have approached the production of these products. Show a film depicting how an engineer approaches a problem in construction or manufacturing a product. Students will make a list of products that will be needed in the future. Have students pick one of these future products and attempt to formulate a plan for the production of this futuristic product.	The students will have a more positive attitude toward self, school and continuing education. The students will be aware of the requirements, training, etc. needed for various construction and manufacturing jobs. Students will also know where to go to seek information about these jobs. The students will be more equipped to assess themselves in terms of personal and career goals.

CONSTRUCTION AND MANUFACTURING

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Industry" "Careers in the Building Trades"	Chemical Engineer Electrical Engineer Industrial Engineer Mechanical Engineer	Contact: The Apprenticeship Information Center 579-7802	Contact: The Republic Steel Company The Jones & Laughlin Steel Company	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write, in detail, or orally describe the duties, requirements, opportunities, etc. of at least five construction jobs and five manufacturing jobs. Teacher rating of pre-test and post test will be that 80-85% of the students correctly answer 70-75% of pre-test items and 80-85% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

ENVIRONMENTAL CONTROL OCCUPATIONS

I. Introduction

Would you like a job monitoring the health of the community? Are your grades in science good? Is your over-all school average good? Would you mind spending part of your working time giving talks to schools and civic groups? Would you like to participate in planning health programs?

Inevitably, scientists at some stage of their career become involved in research affecting the lives of others. A concern of the environment and how its neglect affect man today and what the consequences will be like in the future is a problem that we must prepare for.

Who are ecologists? Whether he focuses attention upon the individual, the population, or the community, the ecologist is primarily concerned with the whole ecosystem. He must have a thorough understanding of morphology, physiology, genetics, psychology, etc., before he can really function as an effective leader in a community.

The long range effects of mistreating natural phenomenon is the basis for managing the control of our surroundings. A large group of the scientists in this field explore for new sources of fuels. Some scientists perform basic research to increase scientific knowledge. Others work mainly in applied research and use the knowledge gained from this research to solve practical problems.

SCIENCE - ENVIRONMENTAL CONTROL

PRE-TEST

GRADE LEVEL: 10,11,12

1. What is Environmental Control?

2. Name some of the different jobs in Environmental Control.

3. Why is there a need for Environmental Control?

4. Name some animal or plant that we need to be more concerned about in Environmental Control.

5. What are some favorable and unfavorable results of Environmental Control?

6. What are some of the benefits in choosing a career in this field and in the profession?

7. Why is Environmental Control important?

8. What is conservation?

9. Is there a relationship between conservation and environmental control?

10. Does over-population create problems in our efforts to carry out environmental controls?

OCCUPATIONAL CLUSTER: ENVIRONMENTAL CONTROL
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To introduce to the students the various career prospects in the environmental fields.

(2) To inform the students of the requirements that are needed for careers in the environmental fields

(3) To inform the students of the importance of the ecological fields, hopefully instilling an appreciation of these fields regardless of whether or not the students choose to prepare themselves for a career in ecology after high school.

(4) To have the students possess the ability to resolve problems that are faced by ecologists in today's complex society.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Students will be able to orally discuss at least five different ways in which the advancements discussed in the activities have been both beneficial and detrimental to man and his environment. At least 80% of the students will be able to identify and describe at least ten different occupations that have changed or developed recently in response to the need to improve man's use of the environment. With the aid of brochures, pamphlets and Popeye Career Comics at least 80% of the students will be able to identify jobs in Cleveland.	Biologist Botanist Environmental Engineer Forester Game Warden Geologist Park Ranger Soil Conservation	Pre Test Students will list various scientific advancements and describe how the advancements have been both beneficial and detrimental to man and his environment. Allow students to make suggestions and plans which would alleviate the detrimental effects of this new technology yet not hinder mankinds needed progress. Show a film that concerns itself with the problems (social and economic) that face people in environmental control positions Post test	The students will have a greater knowledge of the duties, requirements etc., of environmental control The students will have a greater interest in their community and jobs that exist therein. The students will have a more positive attitude toward school and continuing education. The students will have a greater knowledge of the requirements and operations involved in jobs related to the environment.

Science 10, 11, 12

OCCUPATIONAL CLUSTER: ENVIRONMENTAL CONTROL

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films:	Geologist	Contact:	Contact:	Brochures
Science and Technology	Geophysicist	The Republic Steel Corp P O Box 6778 Cleveland Ohio	Air Pollution Control Office 2735 Broadway Cleveland Ohio	Pamphlets
Face of the Earth	Oceanographer			SRA Kits
Scientists At Work	Meteorologist	The Cleveland Speaker's Bureau 574 4194	694 3310	Popeye Career Comics
				Occupational Outlook Handbook
				People and Choices Career Folios
				Chronicle Occupational Library
				DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability 80-90% of the students to write detailed discriptions or orally discuss at least 10 environmental control careers. Teacher evaluation of pre-test and post test will be that at least 80-85% of the students correctly answer at least 75-80% of pre test items and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONS RELATED TO SCIENCE

HEALTH OCCUPATIONS

I. INTRODUCTION

The health fields offer a variety of careers to suit individual interests, talents and skills. More than 300 separate identifiable kinds of work are found among medical and health professions and occupations. Although some require a baccalaureate degree or more, the majority call for a shorter training period. For example, the community colleges offer associate degree programs in more than 40 health-related fields. Many other jobs need only high school graduation and on-the-job training.

II. HEALTH OCCUPATIONS

A. Earn While You Learn

Medical lab technician
Certified lab assistant
Pathologist assistant

B. The Therapies

Rehabilitation therapist
Physical therapist
Occupational therapist

C. Careers In The Health Field

Doctor
Registered Nurse
Practical Nurse
Orderly
Dentist

D. Emergency Technicians

Inhalation therapist
Cardiopulmonary technician
Medical Emergency Technician

E. Keeping Records

Medical Secretaries
Medical Transcribers
General Clerical Personnel

F. Communications

Medical Record Librarian
Receptionist
Executive Secretary

OCCUPATIONAL CLUSTER: HEALTH OCCUPATIONS
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To develop the understandings of how to maintain and improve one's health and share in the responsibility for protecting the health of the community.

(2) To utilize a scientific approach in solving problems dealing with society and human welfare.

(3) To gain a better understanding of the meaning and purpose of health occupations and a truer sense of values.

(4) To acquire salable skills in the health sciences which will enable students to assume a productive role in the economic world.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After engaging in classroom discussions and performing experiments relative to certain areas of health, at least 85-90% of the students will be able to write or discuss the duties, requirements, job description etc, of at least 80% of the health careers discussed in this unit. As a result of reading pamphlets brochures, and performing experiments, at least 80% of the students will be able to perform some of the basic skills and the operations involved in any four of the occupations discussed in this unit.	Dietary Technician Dental Assistant Dental Hygienist Dentist Doctor Inhalation Therapist Laboratory Technician Medical Librarian Nursing aid Orderly Optometrist Physical Therapist X-Ray Technician	Pre-Test Reacher will lead discussion in explaining the various fields in the health cluster Students will perform experiments related to field in the cluster (e.g. Blood analysis, urine analysis care for bed patients), discussion will follow. Students will read and discuss various pamphlets, brochures, games etc., related to health careers Students will set up a career information center in the school or the science department.	The students will have a more positive attitude toward school, continuing education and the world of work. The student will be more aware of their abilities and interests and whether he would like to pursue a job in the area of health careers The students will have a greater knowledge of the skills and operations involved in various Health Careers discussed in this unit.

Science 10, 11, 12

OCCUPATIONAL CLUSTER: HEALTH OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Health Careers Careers in Health (Cleveland Public Library)	Dietitian Dentist Doctor Nurse Physical Therapist X-Ray Technician	Contact: The Greater Cleveland Hospital Assoc	Contact: The Greater Cleveland Hospital Association	Brochures Pamphlets SRA Kits Occupational outlook Handbook Popeye Career Comics People and Choice Career Folios DOT Chronicle Occupational Library

EVALUATION: Teacher rating of this unit will be based on the ability of 80-85% of the students to successfully complete objectives (1) and (2). Teacher rating of pre and post test will be that at least 80-85% of students correctly answer 75-80% of pre test items and 80-85% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

HOSPITALITY AND RECREATION OCCUPATIONS

I. Introduction

The need for parks, forests and recreational areas increases yearly, as an ever growing population provided with the utmost in transportation continues to materialize, resulting in a greater demand for more places of leisure. This demand creates an even greater need for the protection and preservation of our precious natural resources.

The National Conference on State Parks lists over one hundred occupations for state park systems, and the same would be true of federal, county and city parks.

For the person with a desire to help restore, conserve and improve the resources of nature, and maintaining this form of recreation, there is a richly rewarding career in parks and recreation.

OCCUPATIONAL CLUSTER: Hospitality and Recreation
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To help the students gain a knowledge of occupations related to recreation.

(2) To inform the students of the various requirements of workers in the recreational areas.

(3) To provide opportunities for the students to develop greater understanding of the various aspects of recreational occupations and how they relate to science.

(4) To help reveal to the students the importance of careful career planning in accordance with interest, knowledge and developed skills.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
All students will be able to write or list at least five different considerations that would enter into their personal career choices. As a result of small group interactions, research, class discussions and field trips, at least 85% of the students will be able to orally discuss or list the requirements, duties job outlook, etc. of at least ten of the thirteen jobs discussed in this Unit.	Archeologist Artist Biologist Forester Game Warden Landscape Architect Life Guard Naturalist Park Planner Park Ranger Recreation Leader Writer	Pre-test Students will read and discuss materials related to recreation occupations. Provide for small groups interactions that will enhance the students' knowledge relative to positions held in park and recreational fields. Show visual aids to supplement lessons on the subject. Plan a field trip to areas that provide actual performance of listed duties.	The students will have a greater knowledge of Hospitality and Recreation jobs and where to find part-time and full-time jobs in this area. The students will be able to verbalize their awareness of the importance of early preparation for future career goals.

Science 10, 11, 12

HOSPITALITY AND RECREATION

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Tapes: "Recreation Worker" "Park Director"		Contact: Federal Job Information Center Federal Building Cleveland, Ohio	Contact: Cleveland Metropolitan Parks Division Main Office The Thurgood Marshall Recreation Center	Brochures Pamphlets SRA Kits Popeye Career Comic Occupational Outlook Handbook People and Choices-Career Folios Chronicle Occupational Library DOT

EVALUATION: Attainment of objective one will be based on the ability of all students to list, in writing, at least four considerations that would enter into their personal career choices. Successful attainment of objective number two will be based on the ability of 80-85% of the students to write, in detail, or orally identify and describe at least 85-90% of the jobs listed in this unit. Teacher rating of pre-test will be that at least 80% of the students correctly answer 75-80% of pre-test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

MARINE SCIENCE OCCUPATIONS

I. Introduction

Within fifty years, man will move onto and into the sea--occupying it and exploiting it as an integral part of his need for recreation, minerals, food, waste disposals, military and transportation operations and eventually for actual living space!

With such an expanding and as yet virgin job territory, it would be of benefit for the young person to consider a career in the marine sciences. Whether his interests lie in private industry or public service, new and exciting fields will be opening up in these fields. Man may be starting to turn away from his exploration of space and concentrate his efforts on the exploration of his own planet, the majority of which is the, as of yet, untapped regions of the oceans.

SCIENCE - MARINE SCIENCE

PRE-TEST

GRADE LEVEL: 10,11,12

1. What is oceanography?
2. Name some of the different jobs in oceanography.
3. Why is there a need for oceanography?
4. Have you ever been to Lake Erie?
5. Name five plants or animals or rocks that you found there.
6. What is the job of an oceanographer?
7. What benefits are there in an oceanographic career?
8. Do you know someone who is a biologist or chemist?
9. Name three marine plants or animals?
10. Why is the ocean important?

OCCUPATIONAL CLUSTER: Marine Science Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To help the students know the various fields open in Oceanography.

(2) To inform the students of the specific duties of and the requirements for careers in this Unit.

(3) To inspire an appreciation in the students of the important role science will play in the new fields opening up in Oceanography.

(4) To have the students be able to see the problems and formulate elementary solutions.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After reading and discussing the Popeye Career Comics on Marine Science occupations, at least 90% of the students will be able to orally discuss or write the duties, requirements, job outlook, etc. on 85% of the Marine Science jobs discussed in this Unit. Through class projects, films, research and class discussions, at least 90% of the students will be able to sample (in a general sense) at least three different skills and operations involved in activity number five.	Biologist Marine Biologist Marine Engineer Marine Geologist Marine Photographers Oceanographers	Pre-test ---- Post Test Have students present views on the need and possibility of man turning to the sea for his basic needs. Students will list other possible related occupations, showing the definite need for science in all of them. Show a film which depicts a marine scientist in his daily routine. Have the students work on a problem, the solution to which will be directly related to man's working in and with the oceans. (Refer to Popeye Career Comics--Marine Science)	The students will be more equipped to assess themselves in terms of personal and career goals. Students will be inspired to seek and read career material obtained from the guidance office, the library or any other source. The students will be more knowledgable about the duties, requirements, job sources, etc. of jobs discussed in this Unit.

Science - 10,11,12

MARINE SCIENCE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Exploring the Ocean" "What's Under the Sea"	Marine Biologist Marine Geologist Marine Meterologist Oceanographer	Contact: Case Western Reserve University, Dept. of: Geology, Biology, Chemistry, Physics	Contact: Natural Science Museum	Brochures Pamphlets SRA Kits Occupational Outlook Handbook Chronicle Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objective number one will be based on the ability of 85-90% of the students to write detailed descriptions of 85% of the Marine Science jobs listed in this unit. Attainment of objective number two will be based on the ability of 80-85% of the students to demonstrate any two operations involved in activity number five in this unit. Teacher rating of pre and post test will be that at least 80-85% of the students correctly answer 70-75% of pre-test items and 80-85% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

SCIENCE

GRADE LEVEL: 10,11,12

PUBLIC SERVICE OCCUPATIONS

I. Introduction

Approximately nine million people work in areas which may be classified as public servants. As the career's name indicates, the public servant is in constant contact with other people. It goes without saying therefore, that people in these occupations need a good background and knowledge of general health practices.

The application of science in this field is obvious. Certainly cooks, waiters, and waitresses need to possess a knowledge of communicable diseases. Career's such as policemen and firemen often are placed in situations where a knowledge of the physiology of the human body and of first-aid can be the determining factor in life or death. Occupations such as barbers and beauticians need a certain knowledge of the human body and the effects on it by different stimuli. It should now be obvious that a knowledge of the sciences plays an integral part in a public servant's career.

SCIENCE - PUBLIC SERVICE

PRE-TEST

GRADE LEVLE: 10,11,12

1. What does the term Public Service mean when it is applied to the field of science?

2. Name some of the different jobs in Public Service.

3. Have you ever used a public service related to the science field?

4. Why is there a need for Public Service Occupations?

5. How does the field of Public Service aid us in our diverse life styles?

6. Do you know someone who performs a Public Service in the science field?

7. What basic skills are needed in order to become employed in Public Service?

8. What future needs must a public service provide?

9. How would you evaluate a public service program?

10. What suggestions would you incorporate in the objectives of the Public Service Program?

OCCUPATIONAL CLUSTER: Public Service
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Science
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To help students gain a knowledge of the various fields open in the public service area.

(2) To let the students know the requirements for various occupations in the public service fields.

(3) To develop in the student an awareness that the public servant needs a background in the sciences, due to the nature of the work.

(4) To enable the students to use their scientific knowledge in possible job situations that might arise during a career as a public servant.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
After participating in class discussions, reading pamphlets, brochures, etc., all of the students will be able to write or orally discuss and describe at least ten different public service jobs. All students will be able to list at least three different ways in which science is related to public service jobs. At least 80% of the students will be able to list or discuss job descriptions, places of employment, job outlook, etc. for 90% of the jobs discussed in this Unit.	Barber Beautician Cook Fireman Nurses Nurses' Aide Policeman Practical Nurse Public Health-Officer Public Safety Aide Registered Nurse Stewardess Waiter Waitress	Pre-test --- Post test Have students list reasons why public servants need a good background and knowledge in physiology and health practices. Point out to students additional public service occupations and how these jobs relate to science. Show and discuss a film dealing with public servants in action, pointing out instances where a knowledge of science is required in performing a specific job. Take field trip to a barber college and beauty school.	The students will be more aware of public service jobs in the city of Cleveland and where to find them. After this Unit, the students should have gained a knowledge of science and how it relates to public service jobs. The students will have a greater knowledge of the interrelations between production, management and service areas of business and industry.

Science 10, 11, 12

OCCUPATIONAL CLUSTER: PUBLIC SERVICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Career in Public Service"	Dog Warden Fireman Institutional Guard Policeman Public Safety Aide Supervisor Water Department	Contact: Jane Addams High School, Home Economics Department The Cleveland Fire Department, Main Station Cleveland Police Department, 621-1234	Contact: Cleveland Police Dept. 621-1234 Jane Addams Vocational High School, Beauty Culture Department	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to: (a) write, in detail, or orally describe the duties, requirements, job outlook, places of employment etc. of at least ten of the public service jobs listed in this unit, and (b) orally discuss at least three ways in which science can be related to certain public service jobs. Teacher rating of pre-test and post test will be that at least 80-85% of students correctly answer 75-80% of pre-test items and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BUSINESS EDUCATION

Guidance

In addition to the function of imparting specific occupational information about business careers, the business education teacher is especially well qualified to develop the skills related to job application. How to type good application letters, how to apply for a job, and the like. Role played interviews, with emphasis on manners, proper dress, and voice modulation could be employed as a teaching technique.

Business education offers excellent training in the area of human relations. This is an important phase in the career development of all young people.

SUMMARY ON THE BUSINESS EDUCATION DEPT.
AND HOW IT RELATES TO ALL CLUSTERS

In writing up the different subjects in Business Education and how they relate to the occupational clusters, it has been decided that all of the occupational clusters will have some type of office set-up in order to demonstrate how a business functions.

It is necessary to make students aware of the fact that typing, business, bookkeeping, shorthand, business machines, and Business English are the basic foundations not only for the world of work, but for family life as well.

(Example)

Family Budget--Typing of Letters--Taking Telephone messages, and last, but not least, adding machines to take care of income taxes at the end of each year.

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Bookkeeping
SUGGESTED GRADE LEVEL : 11, 12
GENERAL OBJECTIVES : (1) To help students gain a knowledge of the duties and requirements for jobs in the Business and Office Occupational Cluster

(2) To explore jobs related to Bookkeeping.

(3) To develop a citizen with salable and marketable skills.

(4) To explore the related jobs that can be found in Bookkeeping, as it relates to business and office work.

(5) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to demonstrate their knowledge of proper record keeping by doing related volunteer work in their school, in a business firm or in a mock firm established in the classroom. The students will be able to cite detailed knowledge of the duties, requirements, opportunities in jobs listed in this unit. The students will be able to list businesses in their communities that employ persons in the various jobs listed in this unit.	Accountant Assets Bookkeeper Cashier Liabilities Proprietorship Receptionist Secretary Shipping and Receiving Clerk Stenographer	Pre-Test Discuss the importance of record keeping in maintaining an organized home and office. Students will research a specific industry study, methods of record keeping and why. (grocery store, insurance company, Dr., etc.) Invite a speaker from a local company to discuss the job opportunities available and related to bookkeeping. Show the students how to keep complete records in a systematic fashion and where to find a job in the skills he has learned. Post-Test	The students will have a detailed knowledge of how to keep current and efficient records any why this is necessary. The students will be more aware of the importance of developing positive attitudes and good work habits in preparation for future employment. The students will have sufficient skills to hold a part time or summer job doing work related to this cluster Students will have a more positive attitude toward vocational education

Bookkeeping 11-12 OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers-Clerical Accounting - Basic Procedures	Accountant	Contact: Central National Bank of Cleveland (Subject, Banking Finances and Economics)	Contact: Central National Bank of Cleveland, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Chronicle Occupational Library

EVALUATION: Teacher rating of objective (1) will be that 85-90% of the students will complete various classroom activities dealing with recordkeeping. Attainment of objectives (2) and (3) will be based on the ability of 85-90% of the students to write in detail or orally describe 90% of the jobs listed in this unit, and name at least one business establishment that employs individuals in the job areas listed. Teacher rating of pre test and post test will be that 80-85% of the students correctly answer 75-80% of the pre test items and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BUSINESS AND OFFICE OCCUPATIONS

BOOKKEEPING

GRADE LEVEL: 10,11,12

Pre-test

1. Name the various fields a bookkeeper could work in.

   ans: Accounting firms, business and industry, government, teaching, independent practice.

2. Solve the problem below:

   John Doe, a sales proprietor, runs a grocery store. He has $7000 in bills per month, $6000 of income each month. What is his profit or loss and what suggestion would you give him towards better management?

3. Classify the following unarranged accounts into the following three classifications:

   (1) Assets (2) Liabilities (3) Ownership

   cars, rent, water, gasoline, John Brown & Sons, Pete Miller, owner, clothing, house, building

Post Test

You are now in business for yourself. Set up the books for your hardware store.
*Show all assets, liabilities, proprietorship, income, cost and expense.

Materials Needed

1. Data-Processing Lab:

   (a) Keypunch

   (b) Sorter

   (c) Correlator

   (d) Accounting Machine

   (e) Interpreter

   (f) Typewriter

   (g) Forms: Invoices, Statements, Purchase Orders

   (h) Accounting Dictionaries

   (i) Practice Sets

   (j) Cash Register

   (k) Punch Cards

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Business English
SUGGESTED GRADE LEVEL : 12
GENERAL OBJECTIVES : (1) To help the student gain a knowledge of occupations related to Business English

(2) To give students the requirements needed to perform various occupations in Business English.

(3) To enable students to understand how Business and Office occupations relate to Business English.

(4) To assist students in understanding the qualifications for various jobs in the Business family.

(5) To develop the area of human relations.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe some of his personal traits and ideals and relate them to his career interest. The students will be able to identify high school courses required for entry into business schools, colleges or jobs. The students will be able to demonstrate their skills and knowledge by (1) correctly comparing and writing business letters. (2) listing proper techniques and procedures for job interviews. (3) correctly completing a sample job application.	Accountant Advertiser Bookkeeper Business English Cashier Electronic Computer-Operator Receptionist Secretary Stenographer Typist	Discuss all phases of an interview such as (1) data sheet, social security, pen (pencil), typing eraser. Develop skills related to job applications--Role-play interviews discuss manners, proper dress, voice modulation. Introduce grammar for the purpose of business letter writing, enunciation and pronunciation, composing letters, arranging materials systematically and spelling. Set aside an educational bonus day in which students will play cards with Business English vocabulary words.	The students will have a greater understanding of how Business and Office Occupations relate to Business English The students will have a more positive attitude toward Vocational education The students will know proper procedures and techniques for getting and keeping a job The students will show more positive attitudes toward their Career goals and continuing education.

Business English 12

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Do's and Don'ts of an Interview Sound Tapes: World of Work--Getting a Job (20 Tapes) Your Job Interview The Application		Contact; Whiting Business College Dyke College Urban League		Pamphlets Brochures SRA Kits Popeye Career Comics DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Attainment of objectives in this unit will be based on the ability of 85-90% of the students to (a) correctly write and address two business letters. (b) write in detail or orally discuss the proper procedures and techniques for job interviews, (c) write detailed descriptions of 85% of the jobs listed in this unit, and (d) correctly complete at least two sample job applications.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

BUSINESS AND OFFICE OCCUPATIONS

BUSINESS ENGLISH

I. Additional Activities or Experiences

1. Emphasize Communications: good neighbor games, listening games, reading, writing and word command games.

2. Students will make a business office bulletin board: (a) research the occupation, (b) learn the product, (c) show all phases of the business structure of the industry.

3. Invite a speaker from a local company.

II. Post test

Administer the SRA or the Kuder occupational interest survey to measure the students' abilities and interest.

III. Materials

1. Ten copies of English on the Job by Carlin and Halder

2. Records

3. Record Players

4. Tapes

5. Workbooks

6. Bulletin Board Paper

7. Stencils

8. Typewriter

9. Adding Machine

10. Paper

OCCUPATIONAL CLUSTER: Business and Office Occupations
SPECIFIC JOB: OFFICE MACHINE OPERATOR

SUGGESTED SUBJECT AREA: Office Machines
SUGGESTED GRADE LEVEL : 12
GENERAL OBJECTIVES : (1) To help students gain a knowledge of occupations related to an office machine operator

(2) To inform students of the duties, requirements and skills required for various office machine jobs.

(3) To prepare the student for skills he will need such as spelling, reading, punctuating, speaking, composing, and transcribing on a dictaphone.

(4) To give the students practical knowledge by requiring him to work with a department chairman.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to cite detailed descriptions of the duties, skills and qualifications required for office machine operators and related Business and Office Occupations. The students will be able to perform the duties in an office machine area. Many students will have sufficient skills to obtain jobs in this area. To show the difference between speed and accuracy, the student will be able to solve mathematical problems on paper and then on calculator or adding machine.	Dictaphone Office Machine Operator	Pre-test Students will list the various operations an office machine operator would perform on a machine (adding substraction, multiplication, division). Students will work in groups to determine the need for positions listed in No. (1). Show visual aids to point out the operations that were missed in the student listing. Invite a speaker from a local company to talk to students on opportunities and skills needed to obtain this position.	The students will have a more positive attitude toward school and future employment. The students will know how to operate various machines used in this unit. The students will be aware of job sources in the Cleveland community The student will have developed verbal and written skills necessary for success in daily living and the world of work.

Office Machine Operator, 12

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Careers--Clerical Typewriter in Business	Office Machine Operator	Contact: Local Company Cleveland Board of Education East 6th Street Quincy Woodhill	Contact: Local Office IBM Cleveland Board of Education East 6th Street Quincy Woodhill	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives (1), (2), and (3) will be based on the ability of 85-90% of the students to (a) write detailed descriptions of various duties, skills, etc., required for one interested in becoming an office machine operator. (b) correctly operate at least five different types of office machines--Teacher will observe students' ability to operate the machines (adding machine, calculator, dictaphone, duplicating machines, electric and manual typewriters). Teacher evaluation of pre test and post test will be that least 85% of the students correctly answer 75-80% of pretest items and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER, BUSINESS AND OFFICE OCCUPATIONS
Office Machine Operator

Additional Learning Experiences or Activities

Plan a field trip to a local office that is nationally known that depicts the operation, requirements and related jobs.

Have students solve mathematical problems on paper and then on the machine to show the difference between speed and accuracy.

Show students the various manual and electric machines and how they operate (rotary calculator, 10 key printing calculator, electronic adding equipment, full key adding and listing machines).

Each student will be assigned to a department with the machines to gain experience.

Post-Test

Materials Needed

1. Mimeograph Machine
2. Office Practice Sets
3. Transparencies
4. Stencils AB Dick
5. Dry Master
6. Dictaphone
7. Dictaphone tapes
8. Filing Kits
9. Business Law Texts
10. Legal paper 8½ by 13'

BUSINESS AND OFFICE OCCUPATIONS

OFFICE MACHINE OPERATORS

GRADE LEVEL: 10,11,12

Pre-test

1. Work out this problem for Company A on the 10 key and attach your tape to the answer:

   Problem: Mr. Jones paid on his account $43.75. He originally owed $155.32.

2. Add the following unarranged numbers: 5675, 43702.02, 3785.99, .06, 357, ½%.

Post Test

1. Name the four basic operations on the adding machine.

2. Calculate the following problems on the 10 key, Full key, Rotary, Electronic Calculator given a five minute time limit.

1. 734572
   5%
   ½%
   34782
   532
   Sub Total
   47657
   1000000000
   Total

2a. 725/ 3747689

b. 1.72/ 75.342

3. 734562
   x 9.76

4. 605.75 (Find the Credit Balance)
   3.72
   4.32
   5.07
   67.77
   15002.03

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Shorthand
SUGGESTED GRADE LEVEL : 11,12
GENERAL OBJECTIVES : (1) To give students requirements for various occupations in which shorthand is used.

(2) To develop a high degree of work habits and attitudes necessary for gainful employment.

(3) To assist students in assessing themselves at this stages in their development in terms of personal and career goals.

(4) To help students develop a greater understanding of the various aspects of the Business and Office Cluster and how shorthand relates to them.

(5) To establish and maintain effective communication with business, industry, labor, and other community resources.

(6) To help students gain a knowledge of occupations related to Business and Office Occupations.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list a variety of places where Business and Office related jobs can be found. The student will be able to perform certain duties as taking direct dictation, transcribing, composing letters and messages, operating duplicators and calculators and typing with speed and accuracy. The students will be able to assess themselves in terms of personal and career goals.	Executive Secretary Male Secretary Secretary Shorthand Reporting Stenographer	Pre-Test Introduce and discuss the major careers that shorthand offers (Secretary, executive secretary, shorthand reporter etc.). Show the nature of work shorthand has to offer men and women-- (a) Taking direct dictation (b) Transcribing (c) Operate duplicators and calculators. (d) Compose letters and messages (e) Typing with speed and accuracy. Show visual aids on shorthand careers and have one day of the week devoted to proper work.	The students will be aware of places in the Cleveland Community where Business and Office related jobs can be found. The students will have a greater ability to describe the relation between specific vocational activities and "real"occupations The students will be aware of the requirements and qualifications for jobs discussed in this unit.

Shorthand 11, 12 OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films;	Personnel Staff	Contact;	Contact: IBM or NCR	Pamphlets
Just a Secretary	Secretary	IBM or NCR		Brochures
Receptionist	Stenographer			SRA Kits
How About of Fine Work				Popeye Career Comics
				DOT
				Occupational Outlook Handbook
				Chronicle Occupational Library

EVALUATION: Successful attainment of objective (1) will be based on the ability of 85-90% of the students to write a list of at least five business establishments where business and office jobs can be found. Attainment of objective (2) will be based on the ability of 85-90% of 11th graders to take shorthand dictation at 80 words per minute with a minimum of three errors and the same percentage of senior students to take dictation at 120 words per minute with a minimum of two errors. Teacher rating of pretest and post test will be that at least 80-85% of the students correctly answer 75-80% of pre test items, and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER- BUSINESS AND OFFICE OCCUPATIONS
SHORTHAND

Additional Learning Experiences or Activities

Have students solve human relations problems such as getting along with their neighbors, and everyday irritations that confront a human being.

Have each student work with a teacher in the school or in industry that would give him the related work experience needed.

Post-Test

BUSINESS AND OFFICE OCCUPATIONS

SHORTHAND

GRADE LEVEL: 10,11,12

Pre-test

Directions-Answer each question in a complete sentence.

1. Name five different occupations a shorthand student could enter.

2. What pay would you expect when you pass a test at:

Words a Minute	Hourly rate
80 wam _____	_____
90 wam _____	_____
100 wam _____	_____
110 wam _____	_____
120 wam _____	_____

3. What would you contribute to an office if you were hired?

4. Underline the following:

   To what extent would you be willing to do the work to advance in the company. 70% 80% 90% 100%

5. If it were 80% or below what would you do with the other percent of your time?

Field Trip

To IBM or NCR

Post Test

1. You are now equipped to be a secretary for a lawyer. What duties can and will you perform?

OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Typing
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To give each student a thorough knowledge of the keyboard, parts of the machine and proper typing techniques to enable him to pursue a career in Business and Office Occupations.

(2) To prepare the student for job demands of tomorrow and to enable him to meet the requirements and competition in the world.

(3) To build the students' speed and accuracy in order that they may produce mailable work at the average expected rate.

(4) To help students to be able to distinguish the various occupations a typist can pursue (e.g., junior typist, senior typist, clerk typist, secretary)

(5) To acquaint the students with the various places of employment.

(6) To help the students gain knowledge of the qualifications, advancements and requirements that relate to a typist in business and the office.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe and identify various jobs listed in this unit. The students will also be able to list places of employment for Business and Office Occupations The students will be able to type with speed and accuracy. The students will be able to identify a variety of considerations involved in choosing a career.	Clerk Typist Executive Typist Junior Typist Secretary Senior Typist Typist	Pre-Test Have an executive typist come into the classroom and discuss the various duties and requirements and other pertinent information that may assist the class. Plan a trip to IBM to show students how secretaries perform in the offices and how they must produce given work each day. Role-playing, Have each student demonstrate the role of a secretary Explain the parts of a typewriter and teach the keyboard by repeated drills of skill builders, reach-stroke practices, conditioning practices, speed and accuracy drills	The students will have a more positive attitudes toward real occupations. The students will continue to develop salable skills in the area of Business and Office occupations. The students will show more positive attitude toward their career goals and continuing education. The students will be aware of various job available in the city of Cleveland The students will be able to correctly operate machines used in class.

Typing 10, 11, 12 OCCUPATIONAL CLUSTER: BUSINESS AND OFFICE OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Typewriter in Business Typing Skills--Building Speed Typing Skills--Daily Job Techniques. Right at the Typewriter	Typist	Contact: An executive Typist	Contact: IBM Addressograph Multigraph --Typing Pool	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Habdbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Teacher evaluation of objectives in this unit will be based on the ability of 85-90% of the students to be able to write at least three considerations involved in their career choice, and write a detailed description or orally identify and describe all jobs listed in this unit. Teacher rating of typing skills will be that at least 70-75% of the 10th graders be able to type 35-40 words/min. with a minimum of five errors; 75-80% 11th graders will be able to type at least 45 word/min. with a minimum of three errors and 85-90% of 12th graders type at least 60-65 words/min. with a minimum of 3 errors. 85-90% of students should correctly answer 75-80% of pretest items and 80-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER, BUSINESS AND OFFICE
Senior High
Typing

Additional Learning Experiences or Activities

Build endurance by giving only ten minute timings and time production work.

Give the students a chance to work at their own rate by assigning various jobs that will be done at a specific time, such as, Business forms. Accounting reports, envelopes, legal documents, manuscripts, letters, tabulations, carbons, stencils masters, and composing their own messages.

See that each student has equal time on the manual and electric machines, and that each duplicates his own work with carbons, masters, and stencils.

Set up laboratory in which each student manages the lab for a week. In the lab, a small fee will be charged for typing work around the school

Post-Test

BUSINESS AND OFFICE OCCUPATIONS

TYPING

GRADE LEVEL: 10,11,12

Pre-Test

1. List at least three jobs a person with typing skills might enter; explain the duties, requirements, etc. of any one of the three jobs listed.

2. List ten positive characteristics a typist should portray.

3. Produce the given materials in 35 minutes:

   a. Medium, block letter on page 14.
   b. Tabulate the three columns on page 23.
   c. Type the master before you, a one page manuscript, and reproduce it.

Materials

1. Film
2. Charts
3. Tapes
4. Keyboard Chart (chalkboard size)
5. Mini keyboard for students
6. Stencils
7. Masters
8. Texts
9. Brushes to clean the typewriter
10. Posters

OCCUPATIONAL CLUSTER: FINE ARTS & HUMANITIES
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To enable pupils to become familiar with the kind of work involved in the job of interior design (or interior decorating).

(2) To make students aware of personal and educational requirements demanded in order to qualify for a position in interior design.

(3) To enable students to gain information concerning the routes or levels through which one must expect to travel in order to reach top positions in the area of interior design.

(4) To gain knowledge concerning the better areas for location good positions in interior design, as well as, some specific job possibilities in close proximity and possible earning.

(5) To expose students to material that will help them gain insight to the possible future out__look for a career in interior design.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify and describe the various duties, personal and educational requirements of careers in the area of interior decorating. The students will be able to cite ways in which home economics can prepare one for interior design and related careers. Through class projects, tours, guest speakers, the students will be able to sample the skills and operations involved in interior designing and interior decorating.	Interior Decorator Interior Designer	Pre-Test Students will read publications on interior design careers. Students will view visual aids discussing the duties, requirements, training, etc., in this career area Invite speakers from local businesses to give up-to-date information on interior design careers. Plan field trip to an interior design company. Students will make a bulletin board dealing with interior design careers Role-play an interview for a position as an interior designer. Post-Test (Same as Pre-Test)	The students will be aware of interior design and related careers available in the Cleveland community. The students will have detailed knowledge of the duties requirements, and the various jobs an interior decorator or interior designer might perform. The students will have a more positive attitude toward their career goals and continuing education.

Home Economics 10, 11, 12 OCCUPATIONAL CLUSTER: FINE ARTS & HUMANITIES

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: Why Study Home Economics	Interior decorator Interior Designer	Contact: Metropolitan Jobs Council -- National Alliance of Businessmen 1375 Euclid Avenue, Cleveland, Ohio 861-6100	Contact: Metropolitan Jobs Concil, The National Alliance of Businessmen 1375 Euclid Avenue Cleveland, Ohio 861-6100 Contact, Local Department Store May Company Halles Contact: Home and Flower Show	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Decorating with Ingenuity (20 Transparencies) DOT Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write detailed descriptions of the two jobs listed in this unit, and write at least three ways in which these careers are related to the study of home economics and fine arts & humanities careers. Teacher rating of pre test and post test will be that at least 80% of the students correctly answer 75-80% of pre test items, and on the post test gain at least a 10% accuracy increase over their initial scores on the pre test.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOUCRE MATERIALS:

OCCUPATIONAL CLUSTER: Health Occupations
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To develop a citizen with salable and marketable skills.

(2) To become aware of employment trends and outlook in Health occupations.

(3) To create self-awareness of students' aptitudes.

(4) To give students information relative to where various health careers can be found.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and describe the duties, requirements, benefits, etc. of various health careers discussed in this Unit. The students will be able to list agencies in the greater Cleveland area that provide help to job seekers. The students will be able to list and describe at least five different factors that influence career choice.	Dental Assistant Dentist Dietary Technician Dietitian Licensed Practical-Nurse Medical Records-Librarian Medical Records-Secretary Nurse's Aide Nutritionist Physical Therapist Registered Nurse X-Ray Technician	Students will list and discuss, in detail, jobs such as that of dietitian, nutritionist, practical nurse, household workers for hospitals and old people homes and day care center. Students will survey the need for jobs listed in #1 by looking at want ads, touring various institutions, and securing aid of employment agencies and school counselors. Invite a speaker to discuss various health careers. Students will go on field trip to Cleveland Clinic (dietary kitchen and/or health museum)	The students will be able to further assess themselves in terms of personal and career goals. The students will have more knowledge about health careers--qualifications, requirements, duties, and how to prepare for a specific job in the health field. The students will show more positive attitudes toward their career goals and continuing education.

HEALTH OCCUPATIONS

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Health Careers" "Careers in Health"	Dentist Dietitian Doctor Medical Records-Librarian Medical Records-Secretary Nurse Nutritionist Pharmacist Physical Therapist X-Ray Technician	Contact: Dietitian at Cuyahoga Community College The Greater Cleveland Hospital Association	Contact: Cleveland Clinic Dietary Kitchen Health Museum	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices-Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives one, two and three will be based on the ability of 80-85% of the students to: (a) write, in detail, or orally describe at least ten health careers, (b) list, in writing, at least five agencies in the greater Cleveland area that provide help to job seekers, and (c) list, in writing, at least five factors that would influence their career choice.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

OCCUPATIONAL CLUSTER: Homemaking Related
SPECIFIC JOB: Butcher or Meat Cutter

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To improve school achievement and motivation.

(2) To enable students to become familiar with the work involved and skills required for butchers.

(3) To expose students to materials that will help them gain insight into future job possibilities.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to describe, in detail, occupational opportunities in the area of meat cutting and butchering. Through observations, research and class discussions, the students will be able to sample the operations and skills required for one interested in becoming a butcher or meat cutter. The students will be able to list and describe various duties, personal qualifications, benefits, job outlook, etc. for a career as a butcher or a meat cutter.	Butcher Meat Cutter	The students will read and discuss pamphlets related to the duties, requirements, benefits, etc. of a job as a butcher or a meat cutter. Students will listen to speaker from the Kroger Company. Students will visit the Kroger Company to observe butchers and meat cutters in action. Students will make a bulletin board dealing with meat cutting and related jobs. Students will write compositions and hold discussions on jobs listed in this Unit. (POST TEST)	The students will have a more positive attitude toward vocational education and the dignity of work. The students will have a better understanding of the need for continued education or training in various career areas. The students will be familiar with the duties, requirements, benefits, etc. of jobs listed in this Unit.

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
		Contact: The Kroger Company Cleveland, Ohio 248-1500	Contact: The Kroger Company Cleveland, Ohio 248-1500	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library People and Choices Career Folios DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of all students to write detailed descriptions or orally discuss job descriptions, training, etc. of jobs as a meat cutter and a butcher. Teacher rating of the post test will be that 90-95% of students correctly answer 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

CLUSTER: HOMEMAKING RELATED OCCUPATIONS
PRE-TEST FOR SRA 192

1. What does a butcher do in his work?

2. What skills should a butcher have?

3. Where do most butchers work?

4. What are the outlooks for the meatcutting trade?

5. What training is required of a butcher?

6. What is the earning potential of a butcher?

7. Is the meatcutting trade closed to any sex? Why? Why not?

8. Why is the advantage of being a butcher relavent to the needs of mankind?

9. What are the disadvantages of the same question above?

10. Does the future thoughts centered on taking our food from the ocean place any barriers on the meatcutting trade?

CLUSTER: HOMEMAKING RELATED OCCUPATIONS

SUBJECT: HOME ECONOMICS

Fact Sheet SRA 192 GRADE LEVEL: 10,11,12

1. Butcher or Meatcutter--A trained specialist, either male or female, that prepares meat and fish for commercial or retail usage.

2. Training--Because of the influence of unions, a Journeyman Butcher must serve two to three years as an apprentice.

3. Employment--Slaughter Houses, packing houses, retail markets, wholesale markets and neighborhood markets employ the bulk of meatcutters.

4. Future--Meat, being the most single important item of the diet shows that there will always be a need for competent butchers.

5. Earnings--Union scale keeps the salary level of the meatcutter on a comparable level with any skilled trade--1963 - $118.00 weekly.

6. Additional Information

Amalgamated Meatcutters and Bucher Workman of North America
2800 North Sheridan Road
Chicago, Illinois

American Meat Institute
59 East Van Buren Street
Chicago, Illinois

OCCUPATIONAL CLUSTER: Homemaking Related Occupations
SPECIFIC JOB: Caterer

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To develop a high degree of work habits and attitudes necessary for gainful employment.

(2) To enable students to familiarize themselves with the duties, requirements, training, etc. involved in catering and related jobs.

(3) To improve school achievement and motivation.

(4) To expose students to material that will help them gain insight into the possible future outlook for catering and related careers.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to evaluate catering careers in terms of its contribution to society, rather than its prestige stereotype. The students will be able to list and describe duties, requirements, job outlook, etc. of jobs in the catering field. Through field trips, panel discussions and speakers, the students will sample the skills and operations involved in the catering business. The students will be able to discuss and list various factors that influence career choice.	Cake Decorator Caterer Cook	Pre-test Students will read publications on catering and related job opportunities. Use visual aids to discuss duties and opportunities in the catering field. Invite speaker from Cuyahoga Community College to discuss catering field. Plan panel discussion involving students who have completed further research in the catering field.	The students will be aware of catering jobs available in greater Cleveland. The students will have a more positive attitude toward self, others and the world of work. The students will have a better understanding of the interrelations between the production, management and service area of business and industry. The students will be more aware of how school subjects relate to careers.

HOMEMAKING RELATED OCCUPATIONS - Caterer

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Patterned for Dining" "Presentation of Food and Beverages"		Contact: Cuyahoga Community College--Hospitality Management Department or Hough Bakeries Dearing's Catering	Contact: Director of Hospitality Management Program Cuyahoga Community College or Hough Bakeries	Brochures Pamphlets SRA Kits Popeye Career Comics Occupational Outlook Handbook Chronicle Occupational Library DOT

EVALUATION: Teacher evaluation of pre-test will be that at least 85-90% of the students correctly answer 80-85% of the pre-test items. Evaluation of this unit will also be based on the ability of 80-85% of the students to write detailed descriptions or orally discuss the jobs listed in this unit and perform at least two activities required of each of the jobs listed.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

HOMEMAKING RELATED OCCUPATIONS

HOME ECONOMICS

GRADE LEVEL: 10,11,12

Caterer Test

1. Basically, what does a caterer do in his daily work?

2. Is there any special training required of a caterer?

3. Name three types of caterers and describe their duties.

4. Is there any future for the field of catering?

5. Does the salary potential of caterers compare with most of the service industries and how?

6. Is catering more conducive to a person who wants to get ahead or better suited for a person with no particular insight in his future?

7. Will there always be a need for qualified caterers and how?

8. Has the catering service changed any in the past twenty years and how?

9. Compare a qualified caterer with a food store worker.

10. Where can a prospective caterer seek employment and why?

OCCUPATIONAL CLUSTER: Hospitality and Recreation Cluster
SPECIFIC JOB: Waiter - Waitress

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To familiarize students with job requirements, benefits, and related information about careers as a waitress or waiter.

(2) To improve student's attitudes toward "real" occupations.

(3) To acquaint students with experience of the world of work.

(4) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list and discuss a variety of considerations that enter into career choice. Through class activities, field trips and role-playing, the students will be able to sample the skills and operations involved in performing the duties of a waiter or a waitress. The students will be able to discuss several aspects of the dignity of work. The students will be able to perform some of the jobs listed in this Unit. (waiter, waitress, etc.)	Bartender Car-hops Counter-men Soda Fountain Worker Tray Girls Waiter Waitress	Students will discuss the duties, responsibilities, etc. of various hospitality jobs. Use visual aids to give further information on jobs discussed in this Unit. Plan a field trip to the Manners Hospitality School. Invite a speaker to give current information on jobs discussed in this Unit. Students will make a bulletin board dealing with various hospitality careers. Post test	The students will have a more positive attitude towards "real" occupations and so called "low prestige" jobs. The students will be more aware of how school subjects can be related to opportunities that exist throughout life. The students will be knowledgeable about duties and requirements for jobs as a waiter or waitress and the student will know where to go to find these jobs.

Home Economis 10, 11, 12

HOSPITALITY AND RECREATION CLUSTER - Waiter - Waitress

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Film: "Why Study Home Economics"	Bartender Waitress	Contact: Manners Hospitality School, Euclid Ave., East Cleveland, Ohio 44112 Cuyahoga Community College, Dept. of Hospitality Management	Contact: Manners Hospitality School, East Cleveland, Ohio 44112	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 80-85% of the students to write detailed descriptions, orally discuss and perform two duties performed in each of the careers listed in this unit. Teacher evaluation of the post test will be that at least 85-90% of the students correctly answer 90-95% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

CLUSTER: HOSPITALITY AND RECREATION
SUBJECT: HOME ECONOMICS

WAITERS AND WAITRESSES

1. Includes filling water glasses, write out order, figured totals, served food, clean tables, and refilled ketcup and mustard containers.

2. Training

Most beginning waiters and waitresses learn their work on the job. Training programs are starting to develop and are greatly needed. Manners hospitality schools are highly developed. High school vocational courses in food serving are found in most high schools. Poise, good grooming, and even public speaking can be useful.

3. Where to find jobs

Employers frequently hire teen-agers without previous experience to work as busboys and waitresses in luncheonettes, drive-ins, and other small restaurants.

Newspaper ads, employment agencies, and state employment bureaus, hospitals, department stores, and railroad and bus stations are also possible places of employment.

Summer resorts and hotels recruit students for help during vacation periods.

4. Earnings

Waiters and waitresses work from 40 to 48 hours a week (often split shifts), in the evening and Sundays and holidays.

Actual wages are not very high since a large part of their income is made up of tips. The average in 1963 was 93 cents for men and 83 cents for women. Tips vary, but generally they account for from ½ to 2/3 of the worker's income.

Advantages and Disadvantages

Variety of new experiences and new faces. Sometimes the waiter serves interesting and well known people. Much satisfaction is working as part of a smooth-running team of cooks, countermen, busboys, and waitresses.

Meals are usually given. Opportunities for employment are available to all ages, and on a part time basis. Uniforms usually provided.

Disadvantages

Sometimes work must be done under conditions of great pressure. Customers can be unreasonable and unpleasant. Working on your feet can be fatiguing. Workers may suffer slight injuries.

5. Related Occupations

Carhops, soda fountain workers, countermen, tray girls.

6. Additional Information:

Council on hotels, restaurant, and institutional education: Statler Hall, Ithaca, New York

CLUSTER: HOSPITALITY AND RECREATION
SUBJECT: HOME ECONOMICS
POST TEST
WAITERS AND WAITRESSES

GRADE LEVEL: 10,11,12

1. Why are salaries for waitresses usually low?
2. What are the general wages per hour?
3. What do you need to work as waiter and waitresses?
4. What does a waitress usually wear? On her hair? Feet?
5. What are some of her duties?
6. What are some of the advantages of working as a waitress?
7. What is one of the fringe benefits?
8. What are the chances of advancement for a busboy? Waiter?
9. What should a waiter look for while the customers are eating?
10. What are the personal requirements?
11. What training is needed? Where can you get it?
12. Where would you look for a job?
13. What are the opportunities for advancement?
14. What are usually the hours?
15. What are the earnings?
16. What are the advantages and disadvantages?
17. What related jobs are available?

OCCUPATIONAL CLUSTER: Marketing and Distribution
SPECIFIC JOB: Frozen Food Industry Workers

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To establish and maintain effective communication with business, industry, labor and other community resources.

(2) To familiarize students with the duties, requirements, benefits, salaries, etc. of jobs in the food service industry.

(3) To encourage interested students to enroll in Food Service and related programs in their school.

(4) To develop a citizen with salable and marketable skills.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
Those students working in co-op programs will be able to evaluate the program and describe it to others. Through participation in food service classes and cooperative home economics classes, some of the students will gain hands-on knowledge and be able to perform the various jobs required at a particular job site. The students will be able to list and describe various jobs available in their community--jobs in the food service industry.	Arrangers Field Worker Filling Machine Operator Inspector Line Worker Mechanics Sorters Trimmers Vinery Operators	Students will read publication and other materials related to jobs in the frozen food industry. Students will discuss requirements job description, future development, etc. in the frozen food industry. Visit one of the Kroger or A&P companies to familiarize students with frozen food careers and acquaint them with the setting in which this type of work takes place. Each student will write a composition on the frozen food career of his choice.	The students will have a greater ability to describe the relation between specific vocational activities and "real" occupations. Most of the students will have had an opportunity to sample some of the skills and operations performed by food service workers. The students will know the requirements, duties, training needed and various jobs available in the Frozen Food industry.

Home Economics 10, 11, 12

MARKETING AND DISTRIBUTION - Frozen Food Industry Workers

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Careers in Sales" "Lets Keep Food Safe to Eat"	Marketing Researcher Statistical Analyst	Contact: A & P Food Stores Cleveland, Ohio 475-7700 The Kroger Company Cleveland, Ohio 248-1500 A Frozen Foods Processor	Contact: A & P Food Stores Cleveland, Ohio 475-7700 or The Kroger Company Cleveland, Ohio 248-1500 Royal Ridge Poultry Farm, Ridge Road Stoeffers Frozen Foods Solon, Ohio	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: At least 85-90% of the students will be able to write, in detail, or orally describe the duties, training, job outlook, etc. of 90% of the frozen food industry jobs listed in this unit. All students enrolled in Co-op programs will be able to write a detailed description and explanation of the program in which they are receiving work training and experience.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

MARKETING AND DISTRIBUTION

HOME ECONOMICS

GRADE LEVEL: 10,11,12

Frozen Foods Industry Workers

1. Description of job.

Food is processed from the field to the frozen state. There are fieldworkers, viner operators, and mechanics, line workers, inspectors, filling machine operators. Some foods require arrangers (asperagus). Trimmers remove bruises, eyes, or deformities from produce before it's blanched. Sorters separate a crop by size or quality. For frozen eggs, egg breakers and egg separators.

2. Requirements and Preparation

Most of the workers are girls and women. Skill is self required. Employees are trained on the job. High School Education desirable. College training desirable for refrigeration engineers, bacteriologist, food technologists chemists, physicists, blochemists, home economist, experimental lab workers and technicians.

3. Advancement

Not too much hope for unskilled workers, but technically trained people will be advancing.

4. Wages

Average wage for 40 hours week is $75 to $90. Overtime during harvest session. Some fringe benefits for full-time workers.

5. Future

Research under way to find improved methods of freezing. Liquid nitrogen newest development. Future astronauts on routine flights to moon will certainly depend on frozen foods for appealing and flavorful nourishment.

6. Additional Information

Institute of Food Technologist
176 West Adams Street
Chicago, Illinois 60603

NOTICE

Please note that although no materials are missing from this guide, all pages following page 449 are incorrectly numbered.

Page 449 should be followed by page 450, however, it is followed by page 500.

MARKETING AND DISTRIBUTION

HOME ECONOMICS

GRADE LEVEL: 10,11,12

Frozen Food Industry Workers

Post Test

1. What does the home freezer allow you or a working mother to do?
2. When did commercial freezing start in America, by whom?
3. What foods were first used, then what followed?
4. Where are most freezing and processing plants located.
5. What ready to eat items have become popular in the last few years?
6. What is the leading frozen fruit, and from where do we import it?
7. Describe three (3) freezing methods.
8. Trace the Lima Bean from the plant to the freezer.
9. What jobs are available in a freezing plant?
10. What are the educational requirements for working there?
11. What are the wages?
12. What are the chances of advancement?
13. What improvements are in store for the freezing industry?
14. Where can you write for more information on the freezing industry?

OCCUPATIONAL CLUSTER: Marketing and Distribution
SPECIFIC JOB: Food Store Workers

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To improve school achievement and motivation.

(2) To help students acquire the necessary information for job hunting, applications and interviews or post secondary training.

(3) To help students develop an awareness of job possibilities in the greater Cleveland area.

(4) To make students aware of the duties, requirements, job outlook, etc. for food store workers.

(5) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to discuss in detail the relationship between home-economics and jobs for which they can prepare as a student. The students will be able to list and discuss duties, requirements, job outlook, etc. of Food Store Workers. Through field trips, speakers and role-playing sessions, the students will be able to sample the operations and skills required in jobs performed by Food Store Workers.	Carry-out-Boy Cashier Chain Store Checker Manager Open Air Market Stock Boy Wrapper	Students will make bulletin board dealing with various Food Store jobs. Students will complete research and hold panel discussions on the duties, requirements, training, etc. for jobs listed in this Unit. Students will invite speakers from one of the major food chains in Cleveland. Plan field trip to local food company. Role-play an interview for a food store worker. Write composition on the Food Store career of your choice. Post test	The students will have a knowledge of the requirements and skills required for Food Store Workers. The students will be more equipped to assess themselves in terms of ability, interests and personal characteristics relative to future plans. The students will have a more positive attitude toward self, others and the world of work.

MARKETING AND DISTRIBUTION - Food Store Workers

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Salesmanship--Career Opportunities"	Account Manager Accountant Cashier Marketing Researcher	Contact: A&P Stores, Public Relations Department, Cleveland, Ohio, 475-7700 Fisher-Fazio Employment Manager 292-7000 The Kroger Company 248-1500 Pick-N-Pay Super Market, Inc. 17000 Rockside 587-7100	Contact: A&P Stores, 475-7700 Fisher-Fazio Foods 292-7000 Kroger Company 248-1500	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Outlook Handbook People and Choices Career Folios Chronicle Occupational Library DOT

EVALUATION: Attainment of objectives one and two will be based on the ability of 85-90% of the students to write at least two paragraphs describing and naming various jobs home economics may prepare them for and write detailed descriptions of duties, requirements, etc. of all jobs listed in this unit. Teacher evaluation of post test will be that at least 85-90% of students correctly answer 80-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

MARKETING AND DISTRIBUTION

HOME ECONOMICS

GRADE LEVEL: 10,11,12

Food Store Workers

1. Food store workers are employed in areas of service to the public.... carry out boys, checkers, wrappers, managers, stock boys, cashiers, etc.

2. Training is provided by the store or supermarket and the more responsible positions are taught in post high school institutions.

3. Employment areas, nationwide food chains, neighborhood stores employ the mass of food store workers and the opportunity for advancement is excellent for the person that shows interest in his work and wants to get ahead

4. Outlook - the number of food store workers will not increase proportionately with population due to mechanization, yet there will still be a need for food store workers.

5. Earnings - wages vary according to geographical location and as of 1966 the range was a minimum of $1.51 to $2.48 hourly.

6. Additional Information

National Association of Food Chains
1725 I Street N.W.
Washington, D.C.

Retail Clerks International Association
Connecticut Avenue N.W.
Washington, D.C.

MARKETING AND DISTRIBUTION

HOME ECONOMICS

Food Store Workers

Post Test

1. Name three types of food store workers and tell what they do.
2. Where is one trained to become a food store worker?
3. Where can one look for a job as a food store worker?
4. Is there any room for advancement and how?
5. What are the earnings of a food store worker?
6. Has the food store worker changed in the past fifty years, how?
7. Compare an open air market to a chain store.
8. How many food store workers were there in 1966?
9. Where are most food stores located -- urban or suburban areas? Why?
10. Is there going to be an increase or decrease in the number of food store workers?

OCCUPATIONAL CLUSTER: Transportation
SPECIFIC JOB: Airline Stewardess

SUGGESTED SUBJECT AREA: Home Economics
SUGGESTED GRADE LEVEL : 10,11,12
GENERAL OBJECTIVES : (1) To familiarize students with the kind of work involved in careers with the airlines.

(2) To make students aware of personal and educational requirements and routes or levels through which one must travel if he is interested in a career with the airlines.

(3) To improve school achievement and motivation.

(4) To develop a high degree of work habits and attitudes necessary for gainful employment.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to identify high school courses that would be helpful to one interested in working as a steward or stewardess. The students will be able to role-play the requirements, duties, etc. of an airline steward or stewardess. The students will be able to role-play correct interview and job application procedures.	Airline Stewardess	Pre-test Students will make a bulletin board dealing with air transportation and the work of a stewardess Students will complete library research on the training, requirements, job outlook, etc. for a job as a stewardess. Students will listen to an airline stewardess from one of the major airlines. Students will view and discuss film on careers in air transportation. Post test (same as pre-test)	The students will be knowledgeable about the personal traits, attitudes, skills, etc. required for one interested in working as a steward or stewardess. The students will have a more positive attitude toward school, career goals, and the world of work.

TRANSPORTATION - Airline Stewardess

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films: "Air Transportation"		Contact: American Airlines Public Relations Dept., 861-8229 Airlines Training School, Division of Whiting College	Contact: Cleveland Hopkins Airport	Pamphlets Brochures SRA Kits Occupational Outlook Handbook Popeye Career Comics Chronicle Occupational Library DOT

EVALUATION: Teacher evaluation of pre-test and post test will be that at least 80-85% of the students correctly answer 75-80% of pre-test items and 85-90% of post test items. Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to write a detailed description of the duties, training, benefits, etc. of a career as an airline stewardess or steward and list, in writing, at least three high school subjects that would be beneficial to one in an airline career.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

TRANSPORTATION

HOME ECONOMICS

GRADE LEVEL: 10,11,12

Information Sheet

AIRLINE STEWARDESSES

1. What an Airline Stewardess Does

Stewardesses are hired mainly to take care of the passengers.
Pick up passenger lists and join flight crew for a briefing.
Check food supply, reading material, rest rooms, and other facilities.
Hostess stands at the door of the plane to greet passengers.
Makes sure that seat belts are fastened and gives safety instructions.
Helps care for small children and babies, distributes reading material and pillows and keeps the cabin in order.
Serves beverages on some flights serves meals, Sometimes serves cocktails.
Record keeping duties, minor medications.
At the end of a flight, she bids the passengers good-by.
Fills out flight records.

2. Requirements

Attractive looking girls with pleasant personalities.
Poised, tactful, resourceful
Applicants must be 20 to 27 yrs. old, 5'2" to 5'8", and must have a good vision, 140 lbs. maximum.
Minimum educational requirement is graduation from high school. Some airlines require at least 2 years college.
Sometimes airlines have special requirements, such as foreign language, and also that they be eligible and willing to fly abroad.

3. Training

Most airlines have their own training schools.

4. Starting and Advancing

Stewardesses can advance to jobs as first stewardess or purser, supervising stewardess, stewardess instructor, or recruiting representative.
When they do not wish to fly any more, they can obtain jobs in sales or Public Relations.

TRANSPORTATION-HOME ECONOMICS
Information Sheet
Airline Stewardesses

5. Working Conditions

Irregular hours, may work nights and holidays, weekends.
Their flying time is usually limited to eighty five hours a month in addition they spend 35 hours on ground duties.
Salaries $375 to $460 a month plus flight pay.

6. Advantages

Opportunity to travel and meet many people.
Living conditions are pleasant.
Stewardesses enjoy good hotel accomodations when they make overnight stops.
Generous vacation time, sick leave, and other fringe benefits.
The stewardess is usually given travel permits at reduced fare on other lines, and this is extended to members of her family.

Disadvantages

Work is hard. She must handle heavy trays and serve full-course meals or snacks.
Space is restricted, yet she must act skillfully and quickly. She is on her feet a good deal of her time.
Stewardess must be on call, ready to work at inconvenient times.
She works Sundays and holidays. Often she is away from home for days.

7. Air Transport Association of America
1000 Connecticut Avenue - N.W.
Washington, D.C.

TRANSPORTATION

HOME ECONOMICS

AIRLINE STEWARDESSES

Post Test

GRADE LEVEL: 10,11,12

1. What are the duties of an airline stewardess?
2. What are the requirements of applicants?
3. What is the maximum age requirement?
4. What is the minimum and maximum height and weight requirement?
5. What is the minimum age requirement?
6. Where can you get necessary training?
7. What are the chances of advancement?
8. What are the working conditions?
9. What are the salaries?
10. What are the advantages?
11. What are the disadvantages?
12. Where can you get additional information?

HOME ECONOMICS
INFORMATION SHEETS

Buyer

Cooks and Chefs

Dress Designers

Home Economist
Interior Designer
Models

Sewing Machine Operators

Upholsterers

BUYER
INFORMATION SHEET

1. A buyer may be employed by a department store, a specialty shop, a mail order house, or a large chain of stores. She may be a resident buyer which means that she remains permanently in a buying center--probably New York--studying the market and assisting visiting buyers. As a department store buyer, she will select merchandise to be sold by the store, develop sales techniques, keep accurate records, maintain a well balanced stock of goods and see that her department functions harmoniously.

   The buyer is assisted by the merchandizing manager, directly above her, and by the assistant buyer who is usually delegated the more routine aspect of the job.

2. The work is complicated and demanding; An example of a day in the life of a buyer. The day may start with a telephone call from a manufacturer asking her to extend a delivery date. Afterward, she may practice a bit of public relations by personally handling a complaint from an irate customer. Then, she might handle plans for an approaching holiday sale or tour the stock room checking possible mark downs. Later she may go to the advertising department to read ads for tomorrow's newspaper. Finally after the store is closed, she may conduct a sales staff meeting.

   Stress and tension are always present in the buyer's job. Retailing is highly competitive and success is measured according to the profit shown by each department.

   A buyer travels extensively. She may even go abroad.

3. Physical requirements: A buyer should have a friendly, outgoing manner. She should be a mature poised person--one who inspires confidence in others. Consistant good judgement is vital too.

4. A college education is not necessary but it puts a beginner in a better position to succeed. If one attends college, she might major in merchandising, textiles, fashion design, advertising or several other related areas.

5. Earnings--Buyers earnings vary greatly according to the kind of store they work for. Executive trainees in large cities make from $75 to $90 per week. Experienced buyers often earn from $10,000--$30,000 yearly.

HOME ECONOMICS

GRADE LEVEL: 10,11,12

COOKS AND CHEFS

1. Job Description

Chefs are usually trained in vocational schools in Europe and earn $25,000 a year.

Cooks are trained in kitchens by chefs or in vocational schools. There are 3,000,000 cooks and chefs employed in the United States. Most chefs are men, but in schools and hospitals, the organization may be headed by a woman. More than half of all cooks are women--the highest paid jobs are held by men.

Head cook or chef is in direct charge of the kitchen. He supervises the entire staff. He may do no cooking himself, but he is familiar with all jobs done. He sees to the arrangement and garnishing of food. He should be familiar with various cuts and grades of meat and may be responsible for boning and trimming.

In a modern restaurant, the cook broils, bakes, roasts, and frys meat and other food. He may have his specialty.

Roast Cook--prepares all hot sauces, stewes, and braised and sauteed meats.

Pastry Cook--bakes pies, cakes, and fancy pastries, puddings and custards, and ice cream as well.

Short Order Cook--works in drive-ins, lunch counters. They cook ready to order food such as hamburgers, minute steaks, and french fried potatoes.

Working Conditions: Some are modern and air conditioned, but some are hot and have small kitchens. The work is physically demanding, hours are irregular, and cooks are greatly in demand.

Requirements: Physical stamina to work on one's feet for long hours without rest, free of communicable disease, close attention to personal cleanliness, keen sense of smell and taste, good grasp of figures, (arithmetic), and Educational training.

Cooks and Chefs

Informal on-the-job training, apprenticeship, and trade-school education.
Graduates of trade schools have the best chance. The Culinary Institute of America in New Haven, Connecticut and the Washburne Trade School in Chicago, are two of the best. It is good to work in a restaurant as a dish worker or waiter.

Earnings.
Daily Union rates in the city--$14.60 for pantry to $26.29 for assistant chef. Salary may reach $200.00 with chefs in large restaurants reaching as much as $25,000.

Future Prospects
With the expansion of the quantity food service business, openings will increase in number.

Additional Information

Hotel and Restaurant Employment & Bartenders
International Union
6 East Foruth Street
Cincinnati, Ohio 45215

HOME ECONOMICS

DRESS DESIGNERS
INFORMATION SHEET

GRADE LEVEL: 10,11,12

1. The dress designers is at the heart of the fashion industry and as such originates styles and fashion trends. A designer usually specializes in creating garments for certain age groups, such as children, misses or women.

2. Although dress designing is essentially a women's field, it offers opportunities for men as well.

3. The greatest number of dress designers work for manufacturer who make clothes on a mass production basis. Many work for specialty apparel shops or custom departments of large stores such as Marshall Fields, etc. Large numbers are employed by companies that manufacture accessories such as hand-bags, shoes and hats.

4. The fashion industry is the third largest industry in the U.S. The future outlook is excellent.

5. A dress designer must know how to draft pattern, cut fabrics, fit, drape and sew a garment. Unless she knows how to perform each step, she cannot supervise all the details or produce an original model.

6. Personal qualifications - talent and stamina A strong sense of color and form, a flair for unusual design, must be able to get along well with people, must be flexible and willing to compromise, must have good business sense.

7. Educational Requirements. Firms employing designers usually expect them to have a college degree or from two-four years of training at a school specializing in dress design. Some firms conduct apprentice training programs.

8. Earnings: The beginning dress designer earns from $65.00 to $85.00 a week. As she gains experience and is given more responsibility, her salary may range from $6,000 - $20,000 year. Top level designers earn as much as $50,000 - $100,000 yearly.

HOME ECONOMIST
INFORMATION SHEET

1. There is no field of work that offers a wider variety of career possibilities than home economics. It draws upon many sciences and arts to promote the health and welfare of individuals and families. Specifically, home economics is concerned with family relationships and finances, nutritional principles and food preparation, clothing and textiles, housing and household equipment.

2. The major career fields in home economics are (1) Teaching, (2) extension service, (3) business, (4) institutional management and dietetics, (5) health (6) welfare and (7) research.

   More than half of all home economists are teachers. Most of them teach homemaking in secondary schools, many work in colleges and adult education programs, and some in nursery and elementary schools. College teachers train professional home economists, write textbooks, and do research.

   The Federal Government employs home economists in a career known as Home Demonstration Agent.

   In business, a home economist may work with a utility company demonstrating the use and care of household equipment, helping homemakers plan kitchen and laundry centers for their homes or she may work as test director in an experimental kitchen perfecting new types of ready-prepared foods or developing recipes. Manufacturer's consultants investigate consumer needs and brings them to the attention of the management. They also work out new ways of bringing the firms products to the attention of the public. Home Economists are designers, buyers, fashion co-ordinators and customer advisors in retail fabrics, clothing, household equipment, and home furnishing industries.

   The Home Economist with a background in communications might obtain a job in publishing (magazines such as Vogue, Bazaar, etc.) with newspapers and book publishers. Also radio and television on womens' programs.

   Home economists who have specialized in institutional management and dietetics are known as dietitions. They work in hospitals, restaurants, clubs, hotels, schools and the armed forces.

   In public and private welfare work, the home economist advises families about nutrition, clothing and finances.

In research, the home economist may work for a university, hospital, government agency, or business.

3. Working Conditions:

Most home economists work 48 hours a week or less. Paid vacations are included in nearly all home economics' jobs.

4. Requirements:

Personal poise, a good cultural background, leadership, ability, accuracy, imagination, patience and keen powers of observation.

5. Education requirements: A bachelor's degree in home economics from an accredited college or university.

6. Earnings: $7,200 to well beyond $14,000 (1967 earnings)

7. Future outlook: Excellent.

Book: Home Economics As A Profession
by Mildred Thurow Tate
Webster Division - McGraw Hill

INTERIOR DESIGNER

INFORMATION SHEET

1. The creative work of interior designers and/or interior decorators enhances the attractiveness of our homes and other buildings. They plan the functional arrangement and color of interior space and coordinate the selection of furniture, draperies and other fabrics, floor coverings and interior accessories.

2. Formal training in this area is becoming increasingly important though in the past it has not been necessary. The minimum educational requirements today is a completion of a 2 or 3 year course at a recognized school or institute specializing in interior design. Also a 4-year college course leading to a bachelors degree with a major in interior design is a good background.

3. Designers work in private homes usually from furniture stores and large department stores. They also work in large commercial buildings, hotels, restaurant chains, antique dealers, some set stages used for motion picture and television. Some even design furniture and accessories to be used in interiors. Some work for their own private business.

4. Hours of work for decorators are long and irregular. Their work is usually adjusted to suit the needs of their clients.

5. Membership in either the American Institute of Interior Designers (AID) or the National Society of Interior Designers (NSID), both professional societies, is a recognized mark of achievement in this profession.

6. A slow but steady increase in employment of interior designers and decorators is anticipated through the 1970's.

7. Many interior decorators with average skills in the field earn only moderate incomes (according to 1967 information) from $5,000 - $7,500 a year. Talented decorators earn from $12,000 - $25,000 yearly. Many work on commission.

8. Additional information may be obtained from:
   National Society of Interior Designers, Inc.
   Suite 700, 157 West 57th Street
   New York, New York 10019

Excellent book - Doyle, Robt. Interior Design Copyright 1970

INTERIOR DESIGNER

Pre-Test

GRADE LEVEL: 10,11,12

1. What kind of work is done by an interior designer?

2. What are the educational qualifications required in order to become an interior designer?

3. Where (the kind of business and better locations in the U.S.A.) would an interior designer find employment?

4. What are some of the possible working conditions that might be expected in this kind of work?

5. What kinds of earnings would one expect in this kind of work?

6. What is the future employment outlook for an interior designer?

7. Where would one find additional information on careers in the area of interior design.

8. Is interior design geared for males or females?

9. Would positions in interior design be more available in large cities or smaller communities?

MODELS
INFORMATION SHEETS

1. Yes, modeling is exciting, but what you may not know is that only about three hundred of the thousands and thousands of young women who earn their living as models ever get into the really glamourous part of it. Behind every glamour shot are hours of physical work under hot studio lights or out in the weather that leaves all but the hardiest cold.

2. New York is the best place to find jobs because it is where the magazines and fashion editors are--and because seventh avenue is the garment center of the world. Other cities have garment centers (notable Dallas, Chicago, St. Louis, Los Angles, Milwaukee, Cleveland, and Kansas City), but New York is the place where the high fashion models work.

3. A model should have other training because her fashion career as a model is short-lived. High school courses in home economics, dancing, drama, and music are good for developing poise and personality. Self improvement acquired by daily exercise, conscientious skin care, general cultural development, self discipline are all helpful for the world model. Almost all professional models agree that attending the average modeling school is almost worthless. People in business maintain that your time and money are better spent taking composites or pictures to a good modeling agency. Composites are black and white glossy photographs of you in several poses.

4. A good place to begin is with the department store.

5. High fashion models are frequently classified by type. The Ultra-sophisticated, The Gamin, The Outdoor American, The Chic Young Mother.

6. Earnings Vary according to type and place. Some models make as low as $10 and $15 per hour where others as much as $100 per hour.

7. Future outlook - Very short life. A model is old before 25 years of age.

SEWING MACHINE OPERATORS
INFORMATION SHEET

1. These workers use electric sewing machines. The machines are heavier and faster than home models. They work on dresses, suits, shirts, sleepwear, underwear, gloves, etc. They also work on curtains and draperies, furniture, and automobile upholstery, leather, plastic and canvas products, etc.

2. Where jobs are found: Sewing machine workers work in garment factories. New York is the center of the nation's apparel industry. Other major garment manufacturing centers are Philadelphia, Chicago, Baltimore, Boston, Rochester (N.Y.) Cleveland, Cincinnati, St. Louis and Los Angeles.

3. The shops in which these operators work are generally clean, well ventilated and well lighted. There is a constant noisy hum and vibration from the operation of the many sewing machines. They work under constnat pressure because they are paid according to the number of pieces they produce. The work week is thirty-five to forty hours weekly.

4. Requirements: There is no age limit--good eye sight is needed, finger dexterity and eye-hand-foot coordination. The work is not physically hard, but it is sedentary and monotonous.

5. Education and experience: Although there is no specific educational requirements, a high school education is preferred. Experience is seldom required, most shops are willing to train operators.

6. Jobs are found through newspaper ads and through direct application to a company employing sewing machine operators. Occasionally, an operator advances to a designer. An exceptional employee may become production manager.

7. Earnings: Earnings vary widely, depending on the job performed, the specific industry, the size and location of the plant, and the extent of the unionization.

8. Future outlook - very good

UPHOLSTERER
INFORMATION SHEET

1. An upholsters' duties covers all activities involved in covering a piece of furniture. Most factories and large custom shops divide work into sections: Making base, installing spring's and inserting fillings and padding and covering the piece with material.

2. Working conditions: The upholsterer must stand all day. There is quite a bit of stooping and bending involved. Must be able to handle sharp knives, shears, etc.

3. A 40 - hour week is standard. Workers are paid on a piece work basis and are often laid off during slack seasons. Wages vary --they are often paid by the hour.

4. A high school diploma is not necessary, but preferred. Courses in drafting, woodwork and oper. ting a sewing machine are necessary. On the job training is provided in most shops.

5. Job prospects for skilled upholsterers are good.

OCCUPATIONAL CLUSTER: COMMUNICATIONS AND MEDIA
SPECIFIC JOB:

SUGGESTED SUBJECT AREA: French, German, Latin
SUGGESTED GRADE LEVEL : 10, 11, 12
GENERAL OBJECTIVES : (1) To help students gain a basic vocabulary of French, Latin, and German.

(2) To help students gain a reading ability of simple texts in the foreign language using this basic vocabulary.

(3) To hel, udents gain some speaking ability by use of this basic vocabulary.

(4) To help students gain comprehension of simple foreign language texts.

(5) To help students understand language qualifications for various careers using foreign languages.

(6) To give students information where language related careers can be found.

SPECIFIC BEHAVIORAL OBJECTIVES	VOCABULARY	LEARNING EXPERIENCES OR ACTIVITIES	DESIRED OUTCOMES
The students will be able to list or discuss ways in which foreign language courses are related to the world of work and name a career of their choice in which foreign language is used. The students will be able to list a variety of places in the Cleveland area where language related careers can be found. The students will be able to write and interpret a newspaper column in the language they happen to be studying.	Courier Customs Agent Expert Manager Foreign Correspondence Guide Interpreter	Pre-test Have students list various careers where foreign language is needed. Have students determine educational needs for success in these areas. Show film or filmstrip showing foreign languages being used by Americans. Invite someone who uses foreign languages in his/her work to speak to the class. Write a simple column for school newspaper in French, German, and Latin Post-Test	The students will have a more positive attitude toward self, others and the world of work. The students will have a greater knowledge of the requirements and operations involved in a large number of jobs that would require knowledge of a foreign language The students will be more aware of community resources leading to jobs. The students will show more positive attitudes toward their career goals and continuing education.

French, German, Latin 10, 11, 12 OCCUPATIONAL CLUSTER: COMMUNICATIONS AND MEDIA

FILMS, FILMSTRIPS, AND TAPES	SOUND SLIDES DEVELOPED BY DVEP	SPEAKERS	FIELD TRIPS	CAREER LIBRARY
Films; Why Study Foreign Languages Words and Their Meaning		Contact: Foreign Language Dept. Case Western Reserve University	Contact: Case Western Reserve University Performances of the Metropolitan Opera Association	Pamphlets Brochures SRA Kits Popeye Career Comics Occupational Exploration Kit DOT Occupational Outlook Handbook Chronicle Occupational Library

EVALUATION: Successful attainment of objectives in this unit will be based on the ability of 85-90% of the students to be able to (a) write a detailed description of at least three ways in which foreign language courses can be related to the world of work and list at least five careers that would require the knowledge of a foreign language. (b) correctly translate at least two paragraphs from a newspaper dealing with the foreign language taught in class. Teacher evaluation of pre test will be that at least 75-80% of the students correctly answer 70-75% of pre test items and 85-90% of post test items.

SUGGESTIONS FOR IMPROVEMENT OF UNIT:

ADDITIONAL INSTRUCTIONAL AND RESOURCE MATERIALS:

FOREIGN LANGUAGES

GRADE LEVEL: 10,11,12

Music

Opera
Radio
Composing
Singing

Travel

Tourist Interpreter
Courier guide
Explorer

Social Service

Settlement worker
Missionary

Art

Artist
Director
Student
Critic
Collector
Curator
Designer

Literary Pursuits

Foreign Correspondence
Book dealer
Publisher
Journalist
Author

Commercial Pursuits

Advertising
Commercial Aid
Salesmanship
Merchandising
Clerking
Shipping

Govt. Services

Foreign Service
Detective Service
Customs
Army
Navy
Aviation
Technical advising

Hotel Management

Writer
Entertainer
Information clerk

Secretarial Work

Social
Business

Dramatics

Opera
Movies
Legitimate Stager

Foreign Trade

Bánks
Export
Import

Costuming

Designer
Dressmaker
Milliner
Stylist
Buyer

Interpreting

Banks
Hotels
Hospitals
Immigration
Police Court
Tourist service
Dept. store

Communication

Cable
Telegraph
Telephone
Radio

Professions

Medicine
Pharmacy
Nursing
Geology
Engineering
Architecture
Archeology
Ministry
Mining
Teaching
Research
Librarian

Instructional Fixation

Diplomacy
Law

FOREIGN LANGUAGE

GRADE LEVEL: 10,11,12

POST TEST

1. Name five career areas where foreign language is used.

2. What are academic qualifications for these jobs?

3. What personal qualities are desirable that differ from other careers?

4. Where would one make inquiry about securing such a position?

5. If you had to choose a career using a foreign language or one in which a foreign language might be used, which would you choose?

6. Is there any special vocabulary you would want to learn that may not be included in our text?

APPENDIX

DEVELOPMENTAL VOCATIONAL EDUCATION

Quincy-Woodhill Building
229-5310

Available Materials

Audio Visual Equipment

4	3¼ MM Cameras
3	Cassette Recorders
2	16 MM Projectors
3	Overhead Projectors
18	Sound-slide Projectors
1	Sound Filmstrip Projector

16 MM Films

Careers in Transportation	Careers in Skilled Services (Sales)
Money in the Hand and Out	Careers in Personal Services
Horizons Unlimited (Health Careers)	Careers in Industry
Building a House	Careers in Business & Office Occupations
The Joys of Selling	The City
Seaport	Our City Government
Careers in Machine Trades	Trucks in Our Neighborhood
Careers in Building Trades	Dairy: Farm to Door
Careers in Communication	Postman: Rain or Shine

Filmstrips

Who Are You?	Television
How Do You Get There?	The Newspaper
What Do You Like To Do?	The Telephone
What is A Job?	Books
What Good Is School	Communicating Ideas
Motion Pictures	Communicating Without Words
Radio	

Filmstrips Cont.

Conservation For Today's America (Series With Sound)

(a) Land Conservation Today

(b) Water Conservation Today

(c) Urban Conservation Today

(d) Wildlife Conservation Today

(e) Mineral Conservation Today

(f) Forest Conservation Today

(g) Soil Conservation Today

Sound-Slides

Airport

Railroad

Post Office

Police Department

Fire Department

Newspaper

Bus

Radio

Television

Ships

Home Economics

Posters

Business and Office

Manufacturing

Fine Arts & Humanities

Marine Science

Marketing & Distribution

Environmental Control

Hospitality and Recreation

Agri-Business & Natural Resources

Communication

Transportation - Ships

Manufacturing - Apparel

Health Services

RICHARD'S ROSEN PRESS

Careers in Depth Series Cont.

Journalism
Landscape Architecture
Law Enforcement
Librarian
Marines
Marketing
Medical Assisting
Medical Technology
Merchant Marine
Meteorology
Minister
Model
Museums
Music
NASA
Naval Architecture
Navy
Nuclear Energy Fields
Nun
Nursery Industry
Nursing
Occupation Therapy
Oceanography
Optician
Optometry
Own Business
Personnel Work
Physics
Pilot
Pharmacy
Photography
Physician
Printing
Public Relations
Rabbi
Radiologic Technology
Railroading
Real Estate
Retailing
School Psychology
Secretary
Shorthand Reporter
Social Work
Television
Temporary Office Worker
Traffic Management
Translating and Interpreting

JULIAN MESSNER SERIES

Your Career in Advertising
Your Career in Aerospace Industry
Beauty As A Career
Careers in Biological Science
Your Career in Chemistry
Your Career in Civil Service
Your Career in Computer Programming
Disease Detectives
Engineers Unlimited
Guide To Professional Careers
Fashion as a Career
Your Career in Film Making
Your Career in Foreign Service
Careers in the Health Field
Careers for Home Economists
Careers in Horticultural Sciences
Careers in Hotel Management
Your Career in Interior Design
Your Career in Journalism
Your Career in Law Enforcement
Careers in the Legal Profession
Careers in the Library World
Your Career in Medicine
Your Career in Nursing
Your Career in Oceanology
On The Job Training
Your Career in Parks & Recreation
Your Career in Public Relations
Your Career in Selling
Skyblazers
Social Service
Stagestruck (Theatre)
Your Career in Teaching
The Teen-Age Diet Book
Your Career in Transportation
Your Career in the World of Travel
Your Career in TV and Radio
What About Teen-Age Marriage?
You and Today's Troubled World
Your Career-If You're Not Goint to College
Your College Education-How to Pay for It
Your Handicap-Don't let it Handicap You
Your Personality and You

SRA Book Series

I. Our working world- Families at work (text and records)
Our working world - Cities at work
Our working world - Neighbors at work

II. Educational filmstrips and records
A. Conservation for today's america
(4 records and 4 filmstrips)

III. Career Opportunities
New York Life Insurance Company
Box 51, Madison Square Station
New York, N.Y. 10010 1958
(a series of articles designed to help guide young people to a better future)

Career Development Resource Materials

1. Occupational Exploration Kit
   Science Research Assoc. (Sr. High)
   259 W. Erie St.
   $99.50 (approx price)

2. Language Development Kit

3. Work (Widening Occupational) Kit

Note: (The above are available at the Visual Aid Center and the Cleveland Public Library)

Topper Career Comics
King Features
235 E. 45th St.
N.Y. N.Y. 10017

Occupational Library, Chronicle, Moravia, N.Y.
Based on D.O.T.
DVEP Office

People and Choices Career Folios (Bernard C. Watson professor and Chairman Urban Educ. Temple University)
Division of Urban Education
a program to acquaint pre-high school students with career possibilities
Harcount Brace Jovanovich, Inc. N.Y.

Sound Filmstrips

Guidance Association of Pleasantville, N.Y.

I People who help others

Filmstrips:

A. Physical Therapist
B. Day care worker
C. Community Organizer
D. People who help others

II People who work in science

Filmstrips:

A. People who work in science
B. Recording Engineer
C. Laboratory Technician
D. Ocean Life Scientist

III People who make things

Filmstrips:

A. People who make things
B. Aircraft assembler
C. Chef
D. Model builder

IV People who create art

A. People who create art
B. Puppeteer
C. Musician
D. Designer

V People who influence others

Filmstrips:

A. People who influence others
B. Model (homemaking)
C. Creative director (art)
D. County agent (horticlture)

VI People who organize facts

A. People who organize facts
B. Bakery fore-woman
C. Automotive researcher
D. TV sports editor

ADDITIONAL MATERIALS AVAILABLE IN THE

DEVELOPMENTAL VOCATIONAL EDUCATION OFFICE

I. Posters:

1. They set their sights on careers at sea
2. Leisure and restaurants
3. Where people work
4. Trades and industrial
5. Home economics
6. Business education - General

II. Tapes (the world of work)

1. On the job (20tapes)
2. Getting a job (20 tapes)
3. Cross - Vocational skills and information (20 tapes)

III. Games

1. Travel Connection
2. Transportation
3. Riddle your way

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

VISUAL AIDS LIST

Careers in the Building Trades. 26 Minutes

Easy-to-follow language and lively action demonstrate some of the tasks carried on in the various trades practiced by the largest group of skilled workers in the nation.

Careers in Business and Office Occupations. 25 Minutes

Helps youngsters develop an understanding of what is required in office occupations. A number of these occupations were unknown only a few years ago.

Careers in Communications. 30 Minutes

What do workers in this essential area do? The film gives a close-up look at various opportunities available and some of the skills and talents required.

Careers in Industry. 26 Minutes

Ranges over some of the many opportunities American industry provides with a closer look at some specific occupations. It also emphasizes importance and satisfactions of jobs in this area.

Careers in Machine Trades. 29 Minutes

Portrays some of the skilled trades involving use of powerdriven machinery. The program relates the occupation to young people's own interests and future.

Careers in Personal Services. 29 Minutes

Looks at the jobs of those, from firemen and policement to beauticians and barbers, who want to work with people. It demonstrates their role in making life safer and pleasanter.

Careers in Sales--"The Joys of Selling". 26 Minutes

Every industry, business, and community employs sales people. So, the variety and opportunities are limitless. The film explores some of the directions young people with a bent for selling can follow.

Careers in Skilled Services. 25 Minutes

The people who install, maintain, and repair automobiles and machinery in homes, offices, and factories keep the nation running. The program shows some of the talents and skills used in a wide field with a shortage of trained personnel.

Careers in Transportation. 24 Minutes

These workers help move passengers and goods over highways, railways, airways, and seaways across continents and oceans, or inside cities and communities.

How Do You Get There. 26 Minutes

Here are the tips youngsters need on how to start looking for a job--newspaper ads, employment agencies, etc; how to apply and how to approach an interview. There is also information on technical courses at two-year colleges, apprenticeships, and on-the-job training.

Airplanes Work for Us. 11 Minutes

Depicts some of the common and uncommon uses of aircraft, pointing out that in addition to the carrying of passengers and freight, airplanes and helicopters are used for fire patrol, rescue work, weather patrol, construction of power lines and crop dusting. Describes air to ground communication and shows many auxiliary jobs other than the actual piloting of aircraft.

Building a House. 11 Minutes

Shows the main stages in building a house and pointing out the importance of each workman's special skill in following the architect's plans.

The City. 11 Minutes

Features a complex modern city with private homes, apartments, office buildings, schools, stores, and factories. Pictures the major transportation facilities, the huge suburban sprawl, the city's elected governmental body, and the city departments such as the fire and police departments.

Dairy Farm to Door. 11 Minutes

Presents the story of milk production and processing showing views of the dairy farm, the creamery, the distribution of processed milk and other dairy products to the home and market.

Exploring the Ocean. 11 Minutes

Uses drawings, diagrams, animation, and photographs of the ocean floor to reveal the wealth of the ocean in minerals as well as in plant and

animal life. Shows the work of oceanographers and describes the part played by the water cycle in depositing minerals in the ocean.

Industry. (filmstrip)

Discusses the growth and importance of industry in New England and describes various industries such as shoes, textiles, hardware, paper hats, silverware, firearms, electronics and others.

Money in The Bank and Out. 15 Minutes

Explains how a bank helps the community by keeping money in circulation and explains such procedures and terminology as deposits, checks, interest, loans, and money flow.

Our City Government. 10 Minutes

Views the urban community and its government. Considers how a city government provides services and makes and enforces laws. Discusses the functions of the city council, mayor or city manager, and courts.

Postman: Rain or Shine. 11 Minutes

Follows a letter from the time it is mailed in Kansas until it is delivered in California, describing the role of trains, trucks, planes, and the postman. Shows the use of automation in the post office.

Seaport. 16 Minutes

Gives an insight into the seaport area of a large city and such activities as loading and unloading of cargo, hiring of seamen, varied types of work and workers, and making a ship seaworthy for another trip.

Transportation. (filmstrip)

Illustrates the different types of transportation needed, including railroads, airlines, buses, automobiles, boats, and pipelines.

Trucks in our Neighborhood. 12 Minutes

Shows many kinds of trucks and how they work to help the neighborhood.

Communication: Books. (filmstrip)

Explains how a book is published and distributed and shows the role that libraries play.

Communication: Communicating Ideas. (filmstrip)

Points out that men in all societies have ways of communicating with each other and emphasizes that our modern society works because we have easy, rapid, and reconizable systems of communication.

Communication: Communicating Without Words. (filmstrip)

Illustrates some of the ways in which we communicate without words, including gestures, pictures, sounds, touch, signs and symbols, odors and appearance.

Communication: Motion Pictures. (filmstrip)

Explains how motion pictures are produced and discusses the motion picture as a particular type of communication.

Communication: Radio. (filmstrip)

Explains the importance of radio to people, businesses, and city agencies.

Communication: Television. (filmstrip)

Explains how television programs are produced and why television is important to people.

Communication: The Newspaper. (filmstrip)

Explains why newspapers are important and how they are produced.

Communication: The Telephone. (filmstrip)

Explains how the telephone establishes a network of communication that ties us in a city, across the country, and around the world.

Conservation for Today's America. (filmstrip)

Contains: soil, forest, water, wildlife, mineral, urban, and land conservation today.

STUDENT TOURS OF OFFICES

Attached is a list of companies which will accommodate students for tours of offices. When making arrangements in writing or by phone, it would be helpful if you would include the following information:

1. Make sure the date and time of the tour is accurate.

2. Ask your contact to furnish you with orientation information on the company so you can conduct an orientation session on the company before the tour. This information could include: brief company history; product or services; production processes; annual sales; payroll, profit, dividends, and taxes; employment of men and women in the plant and offices; product use and markets etc.

3. Give the person who is arranging the tour as much advance notice as possible. Two weeks notice is not uncommon.

4. Give the number of students who will be on the tour and the name or names of the teachers or other supervisory persons who will accompany the students. Remember most companies have a limit on the number of people they can accommodate.

5. Get the consent of your principal and the parents of the students.

6. Remind your students to ask pertinent questions and have one or more students react by making favorable comments to the company representatives at the end of the tour.

7. Have students write "thank you" letters.

STUDENT TOURS OF OFFICES IN THE CLEVELAND AREA

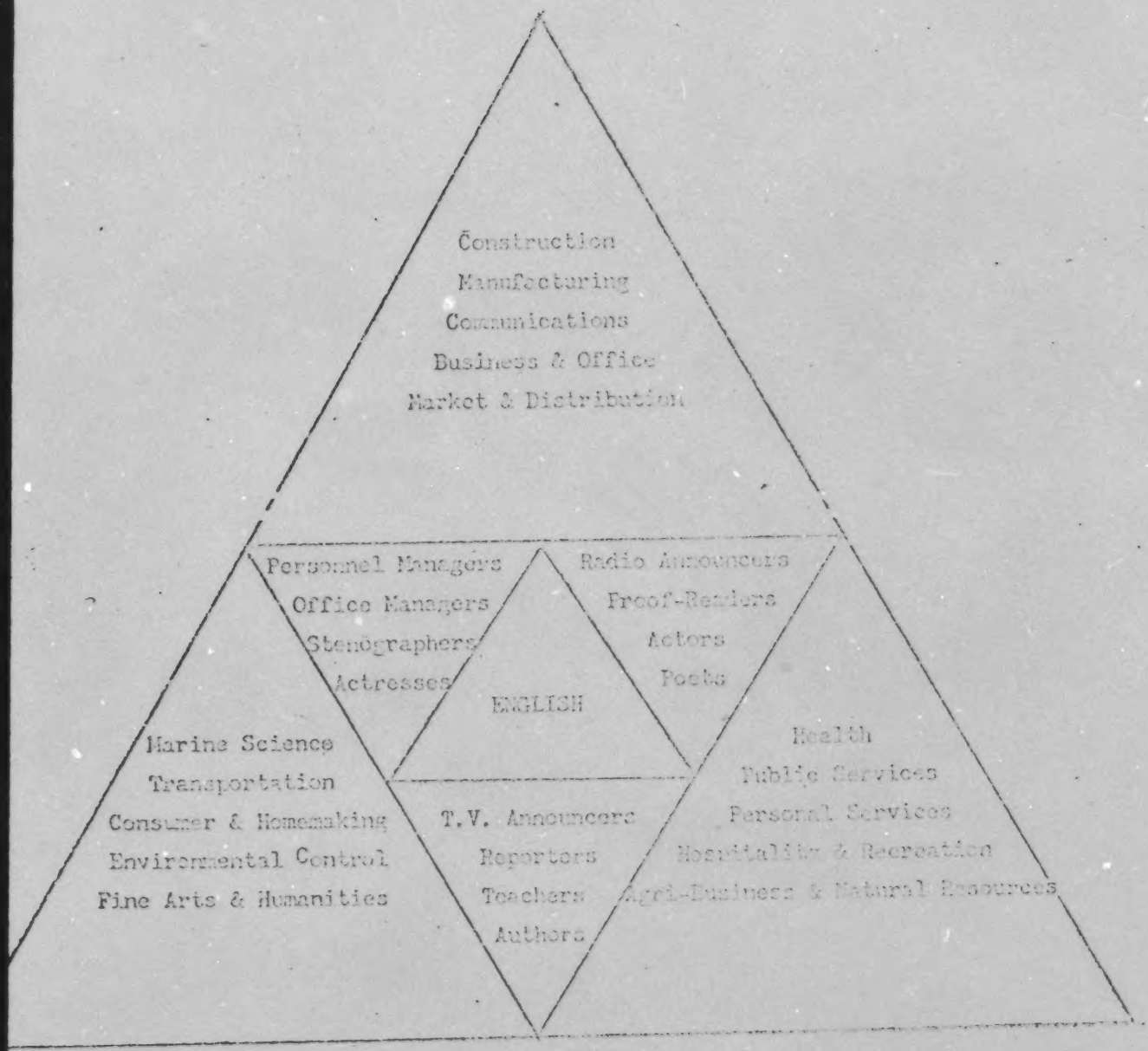
Company and Address	Person to Contact	Special Information
Eaton Corp. 100 Erieview Plaza Cleveland, Ohio 44114	Mr. Leonard C. Jarvis Office Services Manager 523-5356	
The Standard Oil Co. Midland Building Cleveland, Ohio 44115	Mr. Andrew Molnor Employment Director 575-5948	
National Acme Corp. East 131 St. & Coit Rd. Cleveland, Ohio	Mr. Walter Bandlow Training Director 268-4200 Ext. 460	
The East Ohio Gas C. East Ninth & Superior Cleveland, Ohio 44113	Mrs. Marilyn Mize Public Relations Dept. 522-2949	Tour hours: 10 a.m. to 2 p.m. Tour includes three key departments: Energy Control Center, Customer Information and Data Processing
The Plain Dealer 1801 Superior Avenue Cleveland, Ohio 44114	Miss Genevieve Mohlor Promotion Dept. 523-4245	Tour includes: City Room, Company Room, Engraving Department, Stereotype Department, Press Room and wire Library
The Penn. Mutual Life Ins. Co. 33 Public Square Building Cleveland, Ohio 44113	Dorothy York Office Manager 861-7780	
New York Life Ins. Co. 55 Public Square Cleveland, Ohio 44113	Miss Frances Shinn Office Manager 969-2610	
Sears Roebuck and Co. 8501 Carnegie Avenue Cleveland, Ohio 44106	Mr. Earl D. Ellis Director of Urban Affairs 795-2233 Ext. 346	
The Buckeye Union Ins. Co. Rockefeller Building 614 Superior, West Cleveland, Ohio	Miss Christina Greive 861-660	

Company and Address	Person To Contact	Special Information
Glidden Durkee Div. Union Commerce Building East Ninth & Euclid Cleveland, Ohio	Miss Norma Thompson Employment Supervision 771-5121	
Federal Reserve Bank P.O. Box 6387 Cleveland, Ohio 44101	William Idsardi Public Information Director	Tours scheduled at 9:30 a.m. and 1:30 p.m. No more than 25 persons
The Cleveland Press 901 Lakeside Avenue Cleveland, Ohio 44114	Mr. Glen Rynearson 623-1111 Ext. 630	Tours scheduled at 9:30 a.m. and 1:30 p.m. Size of group: minimum-10, Maximum-25. Length of tour - 45 minutes.
The Warner & Swasey Co. 5701 Carnegie Avenue Cleveland, Ohio 44103	John Krisko Training Coordinator 431-5580 Ext. 304	Tours scheduled at: 9:30 a.m. to 11:00 a.m. Tour includes: orientation, plant offices, maximum - 10
Travelers Ins. Co. 1801 East Ninth St. Investment Plaza Cleveland, Ohio 44116	Marilyn Walton Personnel Assistant 241-4646 Ext. 302	
Harshaw Chemical Co. 1945 E. 97 St. Cleveland, Ohio 44106	Miss Doris Smith Manager of Research Administration	Tour includes: Computer center, office publicity, Magnetic Card Typewriter
Ford Motor Co. P.O. Box 9868 Cleveland, Ohio 44101	Mr. Richard A. Weiss Supervisor of Personnel 433-7000 Ext. 473	
The Geo. Worthington Co. P.O. Box 6028 Cleveland, Ohio 44101	Betty Urbin 241-1600 Ext. 226	Will accommodate 10-15 students

Company and Address	Person To Contact	Special Information
Allstate Insurance 75 Executive Parkway Hudson, Ohio 44236	Jane Van Almen Personnel Manager 656-6120	
Addressograph-Multigraph 1200 Babbit Road Euclid, Ohio 44117	J.W. Fulton 731-8000 Ext. 418	

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

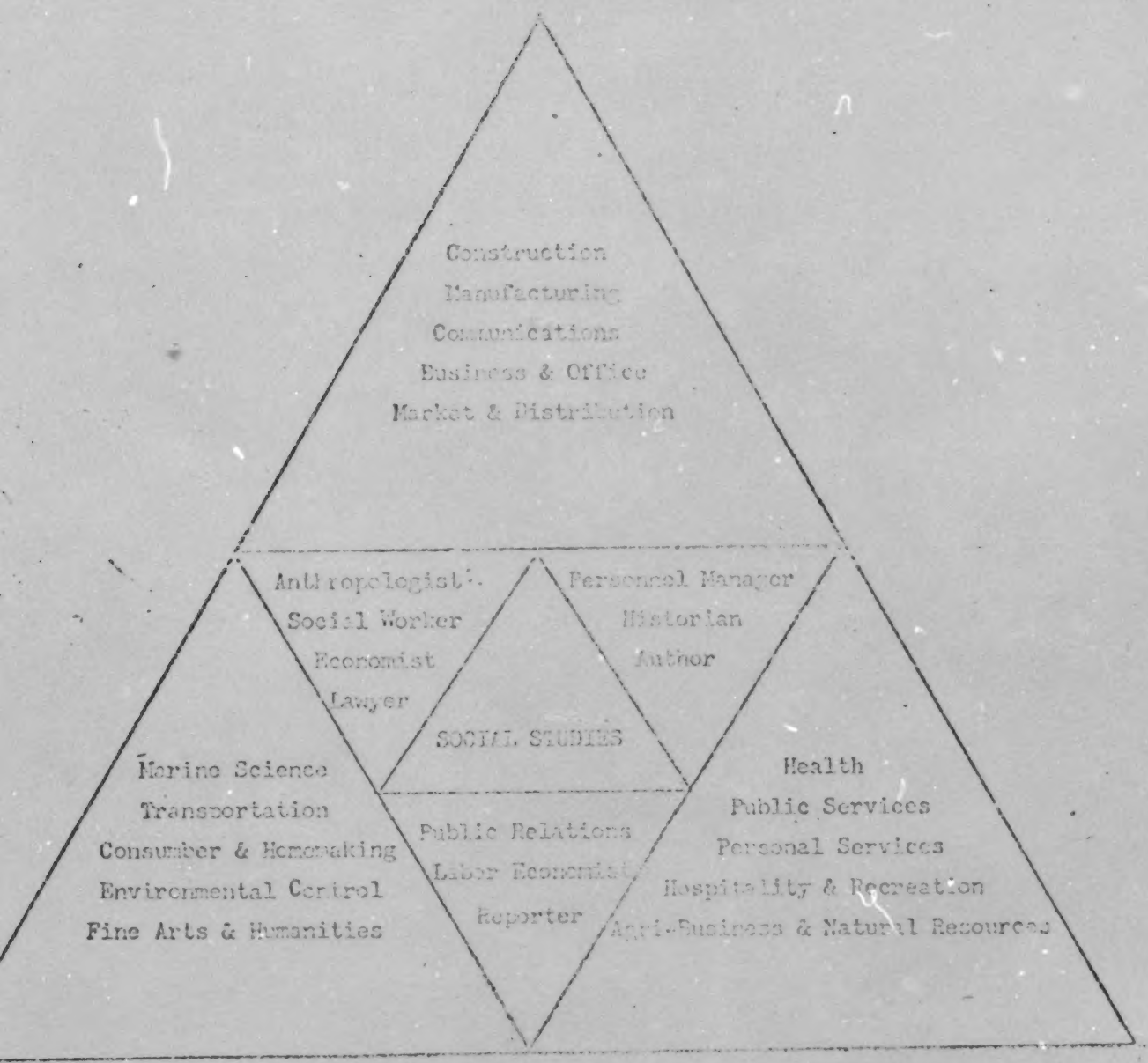
PHASE II - III



OCCUPATIONS RELATED TO ENGLISH

DEVELOPMENTAL VOCATIONAL EDUCATION PROJECT

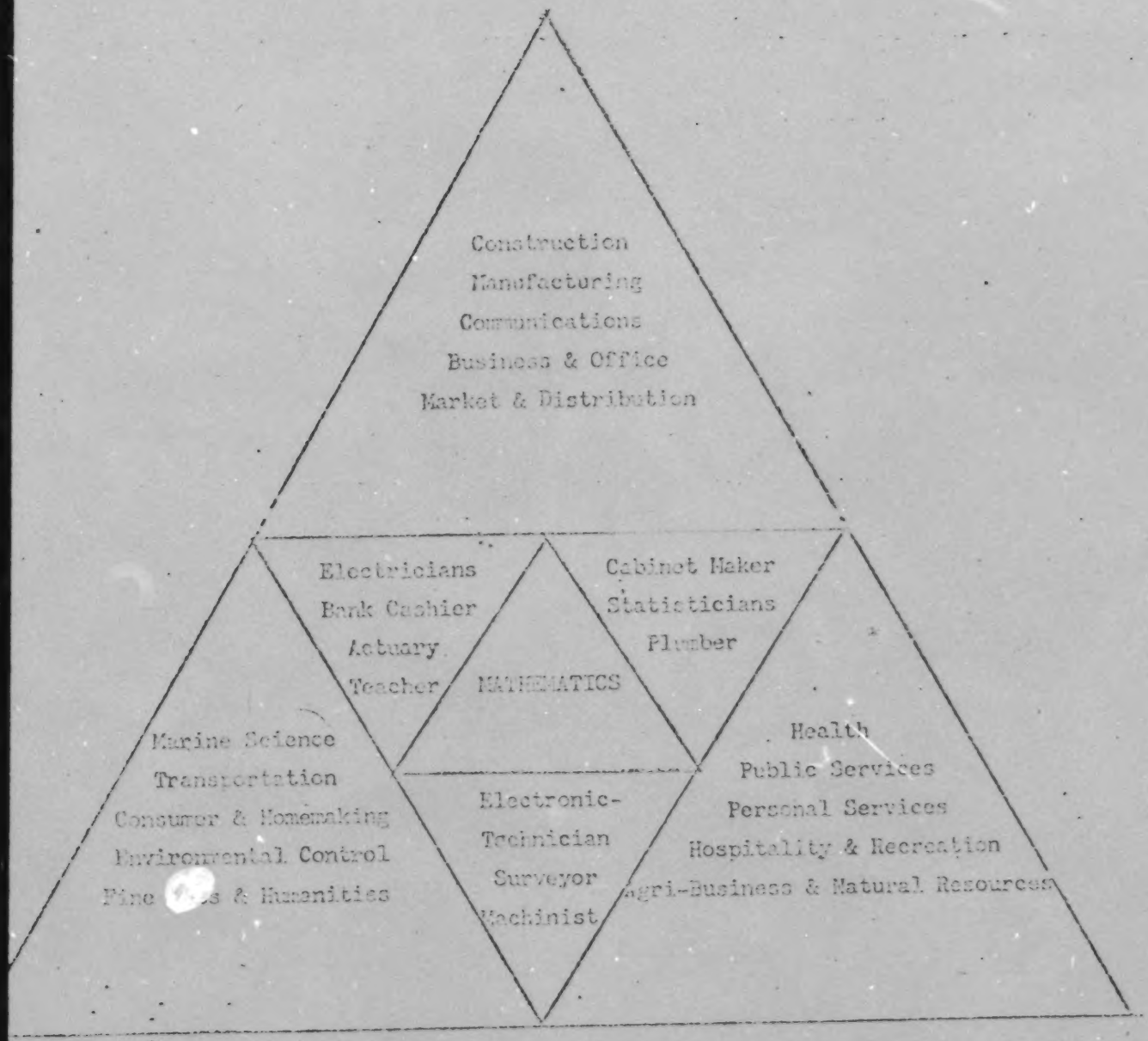
PHASE ELEVEN



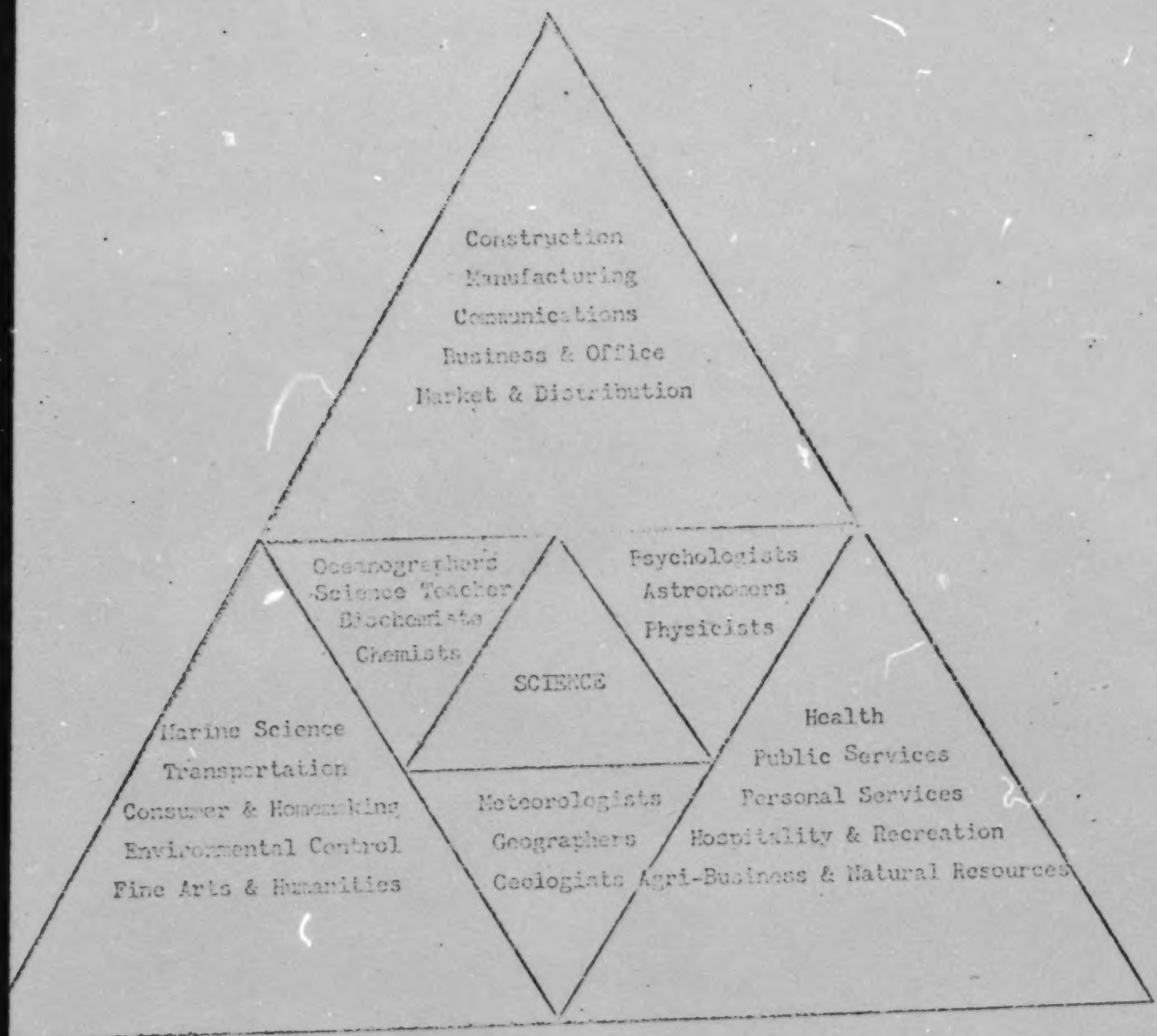
OCCUPATIONS RELATED TO SOCIAL STUDIES

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II - III



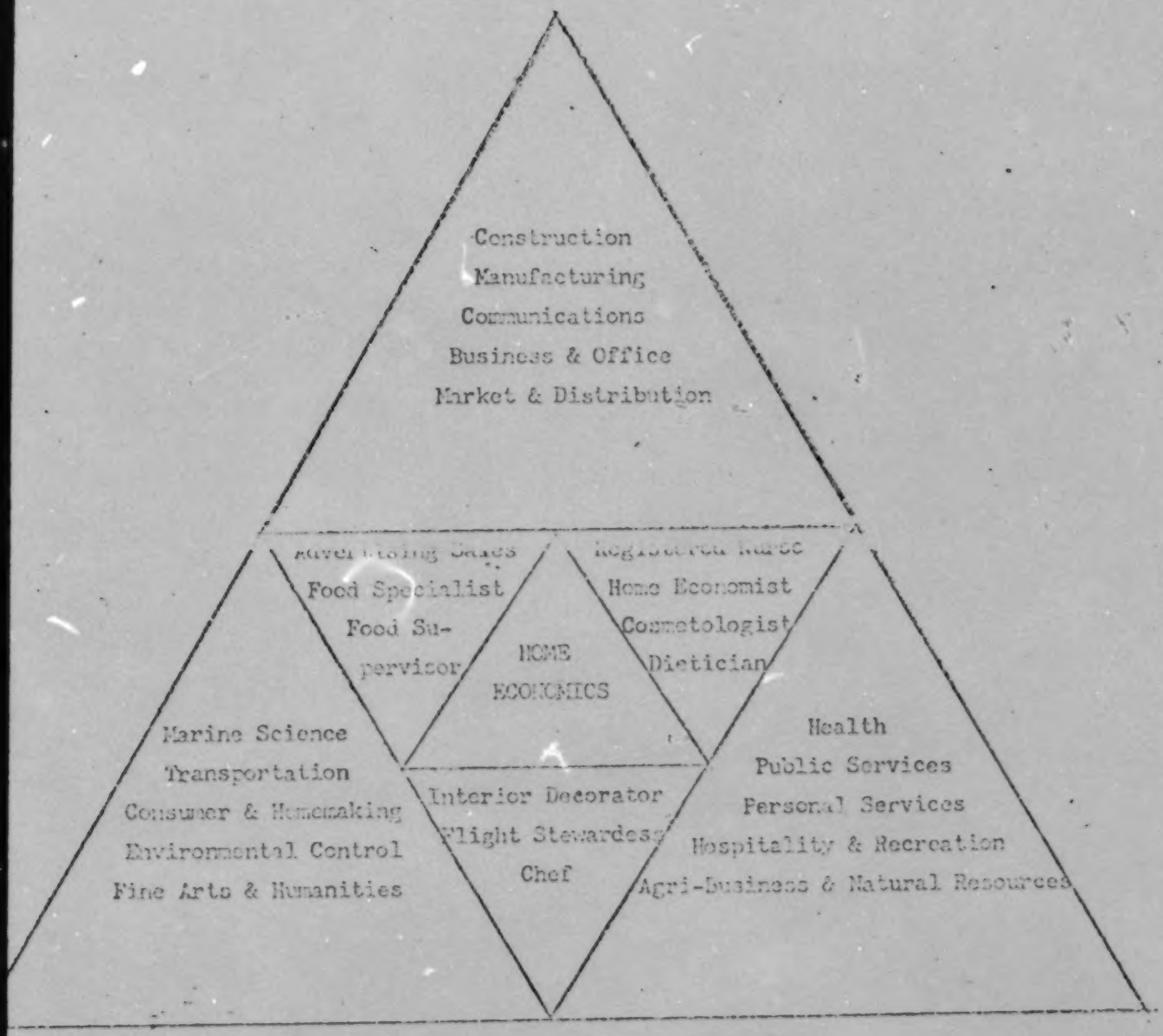
OCCUPATIONS RELATED TO MATHEMATICS



OCCUPATIONS RELATED TO SCIENCE

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

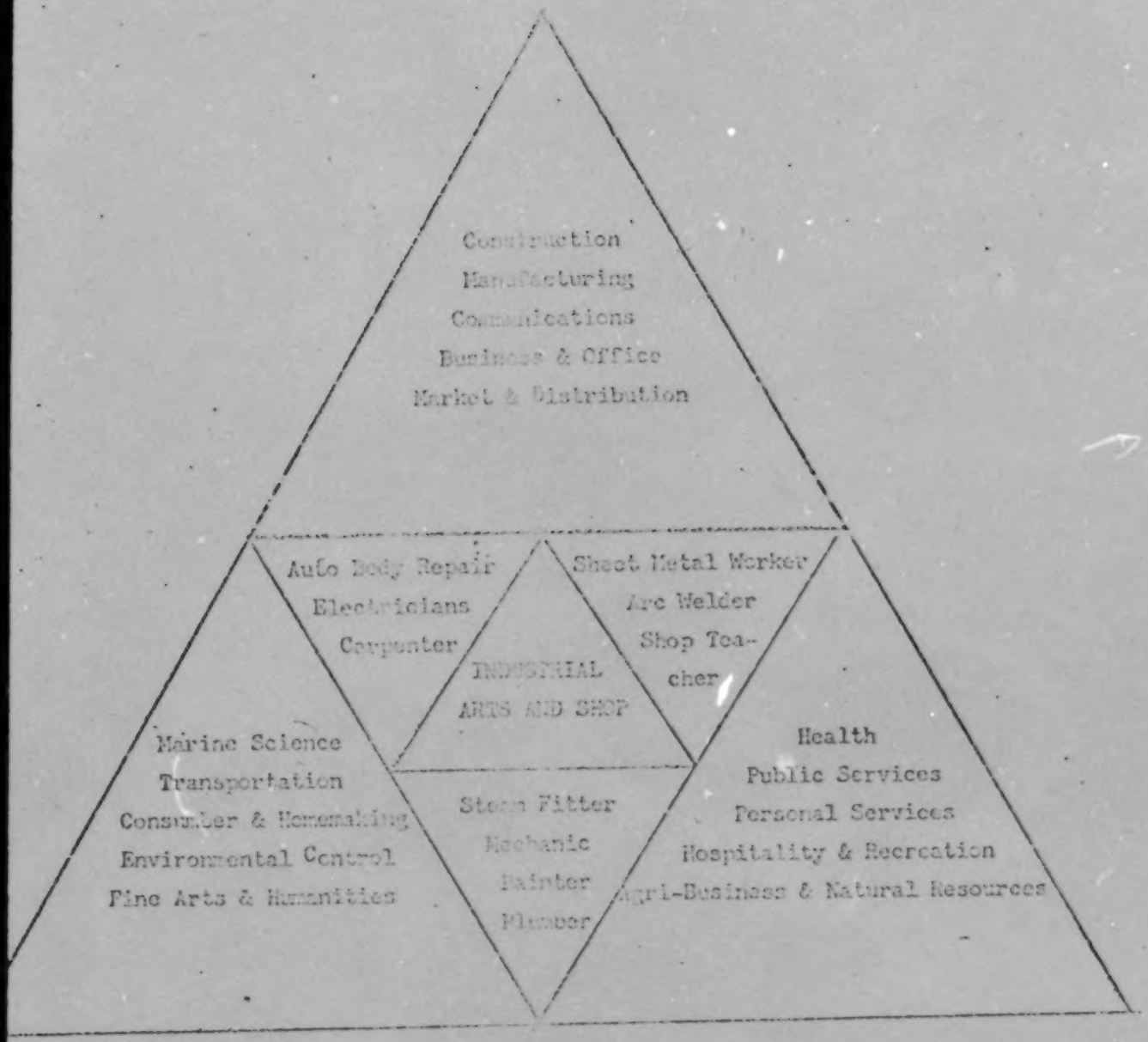
PHASE II- III



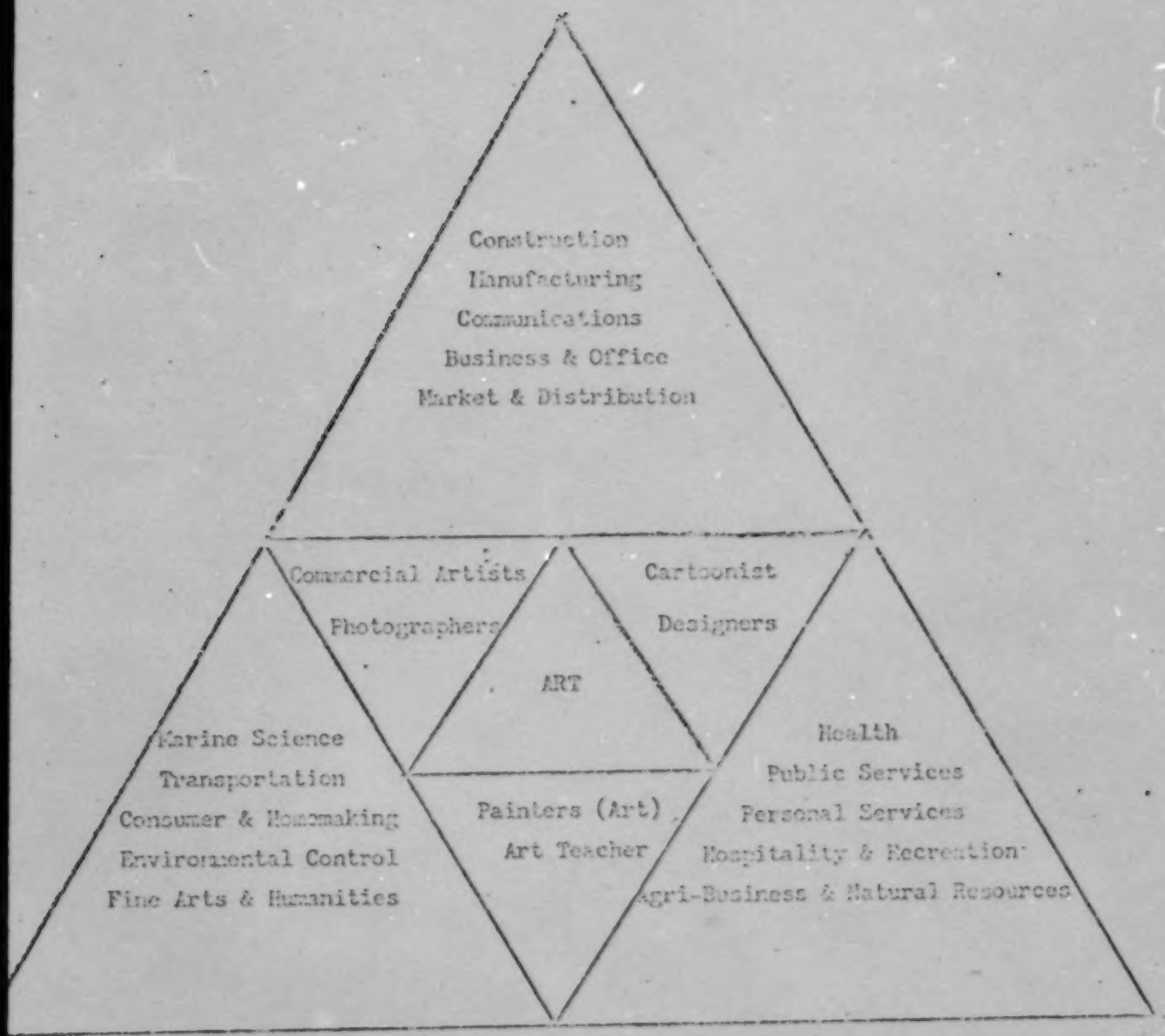
OCCUPATIONS RELATED TO HOME ECONOMICS

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

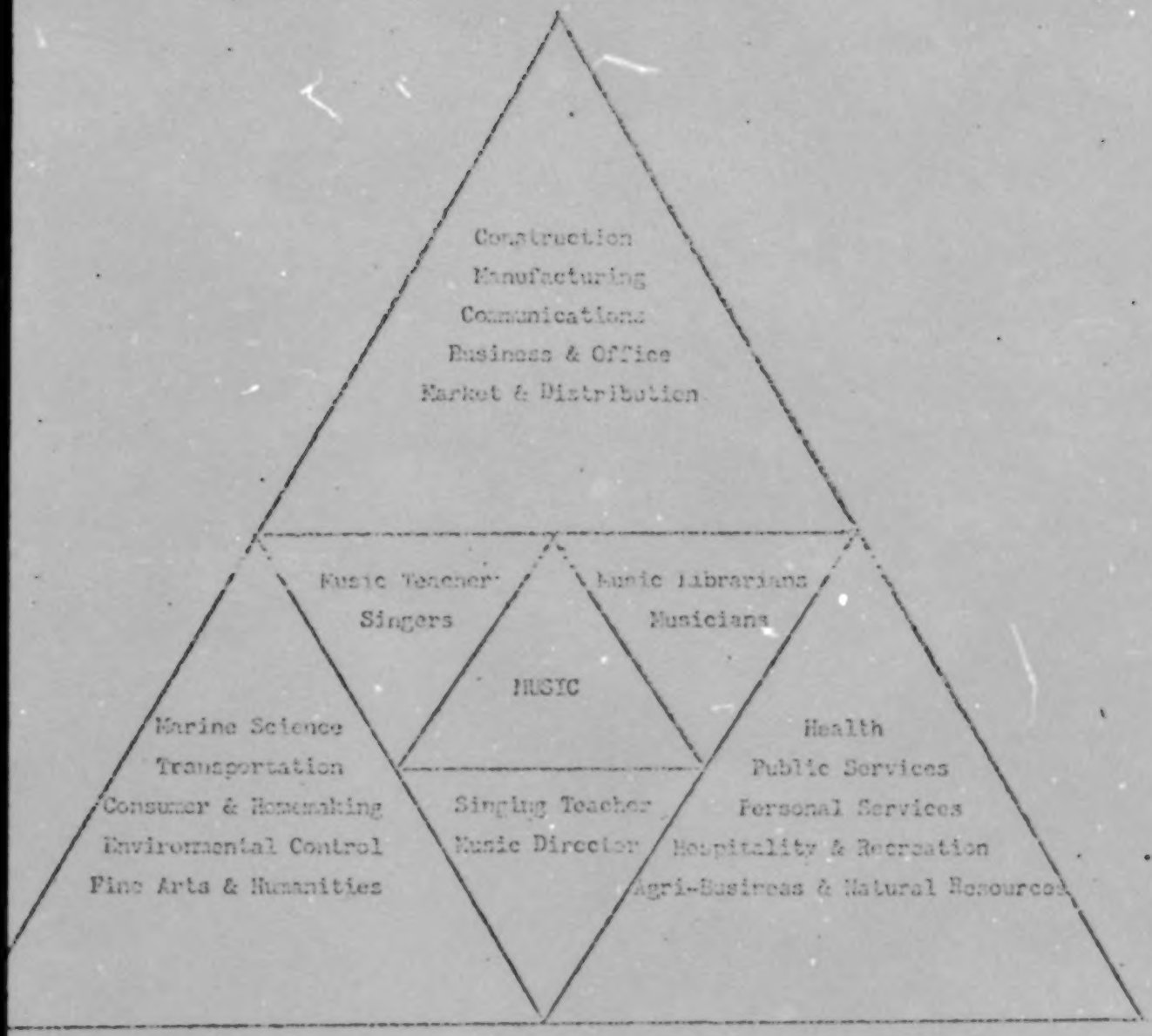
PHASE II - III



OCCUPATIONS RELATED TO INDUSTRIAL ARTS AND SHOP

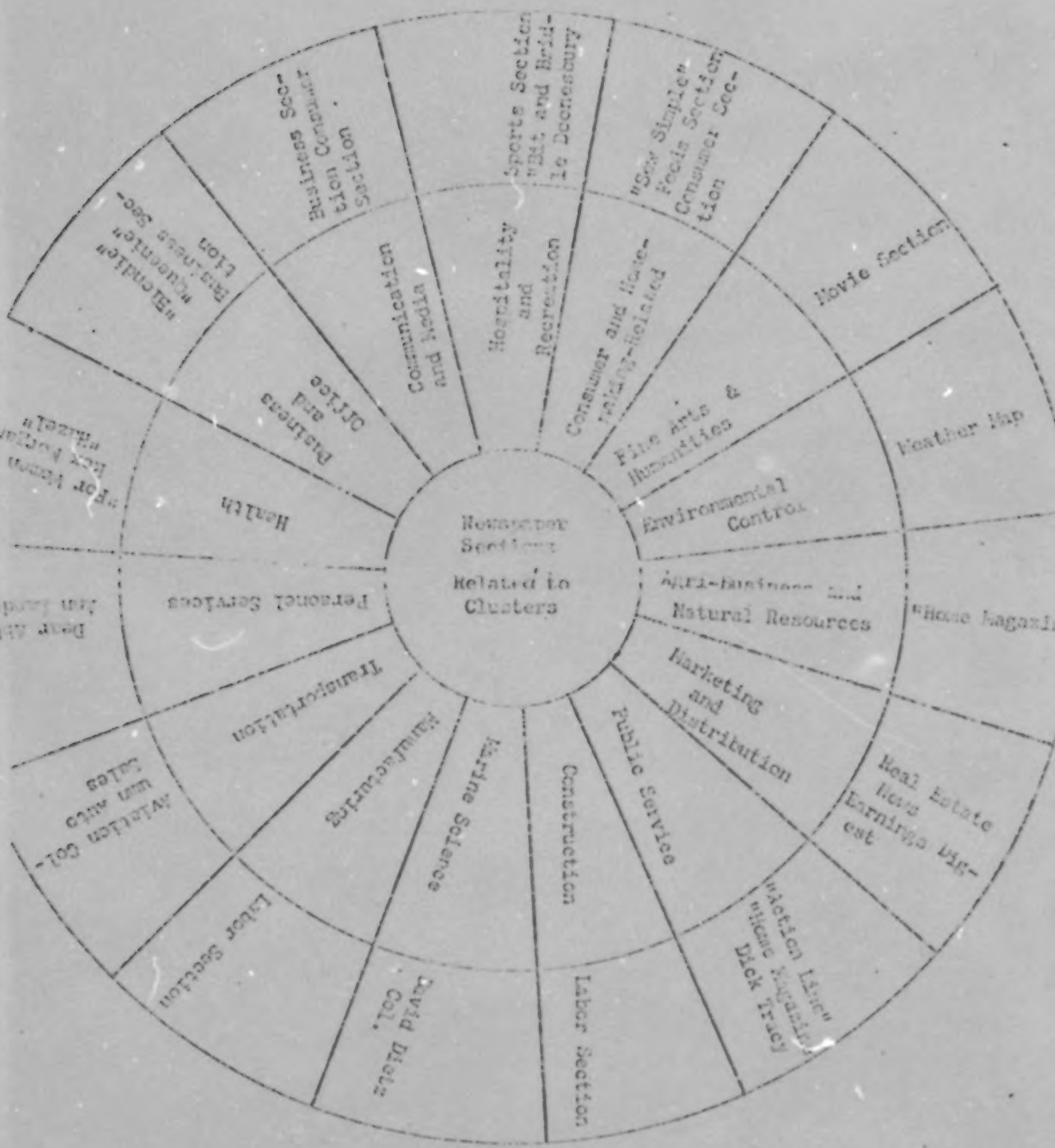


OCCUPATIONS RELATED TO ART

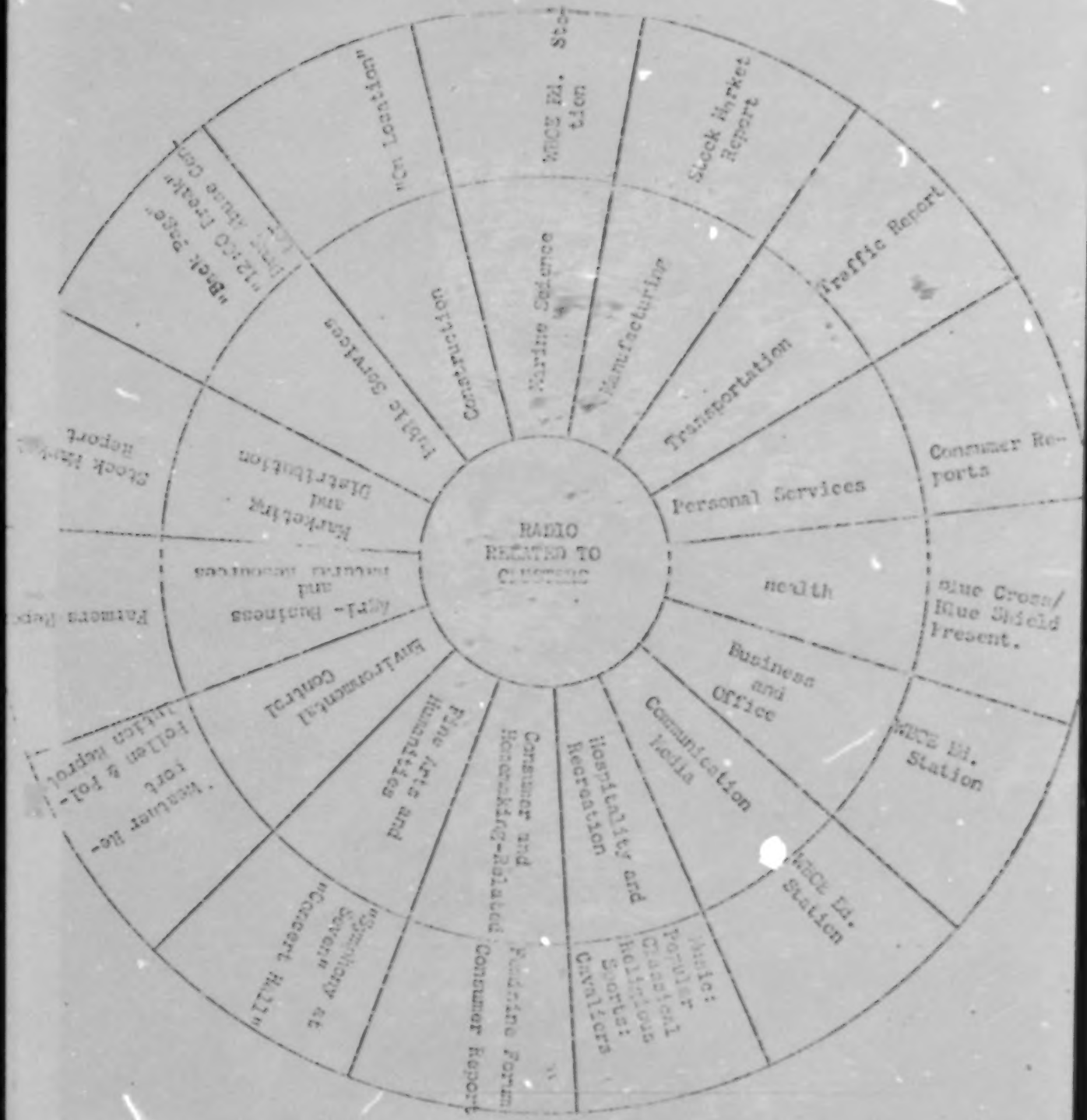


OCCUPATIONS RELATED TO MUSIC

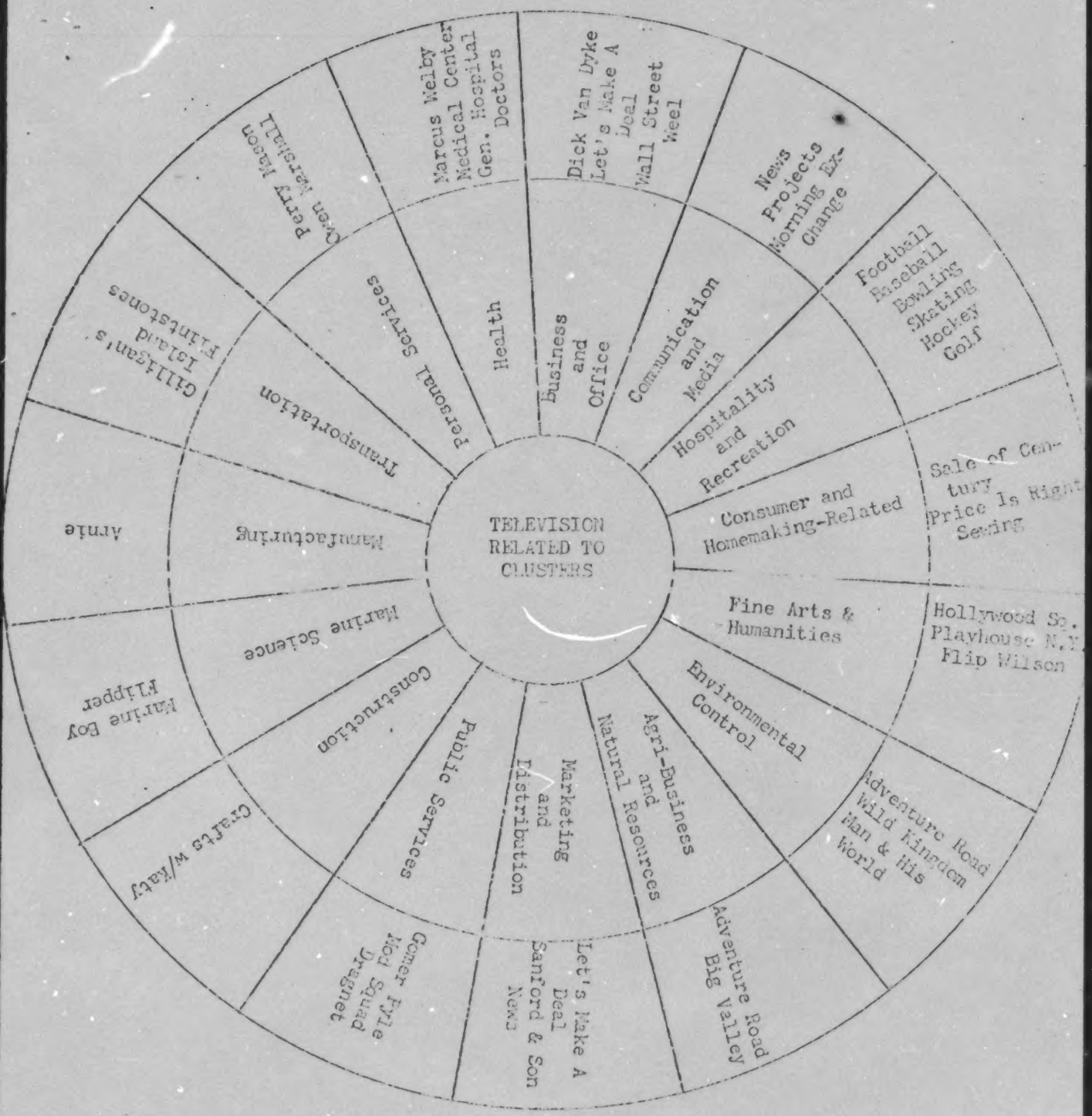
NEWSPAPER SECTIONS RELATED TO OCCUPATIONAL CLUSTERS



RADIO PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



TELEVISION PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS



BIBLIOGRAPHY

Occupational Outlook Handbook
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C.

This handbook is a guide to employment opportunities in a broad range of occupations that covers all the principal areas of work. It brings together information of significant for those who are planning a career. Service as a basic tool in the vocational guidance process. We use this guide to gather comprehensive information on career opportunities.

Career Opportunities
New York Life Insurance Company
Career Information Service
Box 51, Madison Square
Station New York, N.Y. 10010

Soft back book composed of a series of articles designed to help guide young people to a better future. These books are very reading material They are used as a part of our careers library. We fine it good in that our students can easily relate to it, each article is based on the experience of one who has distinguished himself in his respective field.

English On The Job
Jerome Carlin
Globe Book Company, Inc.
New York 10 New York

This book capitalizes upon that interest by organizing the English activities around a core of vocational guidance. We use it because it not only improves the students' English expression, but it also helps them gain insight into some of the problems facing them. The students' learning proceeds simultaneously in two directions: A better understanding of his potentialities in the world of work, and a better command of the communication skills needed in all phases of everyday living.

The Story Steel
United State Steel Corporation
600 Grant Street
Pittsburgh, Pa. 15219

A pamphlet style book which describes how steel is made. We use it to stress the importance of steel, it takes you from smelting of metals in prehistoric through the fascinating development of the iron making processes.

Careers In Depth
Richards Rosen Press

This series covers all the careers in practical terms for the young man or woman who is interested in more than just a job. All books were written by prominent men and women who are successful in their chosen fields.

Handbooks Of Job Facts
Scientific Research Associates

An occupational summary which helps to pinpoint the basic features and trends of a variety of significant occupations, contains concise summaries of basic data on 300 major occupations.

Industrial and Commercial Wiring
Kennard C. Graham
American Technical Society - Chicago, USA

This book has been rewritten to reflect the latest developments in the electrical field covering new techniques and materials, and incorporating the latest additions and changes in the National electrical code. It's especially good that it begins with basic lighting terms and principles. Study guide also accompany the book.

Electrical Construction Wiring
Walter N. Alerick
American Technical Society
Chicago, Ill. 60637

This book includes the latest accepted changes in wiring, also the more traditional wiring procedures that are still recognized by the NEC. The text is very suitable for self study. Questions are found at the end of each chapter for personal check up, classroom discussion, or assignments. They are designed to reinforce the information given in the chapter and to aid in giving directions for the review of the material in the chapter.

Related Mathematics For Carpenters
L.S. Chamberlain
American Technical Society

This book deals with mathematics as it relates to a practical occupation. The authors teaching experience demonstrated that students found it easy to learn mathematics when the materials consisted of realistic problems such as one might encounter on a job.

Automotive Maintenance and Trouble Shooting
Leslie F. Goings and Edward D. Spicer
American Technical Society
Chicago, 60637

This hard back book is based upon three main objectives (1) To show how to prevent most troubles (2) to find out how to quickly and adequately locate the cause of any trouble, (3) once it is known what is wrong, to show how to restore the core to satisfactory operations.

The Epic of Steel
United State Steel
Public Relations
100 Erieview Plaza
Cleveland, Ohio 44114

This is a resource book used to get more detailed information about the steel industry.

Your Future In Daily Newspapers

This is easy to read material describing the jobs in the newspapers field. It is used as a part of our career library.

Hospitality Program
(Food Service & Lodging Ed.)
Council on Hotel, Restaurant and
Institutional Education (1970)
1522 K. Street, N.W.
Washington, D.C. 20005

This book is used to gain information in the area of good service and lodging. It explains the requirements one need if he or she is interested in managing a large hotel or motel. It also explains how one might go about getting into the areas of food catering.

Health Careers
The Greater Cleveland Hospital Association
1001 Huron Road
Cleveland, Ohio 44115

This guide provides minimum basic entry information about allied health education programs in Northeast Ohio. We have used this booklet as a reference tool for seeking information about an approved health career program. It explains in detail the jobs available, the requirements, the grants available and suggested places for training.

Aim High Vocational Series
Richards Rosen Press, Inc.,
New York, New York

The Aim High Vocational Guidance series is for the young person who is looking for a job. All of the books are written by experts in the occupations who know what the jobs are about. The series covers occupational opportunities for young people and will help them to make decisions concerning them.

A Guide To Professional Careers
Walter Duckat
Julian Messner, a division of Simon & Schuster Inc.
New York, New York 10018

This book is as it said a guide to professional careers. Many careers are mentioned in this book for college bound students. The requirements, training, duties, salaries and future outlook for each career are clearly detailed, with helpful cross references to other closely related professional careers. The book is unique in that each career description includes questions to determine the reader's interest in and capabilities for the profession.

How To Plan A House
G. Townsend & J. Dalzell

A multi purpose book written in a practical and authoritative manner. Designed to instruct the layman on house planning intelligently. The book is also written to be of value to builders, developers, apprentices and students wishing basic information on planning. The book provides an entire course in design in the residential field presenting plans, how plans are made, and factors involved in shopping plans.

Machine Shop - Operations & Setups
Porter Lascoe, & Nelson

A text written by professionals in the field, with the purpose of providing basic training in conventional machine operations and information regarding the lastest developments and machine book business. The book also provides the student with innovations which will be useful in the future using illustrations and language basic to the trainee.

Concrete Block Construction: For Home & Farm
J. Dalzell, Townsend

A guide written by professionals working in the field which carries the reader step by step through experience tested methods of erecting a structure designed to eliminate common errors in the use of concrete blocks, this book is filled with instruction valuable to the beginner as well as the mason inexperienced with the concrete block.

Steel Square
Townsend

A "How to do it" book with detailed instructions and illustrations for the carpenters or helper on the use of the steel square. The book is compiled in such a way as to explain lines and angles in a simple and practical manner· answering questions from "what is a steel square" to "how to build a roof." A valuable book in any carpenter's handbook.

ACCESSION NUMBER: VT101956

PUBLICATION DATE: FEB73

TITLE: WHAT DO WORKERS DO? SECOND GRADE. A CAREER EDUCATION INSTRUCTIONAL UNIT (DEVELOPMENTAL DRAFT).

PERSONAL AUTHOR: COOPER, BEVERLY A.

DESCRIPTOR: *CAREER EDUCATION; *CAREER AWARENESS; GRADE 2; *TEACHING GUIDES; *CURRICULUM; DEVELOPMENTAL PROGRAMS

IDENTIFIER: ARIZONA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

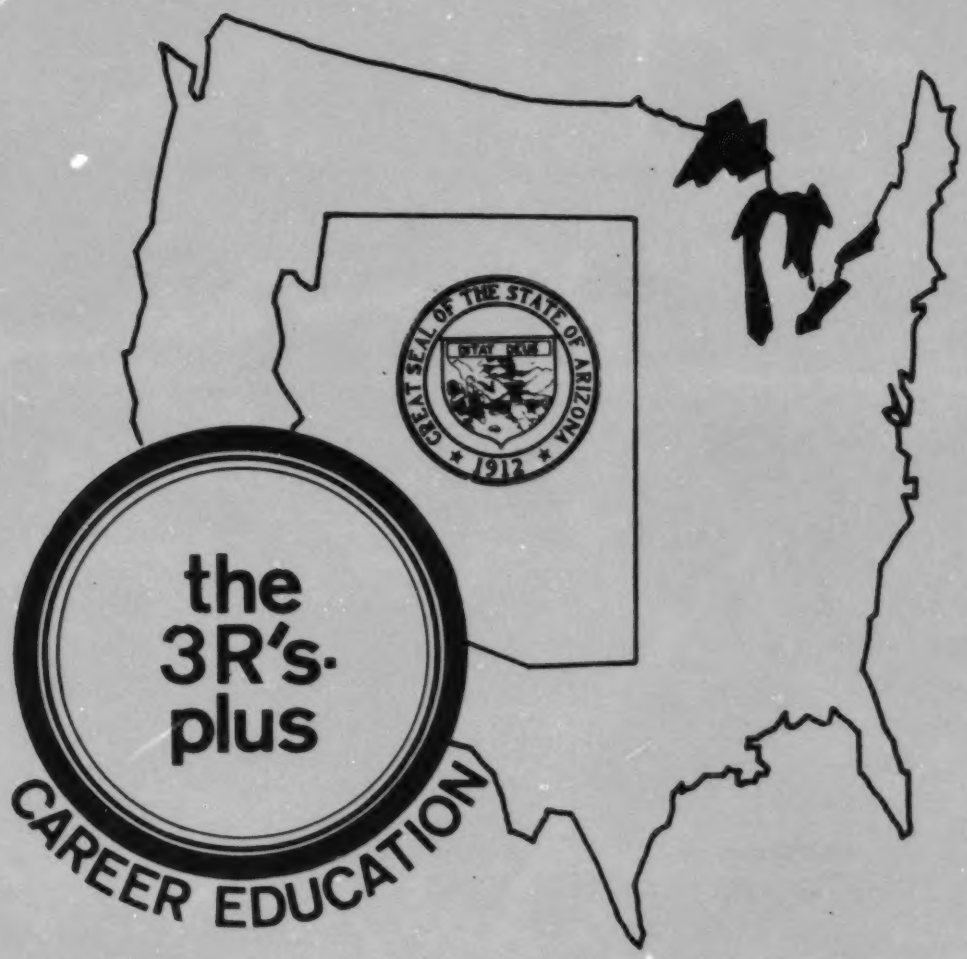
DESCRIPTIVE NOTE: 156P.

ABSTRACT: THIS DEVELOPMENTAL UNIT, INTENDED TO BECOME PART OF A TOTAL K-12 CAREER EDUCATION CURRICULUM, IS DESIGNED FOR USE AT THE GRADE 2 LEVEL. THE PRIMARY INTENT OF THIS UNIT IS TO HELP THE LEARNER TO UNDERSTAND THAT TASKS PERFORMED AT HOME, AT WORK, AND AT SCHOOL ARE RELATED TO THE INTEREST, APTITUDE AND TRAINING OF THE INDIVIDUALS PERFORMING THESE TASKS. EMPHASIS IS PLACED ON WORKER INTERDEPENDENCY. SEVENTEEN MAJOR GOALS AND ELEVEN PERFORMANCE OBJECTIVES ARE ADDRESSED IN THIS UNIT. THE ACTIVITIES INCORPORATE VARIOUS KINDS OF MULTI-MEDIA INCLUDING ARTS AND CRAFTS, DISCUSSIONS, ROLE PLAYING, SIMULATION, AND GAMES. THE MAJOR GOALS DEAL WITH SUCH TOPICS AS IDENTIFYING TASKS PERFORMED IN THE HOME AND IN THE OCCUPATION. THE UNIT PROVIDES APPROXIMATELY TEN HOURS OF INSTRUCTION. EACH LESSON IS INTRODUCED BY ITS CONCEPTS, ESTIMATED TIME, VOCABULARY, REQUIRED RESOURCES, AND INSTRUCTOR PREPARATION TASKS. (AUTHOR/NJ)

SPONSORING AGENCY NAME: ARIZONA STATE DEPT. OF EDUCATION, PHOENIX.

VT 101 956

AN INSTRUCTIONAL UNIT



WHAT DO WORKERS DO?
SECOND GRADE

NIT WAS DEVELOPED AND PRINTED WITH FUNDS APPROPRIATED UNDER 15 – 1199.
IATERIAL IS DISTRIBUTED FOR PILOT TEST ONLY AND IS SUBJECT TO REVISION.

Arizona Department of Education
W.P. Shofstall, Superintendent

VT 101 956

WHAT DO WORKERS DO?

A CAREER EDUCATION INSTRUCTIONAL UNIT

(DEVELOPMENTAL DRAFT)

SECOND GRADE

Principal Writer: Beverley A. Cooper

ARIZONA STATE DEPARTMENT OF EDUCATION
W. P. SHOFSTALL, PH.D.
SUPERINTENDENT OF PUBLIC INSTRUCTION

February 1973, S-107-2

This Career Education instructional unit was developed pursuant to a grant from the Arizona State Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the Arizona State Department of Education and no official endorsement should be inferred. This unit is in its prepilot state and is subject to revision.

CAREER EDUCATION RATIONALE

"Reinforcing the three R's - relevance through Career Education" is the refrain echoing across the country today.

Career Education combines the academic world with the world of work. It must be available at all levels of education from kindergarten through the university. A complete program of Career Education includes awareness of the world of work, broad exploration of occupations, in-depth exploration of selected clusters, and career preparation for all learners. This calls for all basic educational subjects to incorporate Career Education as the major activity throughout the curriculum.

GOALS OF CAREER EDUCATION

LEARNING TO LIVE - means promoting the learners' awareness of their capabilities and developing their ability to deal with leisure time and society in general.

LEARNING TO LEARN - involves motivating the learners so that they want to learn the basic educational subjects. This can be done by making the subjects meaningful and by relating them to the real world of work.

LEARNING TO MAKE A LIVING - means preparing learners so that they have the capability to support themselves economically and to become productive members of the community.

CONTENTS

UNIT DESIGN 1

Overall Purpose. 1
Goals. 1
Performance Objectives 1
Lessons. 1
Resources. 2
Assessment Procedures. 2
Instructional Strategy Guides. 3

UNIT OVERVIEW 5

Purpose of This Unit 5
Intended Use of This Unit. 5
Preparing to Teach This Unit 6
Unit Content/Strategy Profile. 7
Unit Resource Profile. 9

INSTRUCTIONAL SEQUENCE

Lesson 1 What Do Workers Do? 15
Lesson 2 Occupation and Home Tasks. 35
Lesson 3 School Workers Depend Upon One Another. 43
Lesson 4 Occupations Made Necessary By Community Products 51
Lesson 5 Relationship Between Geographic Area and Occupations 61

Lesson 6 We Depend Upon Community Workers. 79
Lesson 7 We Need Responsible Workers. 87
Lesson 8 We All Have Needs. 103
Lesson 9 School Workers Meet Our Needs. . . .115
Lesson 10 Feeling Successful 127
Lesson 11 Are You Prepared?. 139

APPENDIX - Instructional Strategy Guides

Demonstration Strategy 153
Discussion Strategy. 156
Questioning Strategy 167
Guest Speaker Strategy 171
Role-Playing Strategy. 174
Special Recipes for the Classroom. 181

BIBLIOGRAPHY. 187

UNIT DESIGN

Overall Purpose

This instructional unit will become an integral part of a total K-12 career education curriculum. This unit has been developed to afford the instructor maximum flexibility in its utilization. When planning for the use of this unit, it will be helpful for the instructor to give attention to the following characteristics.

Goals

The unit goals of this career education unit are stated expectations toward which the instruction/learning effort is directed. It is intended that these unit goals be implicit in the total curriculum and also consistent with the accepted maturation patterns of learners.

Performance Objectives

The performance objectives are derived from the unit goals and are intended to specify the expected behavior of the learners.

Lessons

The lessons will help the instructor meet the performance objectives and are designed to assist learners in understanding how present experiences relate to past and future ones. The lessons are broken down into several parts. Before the main body of the lessons are described,

key items are presented: the concepts, the estimated time for delivering the lessons, the vocabulary introduced, the resources required, and the instructor preparation tasks.

The instructor procedures are presented in three sections:

> INTRODUCTION. This section provides continuity within the unit and makes the learners aware of what they are to accomplish, how they will accomplish it, and why they are studying the particular concepts of the lesson.
>
> TASKS. This section provides a detailed description of the content and activities used to deliver the specified outcomes. An attempt has been made to ensure that the activities are learner-oriented, free from irrelevancies, interesting, presented in small, sequential steps, and complete. Each lesson includes tasks which allow the learners to practice the desired outcome. Sample questions and responses are provided along with suggestions to the instructor for accomplishing the task.
>
> SUMMARY. This section provides closure on the lesson and, if possible, a culminating activity for the learners. It also provides transition from one lesson to another.

On occasion, supplemental activities are presented to assist in obtaining the desired learner outcomes.

Resources

Instructional resources (materials, equipment, and/or persons) are suggested in the lesson. These resources have been designed and developed so that an instructor may deliver the lessons with minimal preparation time. Worksheets are prepared so that an instructor need only take the page in the unit and use it with an opaque projector or prepare a transparency or ditto master. A *Unit Resource Profile* has been prepared and is provided in the early part of the unit. Materials used in a lesson are located at the end of that lesson.

Assessment Procedures

The purpose of the assessment procedures is to determine

the learners' level of achievement of the performance objectives. The descriptions, directions, and keys to all items are presented along with the lesson description. Assessment items are placed directly after the lessons, but before any worksheets. This will allow the instructor to administer the assessment item(s) after each lesson.

Most of the items may be used to preassess learners before they begin the unit if the instructor desires.

Instructional Strategy Guides

The unit contains several types of instructional strategies: role playing, discussion, question and answer, demonstration, and guest speaker. Instructor guides for these strategies are presented in the appendix, with specific references given in the lessons. A *Unit Content Strategy Profile*, which is also a quick reference to the strategies used in each lesson, is provided in the front part of this unit.

UNIT OVERVIEW

Purpose Of This Unit

The primary intent of this unit is to help the learner to understand that tasks performed in the home setting, the occupational setting, and the school setting are related to the interest, aptitude and training of the individuals performing these tasks. Emphasis is placed on worker interdependency.

Seventeen major goals and eleven performance objectives are addressed in this unit. The activities for the performance objectives incorporate various kinds of multi-media including arts and crafts, discussions, role playing, simulation, and games.

The major goals deal with such topics as identifying tasks performed in the home and in the occupation. Specific emphasis is placed on the interdependency and tasks performed by school workers. The interdependency factor also appears between family members and their tasks, between one occupation and another, and between community products and occupations. Some of the goals and objectives deal with learners identifying some human needs and more specifically some school needs and determining the workers they depend on to help meet these needs.

The last few goals and objectives deal with workers (which includes the learners) attaining success through planning, preparing, and practicing.

Intended Use Of This Unit

This unit was developed by experienced classroom instructors and reviewed by curriculum personnel not associated

with its development. It represents only an early developmental effort. It is anticipated that the unit will be extensively revised based on data collected through classroom utilization. In order for useful revision data to be collected, it is essential that the unit be taught in a manner consistent with the developer's intent.

GRADE PLACEMENT

This unit has been written to be primarily used at the second grade level.

SUBJECT AREA

All of the lessons in the unit are related to the social studies area of the curriculum. Experiences are also provided in the areas of language, math, and art.

DURATION

The lessons within the unit have been written to provide a total of ten hours instructional time.

GROUPING

The unit lends itself to varied types of grouping. There are provisions for large group, small group, and individual activities.

PREPARING TO TEACH THIS UNIT

Two *Unit Profiles* which follow this section have been prepared to give you an overview of the time, content, instructional strategies, and resources required for delivery of each lesson in this unit. These profiles provide a synopsis which will assist you in gaining a general understanding of the entire unit.

SPECIAL CONSIDERATIONS

Some materials within the lessons need to be duplicated. This may be accomplished with a xerox machine or by using a Thermofax machine to prepare a master. The master is then used to prepare multiple copies with a ditto or mimeograph machine. The lessons needing duplicated materials are lessons 1, 5, 7, 10, and 11.

UNIT CONTENT/STRATEGY PROFILE

Lesson Number	Time	Content	Instructional Strategies
1	55 min.	Describe tasks performed in the home by family members.	Discussion Visual aids Mural bulletin board
2	55 min.	Name tasks completed at home and in the occupation that may be different.	Discussion Guest speaker
3	55 min.	Identify ways school workers help one another.	Discussion Guest speaker
4	55 min.	Identify occupations dependent on a community produced product.	Discussion Cutouts from magazines Bulletin board
5	55 min.	Identify occupations dependent on products resulting from geographic conditions.	Discussion Draw picture Game
6	55 min.	Predict the effects on a community if an occupational facility did not fulfill it's job.	Discussion Small group work Roleplay
7	55 min.	Explain the consequences if a worker does not uphold his responsibilities.	Discussion Story Song Vocabulary development

UNIT CONTENT/STRATEGY PROFILE

Lesson Number	Time	Content	Instructional Strategies
8	55 min.	Name possible ways people have their needs met.	Discussion Small group work Illustrations Bulletin board Make chart
9	55 min.	Name the school workers who satisfy specific school needs.	Discussion Chart Measuring Paper dolls Art project
10	50 min.	Demonstrate success and a task that contributed to that success.	Discussion Planning Practicing on chalkboard Math assignment
11	55 min.	Predict the amount of success in an unprepared situation where substitutions must be used.	Discussion Yarn pictures Unit summary

UNIT RESOURCE PROFILE

Lesson	Within Unit	To Be Acquired By Instructor
1	Pictures of children's faces: 1. Anglo 2. Mexican girl 3. Oriental boy 4. Assessment item	Art supplies for murals or pictures Bulletin board space
2	Assessment item *Guest Speaker Strategy* (Appendix) *Discussion Strategy* (Appendix)	Guest speaker (for example, the school secretary)
3	Assessment item *Guest Speaker Strategy* (Appendix)	Guest Speaker (a school worker) Chart and rack
4	Assessment item	Drawing paper Scissors Magazines Vegetable seeds, dirt Half pint containers
5	Pictures: 1. Cotton farming 2. Pineapple farming 3. Lobster company 4. Lumber company *Geographic Conditions Map* Assessment item	Class book Chart and chart rack Drawing paper and crayons
6	Assessment item *Role-playing Strategy* (Appendix)	Drawing paper Crayons

UNIT RESOURCE PROFILE

Lesson	Within Unit	To Be Acquired By Instructor
7	Story *Wilted Vegetables* Song *Policeman Lee* Assessment item	Chart paper or cards
8	*Maslow's Human Needs Chart* (included with lesson) Assessment item	Bulletin board with title *Our Needs* Chart and rack Butcher paper or large construction paper for each learner's "needs" illustrations
9	Pattern for paper doll Assessment item *Demonstration Strategy* (Appendix)	Chart and rack Rulers 11 1/2" x 15" construction paper for background Scissors
10	Math worksheet Math key Assessment item	none
11	Steps for yarn pictures Yarn Ideas Assessment item *Demonstration Strategy* (Appendix)	Yarn (children bring from home) White glue (children bring from home; instructor also provides) Scissors for every child

UNIT RESOURCE PROFILE

Lesson	Within Unit	To Be Acquired By Instructor
		White and colored construction paper (9" x 12") String (for children who forget yarn) Completed yarn pictures for examples

INSTRUCTIONAL SEQUENCE

WHAT DO WORKERS DO?

LESSON ONE

CONCEPTS

Every member of a family will learn to be a worker.

Workers depend on each other at home and in an occupation.

PERFORMANCE OBJECTIVE

Given a description of a family and their home environment, the learner will describe a minimum of three tasks performed in the home by some members of the family.

LESSON TIME

55 minutes

NEW VOCABULARY

Responsibilities - things you do to help yourself and others

Mural - a large picture, like one painted on a wall

Environment - the things around you which influence your life

Budget - a plan showing how you spend your money

Prerequisite Knowledge

Know the meaning of the terms tasks and occupations

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Pictures of children's faces: 1. Anglo boy 2. Mexican girl 3. Oriental boy 4. Negro boy Assessment item	Art supplies for murals or pictures Bulletin board space

Instructor Preparation Tasks

Duplicate and mount pictures of children's faces for display:

1. Anglo white boy
2. Mexican girl
3. Oriental boy
4. Negro boy

Write vocabulary words and their meanings on the chalkboard in view of all learners.

Acquire the following:

1. Adequate paper for murals
2. Individual drawing
3. Crayons
4. Chalk
5. Paints
6. Magic markers for murals

Prepare bulletin board space.

Duplicate a copy of the assessment item for each learner.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

For the next few lessons, we will talk about what you can do, what members of your family can do, and what community workers can do. What are some things you can do?

Write responses on chalkboard or on chart.

Leave room for adding additional items later in the lesson.

Possible responses:

1. Jump rope
2. Ride a horse
3. Play the piano
4. Make my bed
5. Care for the baby
6. Set the table

Those were all good answers. For the next few lessons, we will be adding to this list. You will be surprised to find out how many tasks each of you and other workers really perform. Every lesson will offer something interesting and fun to do. We will learn some things about occupations that are new to you.

There are several words in this lesson which will be new to you. To help you understand these words better, I have written each of them and their meanings on the chalkboard. When we come across these words in our lesson today, we will talk about them again.

Responsibilities - things you do to help yourself and others

Mural - a large picture which is like one painted on a wall

Environment - the things around you which influence your life

Now, let us briefly talk about each word.

Responsibilities: What things do you do to help yourself and others?

Possible responses:

1. I straighten my room at home.
2. I do my tasks at school.
3. I practice my music.

The word mural has also been written on the chalkboard. We will be drawing a mural. A mural is a big picture which can be done by many people and displayed on the wall.

Environment: The things around you which influence your life.

What are the parts of your environment here at school?

Possible responses:

1. The buildings
2. The playground
3. The other learners
4. The instructors
5. The rules
6. The tasks I do in class

What are the parts of your environment at home?

Possible responses:

1. My home
2. My family members
3. The family rules
4. My responsibilities

We will be using these two words frequently during the lesson.

TASKS

The last time you went to a big grocery store, how many different workers did you see? Were they all doing the same thing? Probably not. Each person has one, two, or three tasks that he does every day while he is at work. For instance, one person stocks cans on a shelf, sacks the groceries, and sometimes carries them out. Another person is at the cash register checking out groceries most of the time, but on occasions, this person dusts down the counters. These people depend on one another to keep the store open and running. Did you know that many homes are run just like the grocery store?

Just like the people in the grocery store have to depend on one another to get the job done, so may family members depend upon one another to keep the home running. Different members of the family have different jobs.

Today we will learn that each of the members of your family have different tasks to complete, just like the many people in a grocery store have different tasks to perform. Each occupation needs another occupation to complete a task. The grocery store owner depends on the cashier to take care of the customers. Family members depend on each other to perform certain tasks.

Refer to facial pictures of four children (included) which have been situated on the chalkboard in view of the learners, with space below each picture for the family description. Ask the learners to help decide on these children's families, including such items as:

1. *How many adults in the home (Note: Show no concern over one-member adult families.)*
2. *Occupations of adult members (Note: Homemaker is an occupation.)*
3. *How many children*
4. *Ages of children*
5. *Sex of children*

After writing descriptions of each of the four families, discuss with the children and list on the chalkboard three examples of tasks each member might perform in just one of these home situations:

Possible responses:

<u>Farm Family</u>

1. Mother
   a. Cooks food
   b. Cans food
   c. Raises and butchers the chickens
   d. Sells eggs
   e. Washes clothes
   f. Raises vegetables for family
   g. Buys groceries
   h. Sometimes drives tractor

2. Father
   a. Plows the field
   b. Does the irrigating
   c. Repairs the machinery
   d. Pays the bills
   e. Buys groceries
   f. Mows lawn
   g. Helps with dishes
   h. Sells crops

3. Two Older Brothers
   a. Help dad with chores
   b. Irrigate
   c. Milk cows
   d. Help with dishes

4. Sisters
   a. Help with garden
   b. Take care of children
   c. Help with dishes
   d. Help dad with chores

5. Little Brother
   a. Feeds dogs table scraps
   b. Feeds chickens
   c. Gathers eggs

6. Two Babies - no tasks

Give examples of why adult members sometimes have different tasks than the children.

1. Paying bills - must know how to add and subtract and budget money. To *budget* money means to make a plan about where your money. will be spent.

2. Mowing the lawn - older persons do this task because of the strength needed and the need to be safe and careful.

Name some tasks the children can do to leave time for the adults to carry out their responsibilities.

Possible responses:

1. Feed the animals
2. Pick up after selves
3. Care for baby

We will now talk about why it is important for each family member to accept his responsibilities.

What do the adults in your family do, and how does this help every family member?

Possible responses:

1. Wash our clothes - this helps all of us to be clean and happy.
2. Cook our food - this helps us to be healthy and happy.
3. Earn the money - so we can have the things we need.

What responsibilities do you have, and how does this help every family member?

Possible responses:

1. Feed the animals - this keeps the animals happy and gives more time to other members.
2. Pick up after myself - our house is in order and everyone is happy.
3. Care for the baby - this makes me and the baby happy, and gives more time to the adults.
4. Set the table - this helps me to learn, and it helps every member when the meal is ready.

Continue discussion until all who want to share a response have the opportunity. Invite ethnic minority learners to participate if they hold back. Try to bring cut responses which describe acts of affection and "caring," such as item three in the example responses above.

Offer three choices to all learners for continuing to look at tasks done by members of their families. All three of the following activities may be going on at the same time.

Choice one: Mural (Six to ten children)

Draw a mural of one of the families described previously, illustrating the tasks performed by each member of the family. Start with the adult members, then draw pictures showing the tasks of each child in the family. Start by dividing the mural to include space for each member and his tasks.

Choice two: Picture (Individual work)

Draw a picture describing all of the tasks you do for your family and yourself.

Choice three: Mural of Own Family (Individual Work)

Draw a mural of your own family, showing the tasks performed by each member of the family. Start by dividing the mural to include space for each member and his tasks.

Learners may invite another class in to share the results of their products.

Display the products on a bulletin board.

Direct children to clear away their materials and supplies and be seated for a summary.

SUMMARY

Today we have learned that there are many tasks in a family home that must be done. We have learned that the adults sometimes do tasks that cannot be done by the children. We have learned that it is important for all of the children to do their part to help the family and to help themselves. Just as the cashier in a grocery store has certain tasks that other workers depend on, you have tasks to perform, and the other family members depend on you to complete these tasks.

In our next lesson we will look at people and their occupations and tasks.

SUPPLEMENTAL ACTIVITIES

Learner Directed

Read a story about life in another country or another part of the United States and compare the tasks mentioned to your own tasks at home.

Using sand and modeling clay, set up a home environment showing different tasks being performed.

Refer to Special Recipes for the Classroom in the appendix.

Research your own family to find the tasks your grandparents performed during their occupational years.

Assessment Procedures

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The tasks depicted are:

1. Child jumping rope
2. Child emptying garbage
3. Child bathing
4. Man painting house
5. Child watching TV
6. Woman cooking
7. Dogs
8. Woman playing tennis
9. Woman making the bed

DIRECTIONS

Circle the number above the pictures that show a family member completing a home task that will help the family.

KEY

2, 4, 6, 9

Name_____

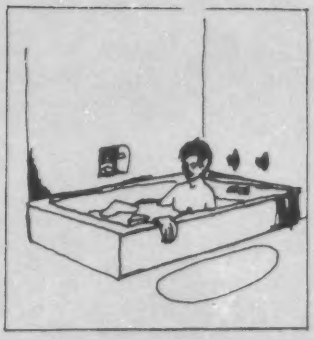
Date_____

Lesson 1

ASSESSMENT ITEM

2

3



4

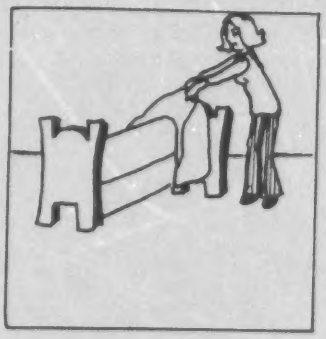
5

6

7

8

9



OCCUPATION AND HOME TASKS

LESSON TWO

CONCEPT

A worker has many different tasks to perform, both at work and at home.

PERFORMANCE OBJECTIVE

Given a specific occupation, the learner will name three tasks completed by that individual in the home setting and in the occupation.

LESSON TIME

55 minutes

NEW VOCABULARY

Job requirement - something needed to complete the job well

PREREQUISITE KNOWLEDGE

Awareness of the many tasks adults perform

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Assessment item	Guest speaker (for example, the school secretary)

Instructor Preparation Tasks

Invite a guest speaker to talk about:

1. Tasks performed at home
2. Tasks performed in his occupation
3. Tasks done because he can do them well
4. Tasks done because he enjoys them

Read *Guest Speaker Strategies* in the appendix.

Read *Discussion Strategy* in the appendix.

Prepare the learners for the guest speaker before he arrives. Write the four steps listed above on the chalkboard as a reference on what to listen for. Go over these with the learners and inform them that we will summarize the information given us by our guest after his presentation.

Duplicate a copy of the assessment item for each learner.

Instructional Procedures

INTRODUCTION

We have talked about the many tasks each member of a family performs. Today we will discuss some occupations and the tasks performed at this person's home and in his occupation. For example, the instructor does the tasks connected with teaching, such as: (use yourself as an example)

1. Preparing lessons
2. Running duplicating machines
3. Attending meetings
4. Working with children

At home he would:

1. Mow the lawn
2. Care for the car
3. Pay the bills
4. Run errands

Today we will have a guest speaker to tell us about his/her tasks at home and at work.

I have written the word *job requirement* on the chalkboard. This means something needed to complete a job well.

Let's talk about this word meaning for a moment.

What are the job requirements of the math lesson today?

Possible responses:

1. Math sheets ready for use
2. A pencil to write with
3. Listen to directions

You may need to know the meaning of this word today when our guest speaker tells us about his occupation.

TASKS

Invite learners to participate in a discussion about the adults in their home. Ask them to name at least one task an adult does on the job and one task the adult does at home. Write the responses on the chalkboard under the headings "Family Member," "Task on the Job," and "Task at Home." Discuss the variety of jobs and tasks performed. Also, discuss the learner's tasks on the job (school) and at home. Refer to Discussion Strategy in the appendix.

Example questions:

Allow several learners to respond to each question.

What does one adult in your home do on the job?

Possible response: Mechanic - he fixes cars

What does he do at home for a home task?

Possible response: Pays the bills

What tasks do you do on the job - at school?

Possible responses: Reading, writing, math, P.E.

What tasks do you do at home?

Possible responses: Make my bed, feed my pet animal

Introduce the guest speaker to the learners. Prepare the speaker ahead of time by asking him to tell about the tasks he performs and to relate personal skill, interest, and job requirements to the tasks performed on the job and at home.

The guest speaker should take about 15 minutes.

Allow time for learners to respond to the speaker or ask questions.

Thank the guest speaker as he leaves. Then on the chalkboard using the same headings (Family Member, Tasks on the Job, and Tasks at Home), have learners summarize the information they learned from the guest speaker.

SUMMARY

Today we have learned that a person does different tasks at home than the tasks he does at his occupation. You can see on our chart that there are many different tasks to choose from. The tasks we perform sometimes depend on what we can do well or on what we like to do. Our guest speaker told us about tasks on the job and at home. He showed us the tasks he does well, the ones he does just for enjoyment, and the ones he does because his job requires them.

In our next lesson we will talk about how one school worker needs the help of other school workers to complete his job well.

SUPPLEMENTAL ACTIVITIES

Learner Directed

Write and put on a three-act drama showing a person in three different settings performing three different tasks.

Interview a neighbor or relative to find out what he does at work and at home.

Interview a school worker, such as the nurse, principal, or custodian, to find what tasks he performs at home (indoors and outdoors) and at work.

Assessment Procedures

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A woman filing
2. A man typing
3. A woman taking notes
4. A man mowing the lawn
5. A woman at a typewriter
6. A man cooking

DIRECTIONS

Each of these pictures shows people who work as secretaries. Write the word "home" under the pictures that show something these people do at home. Write the word "work" under the pictures that show something these people do at work.

KEY

1. Work
2. Work
3. Work
4. Home
5. Work
6. Home

Name _____

Date _____

Lesson 2

ASSESSMENT ITEM

USE THESE WORDS: WORK, HOME

1

_____

2

_____

3

_____

4

_____

5

_____

6

_____

SCHOOL WORKERS DEPEND UPON ONE ANOTHER

LESSON THREE

CONCEPT

Every learner is a school worker. School workers depend upon other school workers to help them in their tasks.

PERFORMANCE OBJECTIVE

Given a school worker and his tasks, the learner will identify ways in which other school workers assist in the performance of those tasks.

LESSON TIME

55 minutes

NEW VOCABULARY

Dependent - needing the help or support of another

PREREQUISITE KNOWLEDGE

How to listen for information

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Assessment item	Guest speaker (a school worker)
	Chart and rack

Instructor Preparation Tasks

Read *Guest Speaker Strategy* in the appendix.

Contact a school worker to speak, preferably one representing an ethnic minority group. Ask the worker to speak about the tasks he performs and how he depends upon the cooperation of other school workers in the completion of these tasks.

Acquire the chart and chart rack.

Duplicate a copy of the assessment item for each learner.

Instructional Procedures

INTRODUCTION

I will write the word *dependent* on the chalkboard, along with its meaning, which is needing another for help or support. You are dependent upon the adults in your family for support and love. You need them. Others are dependent upon you. Your pet is dependent upon you. He needs you for food and love. You will need to know the meaning of this word for this lesson.

We have talked about how we depend upon one another in the family, and we have identified tasks that family members do in their home and on the job. When we talked about you, we identified your own tasks at home, on the job, and at school. Then we looked at a school worker and his tasks at home and on the job. Just as we are dependent upon one another to get the tasks done at home, so do school workers depend upon one another to keep the school running. Remember, you are a school worker. Others depend upon you.

Today we will have a school worker talk to us about how he depends upon other school workers to complete his tasks. Listen to find out what tasks he performs and which other school workers he depends upon to complete these tasks.

Write these two points on the chalkboard.

TASKS

Develop with the learners a chart for reference of school workers and their tasks. Ask the learners to name the school workers and their tasks and point out their dependence on each other.

Possible responses:

1. Custodian

    a. Cleans rooms
    b. Controls climate in rooms
    c. Repairs equipment
    d. Replaces supplies

2. Instructor

    a. Plans lessons
    b. Works with children
    c. Writes reports
    d. Does playground duty

3. Nurse

    a. Helps when we are sick
    b. Gives medication
    c. Tests eyes and ears
    d. Bandages cuts

4. Secretary

    a. Answers telephone
    b. Helps the principal
    c. Directs guests
    d. Helps children

5. Principal

    a. Gives announcements
    b. Talks to parents
    c. Helps instructors
    d. Runs the school

6. Cafeteria worker

   a. Prepares the food
   b. Serves the food
   c. Washes the dishes
   d. Sweeps the floor

7. Learner worker

   a. Completes his assignments
   b. Cleans up after self
   c. Makes friends
   d. Cooperates with others

This information will be written on the chart and placed in view of the learners.

Now, let's talk about how these workers depend upon one another. For example, let's talk about the instructor. Name some of the other school workers who depend upon the instructor, and tell one way in which these people depend upon the instructor.

Possible responses:

1. The custodian depends upon the instructor to teach the children about keeping an orderly room so his job will not be so difficult.
2. The principal depends upon the instructor to teach the children their lessons.
3. The nurse depends on the instructor to send the children to the nurse's office when they are hurt or sick.
4. The learners depend upon the instructor to provide them with learning opportunities.

Today we have a guest speaker who is a school worker. He will tell us about his tasks and about the other school workers he depends upon and how they depend upon him.

Speaker addresses learners, focusing on the dependency theme.

Following the speaker, allow a few minutes for questions and answers.

Thank the guest speaker as he leaves. Then, on the chalkboard, using the headings "Tasks Performed" and "Other

School Workers Dependent Upon," have learners summarize the guest speaker's information.

SUMMARY

Today we have learned that school workers are dependent upon each other, just like we depend upon the members of our family and just like we depend upon each other to have an orderly class. We depend upon workers and products in our community. too. Next time we will discuss occupations and products in our community.

SUPPLEMENTAL ACTIVITIES

Make overhead transparencies with overlays to show how one school worker depends on two other school workers to complete one task. For example, the custodian could be shown with his broom in one classroom. An overlay could show the instructor tidying up the room, and another show the child cleaning and organizing his area.

Learner Directed

Fold drawing paper in half, and paste writing paper on the lower half. On the bottom, write a paragraph about your favorite school worker. On the top, illustrate the school worker.

Make up a song and dance about school workers and how they help each other. This could be a take off on "Old MacDonald's Farm" or "The Farmer in the Dell."

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A child placing a book on the shelf
2. A child sitting with wads of paper on the floor
3. A child writing his name on a card
4. Two children fighting, with a "quiet" sign in the background
5. One child reading at a table
6. One child giving the librarian a torn book

DIRECTIONS

Miss Prim is the school librarian. Circle the number above the pictures that show ways other school workers help the librarian to perform her services.

KEY

1, 3, 5, 6

Name _____

Date _____

ASSESSMENT ITEM

Lesson 3

1

2

3

4

5

6

OCCUPATIONS MADE NECESSARY BY COMMUNITY PRODUCTS

LESSON FOUR

CONCEPTS

All communities need workers.

Community workers depend on other community workers to complete their tasks.

Some community occupations come about because of the community land, the climate, or the products.

PERFORMANCE OBJECTIVE

Given a problem of identifying a community-produced product, with occupations dependent upon it being produced, the learner will identify one product and two dependent occupations.

LESSON TIME

55 minutes

NEW VOCABULARY

Community - a place, like a city or town, where a group of people live together with common goals and interests.

Make your definition fit your location for better understanding.

Minerals - substances found in the ground for man's use (not food or animals)

Community Products - all goods, including minerals, plants, and animals, which come from a place where a group of people live together

Prerequisite Knowledge

Knowledge of community workers, tools, and occupations

Knowledge of how various products are used

Resources Required

FOUND WITHIN UNIT	ACQUIRED BY INSTRUCTOR
Assessment item	Drawing paper
	Scissors
	Magazines
	Vegetable seeds, dirt
	Half pint containers

Instructor Preparation Tasks

Write vocabulary words and their meanings on the chalkboard in view of the learners.

Obtain the following:

1. Vegetable seeds for planting
2. Half pint containers for planters
3. Magazines, scissors, glue, or paste

Duplicate a copy of the assessment item for each learner.

Read *Questioning Strategy* included in the appendix.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

Just as we found out that school workers depend upon one another to run a school and learners depend upon the other school workers, today we will find out about how we depend upon a lot of people to keep our community running.

I have written some words and their meanings on the chalkboard. As we come to these words in the lesson, we will talk about them some more.

Community - a place, like a city or town, where a group of people live together with common goals and interests

Make your definition fit your location for better understanding.

Minerals - substances found in the ground for man's use (not food or animals)

Community Products - all goods, including minerals, plants, and animals, which come from a place where a group of people live together

TASKS

For a few minutes let us pretend we are starting a brand new community, like the pioneers did long ago. All of us will be the members of a committee who will decide what foods, plants, or animals we can easily grow or raise in our community or what minerals are available in our land.

An example of a mineral could be gold, silver, copper, coal, etc. All of these are called products. We will develop a description of our community and its products on the chalkboard.

The instructor will ask questions regarding each of the following headings: (Localize as much as possible.)

Refer to Questioning Strategy included in the appendix.

1. Description 2. Plants 3. Animals 4. Minerals

Possible responses:

Desert land	Vegetables	Cattle	Copper
Hot, dry	Citrus fruit	Sheep	Gold
Irrigated	Cotton	Poultry	Silver

Now that we have decided on the type of land we are on, and some plants, animals, and minerals in our community, we can decide on the jobs we will need.

Let's look at the kinds of jobs needed to raise one of our products. Take vegetables, for example. What kinds of workers would we need?

Possible responses:

1. Vegetable farmer
2. Vegetable pickers
3. Vegetable sorters
4. Vegetable packers
5. Truck drivers
6. Ice company
7. Ice packers
8. Railroad company
9. Railroad engineer
10. Railroad office workers
11. Vegetable stores
12. Storekeeper
13. Store clerk or salesman
14. Box company
15. Box maker
16. Box salesman
17. Cooks
18. Restaurants

If one of these people trained for his occupation and the occupation suddenly disappeared, what would happen?

Possible responses:

1. Other occupations would disappear, too.
2. Some people would need to train for another job.
3. Some people who may be trained in working with only a specific product would need to move to another community where this product would be.

Are there some occupations which may appear in most communities? Name them.

Possible responses:

1. Policemen
2. Firemen
3. Postmen
4. Service station workers
5. Grocery store workers

In what ways do you depend on each of these workers?

Possible responses:

1. I depend on the policeman and fireman for protection.
2. I depend on the postman to bring and carry my mail.
3. I depend on the service station workers to care for my car.
4. I depend on grocery store workers to help me with grocery buying.

In what ways do these workers depend on each other?

Possible responses:

1. The policemen depend on the firemen for help many times when there are accidents.
2. The firemen many times depend on the policemen for help during fires.
3. The postmen depend on the service stations for their transportation needs.
4. The service station workers and the grocery store workers depend on all of the other community workers the same as you do.

Game: Since we grow some kinds of vegetables in our community, let's pretend we are a little vegetable seed. As it grows, stand up and do what I do. First let us pretend to be a corn seed. Stoop down, making your body little like a seed. Show it growing with the help of sunlight and water.

Put hands together above head, gradually growing taller. Spread arms and fingers for the leaves and eventually the full growth. Show how a carrot grows differently. Ask learners to suggest a vegetable and to demonstrate its growth so the group may follow.

Now we will find some pictures in magazines which will show vegetables and any other products of our community.

Have plenty of magazines so learners can cut out pictures of things made from vegetables or another local product. Instruct learners to mount their pictures, label them with the product name and three occupations dependent on that product.

Make a bulletin board of all pictures collected by learners.

Explain to the learners that as a follow up to the vegetable example used previously, they may plant a vegetable seed in a suitable container. Remind learners of the necessary ingredients for a plant (air, sunlight, water).

SUMMARY

Today we have learned about some occupations needed in a community as a result of the products of that community. We learned that one occupation needs others to be able to function properly. We learned how many people depend upon one product just to make a living. Next time we will learn about some jobs which come about because of the geographic conditions of the area. For example, if you live by the ocean, which is an example of a geographic condition, some of the jobs you find there, such as a fisherman, may be directly related to the ocean.

SUPPLEMENTAL ACTIVITIES

Find pictures that show uses of community products such as cotton, copper, steel, or corn.

Learner Directed

Interview parents or other adults about workers upon whom they depend.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A man repairing wiring
2. An elevator operator
3. A furniture mover
4. A lumberjack cutting a tree
5. A baker
6. A farmer threshing wheat

DIRECTIONS

Todd lives in a big city. There are many things made in this city. Todd's father works in a factory that makes furniture. Circle the number above the pictures that show community workers who depend on the furniture factory where Todd's father works.

KEY

3, 4

Name _____

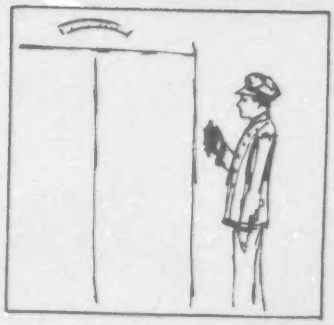
Date _____

ASSESSMENT ITEM

Lesson 4

1

2

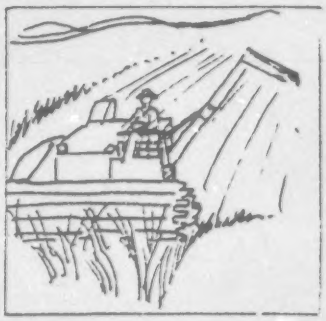


3

4

5

6



RELATIONSHIP BETWEEN GEOGRAPHIC AREA AND OCCUPATIONS

LESSON FIVE

CONCEPT

Some community occupations come about because of the community land, the climate, or the products.

PERFORMANCE OBJECTIVE

Given the geographic conditions and a possible product of that region, the learner will identify two occupations found in that region which relate to the product.

LESSON TIME

55 minutes

NEW VOCABULARY

Geographic conditions - the weather and type of land

PREREQUISITE KNOWLEDGE

Worker dependency, as presented in Lessons 1 through 4.

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Pictures: 1. Cotton farming 2. Pineapple farming 3. Lobster company 4. Lumber company	Cover for class book Chart and chart rack Drawing paper and crayons
Geographic Conditions Map	
Assessment item	

Instructor Preparation Tasks

Prepare cover page for a class book to hold the learner's pictures.

Have pictures available of:
1. A cotton farmer
2. A pineapple farmer
3. A lobster trapper
4. A lumberjack

(included after lesson description)

Duplicate a copy of assessment item for each learner.

Instructional Procedures

INTRODUCTION

We have learned that there are some occupations in a community which are there because they are needed by the people of the community. These occupations also need each other in order to operate. There are other occupations which are in a community because of *geographic conditions*, which means the weather and type of land in the community.

Today we will talk about occupations which depend upon geographic conditions. I will show you some pictures, which we will talk about. This will help you to know about geographic areas.

TASKS

Does this occupation look familiar?

Show picture of the cotton farmer.

Where might this cotton farmer live?

Possible response: The southern part of Arizona

What are some tools he uses?

Possible responses:

1. Tractor
2. Cotton picking machine
3. Hoe

What is the land and weather like where he lives and works?

Possible responses:

1. Hot
2. Dry
3. Irrigated desert land

Where might this pineapple farmer live?

Show picture of the pineapple farmer.

Possible response: Hawaii

What are some tools he uses?

Possible responses:

1. Sorting machines
2. Chemicals to control weeds
3. Fertilizers
4. Canning machinery

What is the land and weather like where he lives and works?

Possible response: Warm and wet all year

What might this lobster company be close to?

Show picture of a lobster trapper.

Possible responses:

1. The Atlantic Ocean
2. Maine
3. Massachusetts
4. Rhode Island

What are some tools used in this occupation?

Possible responses:

1. Lobster pots (traps)
2. Bait
3. Boats

What is the land, water, and weather like where he lives and works?

Possible responses:

1. Moist, cold land
2. Cold waters
3. Short summers

Where might this lumber operation be?

Show picture of a lumberjack.

Possible response: High altitude land in almost every part of the United States

What are some tools he uses?

Possible responses:

1. Saws
2. Trucks
3. Lumber mills
4. Truck lifts
5. Kiln for drying lumber

Some products and occupations are better suited to one geographic area than another. For example, could one occupation in Arizona be a lobster trapper?

Desired response: No

Why not?

Desired response: Because lobsters are found in the Atlantic Ocean. Arizona is not close to the ocean.

Because of the land and weather Southern Arizona, what kinds of occupations can you find?

Possible responses:

1. Cotton farming
2. Vegetable farming
3. Citrus farming
4. Copper mining
5. Cattle raising

With the assistance of the learners, develop a map or chart showing various geographic conditions throughout the United States. Refer to the "Geographic Conditions Map" included for ideas.

Examples:

The map or chart should show forest areas, mining locations, desert areas, areas close to the sea or ocean, damp rainy weather, etc.

Help the learners decide on two products for each geographic area. Record them on the chart.

Instruct the learners to choose a geographic area and one of its products. Think of two occupations related to that product. Draw a picture of the two occupations and, to add interest, possibly two tools used for each occupation.

Play a game where the instructor calls out the name of a geographic area from the chart. Each of the children who illustrated their own pictures about occupations in that area will stand up and show their pictures.

Geographic areas:

1. Forest areas
2. Desert lands
3. Wet areas
4. Dry areas
5. Seas or oceans
6. Mining areas

Arrange pictures in a class book for display. Title the book Occupations in Geographic Areas.

SUMMARY

Today we learned about occupations in certain geographical areas. We drew pictures of occupations within a geographic area and played a game with them. Next time, we will talk about how we depend on people in occupations to carry out their jobs each day. We will discover some things that can happen if someone does not do his job.

SUPPLEMENTAL ACTIVITIES

Show the filmstrips from the "Regional Study Sets" Eyegate, 146-01 Archer Avenue, Jamaica, New York 11435. There are nine filmstrips at a cost of $42.50 per set.

Show a filmstrip from the set "America at Work" Eyegate, 146-01 Archer Avenue, Jamaica, New York 11435. There are nine filmstrips at a cost of $42.50 per set.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A cotton farmer
2. A man building a boat
3. A carhop in front of a fish and chips restaurant
4. A lumberjack
5. An egg saleswoman with eggs and a sign which says "Fresh Eggs"
6. An electrician

DIRECTIONS

This community is located by the ocean where fishing is one of the ways people make a living.

Circle the number above each picture which shows an occupation having to do with fishing.

KEY

2, 3

Name _____

Date _____

Lesson 5

ASSESSMENT ITEM

1

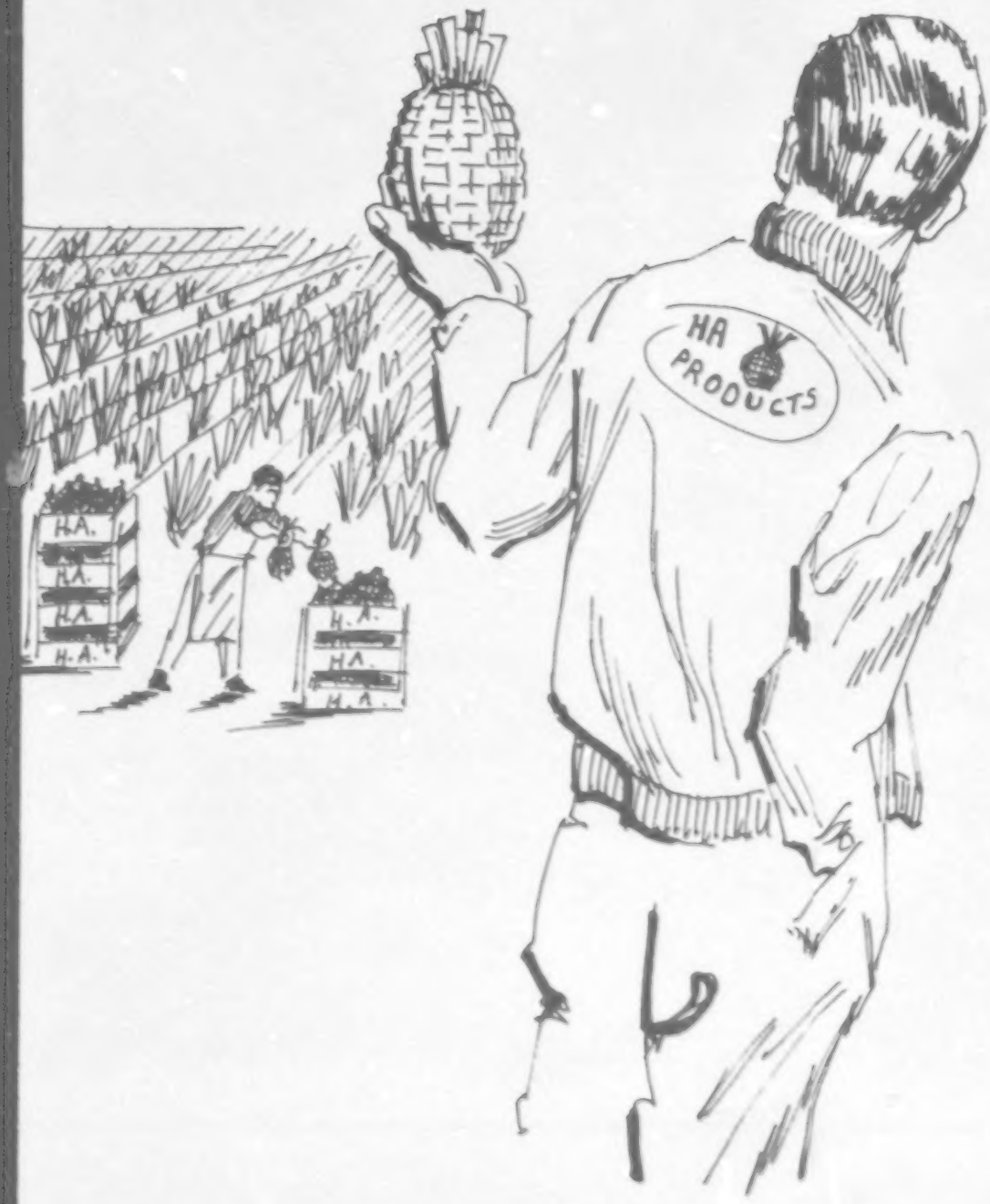
2

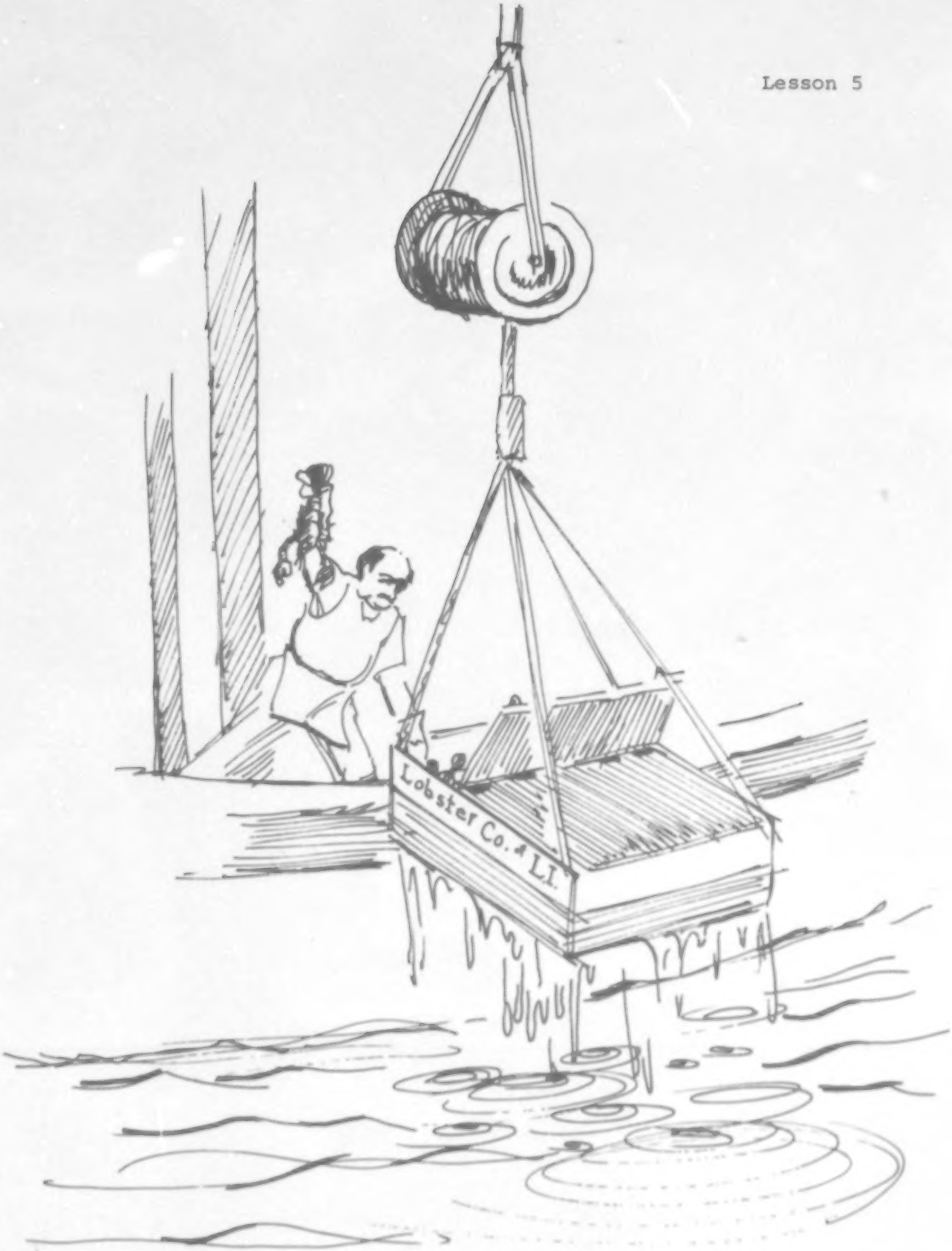
3

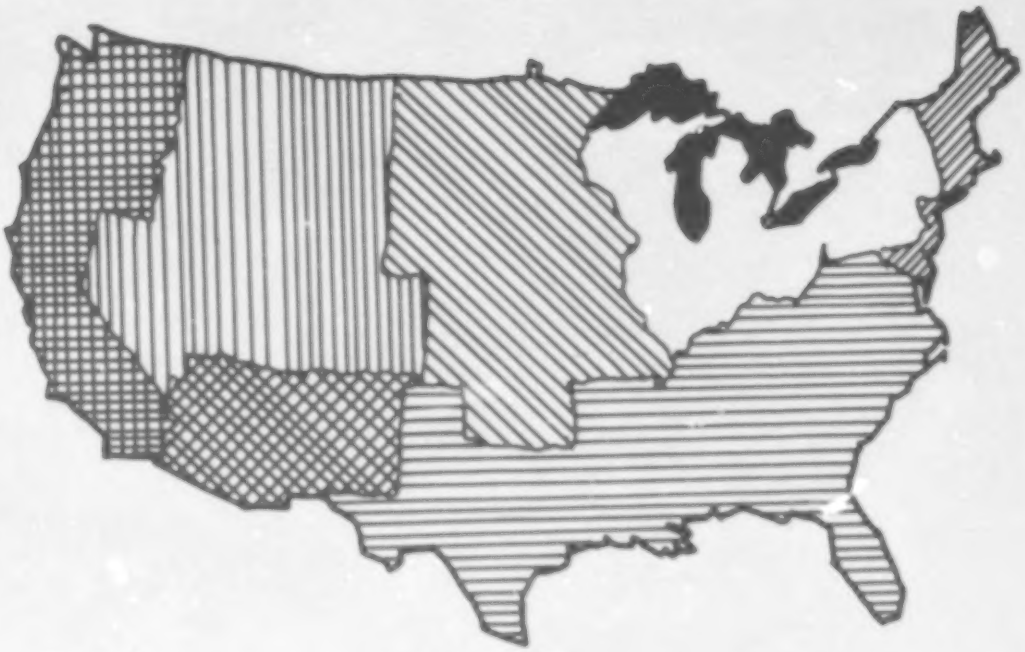
4

5

6


HA
PRODUCTS
H.A.
H.A.
H.A.
H.A.
H.A.
HA
H.A.


Lobster Co. of L.I.



NORTHEAST

1. Short, fast-flowing rivers
2. Poor soil
3. Rugged, irregular coastline
4. Severe winters
5. Short growing seasons

Industries (Activities)
Banking, foreign trade, television broadcasting.

GREAT LAKES

1. Good soil
2. Inland lakes
3. Some forest
4. Flat lands
5. Heavy snows
6. Moderate rainfall
7. Seasonal temperatures
8. Gently rolling hills

Industries (Activities)
Transporation, dairy products, automobile manufacturing

SOUTH

1. Long growing season
2. Good soil
3. Mild winters
4. Short, gently flowing rivers
5. High humidity
6. Rainy seasons
7. Tropical storms
8. Coastal lowlands
9. Swamps
10. Low rolling mountain ranges

Industries (Activities)
Textiles, petroleum, tobacco products

GREAT PLAINS

1. Long, gently flowing rivers
2. Good soil
3. Adequate rainfall
4. Seasonal temperatures
5. Flat to rolling lands

Industries (Activities)
Meat packing, cereals preparation, agricultural equipment

SOUTHWEST

1. Little rainfall
2. Poor soil
3. Hot temperatures
4. Long growing seasons
5. Much sunshine
6. Some short, rugged mountain ranges
7. Few rivers
8. Low humidity
9. Arid deserts

Industries (Activities)
Agriculture by irrigation, tourism, electronic equipment.

ROCKY MOUNTAINS

1. Origin of many rivers
2. Poor soil
3. Heavy forests
4. High deserts and plateaus
5. Heavy snows
6. Grasslands
7. Lone mountain ranges

Industries (Activities)
Winter sports, metal mining, lumbering

PACIFIC COAST

1. Long, fast flowing rivers
2. High mountain ranges
3. Wide variation of rainfall
4. Below sea level
5. Fertile valleys
6. Mild to hot temperatures

Industry (Activities)
Electric power, motion picture industry, paper and pulp

WE DEPEND UPON COMMUNITY WORKERS

LESSON SIX

CONCEPTS

Citizens in a community depend upon all workers to do their jobs.

When workers in an occupational facility do not do their jobs, the community must take other actions.

PERFORMANCE OBJECTIVE

Given a work stoppage situation, the learner will make one prediction as to the effect upon the community if one occupational facility did not function.

LESSON TIME

55 minutes

NEW VOCABULARY

Dramatize - act out

Occupational facility - a building where community helpers work

Prerequisite Knowledge

Knowledge of the interdependence of the community and its workers

Knowledge of the term "community occupations"

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Assessment item	Drawing paper
	Crayons

Instructor Preparation Tasks

Prepare possible "problems" related to local occupational facilities. Refer to sample problems in the tasks section.

Duplicate a copy of the assessment item for each learner.

Read Role-playing strategy included in the appendix.

Instructional Procedures

INTRODUCTION

Two lessons ago we talked about how workers in different occupations depend upon each other. For example, when the railroads provide railroad cars to carry vegetables and fruits to different parts of the United States, they depend upon fruit and vegetable companies to keep the cars full.

Today we will play a game. We will think of an occupation we have studied and decide what could happen if one of the workers in an occupational facility did not do his job. An example of an *occupational facility* could be the post office, the railroad company, the fire department, the ice company, the city offices, or any other facility whose workers perform a service for the community.

TASKS

To play our game, we will first list some occupational facilities. You will then get into small groups of five, where you will choose a chairman. Your group will be given a problem concerned with workers in an occupational facility not doing their jobs. The chairman will read the problem to the group. Each of you in the group will try to think of one thing that can happen because of this problem.

Choose someone in your group to write down the results of your problem.

Once you have written down the results of the problem, decide on a possible way to solve the problem without the help of the workers.

For example, you might be given this problem. The only veterinarian in your community moved away suddenly to accept a veterinarian job in another community. What could result?

Possible responses:

1. The animals may be in danger.
2. It would be expensive to take them to a veterinarian who is far away.
3. Some animals may not receive their shots.
4. Sick or injured animals may not be able to be moved to a veterinarian far away.

What could be done in the community to take care of this problem?

Possible responses:

1. Try to find another veterinarian to come to the community.
2. Call the county health department, explain your problem, and ask them for help. They might set up a temporary clinic in a church or a school to give the shots that are needed for animals.

While in your group, you will do these things:

Write on the chalkboard.

1. Read your problem.
2. Write or act out what can happen.
3. Write or act out what actions may be taken to solve this problem.

To show the results and other actions, you may either write them down and report to the larger group, or you may dramatize the results and other actions. *Dramatize* means to act it out.

Refer to Role-playing strategy included in the appendix.

Name some occupational facilities in our community.

Possible responses:

1. Fire department
2. Post office
3. County health office
4. Police department
5. School bus department
6. City bus company
7. Fish and game department
8. Sanitation department
9. Electric company
10. Gas company
11. Ice company
12. Railroad company

Divide learners into small groups of five each. This may be accomplished with sign-up sheets.

Assign a problem to a small group. Read occupational facility problems to the entire group before expecting the learners to propose solutions in their small groups. Assignment of problems may be decided upon by learners volunteering for a problem that interests them.

Example problems:

1. A house caught on fire. The workers in the fire department are all sick and cannot answer the call. If the fire department is unable to answer the call to a fire or other emergency, what can happen as a result of this problem, and what can be done to solve this problem? Decide on another way to handle it.

2. The county health office burned to the ground. The equipment and medicine were destroyed in the fire. The community needs to provide shots for the children and animals in the community. What can happen as a result of this problem? What can the community do to solve the problem?

3. The fish and game department has only one man assigned to our community to protect our birds and animals. That man did not come to work one day and did not tell anyone that he was not returning. What can happen as a result of this problem? What can the community do about it?

4. The sanitation department has assigned a crew of men to each neighborhood in the city to collect the garbage. One crew of men was involved in an accident. No one was hurt, but the garbage truck was damaged and would not run. What can happen as a result of these men not being able to do their jobs? What can be done to help solve the problem?

After allowing the learners time for sharing solutions to each of the problems, summarize the solutions and point out the importance of this particular occupational facility to the community and how we in the community depend on them to carry out their jobs well.

Relate our dependence on these workers in occupational facilities to other ways we depend on each other: learners depend on instructors, instructors depend on learners, etc. Following this discussion, prepare learners to listen for a summary.

SUMMARY

Today we talked about some workers in occupational facilities. Sometimes problems arise that make it difficult for workers to perform their work. We decided in our groups how these problems could be taken care of in another way. We discussed how we depend upon every person to do his job. You depend upon me to do my job, and I depend upon you to do your job. We all depend upon people in different occupational facilities to do their jobs. When something happens which prevents them from doing their job, other ways must be found, and sometimes this causes inconveniences to people. Next time we will talk about a worker who did not take care of all his responsibilities in connection with the task he was to perform.

SUPPLEMENTAL ACTIVITY

What would happen if the adults in the family did not do their jobs? Discuss orally or draw pictures.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. People riding bicycles, driving cars, and walking to their destinations
2. One person sitting in the park
3. Three buses, filled with people, driving on the street

DIRECTIONS

Everyone at the bus company took their vacation at the same time. Circle the number above the picture that shows what might happen in the community.

KEY

1

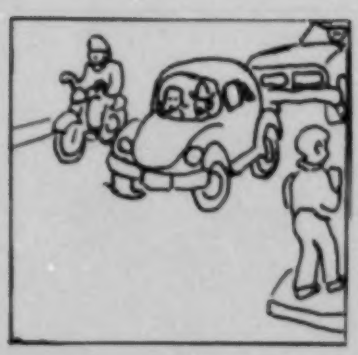
Name _____

Date _____

Lesson 6

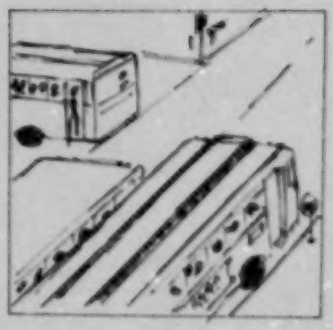
ASSESSMENT ITEM

1



2

3



WE NEED RESPONSIBLE WORKERS

LESSON SEVEN

CONCEPTS

People depend on workers to do their jobs.

When workers do not do their jobs as well as they should, many people are affected.

PERFORMANCE OBJECTIVE

Given a situation in which a worker does not fulfill his responsibilities, the learner will explain two consequences of this situation.

LESSON TIME

55 minutes

PREREQUISITE KNOWLEDGE

The meaning of success

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Story *Wilted Vegetables*	Chart paper or cards
Song *Policeman Lee*	
Assessment item	

Instructor Preparation Tasks

Print the words in the introduction on a chart or on cards.

Read the story *Wilted Vegetables*, which is included with the lesson.

Learn the song *Policeman Lee*, which is included with the lesson.

Duplicate a copy of the assessment item for each learner.

Instructional Procedures

INTRODUCTION

In our previous lesson, we talked about what happens to us or other people in our community when someone does not do his job for some reason. Sometimes there are reasons that are all right, but sometimes it is not all right, like the man who did not come to work and did not tell anybody. Today we are going to talk about what might happen to a person who does not do his job as well as he should. First, we will look at a list. These words will appear in a story you will hear today.

Go over the list of words verbally.

Approached	Pleasant	Hungry
Friends	Unhappy	Enthusiastic
Laughing	Angry	Successful
Playing	Greetirg	Yelled
Welcome	Happy	Worried

Some of these words express a feeling. Which ones are they?

Possible responses:

1. Laugning
2. Unhappy
3. Angry
4. Happy
5. Hungry
6. Enthusiastic
7. Worried

The word meanings will become clear in either the story or the class discussions.

TASKS

Listen for each of the words in our list as I tell you the story of *Wilted Vegetables*. We will talk about the words which express a feeling after we hear the story.

Tell the story "Wilted Vegetables."

Ask individual learners to identify one listed word they heard in the story. Discuss with the group how each of these words affect relationships at home or at school: yelled, worry, success, succeeds, laughing, unhappy, angry, happy, hungry, enthusiastic.

How do you think Max felt when the grocer yelled and told him to get out of his store? How would you have felt? Name some words that describe how you would feel.

Response:

1. Unhappy
2. Want to hide
3. Run away
4. Unsuccessful

Discuss the story.

What could have happened to his family if Max had not had the courage to go ahead and try to sell his produce?

Possible response:

The would have had no money to buy food for the winter.

How would the family feel?

Possible responses: Disappointed, scared, hungry

What was Max's success?

Possible response:

He sold his vegetables, but he was not as successful as he might have been had he gone to market when he should have.

What do you think Max learned from the experience he had of selling his vegetables?

Possible response:

He learned to be more responsible in the future.

Sing "Policeman Lee."

What would happen if Policeman Lee did not do his work each day?

Possible response: We would not be safe

Discuss with learners other situations in which a person does not do his job for some reason (no judgment).

Example:

In a factory, the group of workers in each department is paid a bonus, which is a gift of extra money for the week, if they meet or do better than the goal they have set for themselves to complete. In one department of this factory, the seven workers decided to work very hard to earn a bonus for the week. One worker did not show up. An inexperienced worker took over. Work was slow. The workers did not meet their goal. Fellow workers did not get their bonus.

Example:

A fireman did not show up for work on time. He came 20 minutes late. The men were called to an early morning house fire. They were shorthanded because one fireman was not there on time, so they took longer getting ready to go to the fire. They also took longer to get the hoses to the house which was on fire. The fire did much damage that could have been prevented if just one more man had been to work on time.

In the situations we just talked about, what things happened which may have caused the factory workers to miss their bonus and the fire to cause more damage than it should?

Possible responses:

1. Worker not showing up on time
2. Worker not reporting for work
3. An inexperienced substitute taking over

SUMMARY

Today we have found new words to tell us how we feel, and we learned that sometimes it takes courage to try new ways to find success. We also learned that if a worker does not fulfill his responsibilities, he and perhaps others may not succeed in doing something they would like to do. Next time we will talk about the needs we have as human beings and how we depend on others at home, in school, and in the community to meet those needs.

SUPPLEMENTAL ACTIVITIES

Learner Directed

Interview others to see what they do that makes them feel successful. Ask if they have done anything new that led to success.

Draw a picture of something you did that made you feel successful, such as

1. baking a cake.
2. tending a baby.
3. playing with others.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple choice item is used to assess achievement of the objective. The pictures are:

1. A woman looking for a newspaper
2. A man picking up a paper
3. A newspaper office person pointing for Johnny to leave

DIRECTIONS

Johnny has a paper route. He delivers papers early in the morning to the people in his neighborhood. One morning he was too tired to get up to do his job. Circle the number above the two pictures which show what might happen because Johnny did not do his job.

KEY

1, 3

Name _____

Date _____

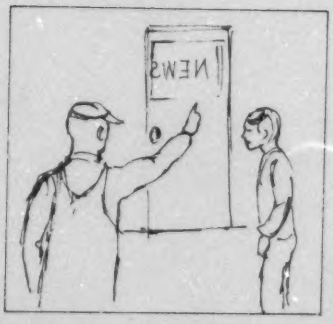
Lesson 7

ASSESSMENT ITEM

1

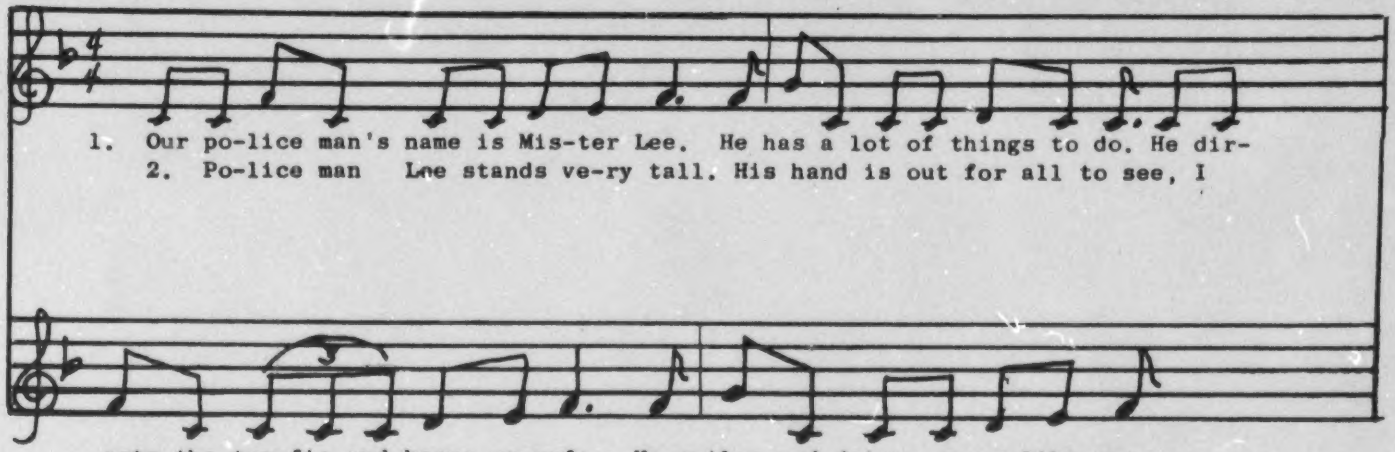
2

3



POLICEMAN LEE

Rhythmically



In tempo, use the following rhythm between the verses:

clap, stomp, clap, stomp, clap, clap (rest)
stomp, clap, stomp, clap, stomp, clap, clap

Learners could create their own body motions for the song.

WILTED VEGETABLES

Max Conway tied his horse, Lucky, to the tree near the bubbling stream. He approached his two friends, who were laughing and running through the stream playing tag.

The trees and bubbling stream offered a welcome refreshment for Max this hot day on his way to the market place just ahead.

The two playing friends spotted Max and shouted together, "Hi, Max! Come on down to play."

"Hi, guys," Max replied.

Before descending the bank of the stream, Max checked over the covered vegetable wagon pulled behind Lucky. He recalled his task for today. Mother had said, "Max, you are our good salesman in the family. A successful salesman must get to the market early so the vegetables can be sold before the other farmers wheel their vegetables into the market to be sold. When the vegetables are fresh, you will get a better price for them. Remember, Max, if you do not sell the vegetables to somebody, your family will be hungry this winter."

"I will cool myself for just a short while," Max thought, "then I will go on to the market place and still be earlier than the other farmers."

Max removed his shoes to cool his feet when Joe Saunders ran up beside him, tagged him, and shouted, "You're it."

Max was a fast runner. He could not reach Joe, but he tagged Billy just as Billy tried to ascend the bank of the stream. He was happy playing with his friends.

The game of tag lasted a long time. The boys finally threw themselves down on the grass laughing. Joe broke the spell with "What do you have to sell in your cart today, Max?"

"Oh," said Max worriedly, "the sun is high in the sky. I must hurry to the market place to sell our vegetables before the other farmers get there."

Max quickly untied Lucky from the tree, climbed on the seat in front of the cart, and waved goodbye to his two friends.

As Max pulled into the market place, he noticed many of the farmers packing their things and pulling out.

"Where is everyone going?" Max asked one of the departing farmers.

"Our vegetables have been sold," said the farmer. "The people came early to the market place while the vegetables were fresh."

Max looked up and down the street. Most of the

buyers were gone for the day. Max thought, "There must be someone who will buy my vegetables."

A big sign read: "Vegetables -- We specialize in fresh vegetables."

Max thought maybe the man in the store would buy his vegetables. Didn't his mother say he was a good salesman?

Stepping inside the store, he approached the man in charge and showed him his cartload of vegetables.

"Those wilted vegetables?" yelled the man angrily. "Get out of my store!"

Max was not feeling good about himself. If he did not sell his vegetables, his family would go hungry in the winter. This thought made him very unhappy. Max passed slowly down the street shouting, "Vegetables for sale."

"Let me see your vegetables, young man," came the voice of a pleasant man. Max pulled the cover off the vegetables slowly.

"I own the animal feed store," said the pleasant man. "If you cannot sell your vegetables to the vegetable store, I will buy them for half the price to feed to the animale."

Max hung his head, "I have already been to the vegetable store and the man said to get out of his store because my vegetables are wilted."

"Bring your cart over to my store," said the pleasant man.

As Max and the pleasant man began to unpack the vegetables, they noticed that under the top layer of wilted vegetables, the vegetables looked better. They actually looked crisp and fresh.

"I will take all of your wilted vegetables on the top layer," said the pleasant man. "Then go back to the vegetable store to sell your fresh, crisp vegetables to the storekeeper there.

Max happily led Lucky back to the vegetable store with his fresh vegetables.

The storekeeper took some vegetables from the cart. "Yes, good!" he said as he felt the fresh, crisp vegetables. "Give me what you have. If I can sell them, I will pay you well. Come back in two or three days."

When Max returned to the storekeeper, his heart beat fast. Had the storekeeper sold his vegetables?

The hearty reception he received as soon as he set foot in the door startled him. "Come in, boy. Come right in!" the storekeeper hailed him. "You are a very successful farmer."

After such a greeting, Max was not afraid to ask, "Have you sold my vegetables?"

"Yes," said the storekeeper, "can you bring me more?"

"Yes," said Max enthusiastically. "Now my family will not be hungry in the winter. Thank you, thank you!"

WE ALL HAVE NEEDS

LESSON EIGHT

CONCEPTS

All humans have needs that must be met to remain healthy and happy.

We depend on other human beings to satisfy some of our needs.

PERFORMANCE OBJECTIVE

Given examples of individuals experiencing a need, the learner will state two possible ways an individual might satisfy that need.

LESSON TIME

55 minutes

NEW VOCABULARY

Needs - things necessary in order for us to live

PREREQUISITE KNOWLEDGE

Dependency on others

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Maslow's Human Needs Chart (included with lesson)	Bulletin board with title *Our Needs*
Assessment item	Chart and rack
	Butcher paper or large construction paper for each learner's "needs" illustrations

Instructor Preparation Tasks

Have information available for the lesson.

Go over *Maslow's "Needs"* to interpret them in children's language.

Prepare the following:
1. Sign-up sheets for small groups
2. Bulletin board with the title *Our Needs*

Acquire butcher paper or large construction paper for each learner's illustrations.

Duplicate a copy of the assessment item for each learner.

Instructional Procedures

INTRODUCTION

In the last few lessons, we have talked about how we depend on others to do things for us and the consequences if they are not done. The reason we depend upon others is that we have certain needs. Others help meet our needs for us. Today, we will develop a chart identifying the needs we have in our lives. We will talk about these needs and discuss some examples. We will work in small groups to decide ways these needs may be met.

TASKS

Have a chart available to record "needs" as they are decided upon jointly by the instructor and class. The

instructor may refer to "Maslow's Human Needs" chart for information, but it is not desirable to use this technical language with the children.

What are some things that are necessary in order for us to live?

Possible response: We need food, water, and air.

That's right. Our *needs* are things that are necessary in order for us to live.

Each of us has other needs besides food, water, and air. We need some things to be happy. We need to feel safe. Can you think of other needs you and I have?

Possible responses:

1. We need to be supported.
2. We need to be accepted.
3. We need to be loved.
4. We need to do something well.
5. We need to like ourselves and others.
6. We need to be complimented when we do something well.
7. We need to do things that we enjoy.

Write these on the chart for independent reference later in the lesson.

Remember, we often times depend on others to meet our needs.

Let's discuss our need for food. Name some ways this need can be met.

If they say parents provide for this need, ask how the parents get food. Write responses on chalkboard.

Possible responses:

1. We can work to earn money to buy food.
2. We could grow our own.
3. We could trade something else we have for food that others grow.

Emphasize dependency.

Whom do we depend upon to meet this need?

Possible responses:

1. Parents or adults
2. Farmers
3. Grocers

Now let's talk about our need to feel safe. Name some ways this need can be met.

Write responses on chalkboard.

Possible responses:

1. A home to live in
2. Some rules and laws to live by
3. An adult to help take care of us

Whom do we depend upon to meet this need?

Possible responses:

1. Parents or adults
2. People in construction
3. Our government

When complete, the "needs" chart may look something like this:

OUR NEEDS

Body Needs	Self-Respect Needs
Food	Feeling good about ourselves
Water	Having others feel good about us
Air	Being recognized
Clothing	Being organized
Shelter	

Safety Needs	Love Needs
Freedom from fear	A feeling of being needed
An adult to take care of us	A feeling of being loved
Acceptance	A feeling of belonging
A home to live in	A feeling of importance
Rules to live by	

Other Needs

Doing something creative
Finding meaning in life
Appreciating beauty

Below are other examples of needs which may be used in the small group activity to follow. Use words the learners understand. The instructor may duplicate the same "need" in more than one group for comparisons.

1. Being accepted)
2. Being supported)----Security or safety needs
3. Being free from harm)

4. Water)
5. Clothes)----Physiological needs
6. Warmth - shelter)

7. A feeling of personal warmth)----Belonging or
8. A feeling of being important) love needs
   in a family)

9. Feeling good about ourselves)
10. Recognition)
11. Having others feel good)
    about us)----Esteem or
12. Doing something without being) self-respect
    told) needs
13. Knowing how to survive in)
    spite of environment hazards)
    (mastering the environment))
14. Being organized)

15. Appreciating beauty)----Self-actualizing
16. Doing something creative) needs
17. Finding meaning in life)

You will be working in small groups on a "need" I will give you. You and the members of your group will decide two or three ways this need may be met. You will choose someone to write these ways on a paper to share with the class after you are finished. Draw a picture illustrating your need and the ways you can think of to meet this need. Write down the people you depe[illegible] on to meet these needs.

Divide into small groups, no more than five to a group. A suggested technique for distributing the learners heterogeneously ability wise, without their awareness, is to have several sign-up sheets with five name spaces. Call all slow learners up first, and ask each of them to sign a separate list. Continue until all learners have signed up for a small group. Decide upon a signal

for listening, for assembling into small groups, and regrouping into a large group.

Group learners in a designated spot in the room. Give an assigned need to each group. Instruct the children to take no more than five minutes to select a spokesman.

At the end of five minutes, give a listening signal decided upon so you can have the learners' undivided attention.

At this time, instruct the learners to look at the name of the need they will be working on. They are to decide, as a group, several different ways to meet that need and the people they depend on to meet that need. Refer to the "food" need on the chalkboard. At the end of 15 minutes, the spokesman will have the assignment written down and illustrated to report to the large group. The spokesman is responsible for encouraging all members to participate. With the various parts of the assignment, there is enough to involve all of the learners in the group. At the end of 15 minutes, instruct the learners to listen for the signal again and reassemble in a large group.

Each group spokesman will report the group decision for alternatives or ways of meeting a specific need. One or two of the other group members may share the illustration. Allow time for audience discussion of other possible ways to meet a need. Compliment each group on the parts of their presentation which warrant a compliment.

Prepare learners to clear materials away and listen for a summary.

Following the summary, assemble the needs illustration on a bulletin board called "Our Needs."

SUMMARY

Today we have developed and talked about some human needs. We have learned about different ways to meet these needs and how we often depend on someone else to meet the need for us. We worked in small groups to help each other decide on ways to meet these needs. We illustrated the ways we can meet these needs and shared the results with the rest of the class. Our bulletin board will remind us of what we learned today.

In our next lesson, we will talk about the needs we have at school and which school workers help us to meet these needs.

SUPPLEMENTAL ACTIVITIES

Learner Directed

Given a magazine, cut out pictures describing your family needs. Make your own scrapbook, adding captions or a story.

Given a magazine, cut out pictures of what your family needs to be happy. Make your own scrapbook.

Write a story about family needs. Draw and color your own pictures.

ASSESSMENT PROCEDURES

DESCRIPTION

Two pictorial multiple-choice items are used to assess achievement of the objective. The pictures in the first item are:

1. An adult sewing a dress
2. An adult reading a story
3. A child crying

The pictures in the second item are:

1. A family hugging
2. A boy sweeping
3. A boy cooking

DIRECTIONS

Item One: Tonya needs a new dress. Circle the number above the picture that shows a way Tonya might satisfy her need.

KEY

1

DIRECTIONS

Item Two: Derek is hungry. Circle the number above the picture that shows a way Derek can satisfy his need for food.

KEY

3

Name _____

Date _____

Lesson 8

ASSESSMENT ITEM

1.

1

2

3

2.

1

2

3

MASLOW'S HUMAN NEEDS[1]

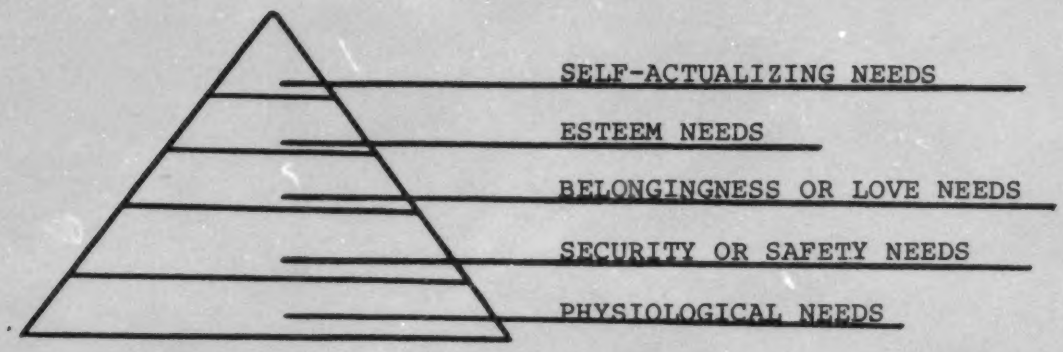


Figure 4

The following list shows the general levels suggested by Dr. Maslow[1] and a brief description of the needs which emerge at each level.

A. Body Needs (Physiological)

1. Physical needs (air, water, food)
2. Environmental needs (clothes, warmth)
3. Normal maturation

B. Security or Safety Needs

1. Freedom from fear
2. Support
3. Acceptance
4. Consistency
5. Congruency

C. Belongingness or Love Needs

1. Sense of personal worth
2. Need for acceptance
3. Need for role identification

---

[1]Abraham G. Maslow, Toward A Psychology of Being New Jersey: D. Van Nostrand Company, 1962, p. 23-25, 67.

D. Self-Respect Needs

1. Need for personal recognition
2. Need for self-discipline
3. Need to master the environment

E. Self-Actualizing Needs

1. Need for aesthetic beauty
2. Need for creative fulfillment
3. Need to find meaning in life

SCHOOL WORKERS MEET OUR NEEDS

LESSON NINE

CONCEPT

We have school needs that must be met by school workers.

PERFORMANCE OBJECTIVE

Given three separate school needs, the learner will identify the school worker who helps to meet each need.

LESSON TIME

55 minutes

NEW VOCABULARY

Taxpayer - A citizen who pays taxes. Some of the taxes are used to support the schools.

Measure - An amount

PREREQUISITE KNOWLEDGE

The meaning of the word "need"

How to follow directions

How to use scissors

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Pattern for paper dolls	Chart and rack
Assessment item	Rulers
	11 1/2" x 15" paper for paper doll cutouts
	11 1/2" x 15" construction paper for background
	Scissors

Instructor Preparation Tasks

Retain the chart of needs used in the previous lesson (Lesson 8).

Acquire the following:

1. Chart paper for a listing of school needs.
2. Scissors and 11 1/2" x 15" paper for cut-outs (butcher paper is adequate).
3. Rulers for each learner.

Prepare patterns for paper doll cutouts (an example is included).

Enlist the help of older learners or volunteer mothers during this hour.

Organize the materials for paper doll cutouts.

Duplicate a copy of the assessment item for each learner.

Read *Demonstration Strategy* included in the appendix.

Instructional Procedures

INTRODUCTION

Last time we discussed the "needs" we have as human beings and how we depend on others to help us meet these needs. Let's go over some of these needs on the chart we used

with our last lesson. They are food, clothing, love, air, water, etc. Today we will talk about the needs of a school and put these needs on a chart. We will also name the school workers we depend upon to help meet each need. We will make some cutouts showing three school workers. To make these workers we will measure. To *measure* means to decide on a specific amount on the ruler.

Write definition on the chalkboard.

Another word we will write on the board is *taxpayer*, who is a person who pays taxes. Some of these taxes are used to support the schools. The cutouts we will make will show how our school helpers work hand in hand to meet our school needs.

TASKS

Name some things we all need at school in order to learn and to be happy and healthy.

As the children respond, write suggestions on a chart.

Possible responses:

1. A place to learn
2. Rules for safety
3. Care when we get sick
4. To be taught
5. To keep our buildings clean
6. To have supplies
7. To be accepted
8. To be complimented
9. To eat
10. To feel good about ourselves

Which of these needs are being met at our school?

Possible response: All of them

Who takes care of each of these needs?

Possible responses:

1. A place to learn	1. Taxpayer, instructor, principal

2.	Rules for safety	2.	Principal, instructor, nurse, learners
3.	Care when we get sick	3.	Nurse, instructor, parents or adults at home, principal
4.	To be taught	4.	Instructor, principal, and all other school workers
5.	To keep our building clean	5.	Custodian, learners, instructors, and other school workers
6.	To have supplies	6.	Principal, instructor, taxpayer
7.	To be accepted	7.	Learners, instructors, and other school workers
8.	To be complimented	8.	Instructors, learners, principal
9.	To eat	9.	Cafeteria workers, adults at home
10.	To feel good about myself	10.	Learners, instructors

Remember, each of you is a school worker. What responsibility do you have towards meeting these school needs?

Possible responses:

I come to school every day, clean up after myself, and play safely. I am not wasteful. I wash before lunch and after using the restroom. I do the best work I can.

With the help of the learners, include all school workers on the chart opposite a need, as in the example above.

Before we begin cutting out pictures of the three school people who meet our needs, each of you will identify the three people you feel help you the most. Not all of you will choose the same three people. Look at our chart to see if all of the school workers are listed. Can you think of any who need to be added to our list?

Possible responses:

1. Custodian

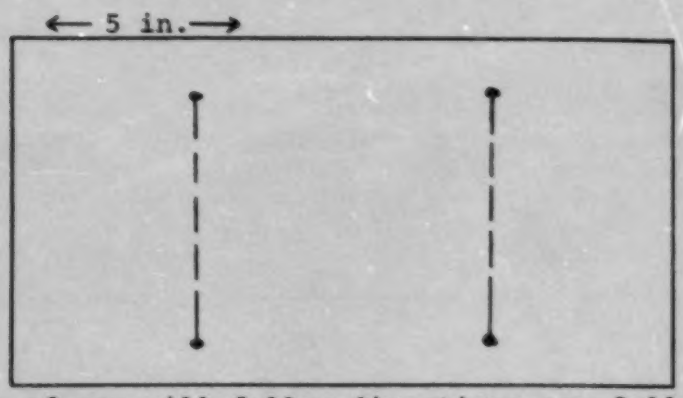
2. Cafeteria worker
3. Grounds people
4. Nurse
5. Teacher aide
6. Librarian

Give each learner a ruler, one large paper for paper doll cutting, one large paper for background, and a paper doll pattern. If the following paper folding process appears to be too difficult for your particular learners, you may arrange to have the papers prefolded. Refer to Demonstration Strategy included in the appendix.

Each of you will take your ruler and point to the number five. The number five means five inches. Beside the number five is a line longer than the lines beside it. This is the point from which we will measure.

Demonstrate on the chalkboard.

Take a dark crayon and mark your ruler below the line beside the number five.



Now, each of you will follow directions carefully to fold a large paper in three parts. Lay your paper so the long part is going across.

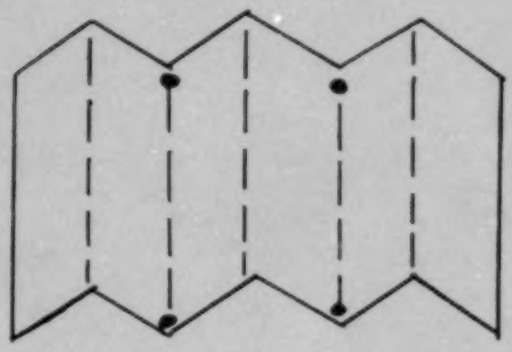
Demonstrate this process.

Each section will measure five inches. Put the end of the ruler at the very edge of the paper and put a mark on your paper where the crayon mark is located on your ruler. Do this two times, both at the top of the paper and at the bottom of the paper. Fold the paper two times so that when it is opened, three parts are showing.

This is the first step. Next, we will fold the paper like an accordian. Fold the edge of the paper over to the first fold.

Demonstrate this process.

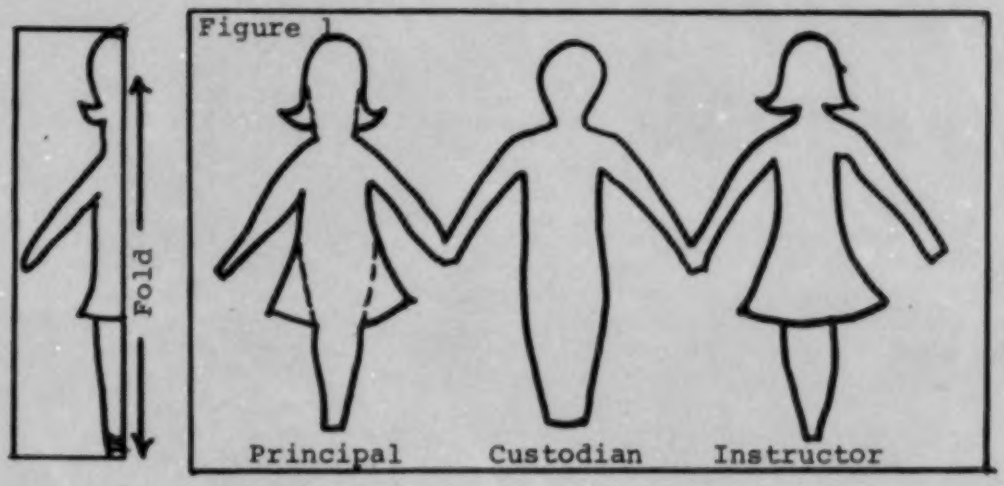
Then turn the paper over to fold in the other direction. Continue until the paper has been folded to the very end.



Place the straight edge of the paper doll pattern on the fold of the paper. Do not cut until I see if it is placed correctly.

Check placement for every learner.

Now, trace around and then cut around the pattern. The pattern looks like a lady, but after the paper dolls are cut out I will show you how to cut the skirt and hair away to make it look like a man if you choose a man as your school helper.



Show learners how to cut away skirt and hair as in Figure 1 to resemble a male figure.

Paste figures on background paper and identify the school workers you decided upon. (See Figure 1 for the example.)

Share your finished pictures with the rest of the class, and tell what needs these workers help to fulfill.

SUMMARY

Today we have discussed our school needs. We put them on a chart. The needs we decided upon were . . . .

Go over the chart for review.

We learned to follow directions and to use the ruler. We named three school workers who help us the most. We made paper dolls of these workers.

Next time, we will talk about one task we can feel good about doing. The reason we will feel good is because we will do it well by planning, preparing and practicing.

SUPPLEMENTAL ACTIVITIES

A school worker guest speaker may come to share how he meets specific school needs.

Learner directed:

Draw a picture of three school workers who may meet a specific school need.

Assessment Procedures

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

To learn

1. Instructor
2. Secretary
3. Nurse

To feel safe

1. Cafeteria worker
2. School nurse
3. Custodian

To eat

1. Instructor
2. Custodian
3. Cafeteria worker

DIRECTIONS

Each of these pictures shows school workers who meet our school needs. The three needs are to learn, to feel safe, and to eat. Circle the number above one of the pictures in row one that shows the worker who helps you most to learn. In row two, circle the number above the picture of the school worker who helps you the most to feel safe. In row three, circle the number above the picture of the school worker who helps you the most to eat.

KEY

1, 2, 3

Name _____

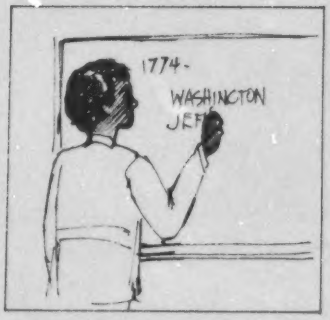
Date _____

Lesson 9

ASSESSMENT ITEM

TO LEARN

1



2

3

TO FEEL SAFE

1

2

3

TO EAT

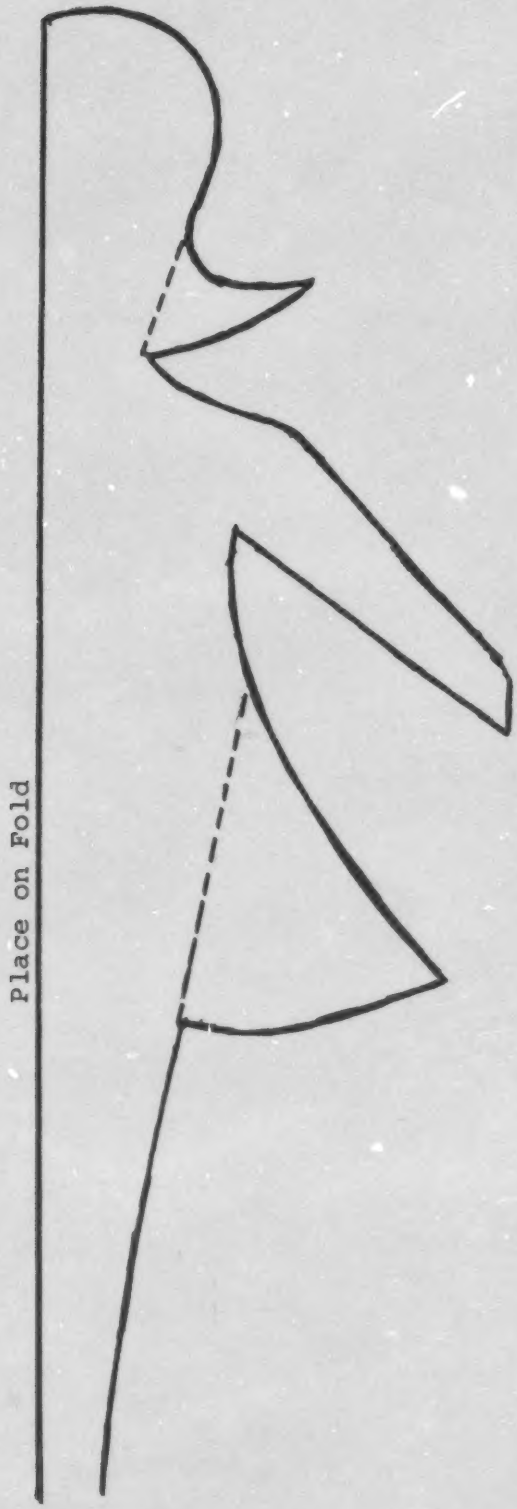
1

2

3

Lesson 9

Pattern for Paper Dolls



FEELING SUCCESSFUL

LESSON TEN

CONCEPT

Workers can feel success if they plan, prepare, and practice.

PERFORMANCE OBJECTIVE

Given a task assignment and examples of various activities, the learner will identify one activity which would prepare the individual for success in the task assignment.

LESSON TIME

50 minutes

NEW VOCABULARY

Prepare - get ready

Success - doing well

RESOURCES REQUIRED

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Math worksheet	none
Math key	
Assessment item	

INSTRUCTOR PREPARATION TASKS

Duplicate the following items:

1. A copy of the math worksheet for each learner.
2. A copy of the assessment item for each learner.

Be sure math is on a level so that all learners can be successful.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

In the last lesson we talked about our school needs and the school workers who help us meet those needs. Some of those needs had to do with feeling good about ourselves when it comes to learning. When we do something well, we feel good.

I will write two words and their meanings on the chalkboard that we will need to know today. One is *success*. To have success, we do something well. Remember, when we do something well, we feel good about ourselves. We feel successful.

Another word we need to know is *prepare*. When we prepare, we get ready. Before we can feel successful in completing a task, we must get ready by preparing ourselves.

Today we will demonstrate the importance of preparing ourselves for a task before we do it so we will feel successful in the task. We will do ten math problems. Everyone is expected to get all of them correct because we will prepare ourselves well before we start. Every worker must prepare himself before he can feel good about himself and the job he has to do.

TASKS

Discuss with learners the importance of preparing and doing their very best in school.

Example:

Everyone has to invest part of himself in his work to feel good about himself. You prepare to work,

you make mistakes, you correct those mistakes, and you learn each day so you can grow. I do the same thing every day. I prepare, I make some mistakes, I learn from my mistakes, and I grow. Every other worker does, too.

What are some ways you prepared for coming to school today?

Possible responses:

1. I got dressed.
2. I ate breakfast.
3. I brushed my teeth.
4. I left home early enough to arrive at school on time.

Name some ways you can prepare yourselves to be successful in math today.

Possible responses:

1. Plan what you will do
2. Do some chalkboard problems
3. Play math games
4. Practice
5. Ask questions

Discuss the proper procedure for working math problems. Present problems on the board that will be representative of the problems appearing on the math sheet, so that each learner will understand the assignment.

Allow time for eight to ten learners at one time to practice on the chalkboard, with the instructor dictating three or four representative problems. Learners at desks also work the same problems on paper. All learners must be given board practice.

Now, give all the learners a worksheet with ten math problems to do independently. Instruct them to work quickly but accurately. All errors must be corrected before the paper will be accepted as complete.

Check the problems with the learners for errors as they are working. Collect an accurate paper from each learner.

How many of you feel you could do this math tomorrow?

Possible response: All hands raised

How did you feel about math work today?

Possible response:

1. I felt successful.
2. I felt good.
3. I felt happy.
4. I felt confident.

If your occupation required you to know math, how could you prepare for this?

Possible response:

1. Plan what you need to learn.
2. Learn about math in school. Practice again and again.

Every worker plans, prepares, and practices for the tasks he will perform in his occupation. For example, a doctor prepares for his work by:

1. Planning what he wants to do
2. Going to school to study for many years
3. Reading lots of books
4. Watching other doctors
5. Practicing

SUMMARY

It makes us feel good about ourselves when we do the best we can. Today we found some ways we can prepare ourselves so that we will be successful. We also talked about how planning, preparation, and practice helps us and others to do a good job with our tasks and occupations.

Next time, we will make some yarn pictures to show how successful you can be if you come prepared with the materials you will need.

SUPPLEMENTAL ACTIVITIES

Expand the script entitled "A Day in the Life of a Successful Learner" to a mock up television or video tape presentation.

Learner directed

Tape record a script entitled *"A Day in the Life of a Successful Learner."* The tape should include the ways you prepared and planned your lessons to reach success.

Identify tasks at home you feel successful with and tell why you feel successful.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A child practicing math
2. Two boys playing ball
3. A boy with a puzzle

DIRECTIONS

You have shown that you can succeed in math. Circle the number above the picture that shows what you did to prepare for this success.

KEY

1

Name_____

Date_____

Lesson 10

ASSESSMENT ITEM

1

2

3

Name_____

Date_____

Lesson 10

MATH WORKSHEET

1. $\begin{array}{r} 3 \\ +\ 5 \\ \hline \end{array}$

2. $\begin{array}{r} 4 \\ +\ 5 \\ \hline \end{array}$

3. $\begin{array}{r} 1 \\ +\ 6 \\ \hline \end{array}$

4. $\begin{array}{r} 8 \\ +\ 1 \\ \hline \end{array}$

5. $\begin{array}{r} 2 \\ +\ 2 \\ \hline \end{array}$

6. $\begin{array}{r} 64 \\ +24 \\ \hline \end{array}$

7. $\begin{array}{r} 12 \\ +23 \\ \hline \end{array}$

8. $\begin{array}{r} 60 \\ +20 \\ \hline \end{array}$

9. $\begin{array}{r} 751 \\ +232 \\ \hline \end{array}$

10. $\begin{array}{r} 6723 \\ +2164 \\ \hline \end{array}$

MATH WORKSHEET KEY

1. $\begin{array}{r} 3 \\ +\ 5 \\ \hline 8 \end{array}$

2. $\begin{array}{r} 4 \\ +\ 5 \\ \hline 9 \end{array}$

3. $\begin{array}{r} 1 \\ +\ 6 \\ \hline 7 \end{array}$

4. $\begin{array}{r} 8 \\ +\ 1 \\ \hline 9 \end{array}$

5. $\begin{array}{r} 2 \\ +\ 2 \\ \hline 4 \end{array}$

6. $\begin{array}{r} 64 \\ +24 \\ \hline 88 \end{array}$

7. $\begin{array}{r} 12 \\ +23 \\ \hline 35 \end{array}$

8. $\begin{array}{r} 60 \\ +20 \\ \hline 80 \end{array}$

9. $\begin{array}{r} 751 \\ +232 \\ \hline 983 \end{array}$

10. $\begin{array}{r} 6723 \\ +2164 \\ \hline 8887 \end{array}$

ARE YOU PREPARED?

LESSON ELEVEN

CONCEPT

A worker can feel successful if he plans ahead in order to be prepared.

PERFORMANCE OBJECTIVE

Given a situation in which an individual is not prepared, the learner will predict success or lack of success in light of the preparation for the task.

LESSON TIME

55 minutes

NEW VOCABULARY

Substitute - take the place of

Predict - make a guess ahead of time

PREREQUISITE KNOWLEDGE

Remembering to bring supplies from home

Ability to listen to instructions

Ability to solve problems

Resources Required

FOUND WITHIN LESSON	ACQUIRED BY INSTRUCTOR
Steps for Yarn Pictures	Yarn (children bring from home)
Yarn Ideas	White glue (children bring from home; instructor also provides)
Assessment item	Scissors for every child
	White and colored construction paper (9" x 12")
	String (for children who forget yarn)
	Completed yarn pictures for examples

Instructor Preparation Tasks

Learners equipped with a supply of colored yarn and white glue for the lesson today.

Have art materials and media prepared.

Read *Steps for Yarn Pictures* (included). This may be duplicated for each learner or put on a chart.

Prepare the following:

1. Two examples of yarn pictures.
2. Enlarged butterfly and clown patterns to be traced by learners if desired. (An example called *Yarn Ideas* is included with the lesson.)

Duplicate a copy of the assessment item for each learner.

Read *Demonstration Strategy* included in the appendix.

Instructional Procedures

INTRODUCTION

For the last two lessons, we have talked about the

importance of being prepared for occupations or tasks. If we are prepared, we feel good about ourselves, and others feel good about us, too.

Review the example, a doctor must have a lot of schooling and training to prepare for his job.

What would happen if a doctor did not prepare himself?

Possible responses:

1. The patients might become very sick or die.
2. The doctor would probably not like himself.

Today our task will be an art project with yarn. Every person will take part in this activity. How many of you remembered to bring your yarn and glue?

Some will have forgotten, which is to be expected, and which is important to the concepts taught in this lesson. No child will be belittled because of this oversight.

If you brought your yarn and glue, you are partly prepared. Those of you who forgot are not prepared at all. Before we start on our project today, all of you will prepare yourselves, even if you must use a substitute. I will write this word substitute and its meaning on the chalkboard. We will be using this word in our lesson today.

Substitute - something to take the place of

TASKS

It is important that we prepare ourselves for our school tasks.

List the following preparations questions on the chalkboard.

1. Do we know how to do our task?
2. Do we have enough and the right kind of material?
3. Can we all feel some success?

Before we can start our task today, we must be able to answer all three questions with a "yes."

Go through question one with the children. Show an example of a completed picture and explain step by step how each learner is to do his own yarn picture. Refer

to "Steps for Yarn Pictures" (included with lesson). This will insure question one being answered with a "yes." Also refer to Demonstration Strategy included in the appendix.

Question two may have some "no" answers. This will prompt some discussion.

What could everyone have done to be better prepared to answer question two with a "yes?"

Possible responses:

1. We could have made a list to take home.
2. We could have brought supplies a day ahead of time.

What can we do now? Is there a substitute for yarn? If you went camping and forgot the can opener, would you just not eat or would you find a substitute?

Have big spool of school string in sight.

With the string as a substitute and sharing some bottles of white glue, we can answer "yes" to each of the other two questions. The string pictures will not be as colorful as the other ones, but maybe you can think of ways to make them colorful.

Now we are ready to begin our art project. We will use the steps listed in *Steps for Yarn Pictures.*

Review step by step as listed on "Steps for Yarn Pictures." which is included with lesson.

When completed, learners will clean up their area and put their supplies away.

Have the learners share their finished pictures with their classmates.

SUMMARY

Today we learned that preparation and planning are important in any occupation or task. It helps us feel good. It helps us to be successful in whatever we do. We learned that when we are not prepared, we do not feel as successful as we do when we prepare. We made a yarn picture, and some of us used string as a substitute for yarn.

How did we plan and prepare our task of making a yarn picture today?

Possible responses:

1. The instructor told us to bring colored yarn and white glue ahead of time.
2. Some of us brought yarn and glue to use today.
3. We talked about how to do our yarn pictures. (planned)
4. We listened and learned.
5. We gathered all of our supplies. (prepared)
6. We followed directions.

During the lessons of this unit, we have learned many things. We have learned that we are all workers. We have talked about some workers we depend upon.

Who are some of the workers you depend upon?

Write on the chalkboard.

Possible responses:

1. Parents or adults
2. Police workers
3. Service station workers
4. Instructors
5. Custodians
6. Brothers and sisters

In what ways do these same workers depend upon you?

Possible responses:

1. They expect me to do my share of work.
2. They expect me to obey rules and laws.
3. They expect me to be a friend.
4. They expect me to buy products.

We have talked about what can happen when others depend on workers to fulfill their responsibilities, and the workers don't do what they are supposed to do. Can you recall some of these instances?

Possible responses:

1. A fireman did not show up for work on time, so a fire damaged a house more than it would have if the fireman had been there to help.

2. Max's family depended on him to sell the vegetables, but he stopped to play. He was just lucky that he was able to sell them after that.
3. The only veterinarian in the community moved away suddenly to take another job. There was no one to take his place. The animals of the community were in danger.

In the last two lessons, we learned some ways to be successful in our work.

What are some things you can do to be successful in a task.

Desired responses: Plan, prepare, and practice

These are the same three things any worker must do to be successful.

SUPPLEMENTAL ACTIVITIES

Learner Directed

Write and illustrate a news article predicting what would happen if no one prepared for a day's work.

Dramatize a family picnic scene where no preparations had taken place.

ASSESSMENT PROCEDURES

DESCRIPTION

A pictorial multiple-choice item is used to assess achievement of the objective. The pictures are:

1. A male child sitting with nothing to do.
2. The entire class working on a project.
3. A child showing his mother his finished product.

DIRECTIONS

Bobby's class is making Santa Claus faces for Christmas. Bobby forgot to bring the things he needed from home. Circle the number above the picture that shows what might happen because Bobby forgot.

KEY

1

Name _____

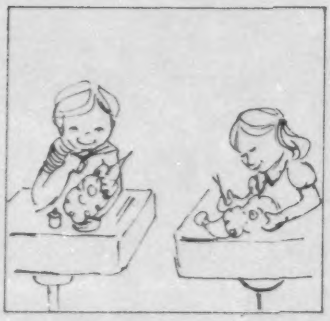
Date _____

Lesson 11

ASSESSMENT ITEM

1

2



3

STEPS FOR YARN PICTURES

1. Prepare all materials.
   a. One paper for the yarn picture
   b. One paper for the background
   c. Colored yarn or string
   d. White glue
   e. Pencil
   f. Scissors
   g. A pattern to trace, if available

2. Trace or draw the outside edges of the picture.

3. Trade some of your colored yarn for that of other learners so you have three or four different colors to use.

4. Plan where your colors will go.

5. Cover small portions of the picture at a time with white glue.

6. Lay the yarn down on the glue.

7. If you are doing the butterfly, do the body and the wing designs before you fill in all of the spaces with yarn. On the clown, do the eyes, nose, and mouth before filling in all of the spaces.

8. Make sure all of the spaces within the picture are completely covered.

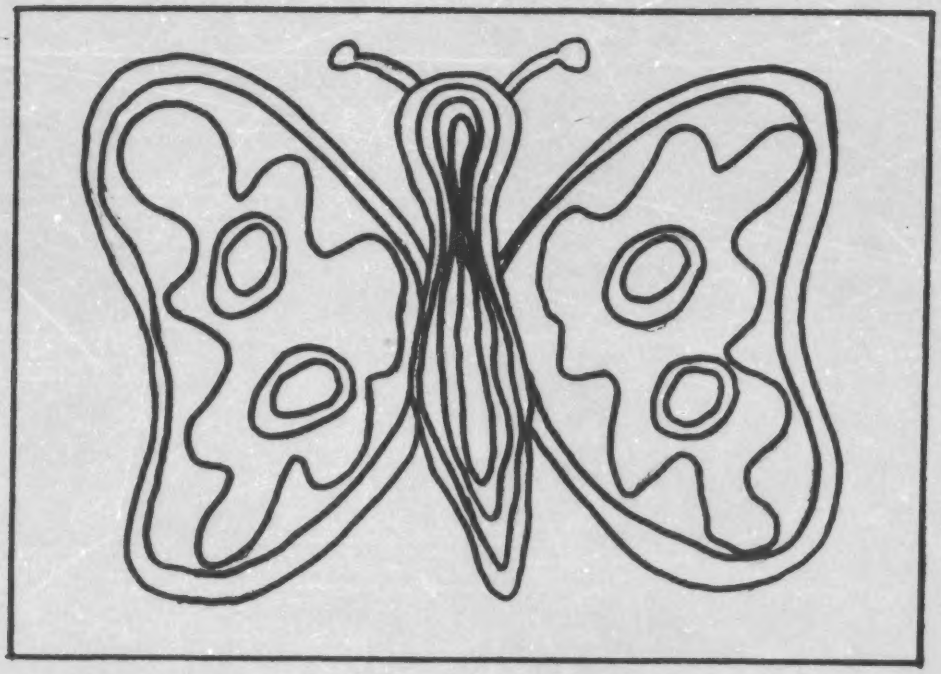
9. Cut out the picture

10. Allow the glue to dry before attaching the background paper.

11. Staple or glue the yarn picture to the background paper.

12. Now it is ready for display.

YARN IDEAS



APPENDIX A

INSTRUCTIONAL STRATEGY GUIDES

DEMONSTRATION STRATEGY

A demonstration is "a method or a process of presenting or establishing facts."[1] A demonstration is "the procedure of doing something in the presence of others either as a means of showing them how to do it themselves, or in order to illustrate a principle, for example, showing a group of students how to set the tilting table on a circular saw or how to prepare a certain food product, or performing an experiment in front of the class to show the expansion of metals under heat."[2]

A. Use of Demonstrations

1. To illustrate an important principle
2. To provide instruction in how to perform a particular task
3. To indicate safe operating procedures
4. To augment lecture and/or discussion sessions
5. To provide for breaks in instructional routines

B. Instructor Preparation

1. Determine the objectives of the demonstration. Make sure that a legitimate instructional need is served by the demonstration.

[1]Carter V. Good (ed.), Dictionary of Education (New York: McGraw Hill Co., 1959), p. 161.
[2]Ibid.

2. Prepare learners for the demonstration

   a. Introduce and use any new terminology before presenting a class demonstration.

   b. Provide motivational activities which lead into the demonstration.

   c. Announce the demonstration a class period early and assign any reading necessary to acquaint each learner with new materials and/ or processes.

   d. Announce any safety precautions for which the learner should prepare in advance, *Example:* students must furnish protective goggles.

3. Secure or develop the necessary apparatus, materials, audio visual materials, and specimens needed for the demonstration.

4. If necessary, obtain parental consent to perform the demonstration.

5. If necessary, solicit outside help to successfully perform the demonstration. Incorporate student help when possible.

6. Provide the necessary accommodations for handicapped learners to participate in the activity.

7. Provide the necessary accommodations for visitors

to the classroom.

8. If necessary, inform your principal or other administrator.

9. Plan any follow-up activities necessary to reinforce the information delivered in the demonstration.

10. Practice the demonstration.

    a. Familiarize yourself with all steps in the demonstration.

    b. Set a tentative time limit for the demonstration and, when necessary, for the individual parts of the demonstration.

    c. Prepare an outline to follow when presenting the information to the learners.

11. Prepare a good introduction and conclusion for the demonstration. A carefully prepared introduction will ensure a good beginning and set the tone for an organized demonstration. The conclusion should contain summary statements and any information necessary for smooth transition to follow-up activities.

C. <u>The Demonstration</u>

1. Inform learners whether or not they are to take notes.

2. Make sure everyone can see and hear.
3. Involve as many students as possible.
4. Talk to the learners and watch for obvious feedback signs.
5. Use audio visual material whenever possible. Simple, easily prepared visuals can provide structure and organization for the presentation.
6. Move at a steady pace; watch the time; use the prepared outline to complete the demonstration.

The time an instructor spends preparing a demonstration is rewarded with learner enthusiasm. Well planned demonstrations are always fun, but do not forget that the instructor's proficiency is the center of attention.[3] Therefore, if a demonstration is to be used as a learning experience, prior planning is a necessity.

---

[3]W. James Popham and Eva L. Baker, Systematic Instruction, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 102.

DISCUSSION STRATEGY

Techniques of discussion are often designed as learning procedures. Some discussion sessions are "characterized by adherence to a topic, question, or problem about which the participants sincerely wish to arrive at a decision or conclusion."[4] During such sessions group discussion is usually controlled by its leadership. Other discussion sessions provide for "group discussion that moves freely and adjusts to the expressed interests and participation of the members."[5] This type does not call for any specific discussion procedure or fixed outcome. Activities described as discussion sessions may range from very rigid sessions to periods that appear more therapeutic than instructional.[6] Therefore, the fundamental consideration before choosing discussion as a teaching technique should be the objective(s) of the lesson.

Discussion strategies are not difficult to comprehend, but the inexperienced instructor may find that discussion as a teaching technique is one of the most difficult to implement.

A. Use of Discussion Techniques[7]

---

[4]Carter V. Good (ed.), Dictionary of Education, (New York: McGraw Hill, 1959), p. 178.
[5]Ibid.
[6]W. James Popham and Eva L. Baker, Systematic Instruction, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 97.
[7]J. Jeffrey Auer and Henry Lee Eubank, Handbook for Discussion Leaders, (New York: Harper and Row, 1947), pp. 8-9.

1. To exchange information
2. To form attitudes
3. To make decisions
4. To release tensions

B. Discussion Strategies

1. Before beginning a discussion, make sure that the learners have sufficient background information. This can be provided through previous lessons or preparatory information in the same lesson.
2. Prepare a list of questions to be asked, along with typical learner responses. (See Classroom Question Classification Chart.)
   a. Even in its simplest form a list of prepared questions helps prevent moments of confusion which destroy the effects of a good discussion.
   b. If a variation of an instructor-directed discussion is chosen, questions should be prepared and written for use by small groups or groups demonstrating opposing viewpoints.
3. Advise learners to exchange ideas with other learners as well as with the instructor.
4. Tell learners that participation in a discussion carries a commitment to listen to and respect

other's opinions.

a. Respect of another opinion means accepting that opinion as a valid belief of another person.

b. Laughter and scoffing at an opinion different from one's own tends to change a discussion session into an argument.

5. No one should be forced to participate, but everyone should have the opportunity to speak if he desires.

6. The instructor and/or discussion leader should compliment desirable behavior displayed during the discussion.

7. Make the discussion as informal as possible.

8. Arrange chairs in a comfortable manner, preferably in a circle.

9. If the discussion is to be in small groups, inform the participants to keep a reasonable noise level.

10. The instructor and/or discussion leader should direct the session with enthusiasm.

11. Do not make a discussion session too lengthy. Terminate it when all opinions have been heard.

12. If a discussion is to have a leader other than the instructor, that leader should be chosen and

prepared in advance.

13. A summary statement should be provided to conclude an organized discussion. This task can be performed by the instructor or the discussion leader.

C. Discussion Leader Responsibilities

1. Ask questions which will elicit reactions, opinions, or conclusions.
2. Do not answer too many of your own questions.
3. Vary the approach to asking questions. *Example:* Ask questions to the group: ask for a volunteer: ask questions of a particular individual.
4. Inject differing points of view.
5. Elicit explanations from proponents of differing points of view.
6. Encourage group interplay by calling for reaction to statements made by participants.
7. Monitor the discussion to steer away from monopolizers.
8. If necessary, clarify what is said.
9. Occasionally summarize what has been said before considering other aspects of the problem. Provide enough new or transitory material to enable the discussion to continue.

10. It might be necessary to play the role of "devil's advocate" to stimulate discussion.

11. The discussion leader and/or instructor should value and accept all contributions made by the learners and should be a model of expected behavior.

D. Variation of Group Discussion

1. Panel Discussion

a. A panel usually has three to six learners, including a chairman. Interplay between the panel members consists of agreement, support, disagreement, elaboration of points, and presentation of differing viewpoints.

b. More intense planning is necessary to successfully conduct a panel discussion because few learners have the expertise to discuss a topic in front of the rest of the class.

c. The chairman performs the responsibilities as listed in Section C.

d. After the panel has explored the topic under consideration, the chairman can open the discussion to the class. Learners can ask questions or make comments to specific panel members, or a total panel response to a

question could be requested by the chairman.

2. Symposium[8]

   a. A symposium consists of several persons (guests, learners, etc.) who hold differing points of view regarding the topic under consideration.

   b. Each participant is given a chance to briefly state his point of view; a moderator, preferably a student, then opens the meeting to the group.

   c. The symposium is particularly useful as a vehicle for committee reports.

   d. When the symposium is used as a classroom tool, those speaking should be encouraged to provide charts, diagrams, or other audio visual material to enhance their presentations.

3. Interview Technique

   a. The interview technique is a method used in a conference between an interviewer(s) and a respondent. Direct questioning is used to draw information from the respondent.[9] The

---

[8]James W. Brown, Richard B. Lewis, and Fred F. Harcleroad, A-V Instruction-Materials and Methods, (New York: McGraw-Hill Book Co., 1959), p. 311.
[9]Good, op. cit., p. 298.

person from whom information is sought can be a learner or classroom visitor. The interviewer can be a learner, the instructor, or a small group including both learners and instructor.

b. Most of the important questions for which responses are sought should be decided upon by a general group discussion prior to the interview. It is also advisable to decide who will ask each question, especially if there are several interviewers.

c. After completing the formal interview, the session should be opened for class participation. The class can participate by questioning the respondent or by making further comments about certain points covered in the interview.

d. A useful variation of the interview session is one where two respondents are interviewed simultaneously. This enables interaction between the respondents and often a question answered by one can be further developed by the other.

e. It is a good practice to have either the

respondent or an observer provide closing remarks. This responsibility should be assigned prior to the interview.

f. It is often necessary to conduct an interview outside the classroom and report back to the class. The tape recorder is a very effective tool in such cases. The instructor should review the strategies of conducting an interview with those responsible for the outside interview. It might be advisable to provide the learner with an interview form designed specifically for a particular interview.

4. Brainstorming

a. Brainstorming is a variation of group discussion often used as a first step in solving a problem or accomplishing a group objective. Brainstorming has been described as a discussion technique "giving the mind the green light."[10]

b. A brainstorming session consists of accepting ideas, phrases, words, etc. from group participants, writing them on the chalkboard, and evaluating each one before deciding on

---

[10]Brown, Lewis, and Harcleroad, op. cit., p. 313.

the most promising course of action.

c. The session should be conducted on a positive basis. No suggestion should be rejected because of impracticality.

5. Discussion-Debate[11]

a. Debate sessions can be best used as follow-up activities to small group discussions in which proposals with differing points of view have been identified.

b. During a debate session, two or more speakers deliberately present opposing views to the same issue.

c. No effort is made to reach a decision or to recognize common parts of differing views.

d. The instructor should tell the class that differing views help identify important issues and/or alternative approaches to a problem.

e. Some facsimile of formal debate procedures should be maintained. Each proponent should be given presentation time and time for rebuttal. Approximately equal time should be given each participant.

---

[11]Good, op. cit., p. 312.

f. Ideally, the debate session should end with a summation of the issue; however, if a solution or approach must be decided upon, the issue should be informed that such a vote will be taken at the conclusion of the debate session.

g. After the debate, the class should be given a chance to participate by asking questions or providing additional input on relevant issues.

NOTE: This discussion-debate variation is not a formal debate.

Variations and/or combinations of these discussion methods are unlimited. The instructor should choose and prepare the discussion session that will provide the best vehicle for reaching the objectives of a lesson.

QUESTIONING STRATEGY

Classroom questions are a typical activity. Questions can be very effective tools when used by an instructor who has planned his questioning strategy. Whether the questioning is done orally or is written, the following considerations could prove helpful.

A. Use of Questions

1. To stimulate student thinking
2. To elicit answers which can be used to check the utility of the instructional process
3. To attract attention to an important segment of a lesson

B. Questioning Strategies

1. The style and form of prepared questions should be determined by the course objective for which the question is written. If course objectives are written in behavioral terms (performance objectives), support questions are much more easily written.
2. The purpose of a question should be determined prior to its being asked.
3. Generally, an instructor should avoid questions that can be answered yes or no.

a. Bloom[12] classifies educational objectives, but questions can also be classified into six different categories ranging from knowledge of specifics to evaluation of theoretical concepts. It is generally considered better to initiate questions that require a judgment, the use of logic, or powers of reasoning. (See Classroom Question Classification Chart.)

b. Use hypothetical situations and conditional questions such as What would happen if . . . ? and How could . . . ?

4. It is generally considered best to ask a question and then ask someone to respond rather than choosing someone to respond prior to asking a question.

5. Do not repeat questions. If a question and answer period is planned for a purpose, then all learners should be required to support the session with their undivided attention. Repeating a question will not require the learners to listen.

6. Do not repeat learners answers.

---

[12]Benjamin S. Bloom (ed.), Taxonomy of Educational Objectives, Handbook I: Cognitive Domain, (New York: David McKay Co., Inc., 1956), p. 18.

a. Encourage the learner to speak loudly and clearly.

b. The instructor may wish to repeat an answer <u>and</u> add or delete essential information in order to stimulate discussion, thought, and/or further learner questions.

7. Incorrect answers should always be treated as incorrect answers, but tact should be used in all such situations. Consider the source of incorrect responses before refuting them. Individual differences require that each response be handled as a unique situation. Some individuals require "soft" treatment; others need a firm response.

8. Answers can be grammatically corrected even though the answer is empirically correct. A spontaneous judgment should be made before correcting the grammatical structure of a learner's response. In some cases, it might be more damaging to the learner to be grammatically corrected than it would be for the group to be exposed to grammatical mistakes.

An instructor can stimulate almost any thought pattern desired by making effective use of questions. Some instructors may be able to spontaneously initiate questions of

quality, but most instructors need to spend time preparing questions and typical responses. Exploring this topic should produce many sources of typical questions and strategies for using them.

GUEST SPEAKER STRATEGY

Community residents are valuable instructional resources, and are usually happy to help the schools. When information for the learners could be better or more interestingly delivered by a resource person, the following items should be considered.[13]

A. Contact the Resource Person

1. If possible, a person known to be able to make a good presentation.
2. Contact should be made far enough in advance of the presentation to enable the instructor to plan relevant classroom activities. Early contact also gives the guest time to prepare his presentation.
3. Explain the developmental and psychological level of the learners to the resource person. He can use this as well as other information (age, grade level, size of class, etc.) as guidelines for preparation of his presentation.
4. Give the speaker a brief summary of the learner's knowledge about the presentation subject.

---

[13] James W. Brown, Richard B. Lewis, and Fred F. Harcleroad, A-V Instruction-Materials and Methods, (New York: McGraw-Hill Book Co., Inc., 1959), pp. 374-376.

5. Set a time limit for the presentation after discussing it with the speaker.
6. Give the resource person any software (worksheets, etc.) that will be used in conjunction with the presentation. Supply an outline and/or list of questions which describe specifically what the presentation should cover.
7. Describe the media available to the speaker.
8. A description of the classroom sequence prior to and after the presentation might be helpful to the speaker.
9. If appropriate, ask the guest speaker to wear his work clothes or uniform.

B. Instructor Preparation

1. Have enough background information on the speaker to develop a good introduction.
2. Make arrangements to meet the visitor when he arrives at the school.
3. Inform the principal of speaker schedule and content of presentation. This information should be provided verbally as well as in written form.
4. Arrange for follow-up activities, including writing thank-you letters to the speaker.
5. Some learners should be chosen to take notes on the presentation. Others should be reminded of

listening skills.

6. Make sure all audio visual material requested by the speaker(s) is available.

7. Provide arrangements for visitors and late arrivals.

C. <u>The Presentation Period</u>

1. After warm-up remarks from the instructor, a previously chosen learner should be asked to introduce the guest.

2. Maintain discipline and decorum.

The community contains a limitless number of opportunities for learning. Among the community resources available are people. Learners seem to respect the opinions of those members of the community that take time from their jobs to speak to them. Therefore, wise use of resource people can enhance almost any classroom instructional unit. A written evaluation of the experience should be prepared and made available for review before another presentation is scheduled.

ROLE-PLAYING STRATEGY

Role playing is a teaching technique which uses "the act of assuming, either in imagination or overtly, the part or function of another or others."[14] If role playing is the best method of satisfying the objective(s) of a lesson, then the following steps might prove helpful.[15]

A. Use of Role Playing

1. To develop individual confidence
2. To develop group responsibility
3. To practice decision making
4. To show casual behavioral relationships
5. To improve self-concepts
6. To relieve tensions

B. Identifying the Problem - Role playing usually focuses on a problem.

1. The role-playing situation will be readily accepted by the learners if the group identifies the problem to be studied.
2. All facets of the problem should be listed and the problem narrowed or reduced, preferably by the group, before actual role playing begins.

---

[14]Carter V. G od (ed.), Dictionary of Education, (New York: McGraw-Hill Co., 1959), p. 471.

[15]Fannie R. Shaftel, Role-Playing for Social Values: Decision Making in the Social Studies, (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1967), pp. 65-66.

3. After selecting and reducing the problem, the instructor and/or learners need to develop the problem story. The problem story should define the situation and characters in a life-like setting.

C. Warming-up Period - If the learner group participated in the planning of all stages up to this point, then the warming-up period is simply a review before role playing.

1. Acquaint the learners with the problem, the situation, the characters, and the setting. This can be done by reading or telling the problem story.

D. Choosing the Participants

1. Ideally participation should be voluntary.
2. If selection of participants is necessary, handle the situation with tact. The following suggestions should be used only if appropriate with a particular group.
   a. Allow names to be suggested.
   b. Let those chosen have a part in selecting others.

E. Setting the Stage

1. Help participants become involved by stating

the time of day, talking about facial expressions of the characters, feelings involved, etc. Varying amounts of time should be spent with individual actors depending upon their age and maturity.

2. Prepare the observers by discussing the major concepts of the problem and the main parts to be played. The observers should be asked to determine if they think the actors are behaving in a manner true to life. They should also be asked to come up with an idea for a solution to the problem. Help the learners understand why laughing spoils role playing. It is important to emphasize that the way an actor portrays a role has no reflection upon him as a person - he is evaluated for his ability to portray the situation as true to life.

F. Role Playing

1. Time will vary according to the magnitude of the problem.
2. The purpose is to show the problem, not the solution; therefore, stop the action as soon as the problem is viewed.
3. Ask the players to remain on stage to help preserve the scene for the observers.

G. Evaluating the Action

1. Determine if the situation seemed real. If not, determine why not. Ask questions such as: (1) Could this happen in real life? (2) What would you have done in _____ place? (3) What would happen if _____?

2. Discuss possible solutions to the problem and decide which solution is best for most people.

3. If time permits and if it would be beneficial, do further role playing on the topic. Use the same actors, different actors, or the same actors in different roles. The same situation could be replayed, or it could be a continuation of that situation. Perhaps an enactment of what preceded the original situation could be developed.

H. Follow-up Activities - Activities which enhance discussion of the problem and/or solutions to the problem are always desirable. Activities chosen should involve everyone and should be compatible with the age and interests of the group. The following activities are suggestions:

1. Art project
2. Large or small discussion groups
3. Interviews

4. Use of audio visual materials
5. Field trips
6. Oral or written reports
7. Role playing of same or similar subject at a later date

Role playing is no panacea, but it does offer teachers a technique adaptable to many classroom situations. Role playing should not be considered an effortless technique, since successful role playing requires a great deal of thought and preparation. Learners and instructors can find role playing a rewarding experience if they prepare and participate.

SPECIAL RECIPES FOR THE CLASSROOM

Many times an instructor needs special mistures which can be produced in the classroom. Brown[16] offers the following recipes which might prove helpful.

Cement Mortar - Mix one part dry cement with two parts sand. Add enough water to make the mixture workable.

Casein Glue - Heat a full glass of skimmed milk in an enameled pan to 90° Fahrenheit. Remove from the stove and add two-thirds cup of vinegar. As the vinegar is stirred in, curds will appear. Strain the mixture through cheesecloth to remove the curds. Wash the curds in cold water and allow them to dry. Then add water to the dried curds (twice as much water as there are curds) and blend thoroughly. Dissolve two tablespoons of sodium bicarbonate in a large glass of warm water and add to the casein solution. Stir thoroughly. The mixture will soon become casein glue.

Flour Paste - Mix a little water with one cup of flour. Add more water slowly until the mixture is smooth and creamy.

Plaster of Paris - Pour the amount of water needed (about half the finished misture desired) in an enameled container. Slowly sift plaster of paris into the water. Do not

---

[16]This material has been adapted from James W. Brown, Richard B. Lewis, and Fred F. Harcleroad, A-V Instruction-Materials and Methods (New York: McGraw-Hill Book Co., Inc., 1959), pp. 280-281.

stir. Continue until enough plaster of paris has been added so that it stays on the top of the liquid without being absorbed. Stir and press out the lumps by hand. Use immediately.

Flour and Salt Mixture - Use two cups of flour and enough water to obtain a creamy consistency. Add one cup of salt. Hardens when dry.

Paper Mache - This can be made in several different ways: (1) Soak torn paper bits in thin paste, Mix well; (2) Boil paper bits; Mix to a smooth mass; Squeeze out water; Add paste, glue, and plaster of paris; (3) Tear toilet paper into shreds; Boil and beat until smooth. Squeeze out water and add paste; (4) Dip one inch wide strips into paste and lay over torn or wadded paper center to produce desired form.

Spray Paint - Mix one pint of white calcimine in water to obtain a thick, creamy consistency. Add one-third pint of alcohol or white shellac. Shake thoroughly. Add more water if the mixture seems too thick. White poster paint may be substituted for this mixture.

Puppet Mix - Ingredients: one-half cup of table salt; one-fourth cup of cornstarch; one-fourth cup of water. Mix ingredients together thoroughly. Cook over a low fire, stirring continually. The material quickly stiffens into a lump. When it is sufficiently cook, knead it briefly. It is then ready for use. To color, add dissolved water colors, melted

crayons, or ink to the original mix. It may be painted when dry. Wrap in waxed paper and store in a refrigerator for future use.

Sawdust Modeling Mixture - Mix together two cups of sawdust, one cup of plaster of paris, one-half cup of dry wallpaper paste flour, and two cups of water. Mold before mixture hardens.

APPENDIX

BIBLIOGRAPHY

Aver, J. Jeffrey and Eubank, Henry Lee. Handbook for Discussion Leaders. New York: Harper and Row Publishers, 1947.

Bloom, Benjamin S. (ed.). Taxonomy of Educational Objectives, Handbook I: Cognative Domain. New York: David McKay Company, Incorporated, 1956.

Brown, James W., Richard B. Lewis, and Fred F. Harcleroad. A-V Instruction - Materials and Methods. New York: McGraw-Hill Book Company, 1959.

Good, Carter V. (ed.). Dictionary of Education. New York: McGraw-Hill Company, 1959.

Maslow, Abraham H. Toward a Psychology of Being. New Jersey: D. Van Nastrand Company, 1962.

Popham, James W. and Eva L. Baker. Systematic Instruction. Englewood Cliffs, New Jersey: Prentice-Hall Incorporated, 1970.

Shaftel, Fannie R. Role Playing for Social Values. Englewood Cliffs, New Jersey: Prentice-Hall Incorporated, 1967.

ACCESSION NUMBER: VT101972

PUBLICATION DATE: 72

TITLE: CAREER EDUCATION RESOURCE BIBLIOGRAPHY.

DESCRIPTOR: *BIBLIOGRAPHIES; *CAREER EDUCATION; *RESOURCE GUIDES; INSTRUCTIONAL MATERIALS; VOCATIONAL EDUCATION

IDENTIFIER: DELAWARE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 34P.; SEE RELATED DOCUMENTS VT 101 970, VT 101 971 AND VT 101 973 IN THIS ISSUE.

ABSTRACT: THIS BIBLIOGRAPHY OF RESOURCES IN CAREER EDUCATION IS ONE PRODUCT OF A PROJECT TO ESTABLISH A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM IN DELAWARE. THE BIBLIOGRAPHY IS DIVIDED INTO TWO SECTIONS. THE FIRST LISTS CURRICULUM MATERIALS, RESEARCH STUDIES, AND RESOURCES ON EDUCATIONAL THEORY, TESTING, VOCATIONAL EDUCATION AND VOCATIONAL GUIDANCE. THE SECOND SECTION INCLUDES CAREER EDUCATION INSTRUCTIONAL MATERIALS FOR THE TOPIC AREAS OF CONSTRUCTION, INDUSTRY, ELECTRICITY, PLASTICS, GRAPHIC ARTS, POWER MECHANICS, AND WOODWORKING. A PUBLISHERS INDEX IS ALSO INCLUDED. (NJ)

INSTITUTION NAME: MILFORD SCHOOL DISTRICT, DEL.

SPONSORING AGENCY NAME: DELAWARE STATE BOARD FOR VOCATIONAL EDUCATION, MILFORD; BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 972

BEST COPY AVAILABLE

career education resource bibliography

1972

RESEARCH STUDIES

VOCATIONAL EDUCATION

CURRICULUM

TESTING

THEORY

ELEMENTARY INDUSTRIAL ARTS

MECHANICS

VOCATIONAL GUIDANCE

INDUSTRY

ELECTRICITY

GRAPHIC ARTS

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION OHIO STATE UNIVERSITY

JUN 1 1 1973

VT 101 972

DELAWARE'S OCCUPATIONAL-VOCATIONAL EDUCATION MODEL

PROJECT OFFICE: 905 LAKEVIEW AVE., MILFORD, DEL., 19983 TEL. 302/ 22/.

TABLE OF CONTENTS

Professional

PAGE

Educational Theory

Career Theory 1
Child Development Theory 2
Curriculum Theory 2
Learning Theory 2

Curriculum 3,4

Curriculum Materials 5,6,7,8,9

Curriculum Materials - Special Needs

Curriculum for the Deaf 9

Research Studies 10,11,12

Testing 13

Vocational Education 13,14,15

Vocational Guidance 15,16,17,18,19,20

Career Education - Instructional Materials

Construction 21

Electricity 21,22

Elementary Industrial Arts 22

Graphic Arts 23

Industry 24

Metalworking 24

Plastics 25

Power Mechanics 25,26

Repair 26

Woodworking 26,27

Publishers Index..... 28,29,30,31,32

DELAWARE'S OCCUPATIONAL-VOCATIONAL MODEL

LIBRARY CATALOG

Professional

EDUCATIONAL THEORY

Career Theory:

Career Development Growth And Crisis
By Kroll, Dinklage, Lee, Morley, Wilson
John Wiley & Sons, Inc., 1970.

Decision-Making and Vocational Development
By Edwin L. Herr
Houghton Mifflin Company

Educating For Tomorrow - The Role of Media, Career Development and Society, edited by Walter M. Lifton
John Wiley & Sons, Inc.

Facilitating Career Development: An Annotated Bibliography
Editor - Larry J. Bailey.
Final Report...Project RDB-AO-004, Technical & Industrial Education, Southern Illinois University.

Man In A World Of Work
Editor - Henry Borow
Houghton Mifflin Company, 1964.

Symposium II - Technology and Education in the 21st Century
By Johansen, Paulson, Barach, Herman, Fein, Gerard, Tondow, Goldberg. Center for Technological Education, San Francisco State College, 1967.

The Bridge Between Man and His Work
Vocational Education Advisory Council

The Psychology of Occupations
By Anne Roe
John Wiley & Sons, Inc.

Theories of Career Development
By Samuel H. Osipow
Appleton-Century-Crofts, Inc., Educational Division of Meredith Corporation, 1968.

Vocational Psychology
By John O. Crites
McGraw-Hill Book Company, 1969.

Child Development Theory:

Handbook of Formative and Summative Evaluation of Student Learning, by Bloom, Hastings, Madaus
McGraw-Hill Book Company, 1971.

Living and Learning With Children
By Mollie S. & Russell C. Smart
Houghton Mifflin Company, 1961.

Curriculum Theory:

Career Mobility for Paraprofessionals in Human Service Agencies
U. S. Department of Labor

Crisis in the Classroom
By Charles E. Silberman
Vintage Books, 1971.

Education And Jobs: The Great Training Robbery
By Ivan Berg
Published for The Center For Urban Education by Praeger Publishers, 1970.

If Teachers Were Free
By Richard Renfield
Acropolis Books

Man, Education and Manpower
By Grant Venn
The American Association of School Administrators, 1970.

Occupational Essentials
By David Richter
h. c. Johnson Press, Inc., Vocational Education Division.

The Courage To Change
Edited by Roman C. Pucinski and Sharlene Pearlman
Prentice Hall, Inc., 1971.

Learning Theory:

The Nature of Human Intelligence
By Joy P. Guilford
McGraw Hill Book Company

The Process of Schooling
By John M. Stephens
Holt, Rinehart & Winston, Inc.

CURRICULUM

Behavioral Objectives in Curriculum Development
By Miriam Rapier
Educational Technology Publications

Career Development Service
(Package of materials for Jr. High or Middle School)
Palmer Publications, Easton, Pennsylvania, 1967.

Curriculum Design in a Changing Society
By Burns & Brooks
Educational Technology Publications, Inc., 1970.

Designs For Educational Planning
By Kenneth C. Tanner
D. C. Heath & Co., 1971.

Developing Attitude Toward Learning
By Robert F. Mager, Ph. D.
Fearon Publishers/Lear Siegler, Inc.

Developing Vocational Instruction
By Robert Mager & Kenneth Beach, Jr.
Fearon Publishers/Lear Siegler, Inc.

Education For World Responsibility
Reprint from the Department of State Bulletin, 1966.

Effective Teaching Through Effective Planning (Booklet)
By Russell J. Call
J. Weston Walch, 1970.

Elementary Guide For Career Development - Grades 1 - 6
By Lee Laws, Guidance Coordinator, Education Service Center, Region XIII, Austin, Texas.

Engineering Technology Curriculum - 1970
Los Alamos High School, Los Alamos, New Mexico, Mini-Grant #9

Handbook For Teacher Aides
By Howard Brighton
Pendell Publishing Company

Homemaking In The Elementary Schools
Prepared by Suzanne Sickler, Supervisor
Home Economics, West Orange Public Schools.
Department of Vocational-Technology Education, Rutgers, The State University, Curriculum Laboratory.

Interaction Analysis: Theory, Research and Application
Editors: Edmund J. Amidon and John B. Hough
Addisonian Press - Imprint of Addison-Wesley.

Learning System For Offset Instruction
By Ted W. Ivarie, Ed. D.
A. B. Dick Company

Learning Theories For Teachers
By Morris L. Bigge
Harper & Row Publishers, Inc.

Models For Nongrading Schools
Institute for Development of Educational Activities, Inc.
A Report of a National Seminar, 1970.

Planning Facilities For Occupational Education Programs
By Richard F. Meckley
Charles E. Merrill Publishing Company

Preparing and Using Learning Packages
By Kapfer, Ovard
Educational Technology Publications, 1971.

Preparing Instructional Objectives
By Robert F. Mager
Fearon Publishers, 1962.

70 Tips To Make Teaching Easier
Compiled by James P. McGough
J. Weston Walch, 1971.

Strategies For Teaching English In Career Education
State of Delaware Department of Public Instruction
Compiled by Gary L. Houpt

Systematic Instruction
By James Poplam & Eva Baker
Prentice-Hall, Inc.

The Community Is The Classroom
By Martha Irwin & Wilma Russell
Pendell Publishing Company, 1971.

The Conditions of Learning, Second Edition
By Robert M. Gagne'
Holt, Rinehart & Winston, Inc., 1970.

The Engineering of Educational and Training Systems
By Robert G. Smith, Jr., Human Resources Research Organization.
D. C. Heath & Company, 1971.

The High School Curriculum
Edited by Harl R. Douglass, University of Colorado
The Ronald Press Company, 1964.

CURRICULUM MATERIALS

About Helpers Who Work At Night
By Elaine Hoffman & Jane Heffelfinger
Melmont Publishers, Inc., 1963

About Jerry and Jimmy and the Pharmacist
By Frances B. Thompson
Melmont Publishers, Inc.

Air Conditioner (Package N00330)
Educational Services, American Gas Association, Inc.

Andy Learns About Advertising
By Michael Braude
T. S. Denison & Co., Inc.,1968.

Baby-Sitter's Guide
By Sharon Sherman
Scholastic Book Services

Better Buymanship - FOODS
Editors of CO-ED
Junior-Senior High School Division of Scholastic Magazine, Inc.

Better Homes & Gardens New Cook Book
Better Homes & Gardens Books, Fourth Printing, 1971.

Bruce Learns About Life Insurance
By Michael Braude
T. S. Denison & Company, Inc., 1967.

Careers In Home Economics - Poster Series
By Louise Lemmon
J. Weston Walch

1972 Curriculum Materials For Vocational-Technical Education
State of New Jersey, Dept. of Education, Div. of Vocational Education, Curriculum Laboratory, Rutgers University.

Danny Graham, Banker
By Michael Braude
T. S. Denison & Company, Inc., 1966.

Dryer (Package - N00250)
Educational Services, American Gas Association, Inc.

Effective Teaching Through Effective Planning
By Russell J. Call, J. Weston Walch Publishing Co.

Experiments With Gas - Booklet
Educational Services, American Gas Association, Inc.

Fashion Careers - Poster Series
by Marion Roberts
J. Weston Walch

Filmstrips - Educational Services, American Gas Association, Inc.

(1) How The Jet Engine Works- Filmstrip & Leaflet.

(2) Look to the Future - Filmstrip & Leaflet.

(3) Natural Gas - Science Behind Your Burner

First Foods - Plus Teachers Guide
By Marion L. Cronan & June C. Atwood
Charles A. Bennett Company, Inc., 1971.

First Love
By Gay Head
Scholastic Book Services

Gas Meter (Package NO 00100) including The Science of Laundering
Educational Services - American Gas Association, Inc.

Gerrish's Technical Dictionary
By Howard H. Gerrish
The Goodheart-Wilcox Co., Inc., 1968.

Here's How
Editor - Joanne Schreiber
Scholastic Book Services

Home Economics In Action
By Nancy Mills
Scholastic Book Services

How To Get Along With Others - Poster Series
Published by J. Weston Walch

I Know A Mayor
By Barbara Williams
G. P. Putnam's Sons, New York.

Incinerator (Package N00380)
Educational Services, American Gas Association, Inc.

I Want To Be An Architect
Eugene Baker
Childrens Press, 1969.

I Want To Be A Beauty Operator
By Eugene Baker
Childrens Press, 1969.

I Want To Be A Bus Driver
By Carla Greene
Childrens Press, 1957.

I Want To Be A Sales Clerk
By Eugene Baker
Childrens Press, 1969.

I Want To Be A Secretary
By Eugene Baker
Childrens Press, 1969.

I Want To Be A Teacher
By Carla Greene
Childrens Press, 1957.

I Want To Be A Truck Driver
By Carla Greene
Childrens Press, 1958.

Jeff Learns About The F.B.I.
By Michael Braude
T. S. Denison & Co., Inc.

Jobs: An Updated Look Into The Future
Inquiry-Oriented Mini Unit
Changing Times Education Service, Washington, D. C.

Larry Learns About Computers
By Michael Braude
T. S. Denison & Co., Inc., 1969.

Let's Go To A Hospital
By Florence W. Rowland
G. P. Putnam's Sons, 1968.

Machines For You
By F. Wenderoth Saunders
Little, Brown & Co., 1967.

Machines That Built America
By Roger Burlingame
Harcourt, Brace & World, Inc., 1953.

Materials For Occupational Education
By Patricia Schuman
R. R. Bowker Co., 1971.

Natural Gas - Science Behind Your Burner
Educational Kit [illegible]
Educational Services, American Gas Association, Inc.

Natural Gas Serves Our Community (Booklet)
Educational Services, American Gas Association, Inc.

Natural Gas Serves Our Community (Cut-Out Kits)
Educational Services, American Gas Association, Inc.

101 Things To Make For Fun Or Money
By Miriam Morrison Snake
Scholastic Book Services

Our Catalog
Workshop For Learning Things, Inc., 1971.

Popular Mechanics Do-It-Yourself Encyclopedias
16 Volumes plus 1971 Yearbook
Book Division, Hearst Magazines.

Range (Education Kit, Package N00170)
Educational Services, American Gas Association, Inc.

Ronald Learns About College Teaching
By Michael Braude
T. S. Denison & Co., Inc., 1968.

70 Tips To Make Teaching Easier
Compiled by James P. McGough
J. Weston Walch

Skilled and Semi-Skilled Occupations - Poster Series
By James P. McGough
J. Weston Walch

Starting And Managing A Small Business of Your Own
By Wendell O. Metcalf
Small Business Administration, Washington, D. C., 1962.

The Co-Ed Book of Charm and Beauty
Editors - Co-Ed Magazine
Scholastic Book Services

The Co-Ed Cook Book
By Henrietta Flock
Scholastic Book Services

The Co-Ed Date Book
Editors - Co-Ed Magazine
Scholastic Book Services

The Co-Ed Decorating Book
By Roberta Fry
Scholastic Book Services

The Co-Ed Sewing Book
By Marian Ross
Scholastic Book Services

The History of Natural Gas - Booklet
Educational Services, American Gas Association, Inc.

The Story of Natural Gas Energy - Booklet
Educational Services, American Gas Association, Inc.

The World of Construction - Set includes 2 Lab Manuals, 1 Text, 1 Teachers Guide.
By Donald G. Lux & Willis E. Ray
McKnight & McKnight Publishing Company, 1970.

The World of Manufacturing - Set includes 1 Text, 1 Lab Manual, 1 Teachers Guide.
By Donald G. Lux & Willis E. Ray
McKnight & McKnight Publishing Company, 1971.

Vitamins and Minerals - Poster Series
Published by J. Weston Walch

Water Heater Works (Package N00210)
Educational Services, American Gas Association, Inc.

What Makes TV Work?
By Scott Corbett
Little, Brown and Company

CURRICULUM MATERIALS - SPECIAL NEEDS

Curriculum For The Deaf:

Economics - What It Is - How It Can Help
Marie H. Katzenbach School for the Deaf
James P. Lenox, Instructor
Vocational-Technical Curriculum Laboratory, Rutgers University.

Finding A Job
Marie H. Katzenbach School for the Deaf
James P. Lenox, Instructor
Vocational-Technical Curriculum Laboratory, Rutgers University.

The Budget - What It Is - How It Can Help
Marie H. Katzenbach School for the Deaf
James P. Lenox, Instructor
Vocational-Technical Curriculum Laboratory, Rutgers University.

The Newspaper - What It Is - How To Use It
Marie H. Katzenbach School for the Deaf
Prepared by Hollis W. Hyde, Instructor
Vocational-Technical Curriculum Laboratory, Rutgers University.

RESEARCH STUDIES

A Comparison of Convergent-Divergent Approaches to Measuring Occupational [illegible], Oct., 1970.
A Special Guidance Project funded under National Defense Education Act, Title V-A.

Act Research Report, No. 29, April, 1969.
By Holland, Whitney, Cole, Richards, Jr.
Published by Research & Development Division, American College Testing Program.

Constructing Behavioral Objectives
By Henry H. Walbesser
Published by the Bureau of Education Research & Field Studies, College of Education, University of Maryland.

Directory of State and National Leadership in Vocational Education
AVA Publication

Employment Status and Attitudes of Secondary School Occupational Education Graduates in New York State.
Educational Research and Development Complex, State University, at Buffalo, New York.

Foundations of Behavioral Research
By Fred N. Kerlinger
Holt, Rinehart & Winston, Inc. 1966.

Journal of Industrial Teacher Education
National Association of Industrial and Technical Teacher Educators.
Spring - 1970 - Vol. 7, No. 3.
Winter - 1971 - Vol. 8, No. 2
Spring - 1971 - Vol. 8, No. 3
Summer - 1971 - Vol. 8, No. 4

Manpower Report of the President
U. S. Department of Labor

Occupational Manpower and Training Needs Bulletin 1701
U. S. Department of Labor, Bureau of Labor Statistics

Piaget's Theory of Intellectual Development
By Herbert Ginsburg & Sylvia Opper
Prentice-Hall, Inc., 1969.

Planning Ahead For The World of Work
Set includes Research Report Abstract, Teacher Manual, Student Materials, Transparency Masters.
Published by The Center for Vocational & Technical Education, The Ohio State University.

Pocket Data Book - USA 1971
U. S. Department of Commerce

Priority
A business game that is designed to help solve one of management's most critical problems: effective time utilization.
Published by Education Research, Somerset, N. J.

Psychology in Teacher Preparation
Edited by John Herbert & David Ausubel
Monograph Series, No. 5
The Ontario Institute for Studies in Education.

Publication Manual
American Psychological Association

Research In Education Index
U. S. Department of Health, Education, and Welfare.

Review of Educational Research - Teacher Personnel
June 1967, Vol. XXXVII, No. 3.
American Educational Research Association

Review of Educational Research - Vocational, Technical, and Practical Arts Education - October, 1968, Vol. XXXVIII, No. 4.
American Educational Research Association

Review of Research on Student Selection and the Prediction of Success in Occupational Education
By William E. Stock & Frank C. Pratzner

Tests and Measurements in Child Development: A Handbook
By Orval G. Johnson & James W. Bommarito
Jossey-Bass, Inc., Publishers

The Measurement of Academic Interests
Part I, Research Bulletin - RB-70-57, Oct., 1970.
Part II, Research Bulletin - RB-70-67, Dec., 1970.
By Norris/Katz
Educational Testing Service

Unobtrusive Measures: Nonreactive Research in the Social Sciences
By Eugene J. Webb, Donald T. Campbell, Richard D. Schwartz, and Lee Sechrest.
Rand McNally and Company

U. S. Manpower in the 1970's - Opportunity & Challenge
United States Department of Labor

Vocational Education and Occupations
U. S. Department of Labor

RESEARCH STUDIES - ERIC CLEARINGHOUSE

Abstracts of Instructional Materials in Vocational and Technical Education - Spring, 1971.

Abstracts of Instructional Materials in Vocational & Technical Education, Summer, 1971.

Abstracts of Instructional Materials in Vocational and Technical Education, Fall, 1971.

Abstracts of Research and Related Materials

Abstracts of Research and Related Materials in Vocational and Technical Education - Summer, 1971.

Abstracts of Research and Related Materials in Vocational and Technical Education, Fall, 1971.

ANNUAL INDEX 1970-71
Abstracts of Instructional Materials in Vocational and Technical Education and Abstracts of Research and Related Materials in Vocational and Technical Education.

ERIC Research in Education

Intensive High School Occupational Guidance Approaches For Initial Work and Technical School Placement.
Eric Clearinghouse on Counseling and Personnel Services

Intensive Training For Job Entry Skills
A Selected Bibliography for Use in Program Development.

Orientation Approaches To Increase Student Awareness of Occupational Options, by Nancy Sloan

Review and Analysis of Curricula for Occupations in Construction

Review and Analysis of Curricula For Occupations in Environmental Control

Review and Analysis of Curricula For Occupations in Health

Review and Analysis of Curricula For Occupations in Public Services

Review and Analysis of Curricula for Occupations in Transportation.

Review and Synthesis of Research on Consumer and Homemaking Education

Review and Synthesis of Research on the Economics of Vocational Education.

Work Experience For Exceptional Vocational Offerings
A Selected Bibliography [illegible] Development.

TESTING

Attitude Toward School
Instructional Objectives Exchange

Basic Mathematics Write-In Text (Accompanied by Test Sheets)
By Walter C. Brown
The Goodheart Wilcox Co., Inc.

Criterion - Referenced Measurement
Editor - James Popham
Educational Technology Publications, Inc.

Essentials of Psychological Testing
By Cronbach
Harper & Row Publishers, Inc. 1960, 1970.

Handbook of Performance Testing
By Joseph Boyd & Benjamin Shimberg
Educational Testing Service, Princeton, New Jersey, Jan., 1971.

Introduction To Psychological Measurement
By Jim C. Nunnally, Jr.
McGraw-Hill Book Company, 1970.

Measures of Self-Concept K - 12
Instructional Objectives Exchange

Multivariate Statistical Methods
By Donald F. Morrison
McGraw-Hill Book Company, 1967.

VOCATIONAL EDUCATION

AVA Convention Proceedings Digest, 1969, 1970.
American Vocational Association

Building Custodian
U. S. Department of Health, Education and Welfare
Curriculum Laboratory, Rutgers University

Business Education, Business Orientation - Teachers Guide
By Dana D. Holland, Instructor, Salem High School
State of New Jersey Department of Education
Division of Vocational Education

Career Mobility - A Guide For Program Planning in Health Occupations
American Hospital Association
(Set of 2 booklets - Guide and Career Mobility Profiles)

Contemporary Concepts in Vocational Education
Edited by Gordon F. Law
First Yearbook of the American Vocational Association

Health Careers - Bibliography For Guidance Counselors
Published under a Project Grant from New Jersey Health Service, 1970.

Hospitality
State of New Jersey, Dept. of Education, Division of Vocational Education.
Vocational-Technical Curriculum Laboratory, Rutgers Univ.

Introduction To Vocations - Teacher's Guide - Revised July, 1968
By H. E. Beam and J. R. Clary, Div. of Voc. Ed., N. C. Dept. of Public Instruction & N.C. State University, Raleigh, N. C.

Introduction To Vocations Distributive Education Unit
Prepared by A. Kaba & R. Bregman
Vocational-Technical Curriculum Laboratory, Rutgers Univ.

Materials For Occupational Education
An annotated source guide
By Patricia Schuman
R. R. Bowker Company , 1971.

Occupational Education Forum
Editor - Curtis R. Finch
The Pennsylvania State University

Private Vocational Schools
Their Emerging Role in Post-Secondary Education
By A. Harvey Belitsky - A Staff Paper
The W. E. Upjohn Institute For Employment Research

Salesman - A Suggested Guide For a Training Course
U. S. Department of Health, Education & Welfare
Rutgers University - Curriculum Laboratory, 1967.

Teaching Shop and Laboratory Subjects
By Albert J. Pautier
Charles E. Merrill Publishing Company, 1971.

Theories of Career Development
By Samuel H. Osipow
Appleton-Century-Crofts, Inc.

Decision -Making and Vocational Development
By Edwin L. Herr
Houghton Mifflin Company

Vocational Education and Occupations
U. S. Department of Labor
Manpower Administration

Vocational Education: Innovations Revolutionize Career Training
By David Shoker - Education, [illegible]

Vocational Education: Today and Tomorrow
By Gerald Somers & Kenneth Little
Published by The Regents of The University of Wisconsin, 1971.

VOCATIONAL GUIDANCE

American Home Economics Association
Folder of Pamphlets

A Place In Society For Everyone - Brandywine Educational Park, Division of Educational Programs, Wilmington Public Schools. Wilmington, Delaware, 1970.

Career Choice and Career Preparation
William J. Schill and Harold E. Nichols
The Interstate Printers & Publishers, Inc.

Career Development: Growth & Crisis
By Kroll, Dinklage, Lee, Morley, and Wilson
John Wiley & Sons, Inc., 1970.

Career Development In The Elementary School
By Robert L. Gibson
Charles E. Merrill Publishing Company, 1972

Career Development "The Involved Commitment"
State of New Jersey Department of Education
Division of Vocational Education

Career Guidance
U. S. Department of Labor

Career Guidance in Elementary School Teacher's Manual
Publications Office of Instructional Services,
The School District of Philadelphia
Editor: Dr. Alexander Shevlin

Career Guidance in Elementary School - Teachers Resource Guide
Publications Office of Instructional Services, The School District of Philadelphia,
Editor: Dr. Alexander Shevlin.

Career Guidance: Who Needs it, Who Provides It, Who Can Improve It
By Eli Ginzberg
McGraw-Hill Book Company

Career Opportunities
Career Information Service
New York Life Insurance Company

Career Opportunities, Agricultural, Forestry, and Oceanographic Technicians
Edited by Howard Sidney
J. G. Ferguson Publishing Company

Career Opportunities, Community Service and Related Specialists
Edited by Bayliss, Cohen, Dennard, Fiber, Roberman, Norim, Stinchcomb.
J. G. Ferguson Publishing Company

Career Opportunities - Ecology, Conservation, and Environmental Control
Compiled by J. G. Ferguson Editorial Staff
J. G. Ferguson Publishing Company

Career Opportunities For Women In Business
By Alice Gore King
E. P. Dutton & Company, Inc., 1969.

Career Opportunities, Health Technicians
Edited by Robert E. Kinsinger
J. G. Ferguson Publishing Company, 1970.

Career Thresholds
U. S. Department of Labor

Careers After High School
By Tim Haight
The Macmillan Company, 1970.

Careers and Opportunities in Retailing
By Harriet Wilinsky
E. P. Dutton & Company, Inc., 1970.

Careers and Opportunities in Sports
By Stan Isaacs
E. P. Dutton & Company, Inc., 1968.

Careers and Opportunities in the Theatre
By Jean Dalrymple
E. P. Dutton & Company, Inc., 1969.

Child Development and Personality
By Mussen, Conger, Kagan
Harper & Row, Publishers, 1956.

Complete Guide to U. S. Civil Service Jobs
By David Turner, M.S. in Education
ARCO Publishing Company, Inc.

Counselor's Guide To Occupation Information
U. S. Department of Labor
Superintendent of Documents, U. S. Government Printing Office.

Dictionary of Occupational Titles
Definitions of Titles - Volume I
U. S. Department of Labor, 1965.

Dictionary of Occupational Titles
Occupational Classification and Industry Index - Volume II
U. S. Department of Labor

Earlier Guidance Opportunities: Priorities For The 1970's
Ninth All Ohio Elementary Guidance Conference

Elementary School Guidance
By Harold Cottingham
American Personnel and Guidance Association, 1970.

Encyclopedia of Careers and Vocational Guidance
Editor-in-Chief, William E. Hopke
J. G. Ferguson Publishing Company

Volume I - Planning Your Career
Volume II- Careers and Occupations

Eric Clearinghouse On Counseling and Personnel Services
Eric Clearinghouse

Focus On The Seventies - Guidance At An Early Age
Report of the Tenth Annual All Ohio Elementary School Guidance Conference.

Getting A Job (Teachers Manual included)
By Florence Randall
Fearon Publishers

Going Places With Your Personality (Teachers Manual included)
By Charles H. Kahn, Robert Tong, & Wing Jew
Fearon Publishers, Lear Siegler, Inc.

Guidance Curriculum Guide: Career Development - Grade 9
Office of Instructional Services, Department of Education
State of Hawaii.

Guidance Services in Elementary Schools
U. S. Department of Health, Education and Welfare

Health and Medical Careers Handbook
Division of Pupil Personnel & Counseling
Philadelphia Public Schools & Health Careers Program,
United Health Services, 1972, Fourth Edition.

How To Get A Job Overseas
By Curtis W. Casewit
ARCO Publishing Company, Inc.

Illinois Teacher - For Contemporary Roles
Volume XV, No. 2, Nov. - Dec., 1971
Volume XV, No. 3, Jan. - Feb., 1972.
A publication of the Division of Home Economics Education, Department of Vocational and Technical Education, College of Education, University of Illinois, Urbana, IL. 61803

Innovations in the Use of Career Information
By Joyce M. Chick
Houghton-Mifflin Company (Guidance Monograph Series)

Job Guide For Young Workers (1969-70 Edition)
U. S. Department of Labor, Manpower Administration

Job Placement: A Guidebook For Counselors
New Jersey Department of Education
Division of Vocational Education

Looking Ahead To A Career
U. S. Department of Labor

New Approaches To Counseling Girls in 1960's
Midwest Regional Pilot Conference
Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402

No Experience Necessary
By Sande Friedman & Lois C. Schwartz
Dell Publishing Company, Inc.

Occupational Education
By William R. Hoots, Jr., Ph.D.
A program of Career Guidance and Occupational Education developed for the Washington County Public Schools, Plymouth, North Carolina.

Occupational Essentials - Skills and Attitudes For Employment
By David J. Richter
h. c. Johnson Press, Inc., Vocational Education Division.

Occupational Information and Guidance
Guidance Monograph Series
By Daniel Sinick
Houghton Mifflin Company

Occupational Manpower and Training Needs
Bulletin 1701, U. S. Department of Labor
Bureau of Labor Statistics, 1971.

Personal Power Through Creative Selling
By Elmer G. Leterman
Collier Book Edition, Harper & Brothers, The Macmillan Co.

Psychological Influences on Vocational Development
By Donald G. Zytowski
Houghton Mifflin Company

Room To Grow - Pupil Work Book
Division of Pupil Personnel and Counseling,
The School District of Philadelphia.

Selected Characteristics of Occupations (Physical Demands, Working Conditions, Training Time)
A Supplement To The Dictionary of Occupational Titles, 1966.
U. S. Department of Labor

Selected Characteristics of Occupations by Worker Traits and Physical Strength
Supplement 2 to The Dictionary of Occupational Titles, 1968.
U. S. Department of Labor

Students' Vocational Choices: A Review and Critique
By Duane Brown
Houghton Mifflin Company

Succeeding in the World of Work
By Grady Kimbrell & Ben S. Vineyard, Ed.D.
McKnight & McKnight Publishing Company

Suffix Codes For Jobs Defined in the Dictionary of Occupational Titles - Feb., 1967
U. S. Department of Labor
Manpower Administration

The Complete Job Hunting Guide
By Ess Wein
Cornerstone Library Publications
Simon & Schuster, Inc., 1966

The Teacher's Role in Career Development
By Tennyson, Soldahl, Mueller
State of Minnesota, Department of Education, 1960.

The Theory / Practice of Communicating Educational and Vocational Information
By Ann Martin
Houghton Mifflin Company

Theories of Occupational Choice and Vocational Development
By Joseph Zaccaria
Houghton Mifflin Company

The Vocational Guidance Quarterly, Vol. 18, No. 2, Dec., 1969.
National Vocational Guidance Association, Inc.

Turn Yourself On - Goal Planning For Success
By Robert L. Hindman
Richards Rosen Press, Inc.

Vocational Guidance and Career Development
By Donald Super
The MacMillan Company, 1970.

World of Work - A Handbook For Teachers and Counselors
By Charleta J. Penn, Ed. D., & Bill P. Payne, Ed. D.
Leslie Press, Inc.

World of Work Survey Course
Published by World of Work Education
Detroit Public Schools
Detroit, Michigan

Your Future in Air Conditioning and Refrigeration
By Donald F. Daly
ARCO Publishing Company, Inc.

Your Future in Automotive Service
By Dawson Taylor, and James Bradley
ARCO Publishing Company

Your Future in Forestry
By David H. Hanaburgh
ARCO Publishing Company, Inc.

Your Future in Hospital Work
By Richard Weir Kirk
ARCO Publishing Company, Inc.

Your Future in Photography
By Victor Keppler
ARCO Publishing Company, Inc.

Your Future in The Electronic Computer Field
By Dause L. Bixby
ARCO Publishing Co., Inc.

Your Future in Welding
By L. D. Thomas Berg
ARCO Publishing Company, Inc.

Career Education - Instructional Materials

CONSTRUCTION

Building Construction and Design
By Harry Ulrey
Howard W. Sams & Company

Carpentry and Building Construction
A Technical Manual
Headquarters - Department of the Army

Home and Building Maintenance
By Wogain/Hayes
McKnight & McKnight Publishing Company, 1969.

MB Mini Barn
By William R. Alexander
MB Mini Barn, Inc.

The Art of Bricklaying
By J. Edgar Ray
Charles A. Bennett Company

Wood-Frame House Construction- Handbook No. 73
By L. O. Anderson & O. C. Mayer
U. S. Department of Agriculture

ELECTRICITY

Basic Electricity
By C. E. Natson
McKnight & McKnight Publishing Company, 1961.

Basic Electricity
By Paul Zbar
McGraw-Hill Book Company, 1966.

Batteries and Bulbs II
Elementary Science Study of Education Development Center, Inc.

Electricity
By Howard Gerrish
The Goodheart- Wilcox Company, 1968.

Electronics
By Howard Gerrish
The Goodheart-Willcox Company, 1966.

Elementary Electricity
By [illegible]
McKnight & McKnight Publishing Company

Practical Electricity
By Robert Middleton
Theodore Audel & Company
Division of Howard W. Sams & Co., 1971.

Principles of Electric Wiring
Prepared by Francis Chernowski, Instructor
and Joseph J. Mancuso, Instructor
State of New Jersey, Department of Education

ELEMENTARY INDUSTRIAL ARTS

Cardboard Carpentry
Education Development Center, Inc.

Cardboard Carpentry Workshop
The Design Lab of Education Development Center, Inc.

Construction Projects For Elementary Grades
By Willoughby / Risk
Prakken Publications, Inc.

Industrial Arts - Teacher Guide For Elementary Grades
Prepared by Gus V. Pascale
Vocational Division, Curriculum Laboratory, Rutgers Univ.

It's So Simple - Click & Print
Education Development Center, Inc., 1969.

Measure Up (Set includes Teachers Manual and Answer Book)
By C. H. Kahn, S. K. Herring, and R. Tong
Fearon Publishers, Lear Siegler, Inc., Education Div., 1968.

700 Science Experiments For Everyone
UNESCO
Doubleday & Company, Inc., 1958.

Teaching Children About Technology
By Mary-Margaret Scobey, Ed. D.
McKnight & McKnight Publishing Company

Teaching Elementary Industrial Arts
By W. R. Miller and Gardner Poyd
Goodheart - Wilcox Company, Inc.

The Camera Cookbook
Education Development Center, Inc.

GRAPHIC ARTS

A Designer's Note Book
By Arthur Ammerman
McKnight & McKnight Publishing Company

American Symbols - A Pictoral History
Compiled by Ernst Lehner
William Penn Publishing Corporation, 1957.

Blueprint Reading - Book I
Produced by Westinghouse Learning Corporation

Blueprint Reading and Sketching
By Paul R. Lightle
McKnight & McKnight Publishing Company

Communicating With Graphics (Set of 9 Booklets)
By Bently, Olson, Strandberg, Wiper
A. B. Dick Company, 1970.

Creative Design For The Industrial Arts Teacher
Design Research Team, Department of Industrial Education
University of Minnesota
Published by Ford Motor Company, Educational Affairs Dept.

Drafting
By Walter Brown
The Goodheart-Wilcox Company, Inc.

Drawing and Blueprint Reading
By Shriver L. Coover
McGraw-Hill Book Company

Drawing For Product Planning
By George E. Stephenson
Charles A. Bennett Company
Set includes text, student guide, and transparency masters.

Graphic Arts
By Frederick Kagy
The Goodheart-Wilcox Company, Inc., 1970.

Making The Most of Charts
Department of Navy

Photo-Offset Fundamentals
By John E. Cogoli
McKnight & McKnight Publishing Company, 1960.

Styling The Look of Things
Public Relations Staff
General Motors, Detroit, Michigan.

Teaching Drafting Principles To Slow Learners
By Leslie Langston - Conducted under a Mini-Grant, 1970,
New Mexico State Department of Education.

2,000 Designs, Forms and Ornaments
Compiled by Michael Estrin
William Penn Publishing Corporation, 1947.

INDUSTRY

Children Study American Industry
By Harold G. Gilbert, Ph.D.
William C. Brown Company, Publishers

Elements of American Industry
By L. Smith & M. Maddox
McKnight & McKnight Publishing Company, 1966

General Industry (Text, Guide for Teaching Manufacturing in General Industry, Work Book - Answer Book, Laboratory Manual)
By John Lindbeck & Irvin Lathop
Charles A. Bennett Company, Inc.

Industrial Education Materials
Published by McGraw-Hill

Innovative Programs In Industrial Education
By Leslie Cochran
McKnight & McKnight Publishing Company, 1970.

Man, Society, Technology
American Industrial Arts Association

Understanding America's Industries
By Carl Gerbracht & Frank E. Robinson
McKnight & McKnight Publishing Company

METALWORKING

General Shop - Metal Work
By Dragoo/Reed
McKnight & McKnight Publishing Company, 1964.

Handwrought Jewelry
By Lois E. Franke
McKnight & McKnight Publishing Company

Metal Projects
By John R. Walker
The Goodheart-Wilcox Company, Inc.

Metalworking
By Gardner T. Boyd
The Goodheart-Wilcox Company, Inc.

Practical Metal Projects
By M. J. Ruley
McKnight & McKnight Publishing Company

Projects in General Metal Work
By M. J. Ruley
McKnight & McKnight Publishing Company

Sheet Metal Work
By Robert Smith, Ph.D.
McKnight & McKnight Publishing Company, 1961.

Workbench For General Metals
By John Feirer
McGraw-Hill Book Company, 1967.

PLASTICS

Basic Plastics
By Lloyd Schmidt
Howard W. Sams & Company, Inc.

General Plastics
By Raymond Cherry
McKnight & McKnight Publishing Company

Plastics
By Cope/Conaway
The Goodheart-Wilcox Company, Inc., 1966.

Plastics - Projects & Techniques
By Alvin Lappin
McKnight & McKnight Publishing Company

POWER MECHANICS

Exploring Power Mechanics
By Harold T. Glenn
Charles A. Bennett Company, Inc.
(Accompanied by Power Mechanics Workbook and Answer Sheet).

General Power Mechanics
By Worthington, Margules, Crouse
McGraw-Hill Book Company

Power Mechanics
By Pat Attoberry
The Goodheart-Wilcox Company, Inc., 1968.

Power Mechanics Workbook
By Harold T. Glenn
Charles A. Bennett Company, Inc.
(Self-check test answers included. This accompanies Exploring Power Mechanics)

Small Gasoline Engines (includes Student's Workbook)
By K. L. MacDonald
Howard W. Sams & Company, Inc., 1970.

Small Gas Engines-Training Manual
By Ted Pipe
Howard W. Sams & Company, Inc., 1971.

REPAIR

Glenn's Auto Troubleshooting Guide
Harold T. Glenn
Chilton Book Company

How To Repair Small Appliances - Volume I and Volume II
By Jack Darr
Howard W. Sams & Company, Inc., 1971.

WOODWORKING

Contemporary Lamps
By Wallace W. Holbrook
McKnight & McKnight Publishing Company

Finishing Technology
By George A. Soderberg
McKnight & McKnight Publishing Company

General Shop Projects
By Manley L. Zanco
McKnight & McKnight Publishing Company

General Shop Woodworking
By Verne C. Fryklund & A. J. La Berge
McKnight & McKnight Publishing Company, 1965.

Manufacturing In The School Shop
By Robert W. Haws & Carl J. Schaefer
American Technical Society, 1960.

198 Easy Wood Projects
By Floyd Morris
The Goodheart-Wilcox Company, Inc., 1970.

Teacher's Guide For Wood Technology Transparencies
DCA Educational Products, Inc.

Woodworking
By Willis, Wagner
The Goodheart-Wilcox Company, 1968.

Workbook For General Shop
Chris Groneman & John L. Feirer
McGraw-Hill Book Company

PUBLISHERS INDEX

Acropolis Books
Colortone Building
2400 17 Street, N.W.
Washington, D. C. 20009

Addisonian Press
Addison-Wesley Publishing Co., Inc.
Reading, Massachusetts 01867

American Association of
School Administrators
1201 16 Street, N.W.
Washington, D. C. 20036

American College Testing Program
Research and Development Division
East Washington Street
Iowa City, Iowa 52240

American Educational Research
Association
16th Street, N.W.
Washington, D. C. 20036

American Home Economics Assoc.
2010 Massachusetts Avenue, N.W.
Washington, D. C. 20036

American Hospital Association
Special Reports Division
840 N. Lake Shore Drive
Chicago, Illinois 60611

American Industrial Arts Assoc,
National Office
1201 16 Street, N.W.
Washington, D. C. 20036

American Personnel & Guidance
Association
New Hampshire Avenue
Washington, D. C. 20009

American Psychological Assoc.
1200 17 Street, N.W.
Washington, D. C. 20036

American Technical Society
848 East 58 Street
Chicago, Illinois 60637

American Vocational Assoc., Inc.
1510 H Street, N.W.
Washington, D. C. 20005

Annual All Ohio Elementary
School Guidance Conference
Division of Guidance & Testing
State Dept. of Education
751 Northwest Boulevard
Columbus, Ohio 43212

Appleton-Century-Crofts, Inc.
Educational Division of
Meredith Corporation
440 Park Avenue, South
New York, N. Y. 10016

ARCO Publishing Company, Inc.
219 Park Avenue, South
New York, N. Y. 10003

Bennett, Charles A. Co., Inc.
809 W. Detweiller Drive
Peoria, Illinois 61614

Bowker, R. R., Company
Xerox Education Group
1180 Avenue of the Americas
New York, N. Y. 10036

Brown, William C. & Co.
135 South Locust Street
Dubuque, Iowa 52003

Career Information Services
New York Life Insurance Co.
Box 51, Madison Square Station
New York, N. Y. 10010

Center for Technological Education
San Francisco State College
1600 Holloway
San Francisco, California 94132

Changing Times Education Service
1729 H Street, N.W.
Washington, D. C. 20006

Children's Press
Division of Regensteiner Publishing
1224 W. Van Buren Street
Chicago, Illinois 60607

Chilton Book Company
401 Walnut Street
Philadelphia, Pennsylvania 19106

Collier Book Edition
Harper & Brothers
The Macmillan Company
866 Third Avenue
New York, N. Y. 10022

Cornerstone Library Publications
Simon & Schuster, Incorporated
630 Fifth Avenue
New York, N. Y. 10020

DCA Educational Products, Inc.
4865 Stenton Avenue
Philadelphia, Pennsylvania 19144

Dell Publishing Company, Inc.
750 Third Avenue
New York, N. Y. 10017

Denison, T. S. & Co., Inc.
5100 W. 82 Street
Minneapolis, Minnesota 55431

Dick, A. B., Company
5700 Touhy Avenue
Chicago, Illinois 60648

Doubleday & Company, Inc.
277 Park Avenue
New York, N. Y. 10017

Education, U.S.A.
See: National School
Public Relations Association

Educational Development
Center, Incorporated
See: Workshop for Learning
Things

Education Research
P.O. Box 34
Somerset, New Jersey 08873

Educational Research &
Development Complex
State University at Buffalo
Buffalo, New York

Educational Technology
Publications, Inc.
140 Sylvan Avenue
Englewood Cliffs, New Jersey
07632

Educational Testing Service
Princeton, New Jersey 03540

E. P. Dutton & Co., Inc.
201 Park Avenue, South
New York, N. Y. 10003

ERIC Clearinghouse
Vocational & Technical
Information
Publications Department
Ohio State University
Columbus, Ohio

ERIC Documents Reproduction
Service
Leasco Information Products, Inc.
P.O. Drawer 0
Bethesda, Maryland 20014

Fearon Publishers
Educational Division of
Lear Siegler, Inc.
6 Davis Drive
Belmont, California 94002

Ferguson, J. G., Publishing Co.
Subs. of Doubleday & Co., Inc.
6 North Michigan Avenue
Chicago, Illinois 60602

Ford Motor Company
Educational Affairs Dept.
Dearborn, Michigan

Goodheart-Willcox Company
123 W. Taft Drive
Holland, Illinois 60473

Harcourt, Brace, Jovanovich, Inc.
757 Third Avenue
New York, N. Y. 10017

Harper & Row Publishers
49 East 33 Street
New York, N. Y. 10016

Hearst Books
Division of Hearst Magazines
250 W. 55 Street
New York, N. Y. 10019

Heath, D. C. & Company
125 Spring Street
Lexington, Massachusetts 02173

Holt, Rinehart & Winston, Inc.
Subs. of Columbia Broadcasting System
383 Madison Avenue
New York, N. Y. 10017

Houghton Mifflin Company
Educational Division
110 Tremont Street
Boston, Massachusetts 02107

Institute for Development of Educational Activities, Inc.
P.O. Box 628
Far Hills Branch
Dayton, Ohio 45419

Instructional Objectives Exchange, The
P.O. Box 24095
Los Angeles, California 90024

Interstate Printers & Publishers, Inc., The
19 N. Jackson Street
Danville, Illinois 61832

Johnson, h. c., Press, Inc.
Vocational Education Division
P.O. Box 4156
1800 Broadway
Rockford, Illinois 61110

Jossey-Bass, Inc., Publishers
615 Montgomery Street
San Francisco, California 94111

Leslie Press, Inc.
111 Leslie Street
Dallas, Texas 75207

Little, Brown & Company
34 Beacon Street
Boston, Mass. 02106

Macmillan, Company, The
Subs. of Crowell, Collier & Macmillan, Inc.
866 Third Avenue
New York, N. Y. 10022

MB Mini Buildings, Inc.
P.O. Box 222
Flushing, Michigan 48433

McGraw-Hill Book Company
330 West 42 Street
New York, N. Y. 10036

McKnight & McKnight Publishing Company
U.S. Route 66 at Towanda Avenue
Bloomington, Illinois 61701

Melmont Publishers, Inc.
Subs. of Children's Press
1224 West Van Buren Street
Chicago, Illinois 60612

Merrill, Charles E., Publishing Company
Division of Bell & Howell Co.
1300 Alum Creek Drive
Columbus, Ohio 43216

National Association of Industrial & Technical Teacher Educators
Dept. of Industrial Education
Bldg. C, South Campus Courts
Purdue University
Lafayette, Indiana 47907

National School Public Relations Association
1201 16th Street, N.W.
Washington, D. C. 20036

National Vocational Guidance Association, Inc.
A Division of the American Personnel & Guidance Assoc., Inc.
Publications Office:
20th & Northampton Streets
Easton, Pennsylvania 18042

New Jersey Health Careers Service
375 West State Street
Trenton, New Jersey 08615

New Jersey State Dept. of Education
Bureau of Occupational Research Development
Division of Vocational Education
Trenton, New Jersey 08625

New Mexico Dept. of Education
Vocational Technology Division
Capital Building
Sante Fe, New Mexico 87501

Palmer Publications
25 West 45 Street
New York, N. Y. 10036

Pendell Publishing Company
Midland, Michigan 48640

Penn, William, Publishing Corp.
See: Tudor Publishing Co.

Praeger Publishers, Inc.
The Center for Urban Education
Subs. of Encyclopedia Britannica, Inc.
111 Fourth Avenue
New York, N. Y. 10003

Prakken Publications
416 Long Shore Drive
Box 623
Ann Arbor, Michigan 48107

Prentice-Hall, Inc.
Englewood Cliffs, N. J. 07632
or
70 Fifth Avenue
New York, N. Y. 10011

Putnam's Sons, G. P.
210 Madison Avenue
New York, N. Y. 10016

Rand McNally & Company
8255 Central Park Avenue
Mailing Addr: Box 7600
Chicago, Illinois 60680

Ronald Press Company
79 Madison Avenue
New York, N. Y. 10016

Rosen, Richards, Press, Inc.
29 East 21 Street
New York, N. Y. 10010

Rutgers, The State University
Curriculum Laboratory
Dept. of Vocational-Technology Education
Bldg. 4103-Kilmer Campus
New Brunswick, New Jersey

Sams, Howard W. & Co., Inc., Publishers
Subs. of ITT
4300 West 62 Street
Indianapolis, Indiana 46268

Scholastic Book Services,
Scholastic Magazines
50 West 44 Street
New York, N. Y. 10036

Small Business Administration
Publications Unit
1441 L Street, N.W.
Room 100
Washington, D. C. 20416

Southern Illinois University
Technical & Industrial Education
Carbondale, Illinois 62901

State of Delaware
Dept. of Public Instruction
Division of Vocational Education
Dover, Delaware 19901

State of Minnesota
Dept. of Education
St. Paul, Minnesota

State of New Jersey
Department of Education
Division of Vocational Education
225 West State Street
Trenton, New Jersey

Superintendent of Documents
U.S. Government Printing Office
Washington, D. C. 20402

The Center for Vocational & Technical Education
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

The Ontario Institute for Studies in Education
102 Bloor Street, West
Toronto, Ontario

The Pennsylvania State University Press
215 Wagner Building
University Park, Pennsylvania 16802

The Regents of the University
of Wisconsin
Madison, Wisconsin 53706

Tudor Publishing Company
572 Fifth Avenue
New York, N. Y. 10036

U.S. Dept. of Agriculture
Office of Information
Division of Publications
Washington, D. C. 20250

U.S. Dept. of the Army
Headquarters
Washington, D. C.

U.S. Dept. of Commerce
Office of Publications
Washington, D. C. 20301

U.S. Dept. of Health, Education
and Welfare
Office of Education
Publications Distribution Unit
400 Maryland Avenue, S.W.
Washington, D. C. 20202

U.S. Dept. of Labor
Bureau of Labor Statistics
Occupational Outlook Service
441 G Street, N.W.
Washington, D. C. 20212

U.S. Dept. of Labor
Manpower Administration
Office of Assistant Manpower
Administrator
Publications Room 550
1726 M Street, N.W.
Washington, D. C. 20210

University of Maryland
College of Education
Bureau of Education Research &
Field Studies
College Park, Maryland

University of Minnesota
Dept. of Industrial Education
Minneapolis, Minnesota 55455

Upjohn, W.E., Institute for
Employment Research
300 South Westnedge Avenue
Kalamazoo, Michigan 49007

Vintage Books
A Division of Random House
Subs. of Radio Corp. of
America, Inc.
201 East 150 Street
New York, N. Y. 10022

Vocational Education Advisory
Council
Reprints for sale by:
U.S. Government Printing Office
See: Superintendent of Documents

Vocational Foundation, Inc.
353 Park Avenue, South
New York, N. Y. 10010

Walch, J. Weston, Publisher
Box 1075
Portland, Maine 04104

Westinghouse Learning Corp.
100 Park Avenue
New York, N. Y. 10017

Wiley, John & Sons, Inc.
605 Third Avenue
New York, N. Y. 10016

Workshop for Learning Things,
Incorporated
5 Bridge Street
Watertown, Massachusetts 02172

World of Work Education
Detroit Public Schools
Detroit, Michigan

ACCESSION NUMBER: VT101973

PUBLICATION DATE: 30SEP72

TITLE: AN OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR THE STATE OF DELAWARE. AN EXPERIMENT IN CAREER EDUCATION, INTERIM REPORT.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; *VOCATIONAL DEVELOPMENT; *PROGRAM DESCRIPTIONS; HIGH SCHOOLS; MIDDLE SCHOOLS; ELEMENTARY SCHOOLS; MODELS; PROGRAM EVALUATION

IDENTIFIER: DELAWARE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

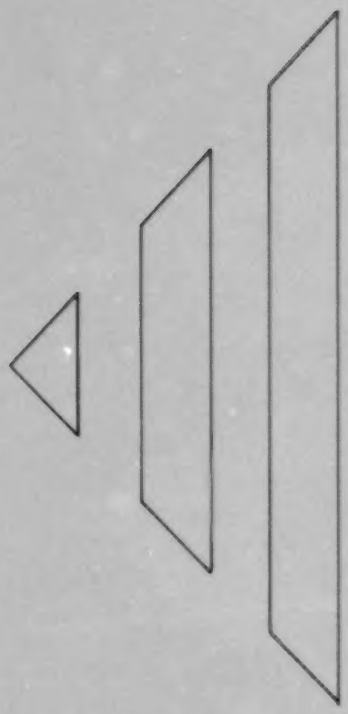
DESCRIPTIVE NOTE: 153P.; SEE RELATED DOCUMENTS VT 101 970, VT 101 971 AND VT 101 972 IN THIS ISSUE.

ABSTRACT: COVERING THE TIME PERIOD OF OCTOBER 1, 1971 TO SEPTEMBER 30, 1972, THIS REPORT REVIEWS THE YEAR'S PROGRESS OF A PROJECT TO ESTABLISH A MODEL SYSTEM FOR A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM IN THE DELAWARE SCHOOLS. THE MAJOR OBJECTIVES OF THE PROGRAM INVOLVE PROVISIONS FOR INCREASED CAREER AWARENESS, FOR WORK EXPERIENCE AND COOPERATIVE EDUCATION PROGRAMS, FOR TRAINING IN JOB ENTRY SKILLS, FOR INTENSIVE OCCUPATIONAL COUNSELING, AND FOR INITIAL JOB PLACEMENT. THE MAIN BODY OF THE REPORT DESCRIBES THE PROCEDURES FOLLOWED IN MEETING PROJECT OBJECTIVES, ALONG WITH A SUMMARY OF THE RESULTS AND ACCOMPLISHMENTS. INCLUDED ALSO ARE THE REPORTS OF THE INTERNAL PRODUCT ASSESSMENT AND THIRD PARTY EVALUATION OF THE PROJECT. (NJ)

INSTITUTION NAME: MILFORD SCHOOL DISTRICT, DEL.

SPONSORING AGENCY NAME: DELAWARE STATE BOARD FOR VOCATIONAL EDUCATION, MILFORD; BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 973



DELAWARE'S OCCUPATIONAL-VOCATIONAL EDUCATION MODEL

AN EXPERIMENT IN CAREER EDUCATION

SECOND INTERIM REPORT ON DELAWARE'S OCCUPATIONAL-VOCATIONAL EDUCATION MODEL, 906 LAKEVIEW AVE., MILFORD, DEL. 19963

VT 101 973

INTERIM REPORT

Project No. 0-361-0013
Grant No. OEG-0-71-0678(361)

AN OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR THE STATE OF DELAWARE

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

Joseph L. English
Delaware State Board for Vocational Education
Project Office
906 Lakeview Avenue
Milford, Delaware 19963

September 30, 1972

INTERIM REPORT

Project No. 0-361-0013
Grant No. OEG-0-71-0678(361)

AN OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR THE STATE OF DELAWARE

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Joseph L. English
Delaware State Board for Vocational Education
Project Office
906 Lakeview Avenue
Milford, Delaware 19963

September 30, 1972

TABLE OF CONTENTS

I. SUMMARY OF REPORT

Page

Time Period Covered 1

Goals And Objectives 1

Procedures Followed 2

Results; Accomplishments 4

Evaluation 6

Conclusions; Recommendations 6

II. BODY OF REPORT

Review Of Literature 8

Goals And Objectives 12

Description Of Population 13

Operational Design 16

Results And Accomplishments 23

Elementary Career Programs (K-4) 23

1. Classroom Activities 23

2. Workshops 23

Middle School Career Programs (5-8) 24

1. Industrial Arts 24

2. Home Economics 24

3. Career Laboratory 24

4. Office Practice..... 26

High School Career Programs (9-12)..... 26

1. Career Center..... 26

2. Consumer Economics..... 26

3. Work Experience Program..... 28

4. Student Intern Program..... 28

5. Job Placement Program..... 28

Kent County Vocational-Technical Center Programs.. 29

1. Teachers Visiting Kent Center..... 29

2. Milford Students Attending The Center..... 29

District-Wide Activities..... 32

1. Field Trips and Resource People..... 32

2. Curriculum Council..... 32

3. Career Guidance Program..... 32

4. Summer Opportunities Program..... 33

5. Career Education Week..... 33

6. Inter-Agency Coordination..... 33

7. Advisory Committee..... 33

Dissemination..... 34

1. Tape/Slide Presentation..... 34

2. Brochures..... 34

3. Overhead Transparencies.....34

4. Radio 34

5. Newspaper 35

6. State and National 35

Evaluation 35

External 35

Internal 36

Conclusions; Implications; Recommendations 36

References 39

III. APPENDICES

Appendix A 40

Appendix B 49

Appendix C 52

Appendix D 59

Appendix E 66

Appendix F 106

LIST OF TABLES AND FIGURES

Table | Page

1 Distribution of Students, Teachers, Counselors, Aides and Administrators by Organizational Unit..... 13

2 Pupil Distribution By Color..... 16

3 Distribution of Teachers By School Location And Grade Level - Elementary..... 25

4 Distribution of Teachers By Grade Level And Subject Area Specialty - Milford Middle School..... 27

5 Distribution of Teachers By Subject Area Specialty - Milford High School..... 30

6 Number And Percentage of Milford High School Students Attending County AVTS's..... 31

Figure

1 Test Results - Milford and Statewide Grade 4 Ability Tests... 14

2 Test Results - Milford and Stateside Grade 8 Ability Tests... 15

3 A Procedural Design..... 17

4 Objective: Provisions For Broad Occupational Orientation At The Elementary and Secondary Levels to Increase Student Awareness Of The Range Of Options Open To Them In The World Of Work..... 18

5 Objective: Provisions For Work Experience, Cooperative Education and Similar Programs Making Possible A Wide Variety Of Offerings In Many Occupational Areas..... 19

6 Objective: Provisions For Students Not Previously Enrolled In Vocational Programs To Receive Specific Training In job Entry Skills Just Prior To The Time They Leave School..... 20

Figure | Page

7 Objective: Provisions For Intensive Occupational Guidance And Counseling During The Last Years Of School And For Initial Placement Of All Students At The Completion Of Their Schooling..... 21

8 Objective: A Commitment From The District To Continue The Successful Elements Of The Project After The Contract Is Terminated..... 22

SUMMARY OF REPORT

Period Covered:

October 1, 1971 - September 30, 1972

Goals And Objectives Of The Project

Two specific goals have been set for the project:

1. To create a meaningful, cooperative effort between the Kent County Vocational-Technical School District and the Milford School District for the purpose of expanding vocational education to meet the needs of all children.

2. To establish a system to serve as a model for future expansion of vocational education in Delaware.

Additionally, five specific objectives are listed:

1. Provisions for broad occupational orientation at the elementary and secondary school levels to increase student awareness concerning the career options open to them in the world of work.

2. Provisions for work experience, cooperative education and similar programs, making possible a wide variety of offerings in many occupational areas.

3. Provisions for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time they leave school.

4. Provisions for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling.

5. A commitment from the districts to continue the successful elements of the project after the contract is terminated.

Procedures Followed

The project's planning phase was completed by September 30, 1972. A detailed operational description has been provided in the first Interim Report (ERIC Document No. VT 014 424, Ed 058 420).

Procedures used during the second year of operation included:

1. Faculty and staff workshops
2. Teaching team workshops (released time)
3. Small group planning sessions (released time)
4. Field trips to business and industrial sites (staff and students)
5. Consultants
6. Dissemination and public relations

7. County employment survey

8. Design and development of employment projection system

9. Totally integrated career guidance program

10. The world of people program (K-4)

11. Career development laboratories (5-6)

12. Expanded industrial arts and home economics program with career emphasis (5-8)

13. Completed career education center (9-12). The following occupational areas became operational on September 1, 1972: Hospitality, Food Service, Ornamental Horticulture, "Mr. Fix-It", General Contracting, and Auto Services.

14. Cooperation with Kent County Vocational-Technical Center

15. Development of an operational curriculum design system based on a single and multi-clustered occupational framework

16. Employment of a full time Job Placement Coordinator

17. Establishment of a High School Job Placement and Counseling Office

18. Increased emphasis on career information and exploration (5-8)

19. Establishment of Career Education Resource Centers in

school libraries

20. Teacher intern program for seniors

21. Work experience, cooperative work experience and cooperative work study programs

22. Summer career opportunities program

23. Internal monitoring

24. Internal and external evaluation

Procedures and programs listed above were developed to support specific project objectives. The reader is invited to refer to the body of this report for a detailed description of procedural methodology.

Results And Accomplishments

School administrators, counselors, teachers and parents continue to hold favorable attitudes toward the career education concept. Increased support has been noted from area businesses and industrial organizations.

Data indicated that the project has produced the following results: (1) student interest in job preparation has increased, (2) the number of dropouts decreased, (3) job placement service has provided additional jobs for students, (4) elementary career education program had positive response from children as well as parents, (5) expanded

opportunities for middle and high school students to explore occupations, and (6) staff and faculty have demonstrated an increasingly receptive attitude toward career education.

In another dimension, data indicated that the so-called "college bound" student is taking advantage of job placement services, exploration activities, and other opportunities provided by the project.

One gratifying result of the project has been state-wide funding of a Career Guidance and Placement Coordinator for each school district in Delaware.

Another exciting outcome has been the planned development of a proposal by Kent County Vocational-Technical School designed to establish a comprehensive career education visitation program for teachers and administrators in all districts that are sending students to the Center. The proposal will request funds to expand the successful visitation program designed by Delaware's Occupational-Vocational Model's staff and implemented in cooperation with Milford School District and Kent County Vocational-Technical School District. Five (5) school districts in Kent County will be offered an opportunity to participate in the visitation program.

The project staff has worked with nineteen (19) of the twenty-six (26) school districts in Delaware on a cooperative basis

by providing information, curriculum materials and general assistance for career education program planning.

Evaluation

Evaluation efforts during the second year of project operation were focused in two directions: first, internal product assessment; second, a summative program evaluation conducted by a private sub-contractor.

Basically, because it was not possible to structure a controlled situation, results obtained from internal evaluation must be considered from a "trend" perspective.

Generally, results were extremely positive in the affective domain and non-significant in the cognitive domain. Implications from these findings have wide spread research applications as well as practical significance.

Evaluation data provided by the sub-contractor yielded extremely positive results and indicated that all project objectives have been met.

Elementary career education and career guidance and placement components were noted as being most effective.

Conclusions and Recommendations

Staff efforts directed toward implementing the goals and

objectives of Delaware's Occupational-Vocational Education Model have produced significant results. However, these results must be viewed from withih the total school-community environment,i.e., a normally distributed population would typically yield greater gains in relation to expended resources.

District personnel have contributed time and effort to the project and are to a large extent responsible for the amount of progress recorded thus far. However, greater effort must be directed toward coordination and supervision of teachers in relation to project objectives.

The following recommendations are offered for consideration:

1). Expansion of curriculum focused around the career cluster concept;

2). Begin immediately to plan for continuation of program elements;

3). Expand ninth and tenth grade exploratory programs,e.g., transportation, graphic communication, manufacturing; and

4). Increase dissemination efforts directed toward public understanding of career education.

II

BODY OF REPORT

Review Of Literature

Underlying the activities of DOVM is the basic philosophy that the individual, as he progresses through 12 years of schooling, should be presented with the various breadths and depths of the world of work so that he is exposed to a realistic picture of the world of work. Given knowledge of the world of work, the individual should be aware of the various opportunities and requirements of work so that he can plan and prepare for work entry. Concommitant with this planning is the development of interest and motivation in work, as well as positive attitudes towards work. Thus, the Model's emphasis is not so much on presentation of occupations, rather on the individual's gaining knowledge of the world of work and knowledge of himself (his interests, values, aptitudes, and personality) in order to fit into the world of work.

The philosophy of the DOVM project is based on a theoretical rationale provided by recent research in vocational development theory. Super and others (1963,1967) have investigated the exploratory and decision-making processes in vocational behavior in relation to trial and tentative choice before final vocational choice is

made. Tiedeman and O'Hara (1963) investigated the process of gaining a vocational identity and determined the correlates of the cognitive mechanisms of differentiation and integration set in motion through recognition of a problem or present unsatisfact situation. Their study proposed an anticipatory stage of vocational development with substages of exploration, crystallization, choice, and clarification. Based on the theoretical formulations of developmental stages in vocational behavior, the DOVM has sought to provide a multi-level curriculum investigating the world of work. The program is designed to coincide with and provide for the developmental aspects of career development beginning with the lowest levels of vocational maturity.

Of particular importance are activities designed by the Project staff which focuses on individual personality development and associated trait factors. Research generated by Holland's (1966) model for vocational choice behavior tends to verify that the six category typology of psychosocial environments comprising personality play an important role in vocational choice behavior. In as much as self-concept and attitudes towards school and achievement play an integral role in personality development and vocational choice, the project has sought to include activities designed to foster personality development and positive attitudes. Holland and

Whitney (1968), using Holland's classification procedures, found occupational preferences conforming to theoretical expectations with a high degree of predictive efficiency. Jones (1965), investigating the occupational preferences of secondary school students, found "inner" and "outer" directed and person factors as components of occupational preference.

A component of the introduction of students to the world of work as the student progresses in school is the meaning of work to the individual in both its sociological and psychological aspects. Lodahl and Kejner (1965) have investigated job involvement as a function of a multidimensional scalable attitude affected by social-organizational conditions and learned value orientations. Various other studies (Friedlander, 1963) have identified social and technical environment, intrinsic self-actualizing work aspects and recognition through advancement as essential elements of job satisfaction. Other important aspects found related to satisfaction were freedom and intellectual stimulation (Geist, 1963). Activities prepared by DOVM emphasize those aspects of work and job satisfaction as the child moves through the developmental phases of vocational exploration and choice behavior.

On the basis of research relating personality, attitude, and interest to occupational choice, status, and performance (Super and

Crites, 1962), the DOVM project has attempted to incorporate more vocational guidance and counseling into on-going guidance programs for the students currently enrolled in the secondary school's programs. A Career Guidance and Placement Coordinator provided occupational information for those secondary students planning job-entry at the end of their high school education.

In summary, the basic career development point of view held by the project is one which stresses the importance of the self-concept. Under this emphasis, the project sees career development as a dynamic process in which self-concept integrates personality and need structures in a change and developmental process. Herr (1969) sees this model as emphasizing "the importance of progressive synthesis in role clarification and in choice options." Furthermore, Herr sees that under this model the individual

> ...learns through experience and by socialization what kind of person he is, that of which he is capable, what he values, his strengths and weaknesses, and the kinds of outlets which will be compatible with the pictures he has of himself. (It)...provides for change in individual behavior, change in environmental expectations, and change in the interaction between the individual and the environment.

Goals And Objectives Of The Project

Two specific goals have been set for the project:

1. To create a meaningful, cooperative effort between the Kent County Vocational-Technical School District and the Milford School District for the purpose of expanding vocational education to meet the needs of all children.

2. To establish a system to serve as a model for future expansion of vocational education in Delaware.

Additionally, five specific objectives are listed:

1. Provisions for broad occupational orientation at the elementary and secondary school levels to increase student awareness concerning the career options open to them in the world of work.

2. Provisions for work experience, cooperative education and similar programs, making possible a wide variety of offerings in many occupational areas.

3. Provisions for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time they leave school.

4. Provisions for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling.

5. A commitment from the districts to continue the successful elements of the project after the contract is terminated.

Description Of Population

Figures 1 and 2 describe the fourth (4th) and eighth (8th) grade populations respectively in the Milford School District.

The ability distribution of the 4th and 8th grade Milford populations appears to be positively skewed when compared to state norms. It is apparent that on the ability test, Milford students score lower than the state populations at these grade levels.

TABLE 1

Distribution of Students, Teachers, Counselors, Aides and Administrators by Organizational Unit

Organizational Unit	Student Pop.	Teacher	Counselor	Aide	Admin.
K-4	1,185	66	0	28	3
5-8	1,346	56	2	1	3
9-12	1,252	101	4	0	4
TOTAL	4,185	183	6	29	10

FIGURE 1

I. Test Results - Milford and Statewide Grade 4 Ability Tests

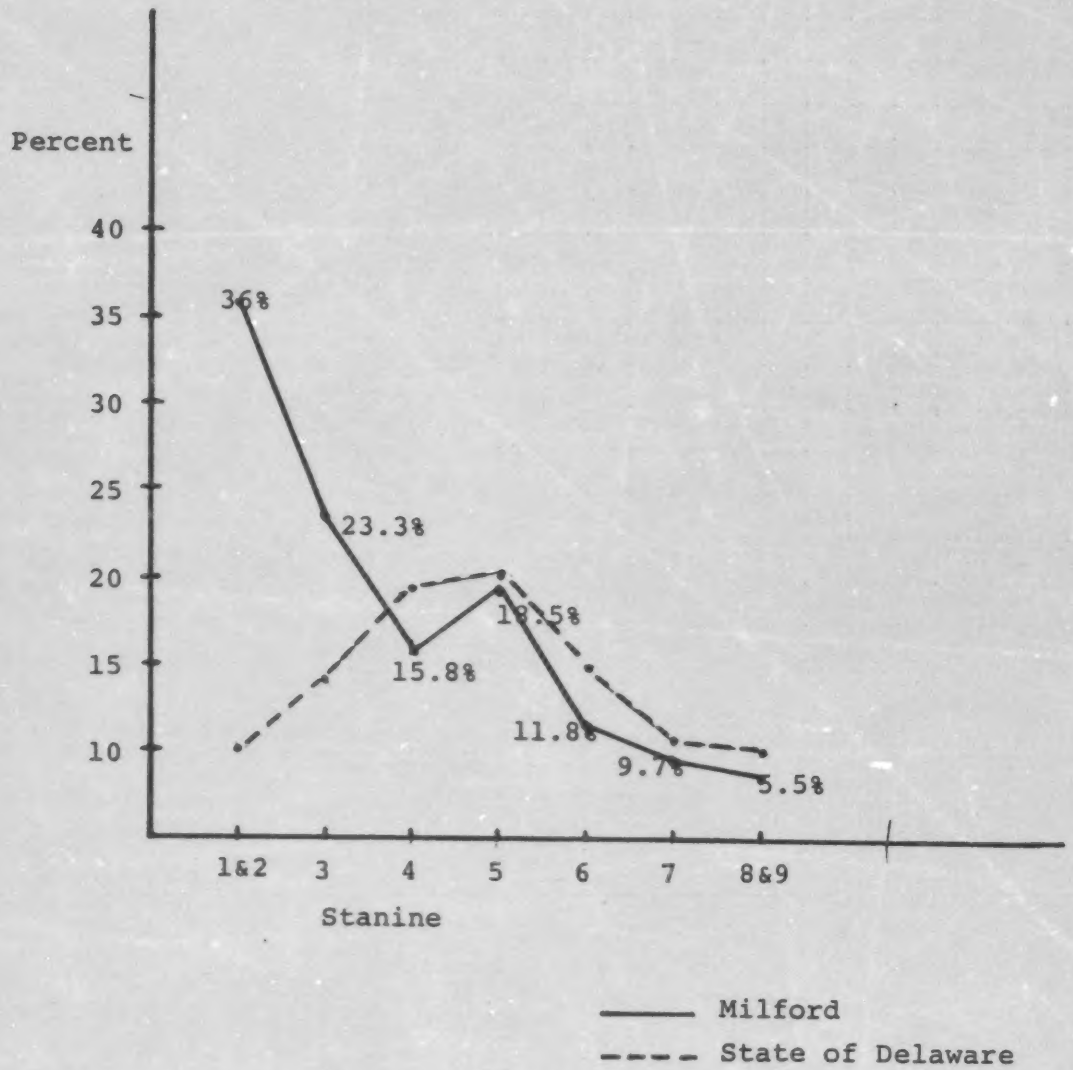


FIGURE 2

II. Test Results - Milford and Statewide Grade 8 Ability Tests

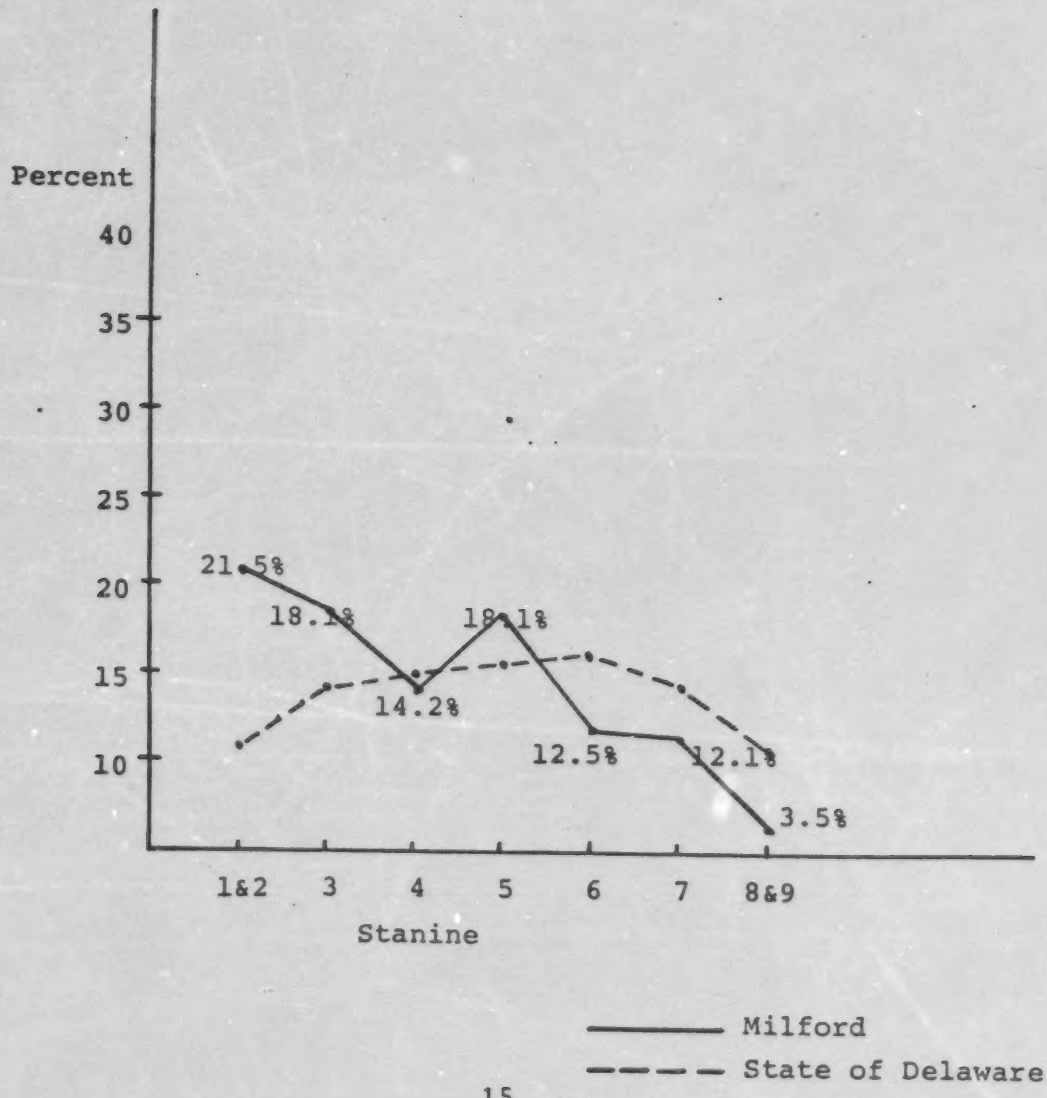


TABLE 2

Pupil Distribution By Color

Color	Percentage	Number
White	69	2,905
Black	30	1,238
Other	01	42
TOTAL	100	4,185

Operational Design

Figure 3 schematically describes the procedural design used for the implementation of Delaware's Occupational-Vocational Education Model. Note that the change strategy input is directly related to research and development, i.e., change strategies designed to solve specific problems are derived from educational research and experimentation.

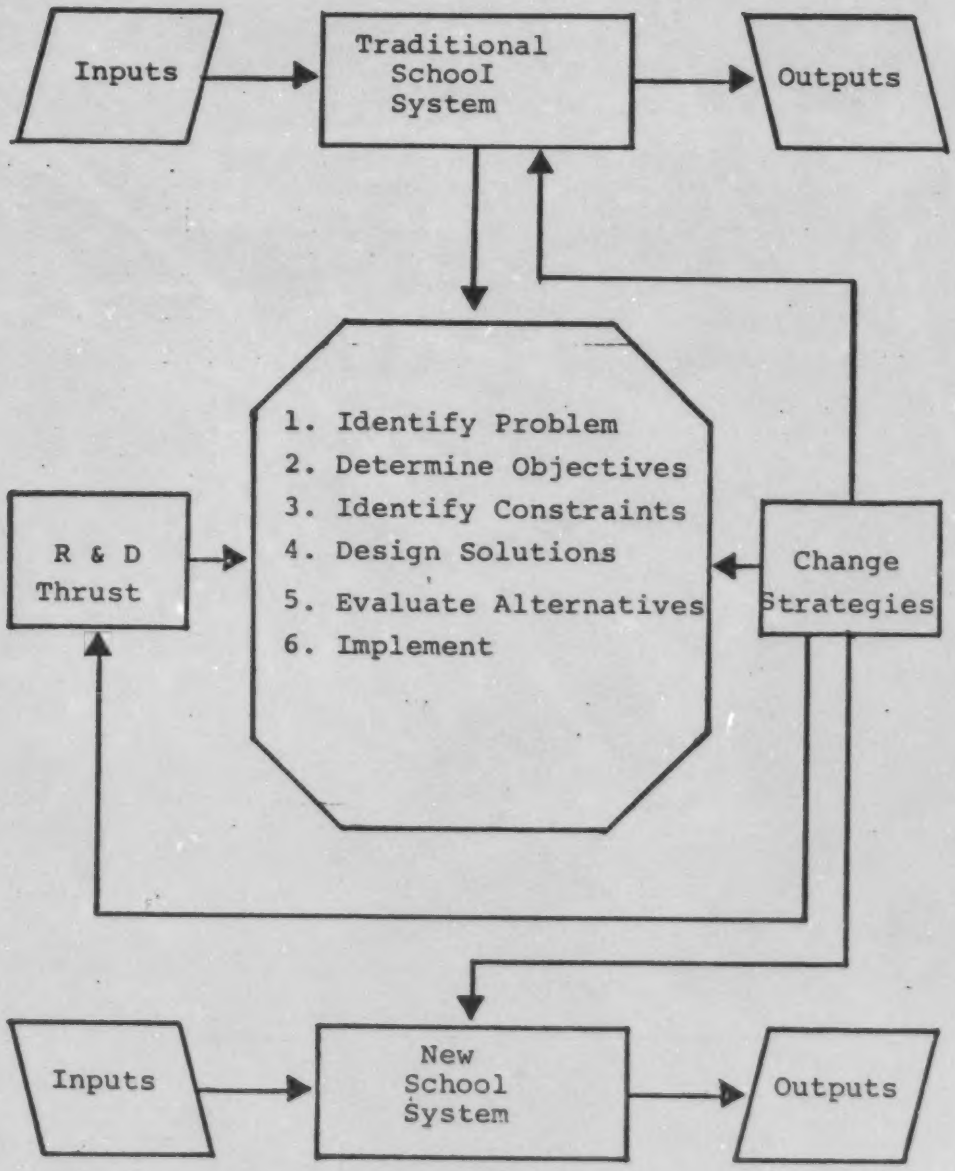
By superimposing a tri-level (K-4,5-8,9-12) structure over the procedural design, it was possible to develop program strategies for each specific project objective.

Figures 4,5,6,7, and 8 are included to illustrate a variety of programs developed through the application of systems analysis to educational program development.

FIGURE 3

DELAWARE'S OCCUPATIONAL-VOCATIONAL EDUCATION MODEL

A PROCEDURAL DESIGN



Adapted from David Bushnell's article, "A Systematic Strategy for School Renewal", Educational Technology, February, 1972, p. 30.

FIGURE 4

OBJECTIVE: Provisions for broad occupational orientation at the elementary and secondary levels to increase student awareness of the range of options open to them in the world of work.

PROGRAMS - ACTIVITIES:

ELEMENTARY LEVEL (K - 4)

OCCUPATIONAL ATTITUDES PROGRAM
Inservice Workshops
Multi-cluster Career Units
Technology for Children Program

MIDDLE SCHOOL LEVEL (5 - 8)

CAREER ORIENTATION PROGRAM
Expanded Practical Arts Offerings (7 - 8)
Home Economics & Industrial Arts, Manufacturing
Career Development Laboratory (5 - 6)
Career Film of the Month
Office Practice Cluster
Agri-Business Cluster - Greenhouse
Summer Opportunities Program - Kent Center

HIGH SCHOOL LEVEL (9 - 12)

CAREER EXPLORATION & PREPARATION PROGRAM
Student Intern Program
Library Aide Program
Career Film of the Month
Consumer Economics Course
American Vocational Guidance Week

DISTRICT-WIDE

CAREER CURRICULUM COUNCIL
Monthly Meeting

MILFORD TEACHER VISITATION TO KENT CENTER
Introduction to Vocational Education

FIELD TRIPS & RESOURCE PEOPLE
Suggested Field Trip Sites
Funds for Transportation
Arrange for Resource People

FIGURE 5

OBJECTIVE: Provisions for work experience, cooperative education and similar programs making possible a wide variety of offerings in many occupational areas.

PROGRAMS - ACTIVITIES:

HIGH SCHOOL LEVEL (9 - 12)

CAREER DEVELOPMENT CENTER
Occupational Mall

EMPLOYMENT
Part-time, Summer Work, Cooperative Work Study, Full Time

COORDINATION WITH EMPLOYMENT AGENCIES
Wye Institute
Ancillary Manpower Planning Committee

STUDENT INTERN PROGRAM
Seniors

TREE PLANTING COOPERATIVE
Work Experience

DISTRICT-WIDE

COMMUNITY SURVEY
Business & Industry located in Milford

FIGURE 6

OBJECTIVE: Provisions for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time they leave school.

PROGRAMS - ACTIVITIES:

HIGH SCHOOL LEVEL (9 - 12)

AFTER-HOURS PROGRAM AT KENT CENTER
(April - June, 1971) Seniors

CAREER SEMINAR - 2 Days
(May, 1972) Seniors

CAREER DEVELOPMENT CENTER
High School Occupational Mall

DISTRIBUTIVE EDUCATION PROGRAM
Work Study, Seniors

FIGURE 7

OBJECTIVE: Provisions for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling.

PROGRAMS - ACTIVITIES:

MIDDLE SCHOOL LEVEL (5 - 8)

OCCUPATIONAL VIEW DECK
Guidance Selection System

HIGH SCHOOL LEVEL (9 - 12)

JOB PLACEMENT COORDINATOR

CAREER SEMINAR - 2 Days
43 Seniors

"MOTIVATION FOR CAREER SUCCESS"
Career Guidance Program

OCCUPATIONAL VIEW DECK
Guidance Selection System

DISTRICT-WIDE

COMMUNITY SURVEY
Business & Industry located in Milford

KENT COUNTY VOC-TECH CENTER
BUSINESS & INDUSTRIAL SURVEY

FIGURE 8

OBJECTIVE: A commitment from the district to continue the successful elements of the project after the contract is terminated.

PROGRAMS - ACTIVITIES:

DISTRICT-WIDE

- CONTRACT SIGNED BY DOVM AND SCHOOL DISTRICT
- SLIDE-TAPE PRESENTATION OF PROJECT ACTIVITIES
- ADVISORY COMMITTEE
- BROCHURES
- CURRICULUM COUNCIL

Results And Accomplishments

Elementary Career Programs (K-4)

1. Classroom Activities - Career Learning Units have been developed by participating teachers. These units included topics such as School Workers, Health Workers, Garden, Home Building, Marine Life, Transportation, Manufacturing, and Classroom Store. Emphasis is on relating classroom subjects such as mathematics and language arts, to practical applications in a variety of occupational areas. The use of resource people and field trips help to bring the school and community together. A partial list of Career Development Learning Units has been made available to all elementary teachers and is included in Appendix A of this report.

2. Workshops - Elementary Career Education Workshop - The summer workshop provided teachers with information, skills and self-confidence necessary to implement career education concepts in their classrooms. The week-long workshop provided orientation for selected teachers. A total of 23 elementary teachers have completed the program.

A representative of the Opportunities Industrialization Center in Philadelphia was in attendance at the workshop. The workshop agenda is attached as Appendix B.

Table 3 indicates the number of elementary teachers by school location and grade level who are developing career education program components. Presently, approximately fifty percent of all elementary teachers are involved.

Middle School Career Programs (5-8)

1. Industrial Arts - The Industrial Arts program has been expanded to include, in addition to woodworking, areas of metalworking, plastics, electricity, and instruction in the careers associated with the manufacturing and construction clusters.

2. Home Economics - Home Economics programs in the middle school are the center of consumer and homemaking career clusters. These programs have been expanded to include, in addition to cooking and sewing, areas in home furnishing and child development.

3. Career Laboratory - A Career Laboratory has been developed to provide time, space, and materials to carry-out activities associated with career development in the fifth and sixth grades. Career aides have been employed to assist teams in planning and carrying-out career development activities. One career education project that has been developed includes components of a manufacturing company where students designed, manufactured, sold, and analyzed costs of a product. Another activity involving the Career

TABLE 3

DISTRIBUTION OF TEACHERS BY SCHOOL LOCATION AND GRADE LEVEL

ELEMENTARY SCHOOLS

1971 - 1972

SCHOOL	NO. OF TEACHERS	GRADE LEVEL						
		Sp. Ed.	Music	K	1	2	3	4
BANNEKER	9		1			2	3	3
LULU ROSS	9	EMR-1		1	1	1	2	3
MORRIS	3	LD-1		1				1
WEST	2				1			1
TOTAL	23	2	1	2	2	3	5	8

EMR - Emotionally Mentally Retarded

LD -- Learning Disabilities

Laboratory focused on a variety of careers associated with the development of a park on the banks of the Mispillion River.

4. Office Practice - To provide an experience in the business and office cluster in the middle school, an office practice elective has been established. The office practice elective includes typing, clerical duties and associated skills offered to interested students during the middle school elective period.

Table 4 shows the distribution of Middle School teachers who are actively developing career education program components.

High School Career Programs (9-12)

1. Career Center - The Diversified Occupations Program (Career Development Center) is designed to provide entry-level skills to those students who will be going directly to work at the termination of their schooling. The areas of instruction are: auto services, horticulture, general contracting, hospitality, food service, and appliance repair. This program now involves over 200 high school students.

2. Consumer Economics - The Consumer Economics course was designed to provide seniors with practical information and experience in the area of consumer buying, rent, credit, insurance, income

TABLE 4

DISTRIBUTION OF TEACHERS BY GRADE LEVEL
AND SUBJECT AREA SPECIALTY

MILFORD MIDDLE SCHOOL
1971 - 1972

NO. TEACHERS	GRADE LEVEL
1	EMR
2	ART
1	MUSIC
3	PHYSICAL EDUCATION
2	INDUSTRIAL ARTS
2	HOMEMAKING
10	LEVEL 5
10	LEVEL 6
2	LEVEL 7
3	LEVEL 8
2	GUIDANCE COUNSELOR
1	LIBRARIAN
TOTAL 39	

*EMR = Emotionally Mentally Retarded

tax, and occupational planning.

3. Work Experience Programs - Students involved in specific vocational programs, such as business, distributive education, and diversified occupations, are given the opportunity to work at various jobs during the school day.

4. Student Intern Program - The Student Intern Program is open to seniors interested in teaching or child care and is designed to give them experience with youngsters in elementary schools. Students attend high school in the morning and travel to designated elementary schools in the afternoon where they are assigned to work with an elementary teacher. Interns are involved in activities such as small group instruction, reading skill practice, and assisting students in individual and group projects. Activities of this nature provide student interns with experiences in the public services career cluster. Additional material explaining the Student Teaching Intern Course, selection procedures, transportation, attendance, and evaluation is attached in Appendix C.

5. Job Placement Program - The job placement effort in Milford High School is designed to locate part-time and full-time employment for those students desiring employment. A full-time Job Placement Coordinator supervises the program. Additionally, the Coordinator surveyed the community, contacted potential employers,

and devised a system to assist prospective employees in locating suitable jobs. Specific details concerning job placement and counseling activities are located in Appendix D of this report.

A distribution of high school teachers by subject area who have developed career education components is shown in Table 5.

Kent County Vocational-Technical Center Programs

1. Teachers Visiting Kent Center - Substitutes were provided to free Milford School District teachers from their regular teaching duties to attend a one-day orientation visit to the Vocational Center. These teachers toured the Center and were provided with an explanation of the Center's program. This orientation was designed to make teachers aware of the myriad of opportunities available in a modern vocational education facility.

2. Milford Students Attending the Center - As a result of the Visitation Program, teachers, counselors and administrators gained an insightful understanding of the purpose and scope of secondary vocational education. More positive attitudes toward vocational and career education are reflected by the fact that Kent Center's enrollment from Milford High School increased from 5 percent in 1970 to 14.5 percent in 1972 (Table 6).

TABLE 5

DISTRIBUTION OF TEACHERS BY SUBJECT AREA SPECIALTY

MILFORD HIGH SCHOOL
1971 - 1972

SUBJECT	NO. TEACHERS
BUSINESS ED.	1
MATH	2
ENGLISH	3
HOME ECONOMICS	1
EARTH SCIENCE	1
INDUSTRIAL ARTS	1
DISTRIBUTIVE ED. & HOSPITALITY	1
TOTAL	10

TABLE 6

NUMBER AND PERCENTAGE OF MILFORD HIGH SCHOOL STUDENTS
ATTENDING COUNTY AVTS'S

School Year	M.H.S. population 9-12	Kent County AVTS		Sussex County AVTS		Totals by year	
		No.	%	No.	%	No.	%
'70-'71	1163	62	5	74	6	136	11
'71-'72	1153	130	11	60	5	190	16
'72-'73 *	1240	180	14.5	101	8	201	22.5

* Projected from AVTS records

District-Wide Activities

1. Field Trips and Resource People - The project has increased the utilization of field trips and resource people coming into classrooms. The project has provided funds for transportation and substitute teachers in order to release participating teachers for community-centered field trips.

2. Curriculum Council - The Director of Instruction, Assistant Principals of the High School and Middle School, Elementary School Principals, and the Curriculum Coordinator are involved. The Curriculum Council is designed to coordinate curriculum activities at all levels within the Milford School District. The Council meets once a month under the direction of the Director of Instruction and all programs are discussed to insure correlation between schools.

3. Career Guidance Program - The project has increased emphasis on vocational awareness and career guidance in the school system. Funds have been provided for guidance materials that emphasize the concepts of career development. Occupational View-Deck materials have had increased use in the high school and middle school. In addition, a new package of guidance materials entitled Motivation For Career Success has been made available to high school counselors.

4. Summer Opportunities Program - The program is a five-week multi-clustered career exploration activity designed for students to explore various occupational areas at Kent Center. Examples of these occupational areas include: Auto Mechanics, Cosmetology, Photography, and Data Processing. Many students in the Milford School District have taken advantage of this program.

5. Career Education Week - Career Education Week focused on occupational awareness. A career fair, poster contests, resource people, films, skits, and field trips were used to convey the idea that career decisions are important and that students have a choice in determining their career.

6. Inter-Agency Coordination - The project staff communicates with a number of other agencies involved in employment, manpower and training. The Job Placement Coordinator periodically attends meetings and conferences dealing with program development at local, state, and national levels. The Project Director is also in contact with leaders in education and industry to insure that project activities are correlated with other programs.

7. Advisory Committee - This committee meets regularly to be advised of the project's activities and to provide recommendations and guidelines for overall policy and conduct of the project.

Dissemination

1. Tape/Slide Presentation - A tape/slide presentation has been developed to explain the rationale, goals, objectives and procedures connected with the development of Delaware's Occupational Vocational Education Model. Slides were taken of activities within the schools and later synchronized with a tape recording. By combining media, it was possible to produce a lucid explanation concerning the project's major thrust -- career education.

2. Brochures - Two brochures have been produced: one describes the Project's scope, while the other focuses on career education at the elementary level. These brochures have been widely distributed to parents, students and professionals interested in the project.

3. Overhead Transparencies - A presentation has been developed using overhead transparencies to explain the career development process to those individuals not familiar with it. This presentation is designed primarily for teachers and other educators.

4. Radio - The local radio station has aired several programs clarifying the purpose and activities of the Model project. Job placement services have been advertised via spot radio announcements.

5. Newspaper - The local newspaper has printed several articles concerning the Model. Paid advertisements have also been run to promote job placement efforts of the Model.

6. State and National - Over eighty (80) written requests for project information have been received from schools, colleges, universities, and private institutions representing virtually every state in the nation. One hundred and twenty-six (126) quarterly and interim reports have been distributed in Delaware.

Additionally, the Project Director has been asked on numerous occasions to present Delaware's Occupational Vocational Education Model to local, state, and national conferences concerned with the theme of career education.

Evaluation

Bivens and Associates, Inc., Dover, Delaware was awarded a contract to evaluate DOVM's second year of operation. Basically, findings indicated that all project objectives had been met. However, the elementary programs received significant praise from evaluators in terms of meeting stated objectives.

Appendix E contains the evaluation documents produced by the external evaluation contractor, Bivens and Associates, Inc., Dover, Delaware.

In addition to external evaluation described above, the Project's Research Assistant, Mr. Jay Price, designed a formative evaluation to monitor internal components of elementary and middle school career education programs.

Appendix F contains an internal evaluation report for the elementary (K-4) T4C Career Education Program. Part II of the report covers the evaluation of middle school Career Education Programs (5-8). Data gathering instrumentation is appended to the evaluation report. These reports are recommended to individuals who are interested in monitoring developmental career education components.

Conclusions; Implications; Recommendations

It is apparent that Project goals and objectives have been met. Data indicated that a wide variety of innovative techniques were used to implement each of the Project's objectives.

An increasing number of school districts in Delaware are modeling their occupational-vocational (career education) programs from designs and organizational concepts developed by DOVM's staff during the past two years. Much of this success has been due to the excellent rapport and cooperation between Project staff, district personnel and the State Department of Public Instruction's

Vocational Division.

Although elementary and middle school programs continue to develop, it is doubtful that high school teachers are willing to make significant moves toward the total implementation of career education concepts.

It has become clear that a shift in emphasis toward an employer-centered model is required if meaningful results are to be obtained at the high school level. Although this model is not presently defined in specific terms, it is obvious that students in the eleventh and twelfth grades should spend at least one-half of their school day engaged in meaningful educational experiences outside school.

Data generated by the Project indicated that several specific recommendations are in order:

1). Milford School District must take immediate steps to locate additional funding for continuation of career education in the district;

2). If career education is to continue developmentally in Milford, a full-time high level administrative position must be created within the district's administrative structure;

3). DOVM must increase it's dissemination efforts in the Milford School District. Local residents are not aware of the

project nor do they seem concerned that their school system is charting a new education course that will essentially benefit the total community.

Friedlander, Frank. "Underlying Sources of Job Satisfaction". Journal of Applied Psychology 47:246-50; August, 1963.

Geist, Harold. "Work Satisfaction and Scores on A Picture Interest Inventory". Journal of Applied Psychology 47:369-73; December, 1963

Herr, Edwin L. "Unifying an Entire System Of Education Around A Career Development Theme", 1969, ED-045-856, VT-008-896.

Holland, John L. The Psychology of Vocational Choice. Waltham, Mass., 1966.

Holland, John L., and Whitney, Douglas R. Changes in the Vocational Plans of College Students: Orderly or Random? ACT Research Reports, No. 25. Iowa City: American College Testing Program, April, 1968.

Jones, Kenneth J. "Occupational Preference and Social Orientation", Personnel and Guidance Journal 43:574-79; February, 1965.

Lodahl, Thomas M., and Kejner, Mathilde. "The Definition and Measurement of Job Involvement", Journal of Applied Psychology 49:24-33; February, 1965.

Super, Donald E., and Others. Career Development: Self-Concept Theory. Princeton, N.J.: College Entrance Examination Board, 1963.

Super, Donald E., and Others. Floundering and Trial After High School. Career Pattern Study Monograph IV, Cooperative Research Project No. 1393. New York: Teachers College, Columbia University, 1967.

Super, Donald E., and Crites, John O. Appraising Vocational Fitness. New York, 1962.

Tiedeman, David V., and O'Hara, Robert P. Career Development: Choice and Adjustment. New York: College Entrance Examination Board, 1963.

APPENDIX A

CAREER DEVELOPMENT LEARNING UNITS

INTRODUCTION

The Career Development Learning Units were produced using the triad concept of school, teacher, and community. The units were developed and tested by classroom teachers in the Milford School District. They are intended to serve as guides and examples for teachers interested in developing career education units. The indicated grade level is approximate and the units can be modified for use at other grade levels. The units attempt to relate classroom experiences with situations existing in the world of work. The result is to make school activities meaningful. The career cluster concept is used to increase student awareness of the wide variety of career opportunities available.

BUSINESS AND OFFICE

Unit	Grade Level
Vocational Center Visit	2
Candlemaking	4
Classroom Store	4

MARKETING AND DISTRIBUTION

Wholesaling and Retailing	4
Consumer Buying	4

MARKETING AND DISTRIBUTION (CONT.)

Unit	Grade Level
Candlemaking	4
Classroom Store	4

COMMUNICATIONS AND MEDIA

Peter and The Wolf	1
What Is Time?	2
Vocational Center Visit	2
Getting A Job	4
Candlemaking	4

CONSTRUCTION

Peter and The Wolf	1
Vocational Center Visit	2
Home Building	3
Abacus	3
Classroom Store	4
Candlemaking	4

MANUFACTURING

Costumes	1
Hat Construction	2
What Is Time?	2
Clothing - Doll Clothes	2
Abacus	3
Candlemaking	4

TRANSPORTATION

Land Transportation	2
Vocational Center Visit	2
Candlemaking	4

AGRI-BUSINESS AND NATURAL RESOURCES

Garden	1

AGRI-BUSINESS AND NATURAL RESOURCES (CONT.)

Unit	Grade Level
Vocational Center Visit	2
Growing Plants From Seeds	3
MARINE SCIENCE	
Marine Life	3
Living Things At The Seashore	4
ENVIRONMENTAL CONTROL	
Land Pollution	2
Vocational Center Visit	2
Growing Plants From Seeds	3
PUBLIC SERVICES	
School Workers	K
Health Workers	K
Land Pollution	2
Getting A Job	4
Candlemaking	4
HEALTH	
Health Workers	K
Vocational Center Visit	2
Drug Use And Abuse	4
Candlemaking	4
HOSPITALITY AND RECREATION	
Candlemaking	4
PERSONAL SERVICES	
Vocational Center Visit	2

FINE ARTS AND HUMANITIES

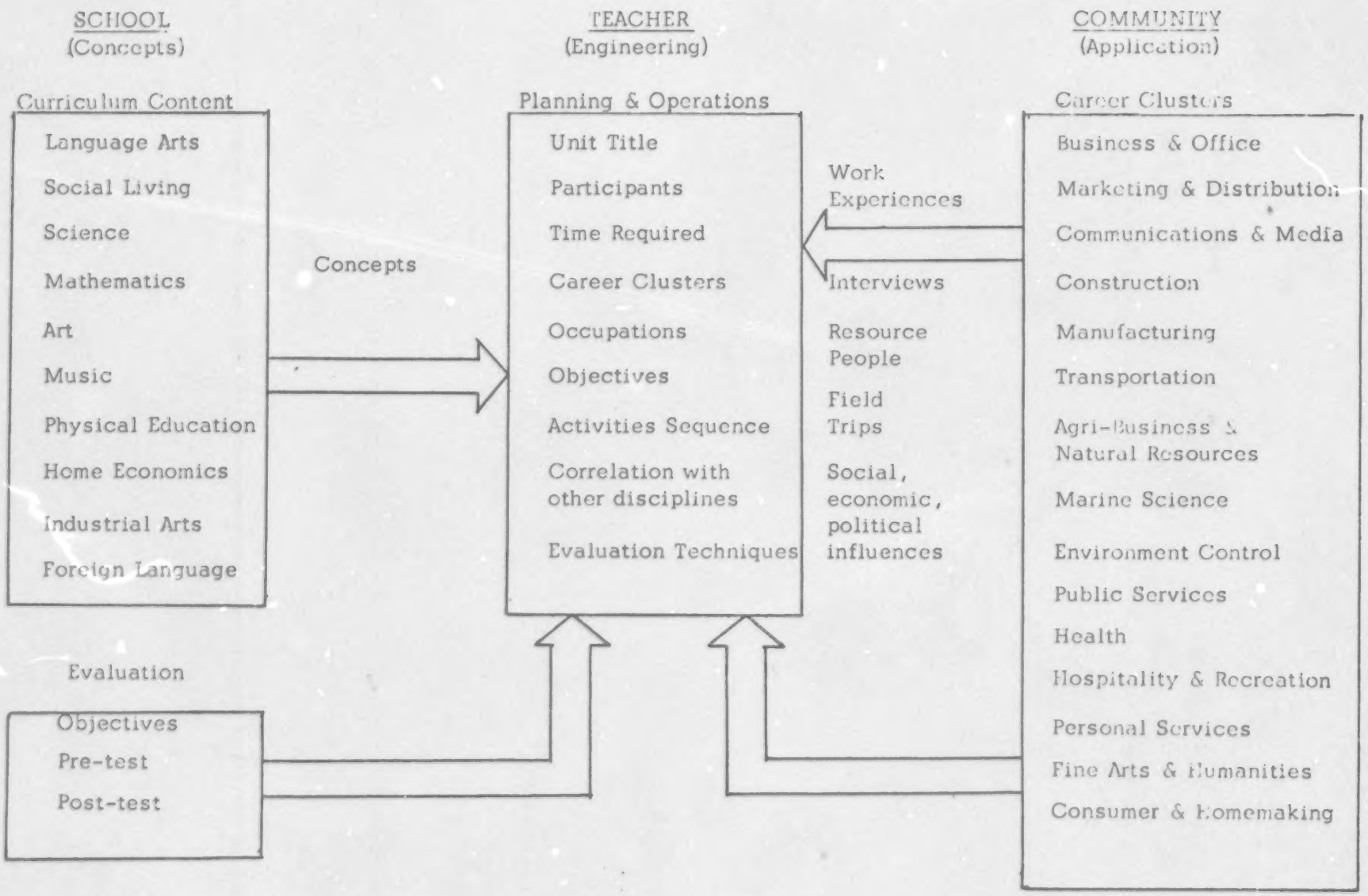
Unit	Grade Level
Peter And The Wolf	1
Costumes	1
Candlemaking	4

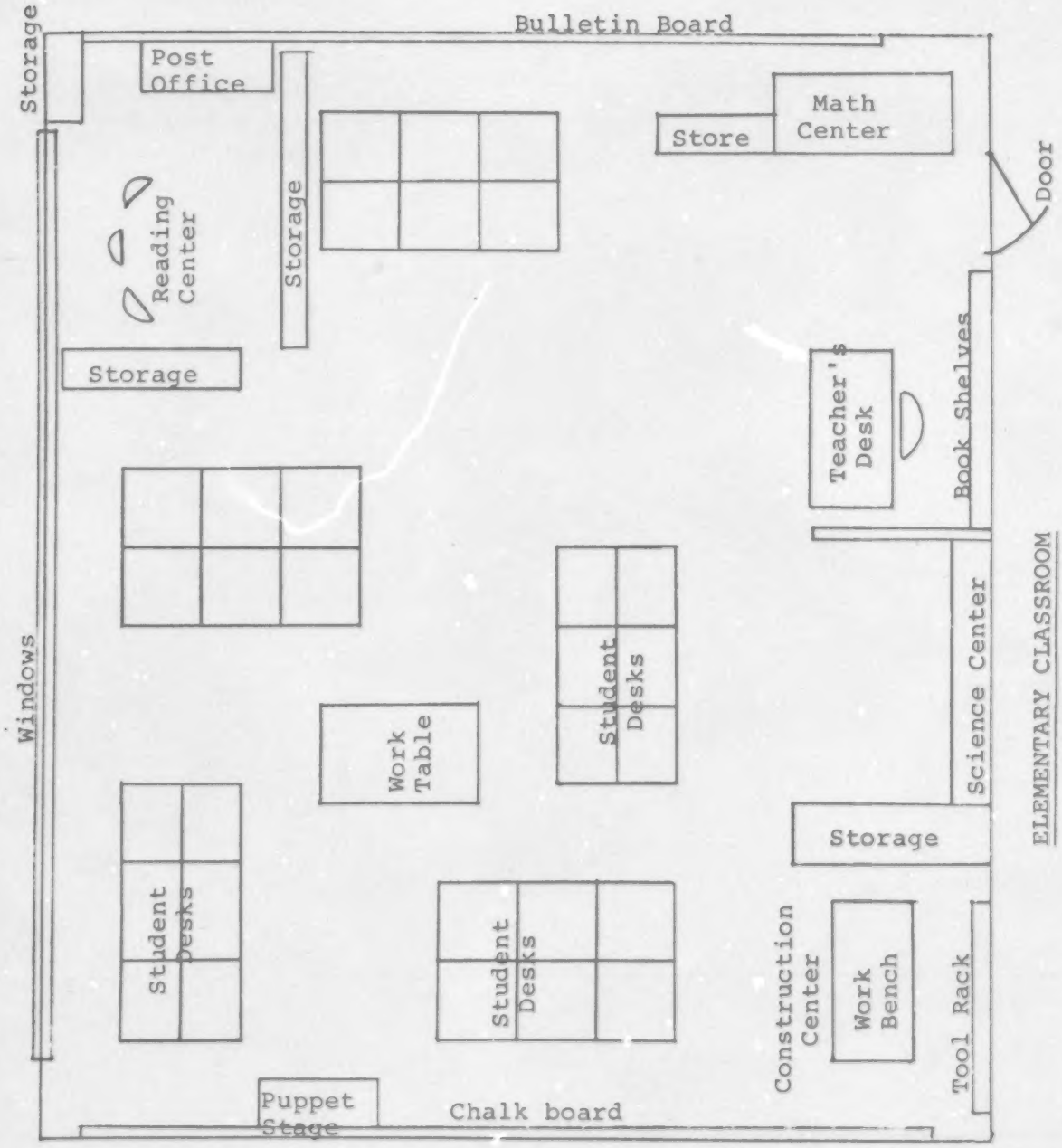
CONSUMER AND HOMEMAKING

Mother's Day Project	1
Clothing - Doll Clothes	2
Vocational Center Visit	2
Consumer Buying	4
Candlemaking	4

CAREER DEVELOPMENT LEARNING UNIT

A TRIAD MODEL FOR DEVELOPMENT OF CAREER EDUCATION LEARNING UNIT




Storage
Post Office
Bulletin Board
Reading Center
Storage
Storage
Store
Math Center
Door
Book Shelves
Teacher's Desk
Windows
Work Table
Student Desks
Student Desks
Student Desks
Science Center
ELEMENTARY CLASSROOM
Storage
Construction Center
Work Bench
Tool Rack
Puppet Stage
Chalk board

CAREER DEVELOPMENT LEARNING UNIT

UNIT TITLE: School Workers

PARTICIPANTS: Kindergarten children, teacher, aide, school workers.

TIME REQUIRED: 15 hours during last 3 weeks of school year.

CAREER CLUSTERS: Public Services

OBJECTIVES:

Introduction for 5 year olds to people who work in the school and what their specific jobs are. Unit given to prepare students for full day of school starting in the fall.

1. The student will be able to tell the name of each of the workers discussed in the unit.

   Workers:

Teacher	Librarian
Principal	Custodian
Secretary	Cafeteria Workers
Nurse	Student
Bus Driver	

2. The student will be able to name one task of each of the workers discussed in the unit.

3. The student will participate in activities designed to foster a positive attitude toward school.

ACTIVITIES SEQUENCE:

1. Each worker will speak to the class in the classroom, speaking on their specific jobs.

2. The class will visit each of the workers and see the part of the school in which they work.

3. Each child will draw a picture of each worker.

4. Each child will relate a dictated story to the teacher about each of the workers. This will be put together with No. 3 to form a notebook.

5. The librarian will read a story to the children when they visit the library.

6. The children will eat lunch in the cafeteria. They will be prepared for this by a discussion and role playing of what is done by moving through a cafeteria line.

CORRELATION WITH OTHER DISCIPLINES:

Language Arts

Taking dictated stories about each of the workers.

Vocabulary building.

Develop skit using puppets and role playing.

Social Living

Necessity of cooperating with others.

Students will be assigned tasks or jobs with reward for satisfactory performance.

Mathematics

Collecting money for lunch.

Art

Drawing pictures of each of the school workers.

Combine pictures and stories to form notebook - decorate cover.

Make puppets of school workers.

EVALUATION TECHNIQUES

Individual student interviews will be used to determine attitude. Teacher will hold up picture of each worker and student will name the worker and his job task.

APPENDIX B

CAREER WORKSHOP - ELEMENTARY

DELAWARE'S OCCUPATIONAL - VOCATIONAL MODEL
CAREER WORKSHOP - ELEMENTARY

August 28 - September 1
Room 112-113 Banneker School

MON.	8:00 A.M.	Coffee, registration, welcome Film - "Career Education"
	9:00 A.M.	Tape-slide presentation - DOVM Workshop objectives
	10:00 A.M.	Demonstration of workbench and hand tools
	11:00 A.M.	Selection of woodworking project to practice use of tools and materials
TUES.	8:00 A.M.	Teaching Unit Development - modules, episodes. Participants select a topic to develop into a unit.
	9:00 A.M.	Film - "Learning for Living in a Technological World"
	10:00 A.M.	Cardboard Carpentry demonstration
	11:00 A.M.	Electricity demonstration - kits, extension cord
WED.	8:00 A.M.	Review teaching units
	9:00 A.M.	Film - "How to Start Construction in Elementary Classroom"
	10:00 A.M.	Making slides, movies, tape recordings
	11:00 A.M.	Printing - silk screen and block

THURS.	8:00 A.M.	Examples of restructuring academic subjects around career development
	9:00 A.M.	Film - "How to convert Elementary Classroom to an Industrial Arts Laboratory"
	10:00 A.M.	Continue activities in woodworking, electricity, printing
	11:00 A.M.	Compile material requisitions - explanation of ordering procedure
FRI.	8:00 A.M.	Review completed teaching units
	9:00 A.M.	Explain monthly report forms
	10:00 A.M.	Distribute community resource list
	11:00 A.M.	Administer immediate reaction survey

APPENDIX C

STUDENT TEACHING INTERNS

STUDENT INTERN
PRE-SERVICE TRAINING
1972

Milford High School
Library Conference Room
1:00 - 2:30 P.M.

September 11	Introduction to D.O.V.M. - tape/slide presentation Career development - overhead transparencies Specific duties of interns Administer the Vocational Development Inventory
September 12	1:00 - 1:30 Hand tool use and safety requirements Cardboard carpentry, electricity, silk screen printing 1:30 - 2:00 Reading - Mrs. Justice 2:00 - 2:30 Speech & Hearing - Mrs. Klein
September 13	1:00 - 1:30 Human Relations - Mrs. Baynard 1:30 - 2:00 Learning & Behavior Problems - Mr. Siler
September 14	1:00 - 1:30 Continuous Progress - K-4, Mr. Jamison and Mr. Williams, Elementary Principals 1:30 - 1:45 Individual Instruction - Mrs. Holleger 1:45 - 2:30 Use of A-V equipment - movie projector, overhead, slide projector, tape recorder - Mr. Haight, Industrial Arts Teacher
September 15	Introduction to cooperating teachers Explanation of grading system Attendance procedures

THE DUTIES OF A STUDENT TEACHING INTERN WILL
CONSIST OF THE FOLLOWING:

1. Supervise a small group while the teacher is busy with other students.
2. Read or tell stories to the class.
3. Help individual children with motor coordination activities or speech therapy lessons.
4. Write lesson assignment on chalkboard.
5. Supervise educational and recreational games.
6. Help the teacher conduct students to various school activities.
7. Arrange displays of student work.
8. Gather materials and books for the teacher and class.
9. Prepare, set-up, operate and return instructional materials and equipment.
10. Check to see that children understand the teacher's directions.
11. Prepare visual aids.
12. Assist with recess and preparing children to go home.
13. Decorate the classroom for various holidays and seasons.
14. Distribute materials and help students locate specific materials.
15. Duplicate instructional materials for the teacher.

DELAWARE'S OCCUPATIONAL - VOCATIONAL MODEL

STUDENT TEACHING INTERNS

COURSE OVERVIEW:

A course has been developed to offer high school students the opportunity to work with elementary school students and teachers. The Career Education activities that are being introduced into the elementary schools will increase the use of tools, machines, and materials in the classroom. Some sample units will be rockets, animals, construction, electricity, machines, photography, printing, textiles, and others. The high school student will work with groups of elementary students under the direction of the classroom teacher. High school student interns will spend their afternoons in the designated elementary school.

SELECTION PROCEDURES:

The senior counselor will screen records to determine those students who are interested in teaching or child care as a career possibility. This group of students will then be gathered together and the program explained to them, and those interested will be asked to sign up for the course.

TRANSPORTATION:

The bus run will begin September 18, 1972 and continue until June 1. The bus will leave the high school at 12:55 p.m. and proceed to Banneker and Ross Schools. The bus will pick up student interns and return to high school by 3:10 p.m. All participants in the program must ride the bus.

ATTENDANCE:

The receiving elementary school is responsible for keeping accurate records of intern attendance. When an intern does not report to the elementary school, the elementary principal should call the high school attendance office and report the absence.

Student Teaching Interns - continued

EVALUATION:

The attached evaluation sheet will be completed each marking period by the cooperating elementary school teacher. This progress report is simply a check sheet that the teacher fills out and reviews with the student. The cooperating teacher will be sure to complete the written evaluation portion of the progress report. Interns will receive a letter grade each 9-week marking period.

DELAWARE'S OCCUPATIONAL-VOCATIONAL MODEL

Date _____

PROGRESS REPORT

Progress Report of _____ in _____
(Student) (Training Agency)

Directions: Read over each line carefully. Place a check mark over phrase which describes the student most accurately. Make only one mark on each line, and be sure to mark every line.

	4	3	2	1
1.	Makes an excellent appearance.	Usually neat and appropriate in appearance.	Sometimes neglects appearance.	Should improve appearance.
2.	Personality is outstanding.	Has a pleasing personality.	Personality is unimpressive.	Does not get along well with others.
3.	Unusually enthusiastic about work.	Shows interest in work most of time.	Interested only in certain phases of job.	Should show more interest in work.
4.	Goes out of the way to cooperate.	Is usually cooperative.	Helps only when asked.	Does not work well with others.
5.	Reliable in following directions.	Usually follows directions well.	Sometimes careless in following directions.	Cannot always be relied upon to follow directions.
6.	Recognizes work to be done and does it without direction.	Sometimes goes ahead in work not assigned.	Performs regular routine duties only.	Seldom seeks work beyond regular routine duties.
7.	Wise in actions and in making decisions.	Usually shows sound judgment.	Sometimes shows lack of judgment or discretion.	Lacks ability to make sound decisions.
8.	Has perfect attendance.	Occasionally absent but with good excuse and advance notification.	Occasionally absent without good excuse or notification.	Frequently absent.
9.	Always on time.	Occasionally late but with good excuse.	Occasionally late without good excuse.	Frequently late.
10.	Is outstanding in production.	Exceeds average production.	Is average in production.	Should produce better.

35-40 A
25-34 B
20-24 C
5-19 D

GRADE_____

(SEE REVERSE SIDE)

Comment on instances where performance is particularly high or low:

Comment on ways in which the student can show improvement:

I have read and understand this progress report_____
Student

Cooperative Teacher_____

DELAWARE'S OCCUPATIONAL-VOCATIONAL MODEL

Date_____

PROGRESS REPORT

Progress Report of_____in_____
(Student) (Training Agency)

Directions: Read over each line carefully. Place a check mark over phrase which describes the student most accurately. Make only one mark on each line, and be sure to mark every line.

1._____

Makes an excellent appearance	Usually neat and appropriate in appearance	Sometime neglects appearance	Should improve appearance

APPENDIX D

JOB PLACEMENT AND COORDINATION

DELAWARE'S OCCUPATIONAL - VOCATIONAL MODEL

JOB PLACEMENT AND COORDINATION
YEAR END HIGHLIGHTS

by

Arthur L. Bright

Job Placement Coordinator

The following paragraphs will explain the major activities of this office.

Tree Planting Crew

Cooperation with the State Agriculture Department's Forestry Section and local farmers has provided a number of students with experiences in commercial tree planting. The crews are self-supervised and usually consist of less than 12 students. Students are paid $30.00 for planting 1,000 trees on an acre of land. Students can average about 1 acre a day depending upon the condition and location of the planting site. Weather, distance to water, and crew organization are other factors influencing the number of trees that can be planted.

Senior Class Presentation

In an effort to inform all seniors of the location and responsibility of the Job Placement Coordinator, a presentation was presented to all seniors in Government classes.

The rationale for Delaware's Occupational-Vocational Model was explained along with the job description of the Job Placement Coordinator. Local occupational opportunities were discussed along with a review of prevailing job market conditions. A systematic procedure was outlined describing how to look for a job. Discussion revolved around the rela-

tionship between personal characteristics and job descriptions that one should consider when making a career decision.

American Vocational Guidance Week (October 24-29)

Participation by students made this a most successful week. On Monday, students in different disciplines presented a 10-minute skit on careers related to a specific discipline. Awards were presented for the best skits.

The career theme was carried out in individual room displays. Corridor areas were designated to be decorated by different departments. Each room and corridor was judged. The winning department was presented with an award which acknowledged their efforts. All displays were left intact for an open house which followed the dedication ceremony of the new high school.

During the week, twenty-nine different resource speakers gave presentations about different careers. Special effort was exerted to include all the career clusters.

The theme of the Homecoming Parade was "CAREERS".

Wye Institute

The Wye Institute Seminar was designed to develop awareness in personnel responsible for career development concerning existing and

future career opportunities on the Delmarva Peninsula. Seven of the largest industries located on Delmarva were represented: poultry, apparel, seafood, chemicals, hardware, electronics and printing. These industries employ the majority of factory workers on the peninsula.

The following four questions were addressed:

1). What career opportunities exist on Delmarva now?

2). What career opportunities will exist in the future?

3). How can students be made aware of these opportunities?

4). How can students be prepared for these opportunities?

Ancillary Manpower Planning Board

The Ancillary Manpower Planning Board members represent all agencies involved in manpower planning. Information regarding other State and Federal MDT programs are extremely helpful in counseling students regarding training programs separated from the conventional school system.

Two-Day Career Seminar For Seniors

On April 27th and 28th, a two-day career seminar was arranged for 45 seniors who were experiencing difficulty in making a career choice.

The objectives of the two-day seminar were to provide students with information designed to:

...broaden their knowledge of opportunities that exist within and outside their geographic area.

...increase their appreciation of technology and it's influence on the job market.

...help them secure a job.

...assist them in locating employment opportunities.

...help them make career decisions.

...assist them in completing job applications.

...increase their understanding of business and industry.

Kent County Vocational-Technical Center Business & Industrial Survey

An Industrial and Business Survey was conducted by mailing an instrument to 835 employers throughout Kent County.

Graduates of KCVTC seek employment beyond the geographic boundaries of Kent County. Therefore, the instrument was sent to employers outside of Kent County who employ trained workers.

The primary purpose of this survey was to provide occupational information that could be used by the administrative staff at Kent Center. Specific objectives of the survey were to provide pertinent information regarding skilled trade areas now being taught at the Center.

The instrument was designed to provide the following data: total employment, projected employment needs, willingness to cooperate with KCVTC in developing advisory councils, availability of cooperative work stations, and curriculum revision.

Unfortunately, only 120 employers returned the questionnaire.

Jobs

The Job Placement Office received 34 requests from employers. These requests are categorized below:

	Companies	Jobs
1. Factory employment	5	21
2. Yard work	8	10
3. Babysitting	4	4
4. Housework	3	3
5. Office or clerical	4	5
6. Waitress	2	2
7. Business	4	5
8. Odd jobs around homes	3	3
9. Agriculture	1	6
TOTAL	34	59

APPENDIX E

EXTERNAL EVALUATION

bivens & associates inc. PLANNING CONSULTANTS

231 WEST LOOCKERMAN ST. DOVER, DELAWARE 19901 302/674-4819
635 W. INDIAN SCHOOL RD. PHOENIX, ARIZONA 85013 602/279-1913

September 22, 1972

Mr. Joseph English, Project Director
Occupational-Vocational Education Model
906 Lakeview Avenue
Milford, Delaware 19963

Dear Mr. English:

Bivens & Associates, Inc. is pleased to transmit this Evaluation Report for the second year of the Occupational-Vocational Education Model for the State of Delaware in accordance with our subcontract No. DOVM-SUB-2 (Revised).

The Evaluation Report for 1971-1972 provides analysis of activities relative to the Elementary T4C Program (grades K-4) as well as programs established for grades 5-8. Evaluation in the high school was based upon job placement and guidance activities. Overall Project activities were reported and examined to determine fulfillment of the goal and objectives of the DOVEM.

We appreciate the opportunity to extend our professional services to the Occupational-Vocational Education Program in Delaware.

Sincerely,

John A. Bivens Jr.

John A. Bivens, Jr., AIP
President

JAB:er

Enclosure

bivens &
associates
inc. PLANNING CONSULTANTS
231 WEST LOOCKERMAN ST. DOVER, DELAWARE 19901 302/674-4819

Evaluation Report

AN OCCUPATIONAL-VOCATIONAL EDUCATION MODEL

Submitted to

Mr. Joseph English
Project Director
Milford, Delaware

by

Bivens & Associates, Inc.
Planning Consultants

September 15, 1972

TABLE OF CONTENTS

	Page
SUMMARY	1
INTRODUCTION AND BACKGROUND	3
Locale	4
The School System	6
SCOPE OF DOVEM PROGRAM	9
Goal	9
Objectives	9
Project Activities	10
Organization and Personnel	11
Program Planning and Design	11
Training	13
Evaluation Monitoring	13
Advisory Council	14
Community Awareness	15
EVALUATION PROCEDURE	17
PROJECT EVALUATION	19
INTERVIEW ANALYSIS	24
Teachers	24
Principals	28
Advisory Council	31
Community Leaders	33
CONCLUSIONS	35

SUMMARY

The major emphases upon the second years' activities of the Delaware Occupational Vocational Education Model were Program Development and Pilot and Demonstration.

The Technology for Children (T-4-C) element has been expanded to all of the elementary schools within the District. Pre-training for teachers involved in this element has been continuous but has not been sufficient to meet teachers' stated needs. The teachers have strongly supported the application of training sessions but feel that more are needed to provide a more effective feel for teaching occupational-vocational/career oriented subjects.

The role of the Job Placement Coordinator at the high school has been expanded and increased during the past year. In an effort to provide intensive occupational guidance and counseling for all students during the last years of secondary school, the Project has added more counselors at the high school.

Although standardized instruments and test designs have been administered at the elementary levels (T-4-C Program), they have yet to effectively prove product outcomes.

The Advisory Council continues to function but without a defined plan of operation. One main task of this body is to provide communication between the Project and the Community,

i.e., community awareness. Evidence of a successful effort in this respect is not available. The 1972-73 Project year should be a time of action for the Council.

The Delaware Occupational Vocational Education Model is replying to all of its stated objectives. However, some objectives are being fulfilled to a larger extent than others. A careful balance of objective fulfillment is needed to produce an effective program and the DOVEM must use this next year to fill the identified voids which now exist.

INTRODUCTION AND BACKGROUND

The Occupational-Vocational Education Model for the State of Delaware was established by joint agreement between the Kent County Vocational Technical School District and the Milford School District. This program was made possible by a three year federal grant from the U.S. Office of Education.

Each year an independent evaluation is required by the Office of Education. This evaluation report is in fulfillment of this requirement as well as to assist in the improvement of the program during its planning and implementation. Bivens & Associates, Inc., Planning Consultants, of Dover, Delaware was selected to provide the necessary professional services needed for the evaluation.

This evaluation report covers the second year of the project which has been predominantly implementation of Project activities relative to the Elementary T-4-C Program (grades K-4) as well as the program established for grades 5-8. Also, the job placement and guidance activities (grades 9-12) were evaluated.

The document Preparing Evaluation Reports, published by the U.S. Office of Education, was followed in the preparation of this evaluation report. An attempt was made however, to adjust

the outline to reflect the specifications and unique features of the Delaware Model.

Bivens & Associates, Inc. utilized personal interviews and review of pertinent documents, reports, and other materials in the conduct of the evaluation. The staff of the Occupational-Vocational Education Model, the teachers, administrators, and other individuals were extremely cooperative in this effort. Special appreciation is expressed to Mr. Joseph English, Project Director; Mr. Arthur Bright, Job Placement Coordinator; Mr. Carl Hoffman, Curriculum; Mr. Jay Price, Evaluation Monitoring; and Ms. Sandy Dale for their cooperation.

LOCALE

The Milford School District is located in the southeastern corner of Kent County, Delaware, with a portion extending into adjacent Sussex County. The District contains some 166 square miles with an estimated 18,000 total population of which 4,120 attended school during 1971-72. The communities of Milford and Houston account for a little less than half of the total population of the District, the remainder of the population being distributed throughout the peripheral rural sections.

According to the Comprehensive Plan for the City of Milford prepared by Herbert Smith Associates, the 1970 population figure was 5,374 persons. Projections of this base figure indicate a total population of 5,820 by 1980 and 6,303 by 1990. Accurate population data are unavailable for the geographic boundaries of the Milford School District because of lack of comparability between census tracts and school district boundaries.

The economy of the Milford area could be considered in a relatively stagnant position. The Smith Associates report states, "The immediate future for the local economy of Milford does not appear to be bright." However, the Milford area maintains a strong economic base -- excellent physical farming environment. With increased effort to improve the economic structure by local community leaders, the current situation could easily change.

The Directory of Central States, Manufacturing, published by the T.K. Sanderson Organization in 1968-69, lists 24 manufacturers in the Milford area with an estimated employment of 2,060. A brief analysis of the nature of the manufacturers within the area indicates the potential availability of jobs for non-skilled to semi-skilled workers -- potential employment for graduates of the Milford High School.

THE SCHOOL SYSTEM

Six schools operate within the Milford School District with an approximate enrollment of 4,120 (1971-72). During the 1971-1972 school year, 186 teachers and 26 administrators were employed by these schools.

The following table indicates the various schools within the District and their individual 1971-72 enrollments.

School	Students	Teachers
Milford High School	1214	60
Middle School	1233	60
Lulu M. Ross	660	27
Benjamin Banneker	604	28
Evelyn L. Morris	228	7
West Milford	121	4

The 1971-72 school year presented a few changes in the overall system of the schools. Paramount in the changes was the movement of the fifth and sixth grade students from Benjamin Banneker Elementary School to the Middle School. The following schools serve grades K-4: Lulu M. Ross, Benjamin Banneker, Evelyn L. Morris, and West Milford. Grades five through eight attend the Middle School with grades nine through twelve attending the High School.

An effort to monitor graduated students from the Milford High School has been tried in the past. These data should provide significant assistance in the design of the occupational vocational program particularly in the upper grade levels. A

summary of movement of graduated students from the Milford High School was not attempted during the 1971-72 school year due to two main factors:

1) Response from graduates in previous years had not been significant.

2) An accurate and meaningful measuring instrument has not been effected.

However, the statistics gathered for 1969 graduates are presented. A comparison of this data with those developed in future years may prove to be of significant value in evaluating part of the overall success of occupational-vocational education within the District.

SUMMARY OF MOVEMENT OF GRADUATES
MILFORD HIGH SCHOOL
1969

Area	Male	Female	Total
University of Delaware	11	11	22
Delaware State College	2	4	6
Other Colleges	9	6	15
Junior Colleges	25	16	41
Armed Forces	18	1	19
Employed	16	16	32
Unemployed	3	1	4
Homemaking	-	14	14
Unknown	6	9	15
Not Reported	-	-	6
			174

Of the 174 graduates, 84 or 48% continued their education at other facilities. Approximately 51% of the 1969 graduates of Kent County continued their post high school

education. The state figure for the same category in the same year was between 51% and 52%.

The statewide figure for students entering employment was 29% while the figures for Milford High School were 18%.

The majority of the categories listed above and the percentages of students entering the various endeavors are closely in line with the figures for the entire State of Delaware.

SCOPE OF DOVEM PROGRAM

The January 1, 1971 -- March 31, 1971 DOVEM quarterly report states, "Delaware's Occupational Model was developed to bring about the synthesis of academic and vocational education in an operational setting consistent with the philosophy of providing relevant education for all students." The project is designed to develop exemplary education programs ranging from kindergarten through senior high school and can best be summarized by the overall goal and the supporting objectives of the Model. These are:

Goal

To create a meaningful, cooperative effort between the Kent County Vocational-Technical School District and the Milford School District for the purpose of expanding vocational education to meet the needs of all children served by the District.

Objectives

1. Occupational orientation at elementary and secondary levels.
2. Development of work experience and cooperative education programs.
3. Specific training in job-entry skills for students not previously enrolled in vocational education programs prior to leaving school.
4. Intensive occupational guidance and counseling for all students during the last years of secondary school for the purpose of insuring initial job placement.

5. A commitment from the District to continue the successful elements of the project after the contract is terminated.

Project Activities

According to the Quarterly Progress Report covering activities from September 1, 1970 to December 31, 1971, an overall outline of DOVEM program activities was stated. The basic structure follows:

A.	Planning	First Year
B.	Program Development	First and Second Years
C.	Pilot & Demonstration	Second Year
D.	Evaluation	Continuous
E.	Dissemination	Second and Third Year

The primary focus of this Evaluation Report is upon Project activities within the Technology for Children (T-4-C) Program (grades K-4) as well as programs established for grades 5-8. Job placement and guidance activities (grades 9-12) are also evaluated.

Special contract stipulations directed the consultant to additionally:

1) Develop standardized instrumentation to evaluate teacher attitudes toward program activities.

2) Obtain information on public reaction to program activities of the Model.

3) Assess data and information generated by the internal evaluation monitoring program with respect to project accomplishments.

4) Conduct sample non-directed interviews of teachers to obtain information on intuitive feelings and observed reactions by Program teachers relative to student changes, etc.

An outline follows which lists the major activities of the Project which shall later be discussed and evaluated.

I. Organization and Personnel
II. Program Planning and Design
III. Training
IV. Evaluation Monitoring
V. Advisory Council
VI. Community Awareness

I. Organization and Personnel

The 1971 Evaluation Report prepared by Bivens & Associates, Inc. states that the roles of each member of the organization are clearly defined and understood. This statement is applicable to this year's activities as the individual roles remain sufficiently defined. Current management practices appear to allow a well-balanced staff to function quite effectively.

II. Program Planning and Design

The bulk of the planning activities within the framework of the Project occurred during, and appropriately so, the first year of the operation of the Model. However, a viable program requires continuous monitoring of planning efforts. Evidence indicates that planning has been a continuous process and has expanded to accommodate changes within the Project.

The T-4-C program has been effectively incorporated into all of the elementary schools within the District. A major concentration of activities is found in the Ross and Banneker schools. Originally T-4-C activities were concentrated in the Ross school but expanded to all of the others this year. The high concentration within Ross and Banneker is additionally supported by the high pupil enrollment at each school.

High School students continue to use the facilities at the Kent and Sussex Vocational-Technical Centers on a limited basis. This element of the overall program is expanding rather rapidly with a marked increase in student participation.

Increased efforts have been made in the High School directly related to activities of the Job Placement Coordinator. The Coordinator has made personal contact with individual businessmen in the community and a survey of 46 industries in the Milford area has been completed. The product of these efforts has been to identify potential employers and to feed this information back to the students via the counseling efforts within the High School.

The Occupational Mall, a product of efforts of the Milford High School staff, is, as its name implies, a center of occupational activities.

Five occupational areas are explored within the Mall: restaurant facility, hospitality suite, horticulture (greenhouse and flower shop), Mr. Fix-it Shop, and an automotive service station. The opening of the operation of the Mall (Fall, 1972) shall provide the Job Placement Coordinator a valuable instrument in his efforts. A close working relationship is anticipated between the Job Placement Coordinator and the occupational-vocational staff at the high school.

A Career Development Laboratory exists at the Milford Middle School. Para-professionally staffed, the Lab is designed to assist teachers participating in the team teaching program at that school.

III. Training

As in the previous year, workshops have been conducted for teachers participating in the T-4-C program. The Curriculum Coordinator conducted two workshops each of one week duration for teachers -- one T-4-C workshop and one with a Middle and High School Career format.

The workshops were designed to present to the teachers basic elements of the Project and to allow some practical experience particularly in the T-4-C element. Both workshops allowed considerable input from teachers through "brainstorming" sessions and self evaluation.

IV. Evaluation Monitoring

At the time of the preparation of this report, only the results of the internal evaluation monitoring program at the elementary level were available

for review. Two (2) evaluation instruments were designed to ascertain the relative accomplishment of the Project objective for the elementary level, i.e., occupational orientation at the elementary levels for occupational awareness.

The first test design on occupational awareness was given to a sizeable sample of T-4-C and non-T-4-C students in grades one through four. The second test design on the degree to which Project-supported activities provided a memorable and/or enjoyable experience in school was given to all students in the same grades. Neither test design appears to provide positive evidence of meeting the Project's objective. Commenting on the first evaluation design, the evaluator stated, "If the T-4-C curriculum has a cognitive effect at the elementary levels, it would appear that this effect is also obtained in classes not using T-4-C." The second design did show that. . ."Project-supported activities have provided experiences that are remembered and valued positively." However, the basic issue of improved occupational awareness through the Project-supported activities has yet to be conclusively proven through the evaluation monitoring activities.

V. Advisory Council

The Delaware Occupational-Vocational Education Model Advisory Council consists of members from the field of education, community business leaders, and interested civic leaders. These

17 members were selected and invited to participate in Advisory Council activities by the Director of the Project. Meetings are held periodically and are reported in the Project's Quarterly Reports.

An accurate definition of the Advisory Council is unavailable and the roles of the members is unclear.

VI. Community Awareness

A number of objectives have been stated in an effort to create and maintain a high level of community awareness of Project activities. A report from a private public relations firm contracted to assist in providing a plan for stimulating community awareness lists eight objectives:

1) to provide maximum possible visibility for the Project.

2) to try to affect the allocation of resources in order to provide (a) more educational funding in general, and (b) a larger portion of educational funding for occupational-vocational education.

3) To relate career education to current day needs and problems.

4) To try to change the image of vocational education from the view that it exists only for those who can't make it in the regular system.

5) To counter the criticism that kids are being forced prematurely into rigid categories, from which they can never escape.

6) To make employers aware of the program in the hopes they will provide job opportunities.

7) To point out that a more relevant educational program will improve the motivation of students and result in obvious benefits.

8) To develop additional project funding from the private sector.

EVALUATION PROCEDURE

The procedure for preparing this Evaluation Report incorporated three elements:

1) Interviews
2) Review of Data
3) Group Discussions

A standardized survey instrument was prepared by the consultant and approved by the Director of the Project. Four survey instruments were prepared, each addressing itself to specific areas of concern:

1) Teachers
2) Administrators
3) Advisory Committee Members
4) Community Leaders

A random sample of each of the populations was selected by the consultant for interview. The interviews were conducted in private, recorded on tape, and analyzed by the consultant team.

Of the 73 teachers participating in the project, a total of 16 were interviewed; 4 from the Middle School and Ross Elementary, 3 from the High School and Banneker, and one each from the West and Houston schools. Principals in the High and Middle Schools were also interviewed as was one main elementary school.

A list of 17 Advisory Committee members was provided by the DOVEM staff. Four interviews were conducted.

Four interviews were conducted also with community leaders of Milford. The sample selected was again random but provided input from a wide cross section of the Milford business community.

A number of documents were made available by the DOVEM staff. Included were quarterly reports, workshop agendas, evaluation monitoring reports, plus various other planning and procedural documents contained within the files of the Project.

The consultant met with the DOVEM staff several times during the course of the evaluation procedure. These meetings provided concentrated input and reactions from all members of the staff, as well as detailed discussions of individual activities.

PROJECT EVALUATION

The stated goal and objectives of the Delaware Occupational Vocational Education Model provide the bases from which to assess and evaluate the operation of the project. Included below are the objectives as stated with a brief evaluative summary.

I. Occupational Orientation at Elementary and Secondary Levels.

Of all of the elements reviewed in the overall operation of the DOVEM, this objective appears to be best met. The reported individual class room projects and teacher interviews indicated concentrated activity to support this objective. This past year witnessed not only more student awareness of occupational orientation but also increased awareness of instructors as to their roles. However, a great deal of interest was shown for more and continued training for teachers. Additional effort from the DOVEM staff should be directed to satisfying the téachers' needs in this aspect.

II. Development of Work Experience and Cooperative Education Programs

A significant increase of students attending the Kent and Sussex County Vocational Technical Schools is noted for the 1971-72 school year. This increase may be related to occupational awareness created by the DOVEM and by teacher

involvement in programs at the centers sponsored by the DOVEM. Approximately 11% of the students of Milford High School participated in the program during the 1970-71 year while 1971-72 figures total approximately 16%. A jump to 22.5% for 1972-73 is projected from the records of the Kent and Sussex institutions.

The job placement coordinator has been quite active in efforts associated with this objective. The completion of a survey of 46 industries in the Milford area is an invaluable tool for the placement of students into jobs; hence the development of work experience. Extra responsibility should be given to the Job Placement Coordinator to assist in the overall public relations effort in the community. His position of closeness with the community establishes a definite channel for information dissemination.

The opening of the Occupation Mall adds to the measured effectiveness of this objective. The analysis of the progress of the Mall should be of increased value to the Model in terms of the extent of cooperative education which is generated.

III. Specific Training in Job-Entry Skills for Students not Previously Enrolled in Vocational Education Programs Prior to Leaving School.

This objective is directed to the students in an effort to assist them in preparing for the formalities of obtaining a job; resume preparation, how to look for a job, how to prepare for an interview, etc.

The Job Placement Coordinator conducted a 2 day seminar with 43 seniors this past year to acquaint them with various non-directive job entry skills. The high school counselors conducted individual sessions with graduating students who were faced with this problem.

Assistance is also provided on an individual basis with students following graduation who are still without employment and unsure of what course to follow. The Job Placement Coordinator and high school Counselors provide this extra assistance.

IV. Intensive Occupational Guidance and Counseling for al Students During the Last Years of Secondary School for the Purpose of Insuring Initial Job Placement.

The activities of the Job Placement Coordinator and the extent to which he has implemented those activities exemplify achievement of this objective. Additional counselors have been added to the Milford School District and their efforts are constantly monitored by the Job Placement Coordinator. Evidence indicates that efforts to provide intensive occupational guidance and counseling for all students are occurring. The effectiveness of the efforts should be analyzed and measured by continued monitoring of Milford High School graduates.

V. A Commitment from the District to Continue the Successful Elements of the Projected after the Contract is Terminated.

This objective can be evaluated only at a future date when the District assumes a concrete position. Seven proposed goals for Delaware Occupational/

Vocational Model were presented to the Milford School District for approval. In late June, 1972 the District indicated approval of the following goals:

1. To make all educational subjects more meaningful and relevant to the student through restructing and focusing instruction around a career development theme.

2. To provide all students with guidance, counseling, and instruction needed to develop their self-awareness and self-direction; to expand their occupational awareness and aspirations; and to develop appropriate attitudes about the personal and social significance of work.

3. To provide an opportunity for all students to gain an entry level marketable skill prior to their leaving school.

4. To prepare all students completing secondary school with the knowledge and skill to pursue further education or to become employed and preferably both.

5. To provide a placement service to insure that every student reaches the next step in his development whether it be employment or further education.

6. To build into the educational system greater utilization and coordination of community resources in order for students to learn and actively participate in the process of

relating "academic school experiences" to the vocational role patterns existing in the community.

7. To increase the educational and occupational options available to all students by providing for a flexible educational system which facilitates entrance and re-entrance into either the world of work or the educational system.

INTERVIEW ANALYSIS

As mentioned earlier in this report, three procedures were used in the development of the overall evaluation of the DOVEM -- interviews, data analysis, and group discussions. The questions asked in the interviews follow with appropriate responses.

Teachers

Specific questions relating to the mechanics of the Model were directed to a sample of the teacher population in each of the elementary schools, middle school, and high school. Each question is listed below with a summary of comments received from each.

What were the most effective activities presented to your students this past year in the area of career education /T-4-C? The least effective?

A general assessment of the activities presented to the students during the 1971-72 school year indicates a high degree of effectiveness both in planning and implementation. The use of group instructors in the middle school proved effective but lacked overall coordination. The activities discussed most included:

- A first grade level garden project which stimulated student interest both in and outside the classroom.

- Manufacturing activities such as the kite making project at the middle school and a candle making assembly proved to allow students exposure to a number of work disciplines.

- A third grade level class applied work theory to a sewing project. Both males and females were involved in the project.

The least effective activities could be summarized as those which involved large numbers of students. In most of these cases it was noted that the number of students involved in the various projects was too large to provide optimum individual exposure. Occupational-vocational projects demand close supervision and instruction from teachers. Obviously the lack of attention given to students results in the loss of overall effectiveness of the Project.

What special techniques did you apply in correlating the regular curriculum with career education/T-4-C subjects?

The most effective techniques employed this past year were utilization of resource persons, field trips, independent lessons, and audio-visual presentations. Field trips were noted as an outstanding activity, but careful pre-planning and coordination is definitely needed and additional assistance is required by the teachers.

How do those techniques relate to those earlier methods discussed in the career education/T-4-C workshops?

Rather than discuss techniques acquired through the attendance of workshops, the respondents chose to direct their discussions to the workshops themselves. Every teacher interviewed enthusiastically supported and applauded the workshops but suggested that more should be added. Specifically, the workshops were not long enough to accomplish their individual goals, the design of the workshop should be coordinated with specific age and grade levels, and more specialized workshops should be established.

Just what was the program trying to accomplish through you and what evidence (if any) do you have to support or not support the effectiveness of the program?

In general, the respondents directed replies similar to those stated as the goals and objectives of the Model. Effectiveness of the program could be supported by the continued growth of student awareness of careers. It was also observed that culturally-disadvantaged students attained greatest benefit through working with various skill-type projects.

What effect, if any, did the general environment of the school have upon the program?

In most cases the general environment of the school proved to be compatible with the operation of the DOVEM. Administrative personnel have willingly supported requests from teachers

and have provided certain inputs to the Model. However, the middle school poses a minor problem at this time. "The environment of the middle school is considered to be a bit chaotic. The students are involved in a large number of things and have to move around too much. These factors tend to excite the students but with excitement which is not oriented to the learning process."

Discuss the attitudes of your students in general toward the program -- your attitude.

The attitudes of the students could best be measured by the teachers relative to responses to the overall development of the various projects. In most cases the students appear extremely eager to participate in the projects and even carried over the related activities into free time. Again, in most cases, teachers observed positive student attitudes toward the Project. The positive attitude is also applicable to all teachers interviewed. One teacher stated, "The initial experience gained by some of the first year teachers had inspired them to become more creative in the area of Career Education."

What changes have you observed in the students as a direct result of the program?

The projects associated with the DOVEM have stimulated alertness in students of lower grade levels. Some evidence indicates alertness and enthusiasm "carry-overs" to other subjects. Changes in high school students have been observed

in specific career oriented subjects, but not in the students' overall school career.

Can you as a teacher, assess in general the operation of the Delaware Occupational-Vocational Education Model?

The primary response from the majority of the teachers interviewed was that the DOVEM is basically sound in its overall development and operation. No negative assessment was made by any teacher; however, several salient recommendations were offered in an attempt to provide an input to further enrich the Model. Listed below are several of those comments:

1) Establish T-4-C labs in lower grades (development labs similar to those of the Middle School).
2) Establish clearer methods of evaluation of students and projects for teachers.
3) Allow teacher observation of other programs in other Districts.
4) Add more teacher workshops to:
   a) Relate project activities.
   b) Provide refresher courses in tool operation and familiarization. (Particulary female teachers).
5) Provide smaller classes.
6) Direct expertise to assist teachers in preparing lesson plans within the objectives of the Project.
7) The placement of students into the various classes should be given more consideration. Problem students can (with some teachers) completely disrupt the activities of the class and ruin the chances for other students to gain from the class.

Principals

Interviews were conducted with three of the principals within the Milford School District. A summary of the responses follows each of the questions below.

Describe in general the DOVEM activities in your school during the past year.

This question seemed to pose a bit of a problem for respondents. One replied that he was unable to specifically comment upon the activities at his school due to the meld of T-4-C activities with the regular curriculum. A few specific projects were cited, but a complete knowledge and involvement was not evident.

How did those activities relate to the overall school program?

The high school reported an increase in the number of students requesting career education courses, which is considered a direct response to the development of student awareness to the world of work. An elementary school principal reported that the program afforded an extra avenue of expression and experience to a greater number of students.

What special consideration was given DOVEM activities by your office during the school year?

The respondents replied almost identically to this question -- active participation from the principal was generally not requested.

What role did you as principle administrator provide in the implementation of the program?

As in the previous question -- none.

What do you think the program was trying to accomplish through you and what evidence (if any) do you have to support or not support the effectiveness of the program?

Again the respondents were in doubt as to the role of the principal in the DOVEM. The effectiveness of the program could, to a certain extent, be measured by the enthusiasm of the students. Additionally, the high degree of involvement by the teachers in the program could give strong indication of positive effectiveness.

Discuss in general the attitudes toward the program of: A) Students, B) Teachers, C) Yourself.

The "snob" attitude of the academic students toward those participating in the career program is a traditional problem source in the high school. However, certain measures are being taken to allow the two areas have more dependency upon each other which should hopefully create a better understanding and alleviation of the problem.

Teachers indicate great personal feeling and pride in their accomplishments within the program and feel the objectives of DOVEM are merited. Younger teachers have adopted the program with greater ease than the older segment.

The principals are very agreeable with the theory of career education and hope for increased involvement from their position.

From your administrative viewpoint, how can the effectiveness of the program be improved?

Increased involvement -- more students should be allowed exposure to the program, the academically talented student should not be deprived of the experience, teachers should be better familiarized with the goals and objectives of the program, and more personnel are needed to implement the program.

Advisory Council

The DOVEM Advisory Council is composed of leading citizens in the Milford area. The members are selected by the Director of the project and meetings are held regularly to discuss and analyze the operation of the Model.

A sample of the population of the Advisory Council was determined randomly and presented certain interview questions. Four members were chosen as respondents.

What are the basic objectives of the Delaware Occupational Vocational Education Model?

The replies from all of the respondents were the same, "to job orient students and prepare them for the world of work."

What is the role of the Advisory Council?

The respondents differed in their views on the role of the Council. Replies ranged from, "to make program changes"

to "establish job opportunities within the community." An overview of the replies indicates that a firm definition of the role of the Advisory Council has not been formulated.

What do you consider to be the major accomplishments of the Council within this role?

The replies were all in the negative. Members could not pinpoint concrete accomplishments.

Can you describe the major accomplishments of the Model within the overall school program?

A number of accomplishments were cited by members of the Advisory Council. The most significant accomplishment cited was that of enthusiasm created in the schools. Everyone in the system, including students, teachers, and administrators, is involved in the process and the enthusiasm is shared by all.

Discuss in general the attitudes of the community toward the program.

As in the previous question, a great deal of enthusiasm is created by the Model and is carried over to the community. However, the enthusiasm within the community is limited to a very small portion -- those who are informed of the operation and objectives of the Model. Council members and business leaders are indeed interested in the project, but the general community remains uninformed.

As an Advisory Council member, can you comment upon how the effectiveness of the Project can be improved?

Two basic comments were made: 1) to establish a more programmed course of public relations; and, 2) the DOVEM should be allowed more time, more patience, and more findings.

Community Leaders

An attempt was made to determine the level of community reaction to the operation of the DOVEM. Respondents were chosen from a list provided by the DOVEM staff. Replies to the interview questions indicated very little knowledge of the program although a wide sample was attempted from the provided list.

What is the Delaware Occupational Vocational Education Model attempting to accomplish in the Milford area?

The main response was "to give people a trade." Some respondents referred to projects centering around the Occupational Mall as being the DOVEM. A number of respondents indicated they knew nothing at all about the project. At this response the interview was terminated.

How are you made aware of DOVEM activities?

Of the respondents with any knowledge of the Project, three media were indicated:

1. Newspaper articles

2. Civic club presentations.

3. Personal contact with DOVEM staff.

How does the program benefit the community?

Only one positive response was offered -- "to give the kids something to do -- exposure to careers." All others could not offer comments either in the positive or negative.

What direct contact have you had with the DOVEM activities at the school level?

Essentially none.

As a community leader in Milford, what, in your opinion, is the general attitude of the community toward the program?

Three comments were made and are quoted:

1. "I have not heard much about it; however, there are no strong objections."

2. derogatory -- "people think the program is a waste of money -- people don't know what's going on -- the program is new and people are slow to grasp it."

3. "No comment."

What program changes would you recommend to the DOVEM to further benefit the community?

In brief, better communications. One respondent stated, "The community can be responsive and is looking for more aggressive persons to encourage overall growth of the community."

CONCLUSIONS

The second year of the Occupational-Vocational Education Model, the period covered by this Evaluation Report, concentrated efforts on Program Development and Pilot Demonstration Program. Based upon interviews with the staff of the Model, administrators, teachers, and others, and upon our analysis and evaluation, certain conclusions are made which are intended to assist in the improvement of the Project.

Conclusion: MORE TEACHER WORKSHOPS ARE NEEDED THROUGHT THE YEAR.

All of the teachers indicated that they needed more assistance in their efforts to provide a more viable project. While materials and supplies are almost always available, the knowledge of "how-to" is not. The teachers conclude that they are certainly not versed in the techniques of teaching occupational awareness and the workshops which they attended have not satisfied this need. The quality of the present workshops is excellent but quantity is needed.

Conclusion: MORE EMPHASIS SHOULD BE PLACED UPON INCREASING COMMUNITY AWARENESS.

The goal of the Project is "To create a meaningful, cooperative effort between the Kent County Vocational/Technical School District and the Milford School District for the purpose of expanding vocational education to meet the needs of all children served by the District". The community is not aware

of this goal and the future implications of the Model itself. To extend the efforts of the Project beyond the period of time originally funded, community acceptance and approval must be forthcoming. The Model must relate to the community exactly what the product will be in the future - exactly how the community will benefit - and what the community must provide if it is to receive these products.

Conclusion: THE ROLE OF THE ADVISORY COUNCIL SHOULD BE BETTER DEFINED.

Evidence indicates that from its inception the advisory council has been a rather stagnant group. The organization of the council appears to be biased with most of its members being professional educators or administrators. One main function of the Advisory Council should be that of providing a channel of communication. Very little evidence of this exists - additionally, the selection of council members from the community should be directed to those individuals who are, in fact, community leaders and who can actively participate in council functions.

Conclusion: EVALUATION MONITORING EFFORTS SHOULD BE INCREASED TO ALLOW TEACHERS A MEASUREMENT OF THEIR EFFECTIVENESS.

To assess the impact of the DOVEM, a long-range plan for evaluation must be set in motion and monitored constantly. The results should be made available to teachers and administrators in an effort to assist those persons in determining the effectiveness of their roles.

APPENDIX F

INTERNAL EVALUATION

INTERNAL EVALUATION

Part I. Elementary Level - Grades 1 & 4

Purpose: At the elementary level, evaluation focused on the relationship of learning outcomes to Project-supported activities. More specifically, the evaluation has sought to answer two basic questions:

1). Is occupational awareness greater in Project-supported classrooms? (The T4C classrooms)

2). Have Project-supported activities provided a memorable and/or enjoyable experience in school?

These questions have been posed as means of assessing two Project objectives:

1). To develop occupational awareness at the elementary level, and

2). To provide meaningful experiences in the world of work and technology.

Procedures - Occupational Awareness

1. Definition - The construct of occupational awareness was defined as knowledge of occupations; specifically, knowledge of the occupational terms, titles, tools, and work environments. In terms of the

cognitive domain, it appears that awareness is a lower level skill involving memory. In the affective domain, Bloom (1964) has defined awareness as knowledge together with attending behavior, the attitudinal component.

2. Test Development - The test of Occupational Awareness developed by the Project staff is included with instructions in F-1. It was developed at the end of the school year and was based on those occupations teachers reported as having mentioned and studied in T4C classrooms, grades one through four. Monthly, class activity report forms were available and these reports were reviewed for occupational titles. A master list of 132 titles was compiled from these forms. Each teacher, T4C and non-T4C, received a copy of the master list and checked those titles mentioned in his classroom. Teachers also added titles not included on the master list.

Thirty occupational titles were selected to represent those workers in students' home, school, and community environments with approximately two titles from each of the fifteen occupational, career clusters. This selection procedure, based on school, home, and community environments, was suggested by the district curriculum guide for the elementary schools which contains the recommendation that workers in these environments be included as a part of the

"social living" curriculum for elementary students. The thirty titles chosen were compared to T4C teachers' master lists; at each grade level at least three of the three or four T4C teachers at that grade level had mentioned and studied each occupation on the test.

The project staff formulated questions for each of the thirty titles based on a term, tool, or work environment. These questions required the student to respond by circling a "yes" or "no" answer. The items were balanced for "yes" or "no" correct response to avoid response set bias.

3. Sample - All students in grades one through four were tested, not including those students grouped in special education classes. For data analysis in the evaluation, ten students from each grade-one classroom were randomly selected while twelve students were randomly selected at grade-four level. These samples represent 40-50% of the total number of students in each classroom. The population of students in these grades had not been randomly assigned to classrooms at the start of the school year.

4. Design, Analysis, and Limitations - Data were analyzed in a hierarchal design for an analysis of variance. The main treatment

effect was Project supported T4C classrooms compared with non-T4C classrooms; classrooms were nested within treatment levels. Since four grade-one classrooms used T4C, four grade-one classes were randomly selected from the six non-T4C classrooms to serve as control classes for data analysis. At the fourth grade level, five classrooms were T4C supported and five were not. These five served as control for the five T4C classrooms.

The primary limitation of this evaluation was the possible bias presented by non-random assignment of students to classrooms. The presence of such a bias would account for a significant difference between treatment and control groups in this ex-post facto analysis; consequently, only the first and fourth grade data were analyzed since standardized test scores were available for possible covariance adjustment of group differences at these grade levels.

Results

Table 1 contains the results of the analysis of variance on occupational awareness scores for grades one and four. As indicated in the table no significant mean differences obtained for the treatment effect of T4C and non-T4C classrooms at either grade level ($p > .05$). However, the effect of different classrooms was significant ($p < .05$),

indicating the sampling bias of non-random assignment (i.e., differences between classroom groups).

No covariance adjustment was used on awareness scores since an analysis of variance on standardized reading scores in the hierarchal design indicated no significant mean differences between T4C and non-T4C classrooms ($p > .05$) although significant differences obtained between classrooms on mean reading scores ($p < .05$).

A multiple correlation coefficient was computed between occupational awareness and standardized reading and listening scores to estimate the distinctness of occupational awareness as a construct. Scores were obtained on a random sample of sixty-one students from the four grade-one T4C classrooms. The intercorrelations of the three scores are contained in Table 2. A multiple correlation of $R_{1.23} = .803$ was obtained.

Procedures - Estimating The Effects Of Project-Supported Activities In T4C Classrooms

The population of students in grades one and two, T4C classrooms, was interviewed in groups of two or three students at a time. Four classes were interviewed at grade-one and four at grade-two. The standard interview format in included in F-2.

Table 1
Analysis of Variance Results
On Occupational Awareness Scores

Source	SS	df	MS	F
Grade I				
A(T4C-NonT4C)	57.8	1	57.8	2.33
B within A	148.8	6	24.8	2.26*
within cell	833.6	72	10.97	
Grade IV				
A(T4C-NonT4C)	21.77	1	21.67	1.46
B within A	118.6	8	14.82	2.88*
within cell	566.8	110	5.15	

*$p < .05$

Table 2
Intercorrelation Matrix For Three Test Scores

	Occupational Awareness	Reading	Listening
Occupational Awareness	( )		
Reading	0.770	( )	
Listening	0.658	0.623	( )

Students were interviewed during the last two weeks in May at the close of the school year. As indicated by the interview format, students were asked to recall what they had done in school during the year. They were then asked to tell what they had enjoyed and what they had not enjoyed in school during the year. Interviews were recorded for response classification purposes.

At the fourth grade level, four of the five T4C teachers presented these questions to the students who responded with written answers.

Limitations

No estimate has been made on the reliability (stability or reproducibility) of responses obtained in the interview procedure. It seems reasonable to assume that these responses are influenced by primacy and/or recency effects in memory as well as the extent to which the classroom teacher has used T4C Project-supported activities.

Classification of Responses

Project staff members classified students' responses as being Project-related or not related. A response was considered related if the

mentioned activity was supported by Project funds. Examples of this classification are certain field trips, "the workbench", "making the puppet show", and "the garden".

Results

The results of response classification are presented in Table 3 and reported as percentages. No significance tests were computed since the total population of T4C classes was interviewed.

It is apparent from the results that significantly more "non-related" responses were given than "related" responses to both questions. At the same time, results indicate that "related", enjoyed responses are significantly different from "related", not-enjoyed responses.

Discussion

The possibility exists that non-random assignment of students to classes may account for non-significant differences in the main effect. If this were the case, then occupational awareness would be higher initially for the non-T4C groups and the T4C curriculum would have raised the level of treated students to that of the control in a period of several months. However, certain data suggest that curricular content may serve as a more plausible explanation.

TABLE 3
CLASSIFICATION OF RESPONSES BY PERCENT
TO TWO INTERVIEW QUESTIONS

	Activity Enjoyed		Activity Not Enjoyed	
	Project Related	Not Related	Project Related	Not Related
Grades I & II (N=221)				
No. of Responses	64	157	4	217
Percent	28.9	71.04	1.81	98.19
Grade IV (N=123)				
No. of Responses	61	62	0	123
Percent	49.5	50.5	0	100

As noted in the section on test construction, the test was formed in such a way as to "bias" the results in favor of the T4C classrooms since only T4C teacher report forms were reviewed for selection of test content. However, when each teacher's master list was scored for number of occupations mentioned, and scores were totalled and averaged, it was found that T4C teachers (N=17) had mentioned an average of 51 occupations while non-T4C teachers (N=19) had mentioned an average of 52 occupations. When the suggested guide for "social living" curriculum in the elementary grades is also considered, it seems possible that T4C teachers have either 1) taught a curriculum that is not unique to T4C classrooms, (i.e., both T4C and non-T4C teachers have taught similar occupational content and numbers of occupations based on a district curriculum guide.) or 2) if the curriculum is unique, then the test failed to assess those aspects of occupational awareness that were unique to T4C classrooms. This problem is one of content validity.

The inferences above suggest that future evaluations of T4C might be cast in both the formative and summative modes. If the T4C curriculum develops occupational awareness, and if this effect is unique within classrooms, then a formative evaluation is indicated. This approach requires that each teacher, or groups of teachers,

specify occupational awareness objectives with pre and post-testing on these objectives to assess change. Such an approach would help to rule out the possibility that change in awareness is due to learning history outside of school. The existence of this effect is indicated by data which shows that the mean of occupational awareness scores increases across grade levels, one to four, while the number of occupations teachers mentioned and/or studied decreases across grade levels one to four. While the basic advantage of this approach is that it can demonstrate the effects of a school curriculum, it also assures that tests will have content validity and be able to assess those unique aspects of the T4C curriculum.

The second question posed about the effects of T4C activities on enjoyment and memorable experiences perhaps provides some insight into the area of valuing in the affective domain. Apparently, Project-supported activities have provided experiences that are remembered and valued positively. On the other hand, the meaning of these experiences has not been established in the sense of concurrent or predictive validity. A point biserial correlation using a random sample of 62 students in four fourth grade classrooms revealed no significant relationship ($r_{pb} = .15, p > .05$) between occupational awareness score and Project-related or non-related activities which were

enjoyed. This relationship suggests that if T4C is to be viewed as a motivational device, then a summative evaluation approach might be used at the higher levels of the affective domain assessing students' attitudes towards school, self, and academic subjects, as well as achievement in various subject matter areas.

PART II. MIDDLE SCHOOL - Grade 5

Purpose: Evaluation at the middle school level has sought to investigate the effects of an occupational curriculum on both the cognitive and affective domains. More specifically, the evaluation has sought to answer the following questions related to the Project's goals:

1). Has an occupational education curriculum contributed to an increased knowledge and awareness of occupations?

2). Has an occupational education curriculum contributed to an increased level of vocational maturity, self-concept, and favorable attitudes toward school?

Procedures - Occupational Knowledge and Awareness

1. Tests and Test Development - Two tests were developed to assess occupational knowledge and awareness. The first was a collection of fifty items combined from the six forms of the Occupational Cognizance Test developed for the fourth grade level (ED 037571). These tests included occupational information and educational-level needs for various occupations. The second test was developed by the Project staff and was meant to serve a criterion-referenced function in that it tested basic factual information that teachers would be teaching in a unit on the con-

struction and building trades. Copies of both tests are included in Appendix A.

2. Vocational Maturity, Self-Concept, and Attitudes Towards School - Vocational Maturity was assessed using Crites' Vocational Development Inventory (1966). This instrument seeks to assess personal involvement in selecting a vocation, independence in vocational decision-making, and orientation to the world of work as indicators of vocational development. A single composite Vocational Maturity score is obtained for each individual.

The tests of Self-Concept and Attitudes Towards Schools were those developed by the Instructional Objectives Exchange for the intermediate level. Two of these scales were used to assess Self-Concept (Family and Peer) and six were used to assess Attitudes Toward School (Mode of Instruction, Authority and Control, Teacher-Pupil Relationships, Learning, School Social Structure and Climate, and Peer Relationships). These eight scales were combined to form an eighty-item instrument; a total score for each scale was obtained by summing only those responses indicating positive attitudes as recommended by the I.O.X.

3. Sample - Only one classroom group (N=36), chosen by Team B teachers at the fifth grade level, received the curriculum and, consequently, only

this group received the tests described above in both pre and post instructional conditions. Pre-tests were administered in January and post-tests were administered in the last two weeks of May. As indicated by the degrees of freedom in Table IV of the results, not all students completed all the tests.

4. Design and Analysis - The design of the evaluation was the simple pre-test, post-test design without a control group. Differences on pre-test, post-test means were analyzed with the t-test for correlated data.

Limitations

The primary limitation of this evaluation was the lack of a randomly assigned control group. Such randomization would permit inferences concerning the effects of the curriculum on students; however, no such inferences are possible despite the significance of obtained results since in this design, history, maturation, effects of testing, etc. are plausible rival hypotheses in explaining change.

Results

Table IV contains the results of the t-tests on pre and post-test means. In the cognitive area, the difference between the means of the Occupations Test showed a significant increase while the means of the Construction Unit Test were not significantly different. In the affective area,

the means of the V.D.I., Peer Self-Concept, and Family Self-Concept scales were not significantly different. The means of the following attitude scales were significantly different in that post-test means were lower than pre-test means: Learning, Teacher-Pupil Relationships, School Social Structure and Climate, Authority and Control, Mode of Instruction, and Peer Relationships.

TABLE IV

RESULTS OF t-TESTS ON PRE AND POST TEST MEANS
GRADE 5

Test	Means Pre	Means Post	df	t
1. Occupations Test	31.75	34.94	31	5.812*
2. Construction Unit	11.89	12.18	32	0.586
3. V.D.I.	26.26	25.83	34	0.495
4. Peer Self-Concept	4.32	4.38	33	0.403
5. Family	5.09	5.09	33	0.000
6. Learning	3.21	2.74	33	1.932*
7. Teacher-Pupil Relationships	5.26	4.32	33	2.788*
8. School Structure & Social Climate	10.71	9.24	33	3.094*
9. Authority & Control	8.56	6.76	33	3.92 *
10. Mode of Instruction	8.74	7.62	33	1.86 *
11. Peer Relationships	7.41	6.85	33	1.89 *

*= $p < .05$

Discussion

Several aspects of evaluation discussed in the elementary section are relevant for evaluation in the middle school grades. Perhaps the most important aspect is the use of teacher-made tests in the role of formative evaluation, assessing the learning of those objectives which teachers have formulated and taught. The lack of a significant difference in the Construction Unit test seems to point up the need for this approach if cognitive skills are to be assessed.

In the assessment of self-concept and attitudes, several problems are presented by the IOX scales as presently formulated. The reliability of each scale, estimated by internal consistency procedures, is relatively low. This suggests that if change occurs, the change effects may be spread out among several scales such that change cannot be consistently assessed. Consequently, factor analysis will be performed on this data to determine the underlying structural relationships of these items. In the event that the factor analysis produces a structure different from that proposed by the IOX, these results would dictate the realignment of those items which are summed to produce scale-scores. The internal consistency and reliability of the scales should be increased by these procedures.

REFERENCES

Bloom, B.S., Krathwohl, D.R. & Masia, B.B. Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 2. Affective domain. New York: McKay, 1964.

DELAWARE'S OCCUPATIONAL - VOCATIONAL MODEL

What Work Do People Do?

What Do They Work With, Where Do They Work?

Introduction to Students:

This test is designed to see if (1st, 2nd, 3rd, 4th) grade students know what work people do, what tools they work with, and where people do their work. Since it is meant to show what (1st, 2nd, 3rd, 4th) graders know about people and their work, you won't receive a grade on the test, but we would like you to do as well as you can in answering the questions.

Directions to Students:

I will read questions about people and their work and you will mark your answers on your answer sheet. Take your answer sheet now. Write your name in the space. Check whether you are a boy or girl. Write your grade in the space provided.

Let me show you how to mark your answer sheet. If I read a question and the answer is "yes", circle "yes" next to the question number. If I read a question and the answer is "no", circle "no" next to the question number.

Let's try an example: Does a policeman deliver letters? Circle "yes" or "no". The correct answer is "no", so you should have circled "no". Any questions? If you would like to have a question repeated, raise your hand. Do not ask anybody to tell you a question or an answer while the test is going on. Let's begin.

DELAWARE'S OCCUPATIONAL - VOCATIONAL MODEL

People, Tools, and Their Environments

1. Does a secretary usually use a typewriter in her work?
2. Does a salesclerk use a wrench in his work?
3. Does a broadcaster work in a gas station?
4. Does a carpenter use a hammer?
5. Does an assemblyline worker work in a factory?
6. Does a truck driver use a camera for his work?
7. Does a farm manager work on a farm?
8. Does a fisherman do his work with an ax?
9. Does an air pollution technician look at smokestacks in his work?
10. Does a lawyer work in a church?
11. Does a doctor do his work with a telescope?
12. Does an innkeeper do his work in a motel?
13. Does a barber do his work with clippers?
14. Does a musician do his work with a saw?
15. Does a mother do her work in a house?
16. Does a deliveryman work in an office?
17. Does a station attendant work with a gas pump?
18. Does a reporter work in a warehouse?
19. Does an architect work with road maps?
20. Does a draftsman use an airplane for his work?

People, Tools, and Their Environments

21. Does a pilot work with blue prints?

22. Does a ranger work in a forest?

23. Does a marine biologist work with ocean life?

24. Does a custodian work in a school?

25. Does a mailman work with a firetruck?

26. Does a nurse work on a stage?

27. Does a lifeguard work with a swimming pool?

28. Does a dry cleaner clean house?

29. Does a writer work on books?

30. Does a veternarian work with animals?

INTERVIEW FORMAT - GRADES I AND II

Int: Hello, my name is _____ _____. What's your name?
S: Response

Int: I am going to ask you two questions about what you've been doing in school this year. This is a tape-recorder and I'm going to record what we say so that I can remember what we say. OK?

Int: Here's the first question. Think about it before you answer. What did you do in school this year that you really liked to do? Something that was fun and that you enjoyed.
S: Response

Int: O.K., good. Here's my next question. Think about it before you answer. What did you do in school this year that you really didn't like to do? Something that wasn't fun and that you didn't enjoy.
S: Response

Int: These are the questions I wanted to ask you. Thank you for talking to me. It seems like you've had a good year this year. Please return to your desk and ask the two people next to you to come in next.

DIRECTIONS:

Place your name and class on the answer sheet.

For each of the following questions, fill in the number of the correct answer on your answer sheet.

If you have trouble reading a word, ask your teacher for help.

1. Which of the following does NOT require special schooling:

   1. cab driver
   2. nurse
   3. computer programmer
   4. barber

2. Which of the following requires the LEAST training:

   1. hair stylist
   2. secretary
   3. pilot
   4. mailman

3. A college education is NOT required to be a

   1. chemist
   2. doctor
   3. carpenter
   4. architect

4. Which of the following works closest with a STEWARDESS:

   1. travel agent
   2. author
   3. photographer
   4. pilot

5. Which of the following is NOT in the field of CONSTRUCTION:

   1. architect
   2. mechanic
   3. carpenter
   4. surveyor

6. Which of the following works mainly with AUTOMOBILES:

   1. carpenter
   2. pilot
   3. chemist
   4. mechanic

7. Which of the following has to know the MOST about mathematics:

   1. lawyer
   2. pilot
   3. doctor
   4. secretary

8. Which of the following spends the MOST time serving food:

1. stewardess
2. waitress
3. cook
4. nurse

9. Which of the following is in the field of CONSTRUCTION:

1. doctor
2. soldier
3. carpenter
4. saleslady

10. Which of the following requires the LEAST training:

1. athlete
2. policeman
3. mechanic
4. milkman

11. A college education is usually needed to be a:

1. mailman
2. lawyer
3. mechanic
4. farmer

12. Which of the following is NOT in the field of EDUCATION:

1. teacher
2. lawyer
3. counselor
4. principal

13. Which of the following works MOST with groups of people:

1. mailman
2. secretary
3. teacher
4. chemist

14. Which of the following does NOT require special schooling:

1. cab driver
2. nurse
3. computer programmer
4. barber

15. Which of the following is in the field of ENTERTAINMENT:

1. policeman
2. mailman
3. actor
4. barber

16. Which of the following works closest with a PILOT:

1. architect
2. mechanic
3. surveyor
4. accountant

17. Which of the following has to know the MOST about grammar:

1. secretary
2. mechanic
3. surveyor
4. engineer

19. Which of the following requires the LEAST education.

1. chemist
2. teacher
3. lawyer
4. saleslady

20. Which of the following is NOT in the field of GOVERNMENT SERVICE:

1. politician
2. musician
3. mailman
4. policeman

21. Which of the following is NOT in the field of ART:

1. illustrator
2. typist
3. designer
4. sculptor

22. Which of the following works closest with a GEOLOGIST:

1. landscaper
2. teacher
3. surveyor
4. doctor

23. Which of the following works closest with an AUTHOR:

1. teacher
2. mailman
3. librarian
4. editor

23. Which of the following is in the field of COMMUNICATION:

1. cook
2. telephone operator
3. athlete
4. mechanic

24. It is usually necessary to serve as an apprentice to become a:

1. waitress
2. biologist
3. plumber
4. salesman

25. Which of the following designs buildings:

1. mechanic
2. architect
3. surveyor
4. engineer

26. Which of the following does NOT have to work with tools:

1. mechanic
2. carpenter
3. milkman
4. barber

27. Which of the following requires the LEAST training:

1. astronaut
2. telephone operator
3. doctor
4. hair stylist

28. Which of the following works closest with a VETERINARIAN:

1. soldier
2. farmer
3. mechanic
4. author

29. Which of the following is NOT in the field of TRANSPORTATION:

1. stewardess
2. mechanic
3. truck driver
4. architect

30. Which of the following requires the MOST education:

1. barber
2. mechanic
3. secretary
4. chemist

31. Which of the following works closest with a CASHIER:

1. librarian
2. bookkeeper
3. nurse
4. actress

32. Army officers usually have at least:

1. a high school diploma
2. two years of high school
3. a college degree
4. a grade school education

33. Which of the following works mainly with ANIMALS:

1. farmer
2. veterinarian
3. doctor
4. milkman

34. Which of the following works closest with an EDITOR:

1. lawyer
2. doctor
3. publisher
4. surveyor

35. A college education is NOT required to be a:

1. nurse
2. secretary
3. teacher
4. librarian

36. Which of the following is in the field of AGRICULTURE:

1. hair stylist
2. housewife
3. carpenter
4. farmer

37. Which of the following has to know the LEAST about MATHEMATICS:

1. pilot
2. teacher
3. mailman
4. store clerk

38. Which of the following spends most of his time with tax records:

1. surveyor
2. biologist
3. architect
4. accountant

39. Which of the following works closest with an ARCHITECT:

1. mechanic
2. contractor
3. nurse
4. librarian

40. Which of the following requires the MOST training:

1. printer
2. sales clerk
3. waitress
4. telephone operator

41. Which of the following works closest with a CARPENTER:

1. mechanic
2. chemist
3. plumber
4. gardener

42. Which of the following is in the field of MEDICINE:

1. teacher
2. nurse
3. hair stylist
4. barber

43. Which of the following is in the field of TRANSPORTATION:

1. barber
2. farmer
3. actress
4. pilot

44. Which of the following spends spends the MOST time at a desk:

1. actress
2. secretary
3. carpenter
4. policeman

45. Which of the following works closest with a POLICEMAN:

1. teacher
2. pilot
3. chemist
4. lawyer

46. Which of the following spends the LEAST amount of time outdoors:

1. athlete
2. farmer
3. mailman
4. teacher

47. It is usually necessary to serve as an INTERN to become a:

1. mechanic
2. lawyer
3. doctor
4. policeman

48. Which of the following works in a laboratory:

1. secretary
2. chemist
3. lawyer
4. barber

49. Which of the following is in the field of SCIENCE:

1. chemist
2. soldier
3. lawyer
4. farmer

50. Which of the following is NOT in the field of MEDICINE:

1. nurse
2. barber
3. veterinarian
4. pharmacist

CONSTRUCTION UNIT TEST

PICK THE NUMBER OF THE CORRECT ANSWER AND PLACE IT ON YOUR ANSWER SHEET. DO NOT WRITE ON THIS TEST. IF YOU CANNOT READ A WORD, ASK YOUR TEACHER.

1. Which tool would an architect use?
   1. brush
   2. hammer
   3. square
   4. awl

2. Which item would an architect produce?
   1. wage rate
   2. rivet
   3. miter joint
   4. blue print

3. Which tool would a draftsman use?
   1. template
   2. tin snips
   3. le el
   4. trowel

4. Which item would a draftsman produce?
   1. ceramic tile
   2. floor plan
   3. circuit breaker
   4. furring strip

5. Which tool would a surveyor use?
   1. rasp
   2. pliers
   3. transit
   4. auger bit

6. Which item would a general contractor need to finish his work?
   1. down spout
   2. watt-hour
   3. trap
   4. bill of materials

7. Which tool would an excavator use?
   1. screw driver
   2. bulldozer
   3. chisel
   4. pliers

8. Which item would an excavator need to accomplish his work?
   1. duct work
   2. miter joint
   3. plot-plan
   4. vapor barrier

9. Which tool would a mason use?
   1. clamp
   2. trowel
   3. file
   4. try-square

10. Which item would a mason need to finish his work?
    1. joist
    2. rivet
    3. glue
    4. mortar

11. Which tool would a carpenter use?
    1. framing square
    2. tin snips
    3. brush
    4. transit

12. Which item would a carpenter need to finish his work?
    1. concrete
    2. brick
    3. lumber
    4. asbestos

13. Which tool would an electrician use?
    1. trowel
    2. architect's scale
    3. diagonal cutter
    4. level

14. Which tool would a plumber use?
    1. trowel
    2. pipe wrench
    3. tin snips
    4. try-square

15. Which item would a plumber repair in his work?
    1. circuit breakers
    2. ceiling
    3. miter joint
    4. trap

16. Which tool would a painter use?
    1. framing square
    2. brace & bit
    3. roller
    4. key-hole saw

17. Which item would a painter need to know about in his work?
    1. enamel
    2. shingle
    3. ceramic tile
    4. sheet metal

18. What tool would a tile installer ur ?
    1. rasp
    2. tape rule
    3. clamp
    4. awl

19. Which tool would a roofer use?
    1. auger bit
    2. chisel
    3. screw driver
    4. claw hammer

20. Which item would a roofer need to finish his work?
    1. felt paper
    2. bench mark
    3. circuit breaker
    4. rivet

21. Which item would a laborer need to know about in his work?
    1. building codes
    2. zoning
    3. working conditions
    4. estimates

22. Which item would a heating installer need to know about in his work?
    1. tin snips
    2. trowel
    3. architect's scale
    4. transit

23. Which item would a heating installer need to know about in his work?
    1. bench mark
    2. duct work
    3. branch circuit
    4. drain field

24. Which tool would a dry wall installer use?
    1. crosscut saw
    2. diagonal cutter
    3. level
    4. folding rule

25. Which item would a dry wall installer need to know about to finish his work?
    1. plot-plan
    2. furring strip
    3. trap
    4. vent pipe

26. Which item would a landscaper need to know about to finish his work?
   1. grading
   2. scaffold
   3. fuse box
   4. joist

27. Which item would a building inspector need to know to finish his work?
   1. working conditions
   2. wage rate
   3. building codes
   4. fringe benefits

OPINION SURVEY

This survey is designed to let you express your attitudes about yourself and your school. There are no right or wrong answers, so respond to each item as honestly as you can.

DIRECTIONS

On your answer sheet mark the following:

1. Your name
2. Whether you are a boy or a girl
3. Your grade level (5,6,7,or 8)

On your answer sheet, please show whether each sentence is generally true or untrue for you by marking "true" if the sentence is generally true or "untrue" if the sentence is generally not true. Make a mark for every sentence.

For example:

	True	Untrue	
1.	____	x	1. My class is too easy.
2.	x	____	2. I'd like to stay at my school always.

1. Other students bother me when I'm trying to do my school work.

2. My teachers always tell me when they are pleased with my work.

3. My teachers are interested in the things I do outside of school.

4. I can disagree with my family.

5. This school is like a jail.

6. In our classes, we often get a chance to make decisions together.

7. I often feel rushed and nervous in school.

8. My teachers give me work that is too hard.

9. Other students often get me into trouble at school.

10. My teachers seldom tell me whether my work is good or bad.

11. My teachers listen to what I have to say.

12. My family thinks I don't act as I should.

13. I follow the rules at school.

14. There are many different activities at school from which I can choose what I would like to do.

15. When I do something wrong at school, I know I will get a second chance.

16. My teachers give me work that is too easy.

17. I often must do what my friends want me to do.

18. My teachers try to make school interesting to me.

19. My family is glad when I do things with them.

20. My teachers do not care about me.

21. My family respects my ideas.

22. The principal of my school is friendly toward the students.

23. I get as many chances as other students to do special jobs in my classroom.

24. My teachers do not give me enough time to finish my work.

25. The other students in my classes are not friendly toward me.

26. Friends usually follow my ideas.

27. I like to do school work at home in the evenings.

28. My teachers don't understand me.

29. I usually treat my family as well as I should.

30. The principal's main job is to punish students.

31. My teachers treat me fairly.

32. My teachers make sure I always understand what they want me to do.

33. I really like working with the other students in my classes.

34. I would rather learn a new game than play one I already know.

35. I'm afraid to tell my teachers when I don't understand something.

36. My family often expects too much of me.

37. I get scared when I have to go to the office at school.

38. My teachers unfairly punish the whole class.

39. I get tired of hearing my teachers talk all the time.

40. School is a good place for making friends.

41. I wish my class could have the same teachers next year.

42. I like trying to work difficult puzzles.

43. My teachers scare me.

44. I am an important person to my family.

45. When I have a problem on the playground at recess, I know I can find a nice teacher to help me.

46. I don't like most of the children in my classes.

47. My teachers are not very friendly with the students.

48. The biggest reason I come to school is to learn.

49. My teachers are mean.

50. I am embarrassed to be in the classes I'm in.

51. I am lonely very often.

52. I think a new student could make friends easily in my class.

53. I feel like my teachers don't like me when I do something wrong.

54. There are too many students in my classes.

55. When a new student comes into our class, my friends and I try very hard to make him or her feel happy.

56. My teachers like some students better than others.

57. I feel unhappy if I don't learn something new in school each day.

58. When I do something wrong, my teachers correct me without hurting my feelings.

59. Most people have fewer friends than I do.

60. I have to share books with other students too often at school.

61. I know what my teachers expect of me.

62. My teachers are often too busy to help me when I need help.

63. I am easy to like.

64. My teachers do not scare the students.

65. I often feel lost at school.

66. My teachers usually explain things too slowly.

67. There's no privacy at school.

68. Older students often boss my friends and me around at my school.

69. At school other people really care about me.

70. I would rather get books for my birthday than toys or clothes.

71. I would rather eat lunch at home than at school.

72. My teachers boss the students around.

73. The students in my classes nearly always obey the teacher.

74. We change from one subject to another too often in my classes.

75. I like my teachers.

76. I am popular with people my age.

77. My teachers grade me fairly.

78. I am friendly toward other people.

79. In school I have to remember too many facts.

80. I am fun to be with.

ACCESSION NUMBER: VT101984

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. FIRST GRADE GUIDELINE.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; VOCATIONAL DEVELOPMENT; *CAREER AWARENESS; *CLASS ACTIVITIES; SELF CONCEPT; OCCUPATIONAL INFORMATION; TEACHING GUIDES; RESOURCE MATERIALS; *GRADE 1; BULLETIN BOARDS

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 154P.; SEE RELATED DOCUMENTS VT 101 983 AND VT 101 985 THRU VT 101 989 IN THIS ISSUE.

ABSTRACT: THE NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION WAS DEVELOPED AND FIELD-TESTED IN THE BISMARCK DISTRICT AND IN OTHER SCHOOLS THAT BECAME INVOLVED DURING 1970-1973. MATERIALS WERE COMPILED FOR TEACHER USE IN INTEGRATING CAREER EDUCATION ACTIVITIES INTO THE EXISTING CURRICULUM, ADAPTED TO LOCAL SCHOOL NEEDS. INCLUDED ARE CAREER EDUCATION PHILOSOPHY (K-6), OBJECTIVES, AND DEVELOPMENT CONCEPTS. FIRST GRADE OBJECTIVES ARE TO PRESENT APPROPRIATE OCCUPATIONAL INFORMATION ABOUT THE WORLD OF WORK, TO DEVELOP AN AWARENESS OF SELF-WORTH, AND TO DEVELOP POSITIVE ATTITUDES TOWARD WORK. THIS VOLUME CONTAINS MATERIALS ON SELF-WORTH AND UNDERSTANDING ONESELF AND OTHERS, OCCUPATIONAL INFORMATION AND POSITIVE ATTITUDES TOWARD WORK AND WORKERS, AND BULLETIN BOARD IDEAS. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 984

GRADE 1

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

VT 101 GR4

First Grade Guideline

of the

Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

"BUY NORTH DAKOTA PRODUCTS"

TABLE OF CONTENTS

First Grade

I. Self-Worth and Understanding Myself and Others

Understanding and Accepting Self 1
Unit I DUSO Kit Explanation. 3
Understanding Feelings 5
Unit II DUSO Kit Explanation 7
Understanding Others 9
Unit III DUSO Kit Explanation. 10
Respecting Rights of Others. 12
Courage. 16
My Place in Society. 20-23
Respecting Rights of Others. 24
Emerging Identity. 41
Awareness and Coping 53
Understanding Independence 57
Self Discipline, Concern for Others and Truthfulness 74
Personal Attainment. 84-88
Goals and Aspirations. 103

II. Providing Occupational Information and Developing Positive Attitudes Toward Work and Workers

School Workers 25-30
Parents Occupation 31
Home and Family Workers. 32
Mother's Use of Basic Skills 35
Children as Workers. 36
Family Helpers 39
Policeman. 45
Fireman. 48
Workers Related to Holidays. 60-63, 66, 72, 89, 107, 111,
Newsboy. 64
Deliveryman. 69
Weatherman 78
Mailman. 91
Milkman. 94
Horticulture Workers 98
Space Workers. 102
Workers in Other Countries 75, 109
Babysitter 111
Workers that Work With Animals 112, 118
Custodial Services 114
Sanitation Workers 116
Farm Workers 123
Circus Workers 126
Medical Workers. 81

III. Bulletin Board Ideas

Five Rules for Group Discussion 2
How do You Feel?. 6
If I Were..... 22
School Workers. 27
Who Lives on a Farm 125
It's Circus Time 129

IV. Appendices

Resource People Guide 131
Field Trip Guide. 135
Suppliers of Resource Materials 138

V. Introduction

Preface iv
Acknowledgments v
Purpose of this Guideline vi
Career Education Philosophy (K-6) vii
Summary of Career Education Objectives. viii
Concepts to Develop (Grades K-6). ix
First Grade Objectives x

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

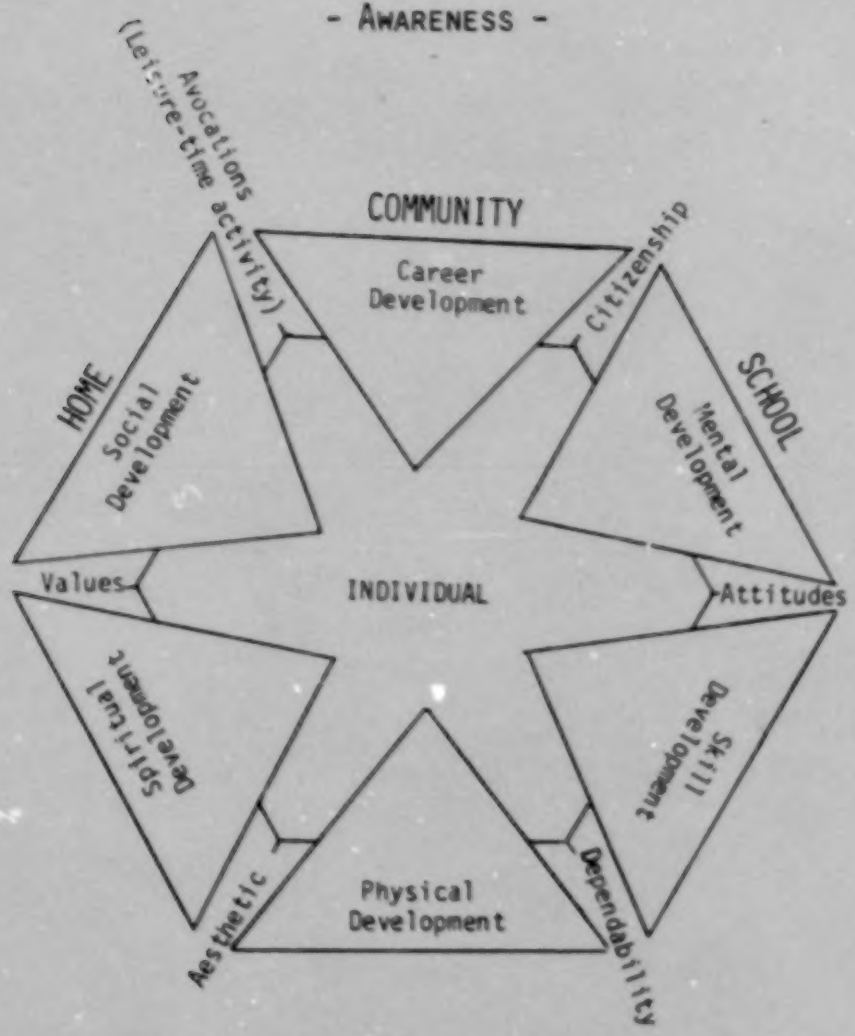
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life-long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B. Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

FIRST GRADE OBJECTIVES

I. To present appropriate occupational information about the world of work.

A. Jobs I Do

1. At home
2. At school

B. Jobs I Know

1. At home
2. At school
3. Workers that come to my home.

II. To develop an awareness of self-worth.

A. My feeling

B. My similarities to others

C. My differences to others

D. My place in society

E. My strengths

F. My weaknesses

III. To develop positive attitudes toward the world of work.

A. To learn how to get along

B. To learn to share

C. To learn the give and take process of life

D. To learn to take good care of their own property

E. To learn to take care of other people's property

F. To learn to appreciate all workers no matter what occupation

25. A society needs both a producer of goods and producer of services.

26. Supply and demand of goods influences the kinds of workers found in the community.

27. People work for various rewards.

28. Math concepts are necessary in communicating.

29. A healthy body is essential to a productive worker.

30. Many people have special training for work.

31. Recreational activities expand interests.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of Self-Worth.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of Unit 1, each student will be able to draw a picture showing one way that he is the same as his neighbor and one way that he is different.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

Unit I - Understanding and Accepting Self

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities are attached as they are listed in teacher's manual of the DUSO (Developing Understanding of Self and Others) kit.	1. Use the various methods offered in the DUSO Kit to develop the concept that each of us have similarities and each of us have differences. 2. Use full length mirror with heading "I am Special" or "I am Different." Discuss, "Is your neck longer than your head?" etc. Make Washington three cornered hats. Have children draw things about themselves on the hat. 3. Draw full length picture by having child lay on paper on floor and have a peer draw around his form. Correlate with art by painting, drawing details, etc.	1. DUSO (Developing Understanding of Self and Others) Kit American Guidance Service, Inc. Publishers Building Circle Pines, MN 44014 Price: About $80.00

SUGGESTED CORRELATION FOR THIS ACTIVITY: Connotations from this activity can be drawn into all the academic areas.

Are YOU Listening?

Listen Carefully.

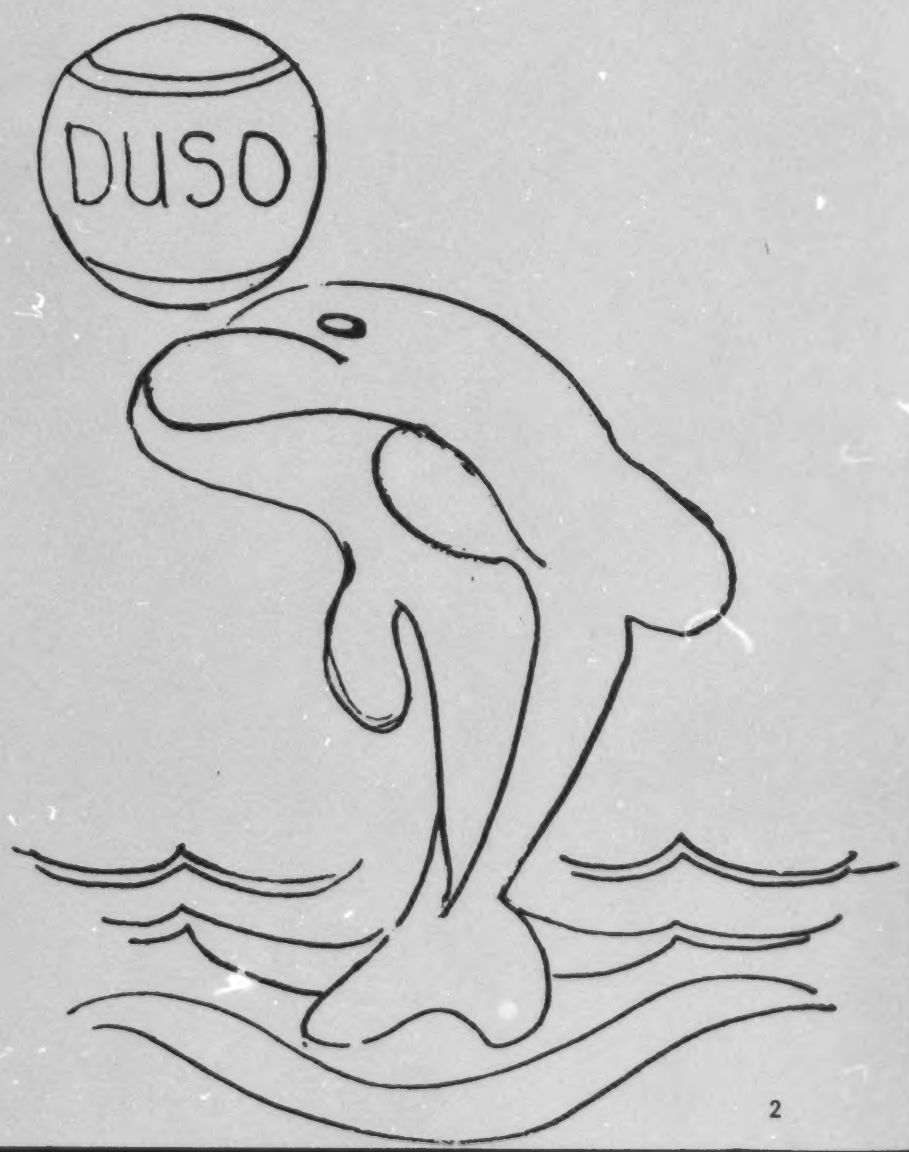
Raise your hand.

Don't clam up.

Stick to the point.

Think together.

Use colors of Duso
and kit.



UNIT I

Unit Theme: Understanding and Accepting Self

As each child develops, he formulates a self-concept and develops a sense of identity. He becomes more aware of himself and must cope with the differentiation between self and self-ideal and between the expectations of peers and significant adults. He must come to accept his liabilities as well as his assets. He will need to recognize and accept that in some respects others may be more effective or skilled than he is. This involves accepting imperfection in himself. A major emphasis of this theme is that the classroom is likely to provide experiences entailing failure as well as those involving success.

Unit I is designed to help the child appreciate himself as a unique individual, worthy of respect by others as well as by himself. It also focuses on assisting the child to discover his strengths but at the same time to accept some lack of success in his endeavors.

The Unit I activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, D, and E. However, there is no particular order in which Unit I activities must be presented. They may be used in any sequence or clustering desired.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT I OVERVIEW

Introductory Story I: The Underwater Problem Solvers, Page 28

Unit Song I: I'm Glad That I Am Me, Page 29

Activities	Cycle A	Cycle B	Cycle C	Cycle D	Cycle E
Stories	The Red and White Bluebird, Page 30	The Fairfield Fire Department, Page 34	Dizzy Terry Page 38	Frowny Brown, Page 42	The Box, Page 45
Posters	I am the only me in the world	All people are different	Sympathy should be for real problems	Which will you be?	What can you do when you're left out?
Problem Situations	Susie Grows Up, Page 30	Making Decorations, Page 34	Act Like Yourself, Page 38	Tony's Funny Picture, Page 42	Betty Can't Go, Page 45
Role Playing Activities	The Tree House, Page 31	The Boy Who Was Perfect, Page 35	Boat Trip Page 39	Getting Ready to Go Away, Page 43	About Me, Page 46
Puppet Activities	Ginny and Jerry, Page 32	What Is the Difference? Page 36	Nobody's Perfect, Page 39	People Make Mistakes, Page 43	New Baby, Page 46
Supplementary Activities	1—Me Button, Page 32 2—Picture Book, Page 32 3—Make a List, Page 32 4—Who Is It? Game, Page 33 5—Identification Game, Page 33 6—Bulletin Board, Page 33 7—I'm Glad I'm Me Game, Page 33	1—Policeman and Lost Child Game, Page 36 2—Art Activity, Page 36 3—Magic Mirror, Page 36	1—Art Activity, Page 39 2—You Can Do It Too Game, Page 40	1—Flip-face Frowny Brown, Page 44 2—Experiencing the Goal, Page 44	1—Let Everyone Play, Page 47 2—Include One More, Page 47 3—Feeling Word Dictionary, Page 47
Supplementary Reading	*I Like to Be Me*, Page 33 *Ferdinand*, Page 33	*The Five Chinese Brothers*, Page 37 *Frederick*, Page 37		*A Tiger Called Thomas*, Page 44	*Tico and the Golden Wings*, Page 47 *Peter's Chair*, Page 47

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an Awareness of Self-Worth

SPECIFIC BEHAVIORAL OBJECTIVE: List suggestions offered by class on: A) the best way to make friends. B) Why we need friends.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

Unit II Understanding Feelings

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities are attached as they are listed in the teacher's manual of the DUSO (Developing Understanding of Self and Others) Kit.	1. Use the various methods offered in the DUSO kit to develop the concept that each of us have similarities and each of us have differences.	1. DUSO (Developing Understanding of Self and Others) Kit.
2. Group interaction to help the "loner."	2. Assign compatible partners for free play, class projects, phy ed activities and reading in pairs.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Included in all subject areas.

Use any Colors
Discuss feelings
Use Children's suggestions.

How Do I Feel?

Sharp

Tiny

Small

Tired

Worried

Happy

Good

Hungry

New

Lucky

Keen

Neat

Shy

Wonderful

Terrific

Super

Tremendous

Great

Playfull

Awake

UNIT II

Unit Theme: Understanding Feelings

Even in the early stages of a child's life, emotions play a significant role. As children become older, their emotions become more differentiated and complex.

In Unit II the children are made more aware of their emotional life and encouraged to talk about both positive and negative feelings. An emphasis is placed on each child's becoming increasingly aware of his feelings and becoming sensitive to the feelings of others. This is accomplished in the unit activities which center around sharing with others, expressing feelings, and making friends.

The Unit II activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, and D. There is no particular order in which the Unit II activities must be presented. They may be used in any sequence or clustering desired. However, certain activities should not be used unless the story for that cycle has been presented. In such cases, the story is indicated as a prerequisite for the activity.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT II OVERVIEW

Introductory Story II: Duso Talks About Friends, Page 50

Unit Song II: The Share Song, Page 51

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories Posters	Gordo and Molly, Page 52 Sharing can be fun	You Don't Love Me Anymore, Page 55 Tell how you feel	Peeper, Page 58 Think how others feel	The Outsider, Page 61 It hurts to be left out
Problem Situations	Tom and the New Ball, Page 52	No Trip to the Zoo, Page 55	Flopsie Is Afraid, Page 58	New Boy at School, Page 61
Role Playing Activities	Let's All Share, Page 53	Showing Our Feelings, Page 56	Others Have Feelings, Page 59	Shy Robin, Page 62
Puppet Activities	Gordo and Molly, Page 53 (Prerequisite: Story II-A, Gordo and Molly)	What's the Good News? Page 56	Father's Gift, Page 59	What Should I Do? Page 62
Supplementary Activities	1—Rope Jumping Game, Page 53 2—Singing Game, Page 54 3—Make a List, Page 54 4—Magic Mirror, Page 54	1—How Do You Feel? Game, Page 56 2—What I Like, Page 57	1—Dramatize Story, Page 59 (Prerequisite: Story II-C, Peeper) 2—Make Chicken Hats, Page 59 3—How Does It Feel? Game, Page 60	1—My Friend and Me Game, Page 62 2—Two Were Playing Game, Page 65
Supplementary Reading	*The Shoemaker and the Elves*, Page 54	*Stone Soup*, Page 57	*The Quarreling Book*, Page 60	*Let's Be Enemies*, Page 65

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self worth

SPECIFIC BEHAVIORAL OBJECTIVE:

Unit III
Understanding Others

Each person will be able to draw an illustration of a person working in a group situation (football player, baseball pitcher, airport crew, etc.) Class list occupations that depend on people working together.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities are attached as they are listed in the teacher's manual of the DUSO Kit.	1. Use the various methods offered in the DUSO kit to develop the concept that each of us have similarities and each of us have differences.	1. DUSO Kit (Developing Understanding of Self and Others)
2. Group interaction to help the "loner."	2. Assign compatible partners for free play, class projects and phy ed activities.	2. Flannelgraph kits teaching value lessons such as "Wee Winkie and His Friends" and "Frisky and the Turnabout Twins" David C. Cook Pub. Co.

SUGGESTED CORRELATION FOR THIS ACTIVITY: To be included in all subject areas.

22

UNIT III

Unit Theme: Understanding Others

The mature individual is one who becomes aware of the effect of his actions upon others, and is able to give up his egocentricity as he moves toward becoming a socialized individual.

This unit is designed to help children understand the relationship between their own world and the world of others; thus helping them move from self-centeredness to social interest and to becoming socially responsible. The unit activities help children understand what makes people acceptable and unacceptable in a group.

The Unit III activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, and D. There is no particular order in which the Unit III activities must be presented. They may be used in any sequence or clustering desired. However, certain activities should not be used unless the story for that cycle has been presented. In such cases, the story is indicated as a prerequisite for the activity.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT III OVERVIEW

Introductory Story III: Captain Blooper's Pirates, Page 68

Unit Song III: Ballad of Captain Blooper, Page 68

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories **Posters**	Captain Blooper's Cake, Page 70 Each one must do his part	A Spoonful of Sugar, Page 73 Being nice makes friends	Captain Blooper's Helper, Page 76 Encouragement gets things done	The Snow House, Page 79 Do your part
Problem Situations	The Class Gets Ready, Page 70	Joan and Becca, Page 73	Jerry Cries, Page 76	The Circus, Page 79
Role Playing Activities	Little Red Hen, Page 71	A Spoonful of Sugar, Page 74 (Prerequisite: Story III-B, A Spoonful of Sugar)	Orders, Page 77 (Prerequisite: Story III-C, Captain Blooper's Helper)	Timber, Page 80
Puppet Activities	Special! Page 71	Happy Talk, Page 74	Do This! Do That! Page 77	The Snow House, Page 80 (Prerequisite: Story III-D, The Snow House)
Supplementary Activities	1—Paint a Mural, Page 71 (Prerequisite: Story III-A, Captain Blooper's Cake) 2—Experiencing Group Work, Page 71 3—Draw a Picture, Page 72	1—Role Playing, Page 74 (Prerequisite: Story III-B, A Spoonful of Sugar) 2—The Nice Way to Say It Game, Page 75	1—Make Pirate Hats, Page 77 2—Dramatize Story, Page 78 (Prerequisite: Story III-C, Captain Blooper's Helper) 3—Two Children Said Game, Page 78	1—Television or Movie Production of Story, Page 80 2—Room Cleaning Activity, Page 81 3—Draw a Picture, Page 81
Supplementary Reading	*Swimmy*, Page 72			*The Elephant Herd*, Page 81

24

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth.

SPECIFIC BEHAVIORAL OBJECTIVE: Class members demonstrate understanding and respecting rights of others by sharing, taking turns, and giving up or claiming certain rights in free play as measured by teacher observation during the school year.

Respecting Rights of others

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read: When A Boy Wakes Up in the Morning	1. A) Read: Respecting Rights of Others (study for background) B) Read and discuss suggested questions in teacher's guide of Program for Elementary Guidance.	1. Random House Program for Elementary Guidance - Learning Unit from Random House (attached)
2. Read additional book to further develop concept.	2. Discuss each story as it relates to respecting rights of others following general trend of questioning for the key book in No. 1. 3. Assign leader to assume specific privileges and responsibilities each day.	2. Book — Random House Sam and the Firefly When a Boy Wakes Up in the Morning

SUGGESTED CORRELATION FOR THIS ACTIVITY: To be included in areas of free play and phy ed.

Respecting the Rights of Others

1. To encourage children to respect the rights of others.
2. To help children discover that by respecting the rights of others they will achieve more meaningful and harmonious relationships.
3. To create an understanding of the importance of a social climate where the rights of all are respected.

THE CITIZENS and government of this country believe that each individual has certain rights, such as the right to say and do what he pleases. There are, however, limits he cannot pass in exercising these rights. For example, his actions may not interfere with the rights of others. Some rights are gained as a person grows older. Adults have the right to select a job, to marry, or to live where they choose. Children as well as adults, however, have the right of privacy.

Respect for the rights of others is rooted in the child's developing conception of himself. He learns that there are some things which are a part of him and some things outside himself which are also part of him. He must learn to distinguish which external objects are his and which belong to others.

The changing inventory of one's rights strongly affects the child. As he grows, he must learn to share; that is, to give up certain rights. Other rights he will gain. He must, therefore, develop an awareness of his rights and of the rights of others at any particular moment, and be prepared to respect their rights because he wants them to respect his.

An influential factor in this process is recognition of one's own individuality. The child is more apt to respect the rights of others if he feels himself to be a person. The comfort he will derive from this feeling encourages him to allow others their individuality and rights similar to his own.

Taken from:
The Random House Program for Elementary Guidance
Random House/Singer School Division

When a Boy Wakes Up in the Morning

by Faith McNulty

p. 4 ► Last night his mother told the boy that in the morning he should be very quiet.

1. Why should he be quiet in the morning?
2. Should everyone try to be quiet in the morning?

p. 6 ► They like to lie and lie and lie in bed.
They like to be long, silent lumps in their bed.

1. Why do you suppose parents like to sleep in the morning?
2. Do they need to sleep because they work hard for their children?
3. Should everyone be quiet when their mother and father are trying to rest?

p. 10 ► Jamie gives the truck a push. It goes across the floor—*screech!* It bumps the bureau—*bump!*

1. Is Jamie being as quiet as he should?
2. What is likely to happen if he makes noise?
3. How will he feel if his parents wake up?

p. 14 ► His mother is asleep in her room. Did she hear that bang?

1. Does Jamie know he is doing wrong?
2. Why do you think he began making noise?
3. How will he feel if his parents wake up?

p. 18 ► Inside Jamie's head a small voice asks: "Will my mother be mad if a screech wakes her up? And makes her get out of bed?"

1. Why might his mother be angry?
2. What do you suppose she would say to Jamie if the noise woke her up?

p. 18 ► There is a great big *wonderful* whirwhir of noise.

1. Does everyone like to make noise sometimes?
2. Should people make noise when someone in the home is sleeping?

p. 25 ► The blocks tumble down on the floor with a long rumbling, loud tumbling noise.

1. What do you think will happen next?
2. Did Jamie realize that the blocks might fall and make a noise?
3. How could Jamie have played more quietly?

WHEN A BOY WAKES UP IN THE MORNING by Faith McNulty

p. 26 ► And he smiles at her because he is so glad.
HIS MOTHER IS AWAKE AT LAST
and pretty soon, of course, she will be smiling, too!

1. Are children happy when their mother wakes up?
2. Should children be considerate of their parents when they are trying to sleep?

SUMMARY DISCUSSION: Part of growing up is learning to respect the rights of others. When parents and friends can count on us to respect their rights, they will respect our rights as well.

Further Reading:

SAM AND THE FIREFLY by P. D. Eastman

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE: Students will demonstrate knowledge of the difference between courage and recklessness by telling short stories about a courageous individual stating at least two differences.

Courage

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read: Boo	1. Read and discuss questions in format of teacher's guide of Program for Elementary Guidance.	1. Boo, Who Used to Be Scared of Dark Program for Elementary Guidance - Learning unit from Random House
2. Read additional books to further develop this courage concept.	2. Discuss similar to key book in No. 1.	2. Books: Random House (above) A Fly Went By Switch on the Night

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Courage

1. To assist children in acquiring an understanding of the many aspects of courage.
2. To help children understand that courage is more than an outward show of bravery.
3. To encourage children to overcome trivial fears through awareness and understanding.

COURAGE is an inner feeling that causes a person to act bravely and responsibly. It is not to be confused with recklessness, for the acts of a courageous person will have different consequences from those of a reckless person. Both take chances, but the courageous person does so after considering the probable outcome of his action and deciding it is worth the risk, while the reckless person neither studies the situation nor considers the possible results of his behavior. Both may *appear* brave, but the reckless person often indulges in actions which are not only dangerous, but are really unnecessary.

Courageous action, then, is based upon reasoning and results from an analysis of the situation. The behavior exhibited is only the result of the process of courage, which includes a perspective that examines all aspects of the present and the future and selects those actions which seem most likely to be successful. This behavior requires confidence in one's ability to handle any situation that may arise.

Everyone has the opportunity for courageous behavior at all times if he is to remain true to his feelings and desires despite the possible opposition of the crowd; that is, it takes courage to be an individual. Anyone can become trapped in the security of routine and group activity. The courageous person is an individual, and reaps the benefits of the security and esteem that come from being and behaving like an individual.

Taken From:
The Random House Program for Elementary Guidance
Random House/Singer School Division

Boo

by Munroe Leaf

p. 6 ► But worst of all, what scared him most was the DARK.

1. Is everyone frightened of some things?
2. Should people try to stay away from the things that frighten them?

p. 8 ► Alexander wasn't scared of anything. Not that he was foolish and bothered things that would make trouble.

1. What are some things people should not bother?
2. Does it show bravery to bother with things that could cause trouble?
3. What is the best thing to do with things that could be harmful?

p. 12 ► Frogs and toads couldn't hurt anybody, and if Boo didn't like their looks and want to play with them, he could remember that they probably didn't like his looks either, and they didn't want to be played with anyway.

1. Do people meet others with whom they do not want to play?
2. Do they meet others who do not want to play with them?
3. What is Alexander trying to teach us?

p. 16 ► Some of them were good and others were bad and dangerous.

1. Is it brave to go near a dog you do not know?
2. Is staying away from dogs you do not know the same thing as being afraid of them? Why?

p. 20 ► No matter how much Alexander talked about it, Boo still was scared of the dark.

1. If you were Alexander, what would you say to Boo so he would not be afraid of the dark?
2. Do you think it takes courage to stay in the dark?

p. 24 ► Down in the kitchen, Alexander jumped so high he bumped his head on the stove, but he ran upstairs as fast as a cat when he is in a hurry, and that is very fast.

1. Why did Alexander run upstairs to Boo?
2. Should people heed a call for help by a friend? Why?
3. Sometimes it takes courage to help others. Can you give an example?

54 COURAGE

BOO by Munroe Leaf

p. 26 ► "Look," he said, and pointed at the lumps of darkest dark. "Wild animals."

1. Do you think there are really wild animals in the dark?
2. Why do you suppose Boo thought he saw them?
3. Does being afraid sometimes make people imagine things? Like what?

p. 34 ► Boo laughed too.

1. How is Boo learning not to be afraid of the dark?
2. Do you think after this he will be able to stay alone in the dark without being frightened?
3. Can people learn to overcome some of their fears this way?

SUMMARY DISCUSSION: All of us are afraid of something at one time or another. Some things are best left alone because they may be dangerous. Other things, however, are not frightening at all once we get to know them.

Further Reading:
MIDDLE MATILDA by Winifred Bromhall
SWITCH ON THE NIGHT by Ray Bradbury
A FLY WENT BY by Mike McClintock
THE AFFABLE, AMIABLE, BULLDOZER MAN by Elisabeth MacIntyre
EDITH AND MR. BEAR by Dare Wright

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of shapes and colors, each student will correctly select, draw, and color at least three shapes presented in the filmstrips. (reduce to two shapes for low groups)

My Place - What's Around Me

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1 View filmstrip and listen to cassette.	1. List things that children have seen in filmstrip about: a) color b) shapes c) forms d) different sizes	1. G. A. - Sound Filmstrip - Cassette "Outset/Look About You" 301620
2. Draw as many shapes as you can remember from the film.	2. Draw them and color them the colors you like best. Show them to the class and explain them.	2. Book: Shapes, Sides, Curves and Corners by Illa Podendorf
3. Draw and color a large animal and a very small one.	3. Color them and cut them out.	
4. Arrange a bulletin board.	4. Arrange colored cut-outs of children in an attractive display. Have the children help with idea of bulletin board arrangement.	
5. Sing a song.	5. Find shapes in room and indicate basic shapes (e.g. blackboard-rectangle, clock-circle)	5. Songs attached

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Song about shapes sung to "Did You Ever See A Lassie"

Can change to square,
triangle, or rectangle.

Did you ever see a circle,
A circle, a circle,
Did you ever see a circle,
Please show us one now.

Use any child's name.
While others sing this,
"John" finds a circle
in the room and points
to it. Sing many
times changing shape
and name each time.

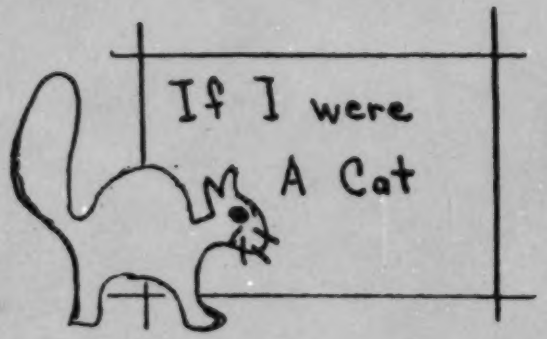
Oh (John), Oh (John),
Oh (John), Oh (John).
Did you ever see a circle,
Please show us one now.

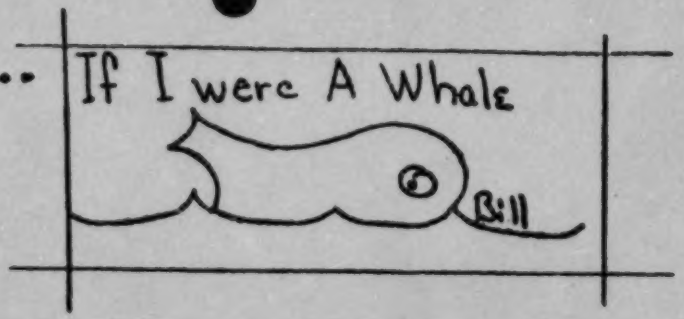
34

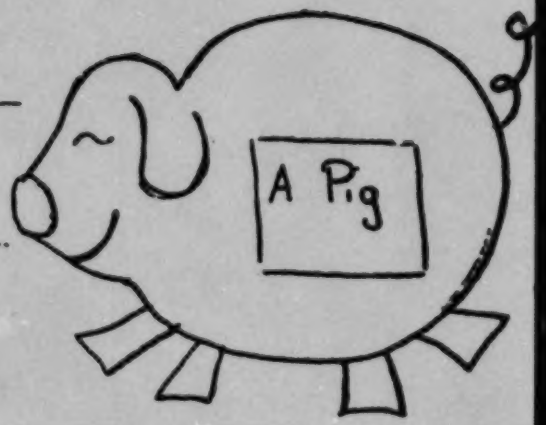
Math Bulletin Board depicting shapes with verse....

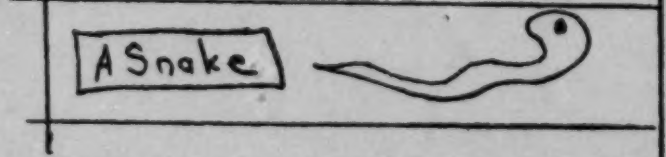
I am Mama Circle
Round as a pie;
I am Baby Triangle,
Three sides have I.
I am Papa Square,
My equal sides are four.
I am Uncle Rectangle,
Shaped like a door.

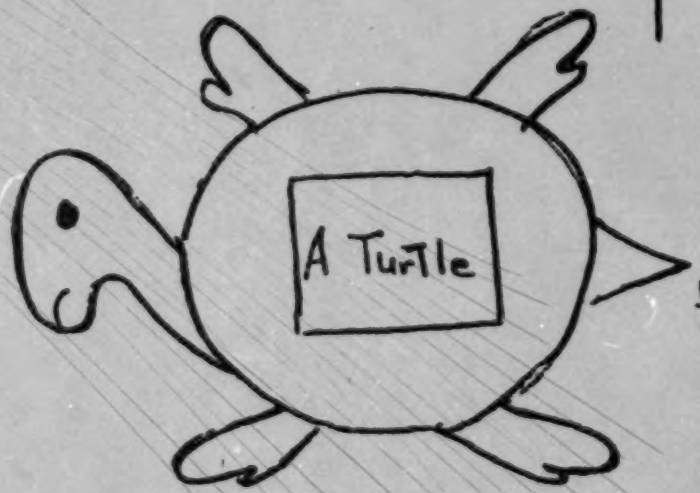
If I WERE...











Background: Pale Yellow
Lettering: Orange
Use to express
feelings and ideas
Role playing?
Do these animals need anyone?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth.

SPECIFIC BEHAVIORAL OBJECTIVE: Children will be able to name five things that make a different sound - from sounds around us. (Ingroup discussion)

(My Place-What's Around Me)

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip and listen to cassette tape. 2. Bring items that make different kinds of sounds. 3. Write experience chart stories after a walk telling sounds heard. 4. Have a "quiet" time and have each child try to identify sounds other than other children's voices.	1. Discuss the tape and filmstrip. List all the sounds you heard in filmstrip. 2. Display "Sound" items: bell, pop-gun, sandpaper, morracas, singing teakettle, drum, whistle, "cracker," etc. 3. Take a walk, write about things heard, and draw illustration of what made the sound. Share writings with the class. 4. Tape environmental sounds for replay and identification. 5. Match pitches. 6. Make a sound box big enough so a child can get inside it. Draw dials, etc. on the sound box. Child gets inside; someone names a sound and pushes a "button"; child inside makes the sound Or child makes a sound and others guess what sound he is making. Imitate animal sounds, etc.	Guidance Associates Outset/Listen There Are Sounds Around You - Part I (fs/cassette) Items from homes

SUGGESTED CORRELATION FOR THIS ACTIVITY: Include this activity in art, social studies and music.

36

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of the rights of others, student will be able to name at least three places where quietness is expected and at least three places where noise is acceptable, teacher listing each on board for possible further discussion.

Respecting Rights of Others

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip and listen to cassette tape; (and use book on sound if needed.) 2. Make a bulletin board display.	1. Discuss the family of Nancy Norris - ask questions. Do you think Nancy was thoughtful of others? Did she think that her noise might bother someone? How did she feel when they were told to move because of her noise? What did she do? Why? - etc. 2. Draw and color some "Noisy Nancys" and some "Quiet Nancys." Talk about the places to make noise and the places to be quiet. 3. Quiet Corner as an interest center using reading activities or relaxation.	1. G. A. Sound Filmstrip - Cassette "Noisy Nancy Norris" - 301729 Book: Sound, by Lisa Miller

SUGGESTED CORRELATION FOR THIS ACTIVITY: Include this activity in all subject areas.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of work stations within a school, pupils will explain job responsibilities of at least four workers in their school, in group discussion.

School Workers: Staff

SUGGESTED SUBJECT AREA Social Studies

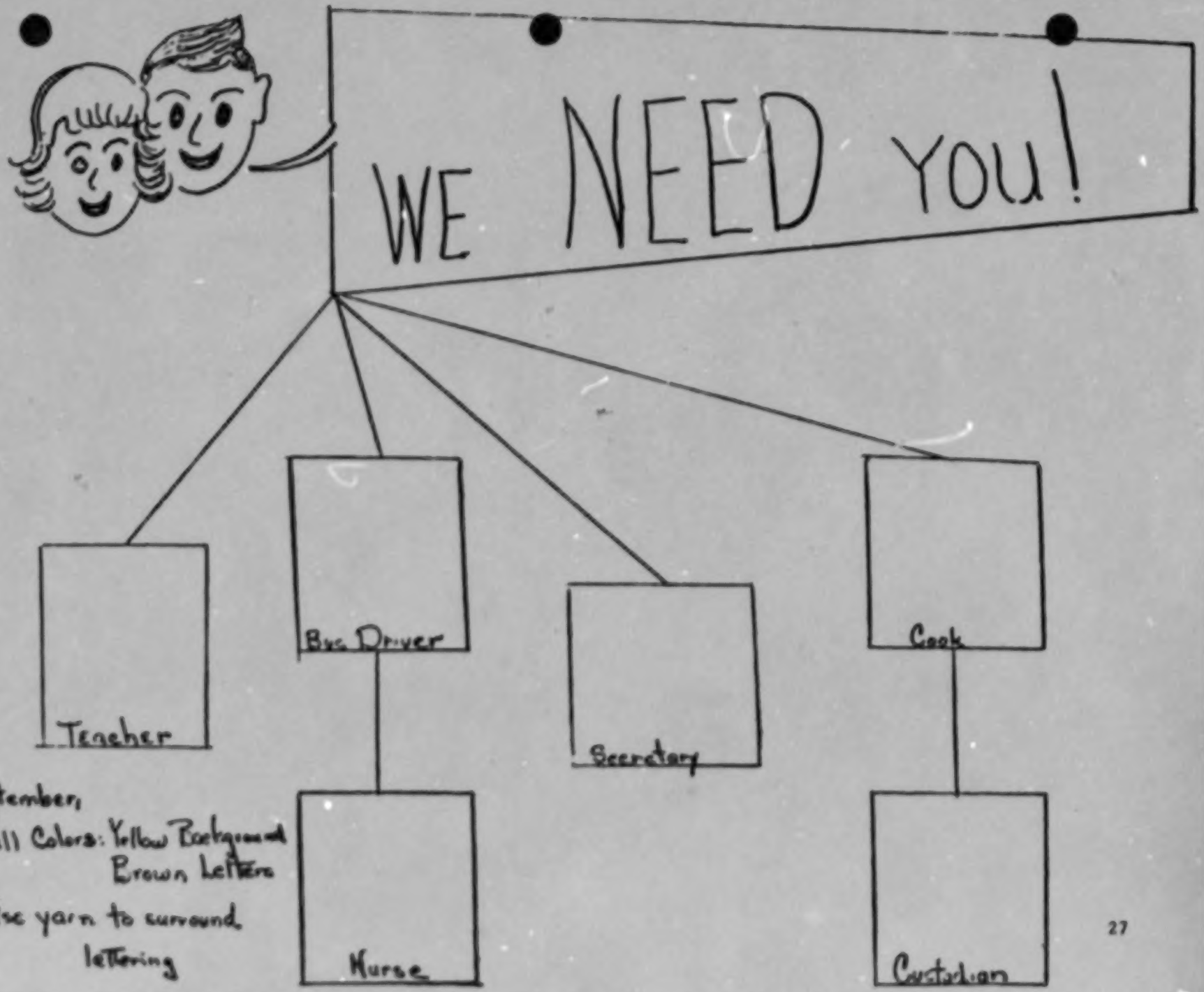
SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use teaching pictures to introduce. Visit each worker in his work area. Suggested places are: Principal's office School nurse Librarian Janitor Teachers Cooks Secretary's Office	1. Review job of each worker before trip. Divide activity in 2 or 3 trips. Discuss value of job of each worker as he is visited. "Why is your job important? What do you do? How does it fit in with other workers in the school? What tools do you use? What do you like best about your job?"	1. Teaching Pictures - School and School Helpers - Cook (General aid to these activities) Our Home & Our Schools Fraser & Hay American Book Co. 1961 Our School Workers 1-6, McGraw-Hill
2. Play game - "Who Am I?"	2. Tell and pantomime some important thing I do and let pupil guess what worker it is.	2. Resource people from school staff.
3. Stories	3. Select as they relate to the discussion.	3. BOOKS: I Want to be Books, Carla Greene; I Want to be a Nurse, I Want to be a Teacher The True Book of Schools - Elkin My First Day at School - Hefferman (text - teachers edition) All About School Helpers - Hoffman Look-Read-Learn Series Melmont Publ., Inc. Chicago, Ill. "A Trip Through a School" - Rowe, Watts I Know a Teacher" - Buchheimer Community Helper book
4. Filmstrips (and records)	4. View and discuss	4. S.V.E. Community Workers and Helpers filmstrip & record "School Workers".
5. Sing song	5. Sing with actions made up for song. Improvise verses to fit job under discussion.	
6. Draw and color workers	6. As each is studied, draw, color, and cut out worker for bulletin board.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. School workers could visit the classroom and tell about their job. 8. Make an experience story in the form of a big book that includes each school worker and the students. 9. Tour school building first day of school. 10. "Busy Bees" can be the captain of a "Helpers Chart" with a flower for each duty, a bee for each child. The bee lands on the flower naming his duty.		4. William, Andy and Ramón - "Our School" (filmstrip/record) B. F. A. School Series: Our School Workers McGraw-Hill "School Helpers" 121-I Eye Gate House 5. "Fun to Be a Helper" p. 15 Music Around the Clock, Wolfe, Krone & Fullerton 6. Paper - colors - scissors



September,
Fall Colors: Yellow Background
Brown Letters
Use yarn to surround lettering

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate responsibility by independently performing 3 routine tasks and following all presented safety rules as observed by the teacher. Repetition must continue throughout the year.

School Workers: Children

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use Helpers Chart - for pupils to learn responsibility for routine tasks that will assist in maintaining a smooth classroom operation.	1. Large tagboard chart with pictures depicting classroom jobs--names assigned to each job on a weekly basis.	1. Large sheet, 22" x 28", tagboard for chart.
2. View filmstrips.	2. Discuss filmstrips as they relate to care and respect for school materials and equipment - as they are used by the children.	2. FILMSTRIPS: McGraw-Hill, School Serie Rules and Plans: a) Getting Acquainted b) Getting To and From School c) Taking Care of Property
3. Practice walks.	3. Practice for correct behavior in halls, on playground, and crossing streets. Make stoplights and discuss the meaning of each color.	3. Field trips (short)
4. Sing songs.	4. Use songs that relate to the specific activity under discussion.	4. SONGS: American Singer, Grade 1 "Crossing the Street" Music for Young Americans, ABC, 1966 "Traffic Lights" p. 77, Bk. II
5. Practice in clothes care.	5. Encourage labeling of all wraps. Assign hooks for all outdoor wraps. Establish work habits of proper placing and storing of personal belongings in desks or about room.	5.
6. Daily health check.	6. Use daily health check to establish good personal health habits: Did you brush your teeth? Did you eat a good breakfast? etc.	6.
7. View films.	7. Discuss and dramatize adaptable parts of films.	7. FILMS: Enc. Brit. Educ. Films #2669, 11 min. "Good Citizens" #2204, 11 min. "School for Ted"

SUGGESTED CORRELATION FOR THIS ACTIVITY: May be correlated with Health, Science, Language Arts and Art.

From: American Singer, Grade 1

Crossing the Street

J. Wolverton

Opal Dillon

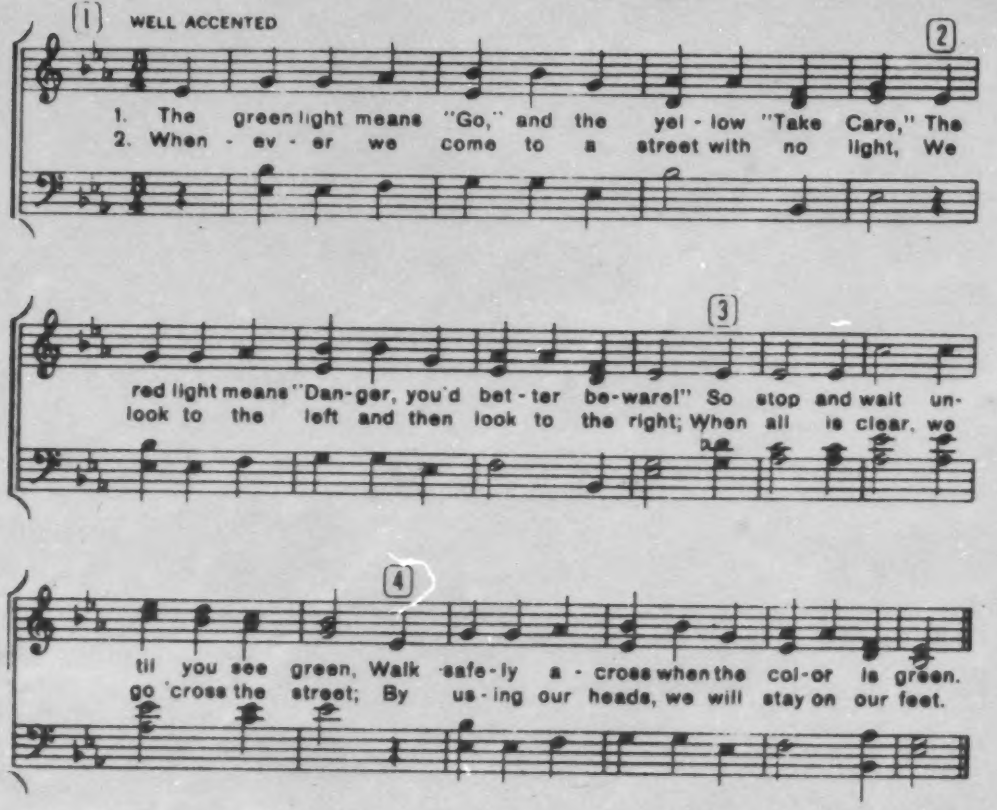
1. Look to the left! Look to the right! When you cross the street.
2. Look for the cars! Look for the trucks! When you cross the street.

Look to the left! Look to the right! When you cross the street.
Look for the cars! Look for the trucks! When you cross the street.

42

Traffic Lights

Adapted Words German Folk Tune



Traffic Lights

(page 77) **Key of E♭ Starts on E♭ (1-Do)**

Rhythm Form Dynamics Creative Activities

PROCEDURE. In $\frac{3}{4}$ time the stress occurs on the first beat of each measure. As you teach the song, ask the children to tap or clap lightly with you, being careful to emphasize the first beat of each measure.

Let the children discover that phrases 1, 2, and 4 are nearly alike, whereas phrase 3 is contrasting. This will be an experience in form – in this case, A-A-B-A, or A-B-A. Since the song has so much repetition, it should be easy for the children to learn.

Let the children crescendo in phrase 3 when the melody line rises and decrescendo to the original dynamic level when they sing phrase 4.

While the rest of the class sings, some children might dramatize the text of "Traffic Lights," with a "policeman" directing two-way traffic in an open space in your classroom. Let them make a traffic light for the "policeman" to use by pasting a red circle on one side of a piece of light art paper and a green circle on the other side.

From: Music for Young Americans, Book II
American Book Co. 1966 pg. 77

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the World of Work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of parent's occupation, the students will name three tools that his parent uses in his work if that number is available.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Parent bags: Use child decorated paper bags to bring tools (or a tool) of either parent's occupation to show and explain their work.	1. Discuss work and workers and how each worker is very important.	1. Paper Bags Construction paper, crayons, tempera paints, colored chalk, paste.
2. Have students take these home and have their parents put tools into bag and explain to them what each is used for.	2. Discuss how certain tools that their parents use makes work easier. (example of tool) Do same for teacher (ruler) and student (pencil).	2. Egg Beater (mother) Pencil (student) Ruler (teacher)
3. Child brings daddy or mommy bags back to school and explains to the rest of the class what his father's or mother's job title is, tools used and how used.	3. Discuss how their fathers need certain tools in their work.	
	4. Fold paper in half vertically and draw mother and father working at their jobs; mother on one side and father on other.	
	5. Equalize the importance of Mother and father role in home such as for the cases where a mother or father is not in the immediate family or home situation. Discussion on this necessary.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Can be included in areas of Social Studies, Art and Science.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of father's or mother's occupation, each child will be able to state at least one specific duty of his father's or mother's trade and at least one reason why it is important.

Home and Family
Workers - Father

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read story and discuss father's role in family. Use questionnaire to survey different jobs represented in the classroom.	1. Motivating discussion questions: "What work does your daddy do?" (Or where, or what type?) "Does he wear a uniform?" (What kind, color, etc?) "Does he go out of town to do his job?" "Does he talk - listen - read - write in his work?" Send home questionnaire for further information.	1. About Family Helpers, Hoffman, Melmont Publishers Survery sheet attached
2. Show filmstrip and/or film.	2. Promote discussion on filmstrip (which may need 3-4 sessions)	2. "Father's Work" (6 filmstrips) 136-M Imperial Film Co. "Why Fathers Work" (film) 14 min. #2814, Encylopaedia Brittanica
3. Fathers come into classroom as resource people. Explain their work - with time for questions provided.	3. Orient resource person to needs of instruction and level of understanding of the group.	3. Resource people
4. Role-play father's work.	4. Use basic props like caps, simple tools, etc. for each worker's role-in play.	4. Simple equipment brought from home or improvised at school for each worker.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Correlate in areas of Language Arts

SUGGESTED LETTER TO PARENTS

Alternative: Interview

Dear _____
(parent or guardian)

The students in our class are studying about the importance of all types of work. We want to learn more about the work of each of the parents of all the boys and girls in _____'s class.
(child's name)

Would you answer these questions for us and send it to school with your child. We will study how your job affects our lives.

1. What is your job? _____

2. What are some of your duties? _____

_____

3. Is there anything about your work which the children in our class would enjoy seeing (pictures, materials, tools, uniforms, etc.?

_____

_____

4. Would you consider coming to our classroom to explain your work to the children and perhaps show tools or slides? _____

5. Do you have a hobby you would like to discuss with and show the class? _____

Thank you for your consideration.

_____
Sincerely yours,
(teacher)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of a mother's homemaking duties, each child will name at least two tasks that her mother does in the home and one reason why each is important.

Home - Family Workers
Mother

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show filmstrip: "Mothers Work Too."	1. View filmstrip and discuss mother's jobs in the home. Ask questions on mother's jobs - including her work, if any, outside the home.	1. "My Mother Has a Job" (filmstrips/ cassettes) Eye Gate House "Mothers Work Too" (6 captioned filmstrips) Imperial Film Co.
2. Make a poster or mural of mother doing many things in the home. (May be made with cut-outs mad by the children.) Use Teaching Picture for discussion.	2. Draw, color, and cut out drawings of as many work activities as possible, that mothers engage in. Have class help in arranging them attractively on the mural strip.	2. Large roll strip of white or blue paper; construction paper, colored or white, for the individual drawings. Crayons, scissors, paste.
3. Role-play some of mother's jobs.	3. Limit to single instances (at least for a beginning).	3. Limited suggestive costume items for role playing (hats, purses, aprons, dishes)
4. Read stories.	4. Engage in discussion of story, either during, or after, the reading.	4. About Family Helpers, Melmont Pub. More About Family Helpers Melmont Publishers. True Book of Houses, Carter, Melmont Pub.
5. Sing song.	5. Sing song with actions. ex. "Mulberry Bush"	
	6. For gifts to parents child can make tickets indicating jobs they are willing to do and which are redeemable by parents.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Very good near Mother's Day

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of value of learning math concepts in school, students (in group discussions) will be able to state at least two reasons why math is taught in our schools.

Home: Mother (Math)

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss these questions: a. Does your mother need to use numbers when she cooks? b. How does your father use numbers in his work? c. What other workers do you know about who use numbers in their work? 2. Find pictures in magazines of people who use numbers in their work. Mount these on paper and write children's comments as to how the person would use numbers in his work. 3. Discuss how things may have been in our country before there were any schools. See if children can see why schools were set up.	1. Discuss how people need to use numbers in their work? 2. How will things that we learn about numbers in school be helpful to us the rest of our lives? 3. Why were schools set up in our country?	1. Record list of "other workers who use numbers" in log. This type of recording will give insight into how many jobs children know at present. Can be used later as an evaluative tool to see if children can name more jobs as school year progresses. 2. Stiff paper and ring binders (optional) 3. Bulletin board with pictures of different schools.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of family responsibility, each child will be able to name at least 4 tasks he does regularly at home, and describe 2 enjoyable activities the family does together.

Home: Family Workers
Children

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show filmstrip or filmstrips.	1. Discuss jobs children do in each of the filmstrips. Pose questions of jobs assigned to children at home, the importance of their help - even at this age. (Do you make your bed? set, clear table? sweep floors, take out trash? pick up toys? etc.)	1. Filmstrips: "Working Together in the Family" 31 frames - color Society for Visual Education
2. Have a school breakfast with helpers assigned to various responsibilities to find out the importance of a nourishing breakfast, and the work and responsibility involved in planning and serving it.	2. Food from homes (in planned menu) or have children contribute to cost and make a field trip to a supermarket to buy the necessary items for preparing the breakfast.	2. (General aid to these activities) Social Studies Series: "Our Homes & Our School" - Fraser & Hoy American Book Co. 1961
3. Singing	3. Sing songs apprppriate to the work activities under discussion.	3. Songs: Tune - Mulberry Bush Adapt for helping jobs: "This is the way we set the table," et "When I Grow Up" p. 16, K-N Allyn & Bacon 1965 "Workers in Our Town" p. 72, Gr. 1 Allyn & Bacon 1962
4. Listening	4. Listen to records. Listen to filmstrip-record.	
5. Draw a variety of family fun pictures.	5. Make booklet or bulletin board display.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Correlate with Art, Music and Math areas.

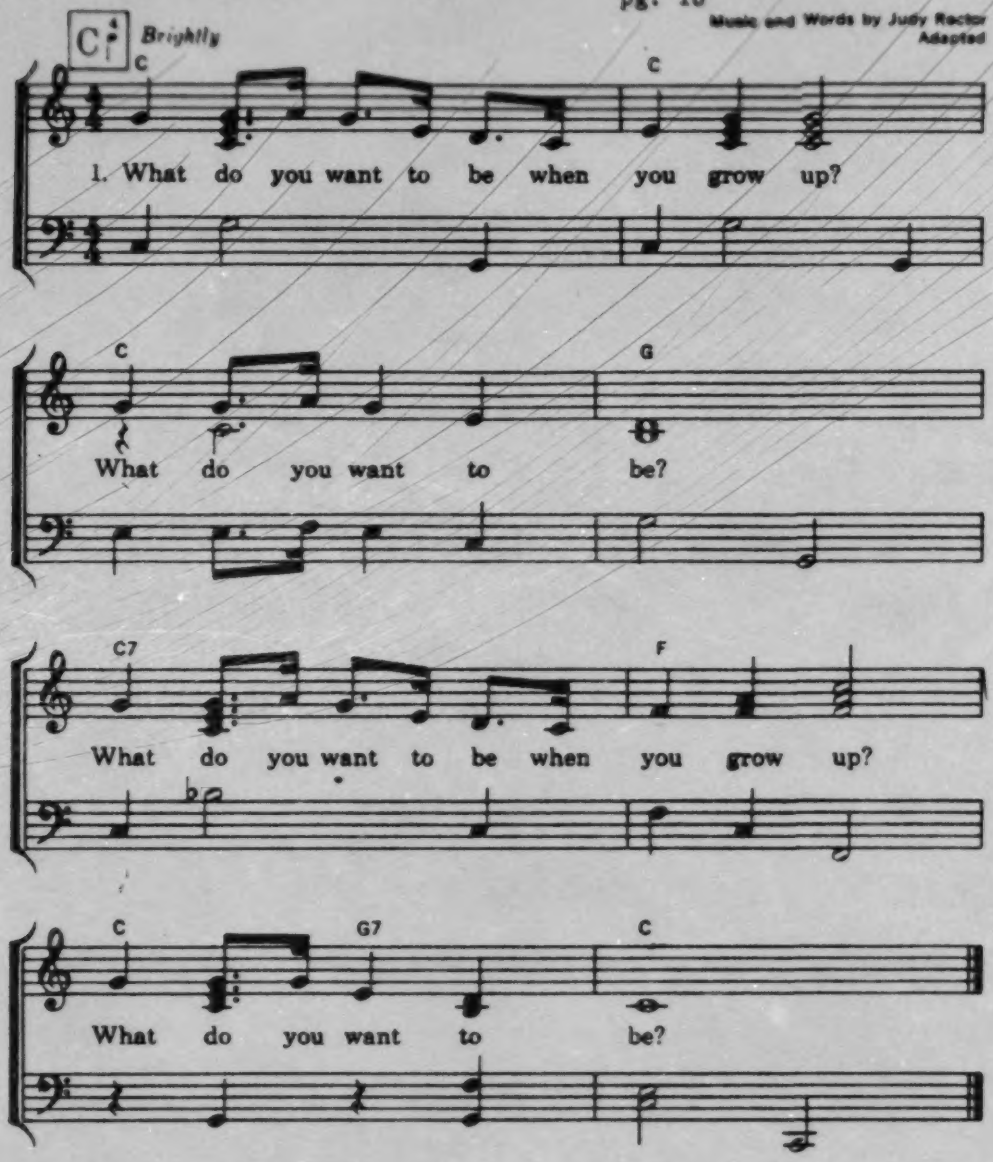
CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		4. Records: "Sing a Song of Homes" Educ. Record Sales, AED 134-135 Neighborhood & Comm. Series William, Andy and Ramon-Five Friends at School (filmstrips/ records) BFA Educational Media Our Families We Live Here We All Work Who Helps Us

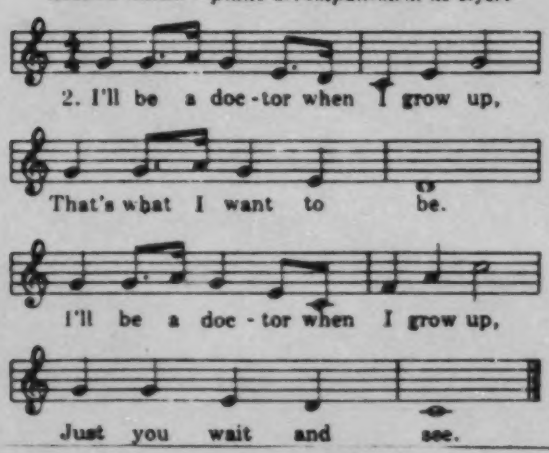
When I Grow Up

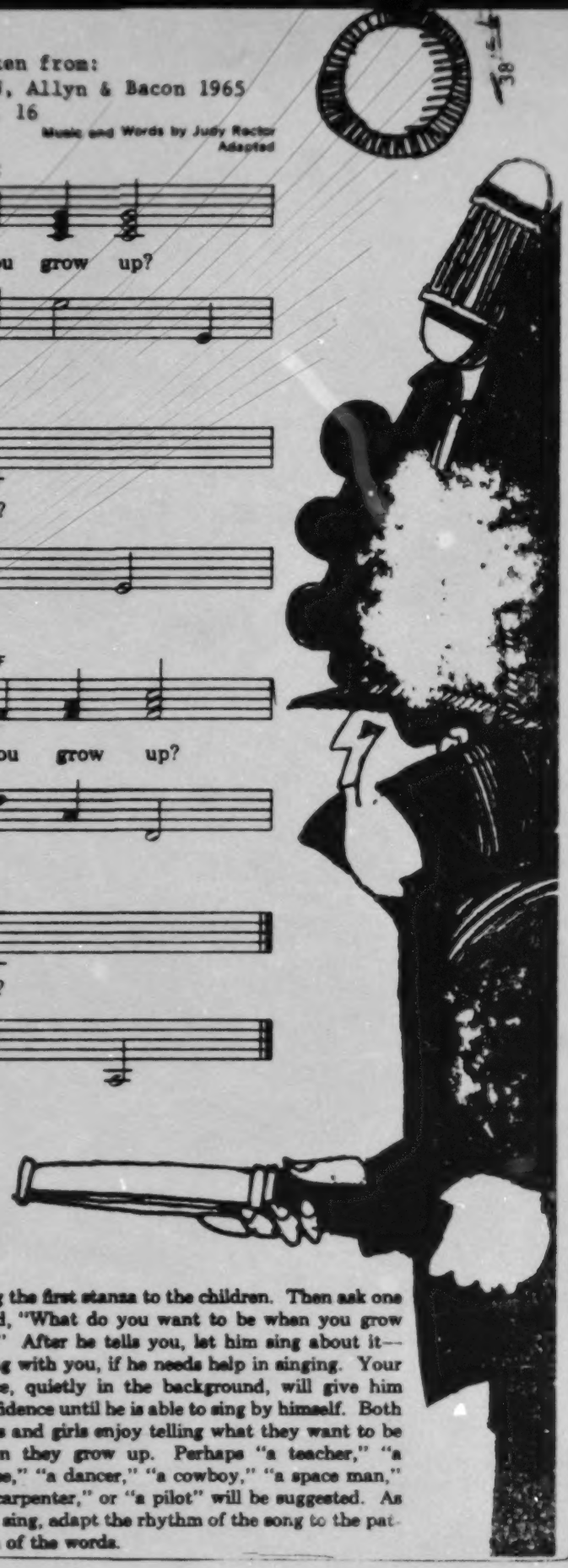
Taken from:
K-N, Allyn & Bacon 1965
pg. 16

Music and Words by Judy Rector
Adapted



Second stanza—piano accompaniment as before





Sing the first stanza to the children. Then ask one child, "What do you want to be when you grow up?" After he tells you, let him sing about it—along with you, if he needs help in singing. Your voice, quietly in the background, will give him confidence until he is able to sing by himself. Both boys and girls enjoy telling what they want to be when they grow up. Perhaps "a teacher," "a nurse," "a dancer," "a cowboy," "a space man," "a carpenter," or "a pilot" will be suggested. As you sing, adapt the rhythm of the song to the pattern of the words.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of family's occupations, the student will complete at least 50% of the job tree used.

Family Helpers

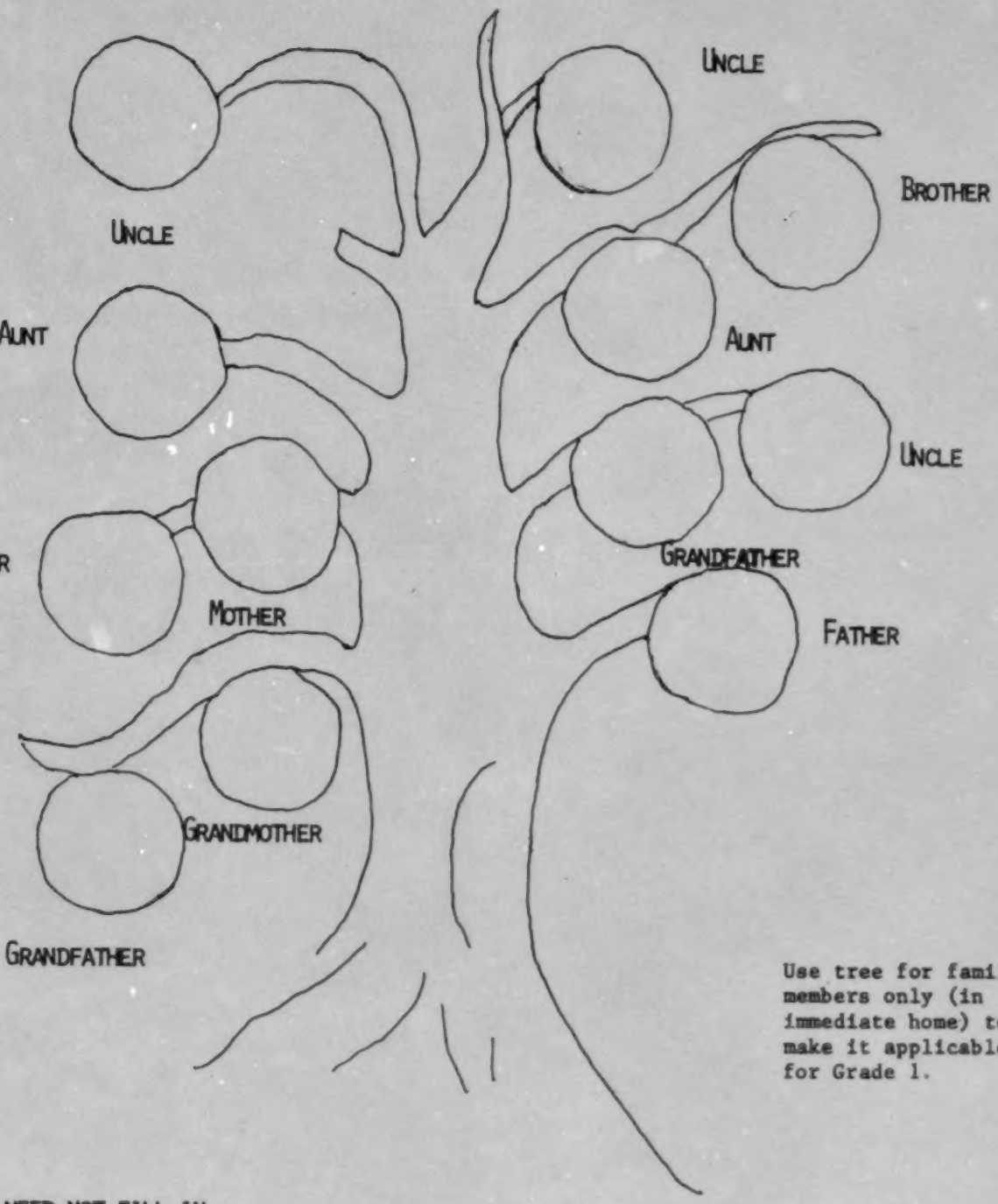
SUGGESTED SUBJECT AREA Social Studies and Art

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read story "Family Helpers" and have students find out what jobs their parents, relatives, brothers, and sisters do.	1. Begin by asking students to raise their hands if they know what their father does on his job; mother does, brother does, uncle does, aunt does, grandmother does, grandfather does.	1. Book: About Family Helpers Hefflefinger & Hoffman Childrens Press
2. Have students draw pictures depicting these people on the job (uniform, background, etc.)	2. Each child choose a relative and make his drawing and share with class. Then ask if they know what their parent's job title is. Have students put their names on these and post them on the bulletin board.	2.
3. Show filmstrips.	3. Make selections from listed filmstrips and possibly divide in 2-3 sessions.	3. Filmstrips: Film Associates (Taylor Audio-Visual) William, Ramon, Andy and Five Friends at School, "Our Families" BFA Society for Visual Education Jim's Family Working Together in a Family Long Filmslide Service Farm Fathers - Series 1 Farm Fathers - Series 2 Imperial Film Company Mothers Work Too
4. Use job tree and circles.	4. Use 12 x 18 construction paper and larger circles. Tree may be limited in circles to family members discussed. Draw illustration of job in each circle. Or use cut-outs from magazine or comics for depicting various occupations. Make it colorful.	4. Drawing of tree and circles with heading "Jobs I Know"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

JOBS I KNOW



Use tree for family members only (in immediate home) to make it applicable for Grade 1.

YOU NEED NOT FILL IN ALL CIRCLES

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop awareness of self worth

SPECIFIC BEHAVIORAL OBJECTIVE: a) class will be able to make a list of ways we are alike (and different) physically.
b) Class will be able to discuss why the same situations bring a different reaction (joy, fear, bravery, etc) from individuals.

Emerging Identity

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read: Jack is Glad	1. a) Read Emerging Identity study for background. b) Read and discuss suggested questions in teachers guide of Program for Elementary Guidance.	1. Random House: Jack is Glad Program for Elementary Guidance Learning unit from Random House.
2. Read additional supplemental books to further develop concept.		2. Books (Random House - above) Wee Willow Whistle A House for Everyone "Circle of Feelings" filmstrip Focus Kit from SRA Flannelgraph Kit: "Frisky and the Turnabout Twins"
3. Make Paper Plate faces to express four feelings: happy, sad, angry, and frightened.		
4. Role play		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

54

Emerging Identity

1. To assist children in becoming aware of the "self."
2. To help children discover the relationship of one's self to the rest of the world.
3. To help children become aware that everyone reacts in different ways to different situations.

OF THE millions of people in the world, no two are exactly alike. Many are of the same height or weight, many have the same hair or eye color, but there is something unique about each human being.

Two factors determine what a person will be. One, the set of inherited characteristics, is determined before birth. From his parents a person inherits his hair and eye color, the limits of his growth, and so on. These inherited characteristics are different for every person. Even brothers and sisters have different bone structures and display different capabilities for growth and learning.

Surroundings, or environment, also determine what a person will be. The home, family, diet, climate, in fact, almost everything a person encounters throughout his life influence what he becomes. For example, an individual may inherit from his parents the possibility of being tall. An inadequate diet may prevent him from reaching his potential height, while a proper diet will cause him to grow as tall or taller than his parents. A child learns many of his values and standards of behavior from the people around him. All these factors help determine his identity, the unique set of characteristics that defines him.

Identity emerges very early in life. It begins with the infant's discovery of his body. From then on, all his experiences influence his developing identity which, in turn, becomes the basis for his behavior. As the identity develops there arises, too, an awareness of identity. The child becomes conscious of what he is, though he may not recognize what has influenced his development. By becoming more aware of himself and the forces which molded him, the child will adjust more easily and behave more successfully in all situations.

Permission to reproduce
granted by Random House

Jack Is Glad

by Charlotte Steiner

p. 1 ► When Jack's new puppy
Wakes him up with a bark
Jack is *glad.*

1. What makes people glad?
2. Do people enjoy being glad?
3. Should people try to make others glad? How?

p. 3 ► But the puppy has gone and cannot be found.
Jack is *sad.*

1. What makes people sad?
2. Does everyone feel sad at one time or another?
3. What are some things that make people feel sad?

p. 5 ► And Jack tries to trip him
To make him cry—
Jack is *bad.*

1. Why do you think people are sometimes bad?
2. Does being bad make people feel sad or glad? Why?

p. 8 ► Jack was *hopeful.*

1. Is being hopeful a good thing?
2. Is everyone hopeful at one time or another?
3. What are some things that people hope for?

p. 11 ► Jack is *good.*

1. How do people feel when they are good?
2. Is anybody good all the time?

p. 14 ► Jack is *frightened.*

1. What are some things that frighten people?
2. Is everyone frightened by the same things?
3. Do you think it's good to be frightened of things that can harm you? Why?

Permission to reproduce
granted by Random House

JACK IS GLAD by Charlotte Steiner

p. 15 ► Jack is *brave*.

1. What does it mean to be brave?
2. Is everyone brave in the same way?
3. Does everyone have a chance to be brave?

p. 17 ► Jack is *grouchy*.

1. What makes people grouchy?
2. Does anyone enjoy being grouchy?
3. Do older people sometimes get grouchy?

p. 18 ► Jack is *gentle*.

1. What does it mean to be gentle?
2. How can people be gentle with our pets?
3. How can people be gentle with our family?

p. 19 ► Jack was *mean*.

1. How do people act when they are mean?
2. Is everyone mean at one time or another? Why?

p. 21 ► Jack is *happy*.

1. What are things that make people happy?
2. Does everyone feel happy about the same things?
3. How can we make others happy?

SUMMARY DISCUSSION: Everyone is different, so naturally everyone feels differently and behaves differently. We should try to understand ourselves *and* one another.

Further Reading:

COWBOY ANDY by Edna Chandler
PETUNIA TAKES A TRIP by Roger Duvoisin
BRIDGET'S GROWING DAY by Winifred Bromhall
WEE WILLOW WHISTLE by Kay Avery
A HOUSE FOR EVERYONE by Betty Miles

Permission to reproduce
granted by Random House

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of policeman's responsibilities, have children name and list as many ways as possible policeman helps people.

IMMEDIATE NEIGHBORHOOD: Policeman (September)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Invite a local policeman (if one is a parent, better still) to talk to the class about his various duties. (May be used selectively if too long) 2. Read a story. Use Teaching Pictures to introduce (policeman) 3. Sing songs. 4. Arrange a safety demonstration with the police department. 5. Make a mural of a policeman's various duties. 6. View a filmstrip about a policeman. 7. View and discuss the poster pictures of the policeman in the fold-out: "People in the Neighborhood."	1. Arrange a classroom talk and discussion with a local policeman. (orient him to subject discussion areas) 2. Picture to introduce story. Discuss the story, reviewing the importance of the duties of the policeman. The jobs of the policeman are to help people and keep order, and we can help by obeying laws which were made for our protection. It takes many trained workers to guard the safety and give aid to people in a city. Discuss such questions as: "What does a policeman do?" "Why do you think a policeman wears a special uniform?" "What are some ways he helps people?" 3. Memorize words and actions to songs. 4. Arrange the demonstration for the primary department. (To conserve on their staff appearances) possible held in the gym - to demonstrate proper traffic safety.	1. Resource person 2. BOOKS: Your World - Let's Visit a Policeman I Want to Be: A Policeman, Carla Greene, Children's Press About Policemen, Dillon, Melmont The True Book of Policemen and Firemen Read About the Policeman, Slobodkin PICTURES: Teaching Pictures - Home and Community Helpers - Cook SVE - Picture Posters with records 3. SONGS: "Police Dept" "The Traffic Cop" p. 84, This is Music Gr. 2, 1961, Allyn & Bacon, Chicago "The Traffic Man", p. 19, American Singer, Gr. 1, 1954, ABC 4. Resource people 5. Paper, crayons, scissors, paste

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
8. Create traffic light puppets for use in dramatic play.	5. As the duties are discussed, draw illustrations to be arranged by the children as a mural.	6. Filmstrips: "Policeman" Long Filmslide Serv. "Let's Go to A Police Station" (filmstrip/record) G. P. Putnam's Sons, New York Film: "The Policeman" #2477 Encyclopaedia Britannica
9. Walk to the traffic lights near your school and observe them in operation.	6. View filmstrip that is available.	7. Picture foldouts: "People in the Neighborhood", The Child's World
	7. Use as a review of #1 and 2.	8. Bags and construction paper as stated in technique.
	8. Provide paper bags, circles of red, yellow, and green paper, scraps of paper in these colors, paste and scissors. Children create a face for "Mr. Stop" with a red circle, and a face for "Mr. Go" with a green circle. They may use the yellow circle at the sides of the face. They can make a face on each side of the bag - Mr. Stop on one side and Mr. Go on the other - with yellow circles on narrow sides of bag.	
	9. Practice using the traffic lights by crossing several times.	

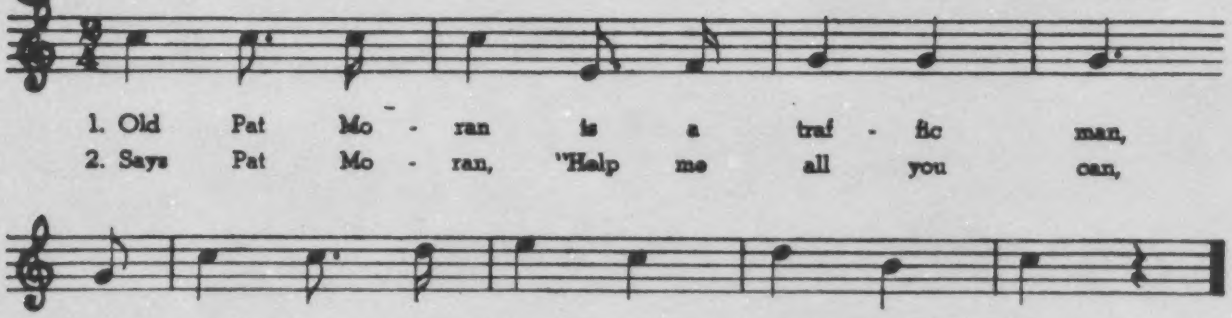
Taken from: American Singer
Grade 1, p. 19
American Book Co.

47

The Traffic Man

J. W. Beattie

J. W. Beattie

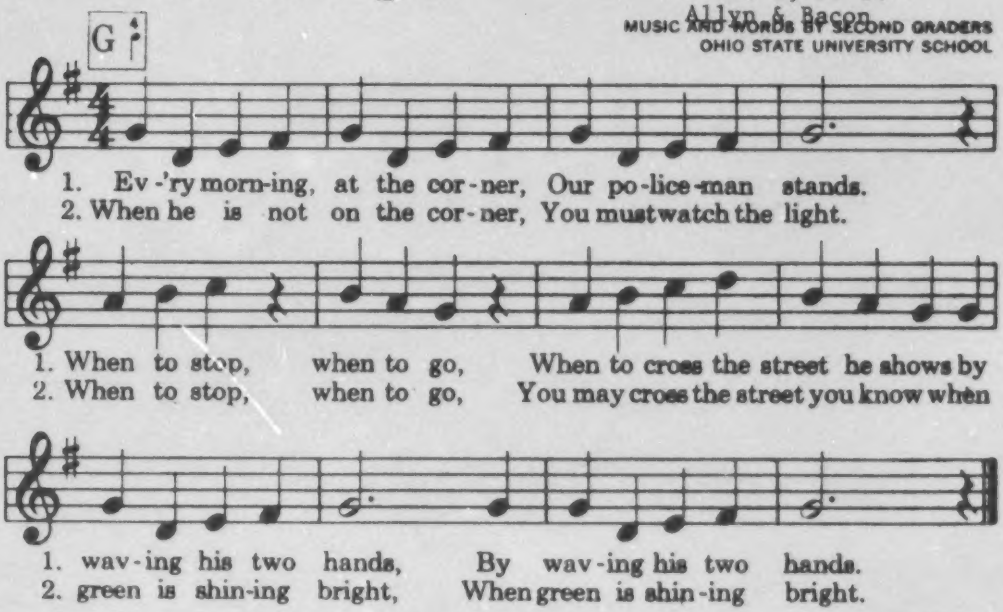


Formation: "Pat Moran" stands in the center of an imaginary intersection. The children divide into four groups, and each group stands at one of the four approaches to the intersection. As the officer motions w north and south traffic, the north and south groups change places. The east and west groups change places, likewise, when their signal is given.

The Traffic Cop

Taken from: This Is Music
Grade 2, P. 84
Allyn & Bacon

MUSIC AND WORDS BY SECOND GRADERS
OHIO STATE UNIVERSITY SCHOOL



Can you be the policeman who directs the traffic at the busy corner?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate fireman's responsibilities, student will be able to orally give at least two ways that a fireman is helpful.

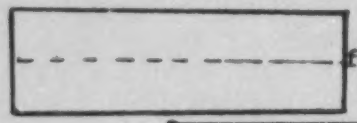
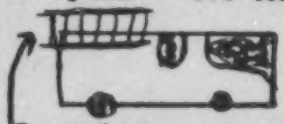
IMMEDIATE NEIGHBORHOOD: Fireman (October)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

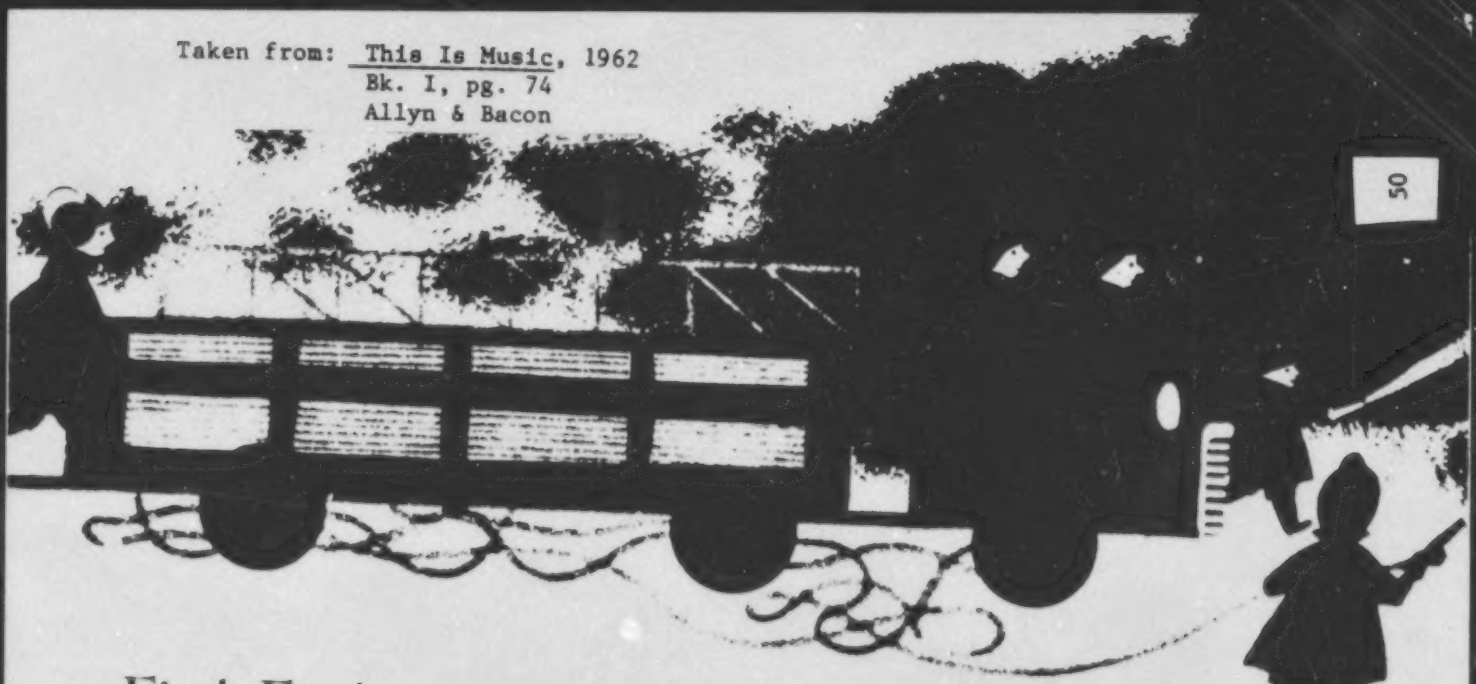
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read a story 2. Use pictures of a fireman 3. Invite a fireman to visit your class and discuss fire safety rules. 4. Visit a street fire alarm box near your school. 5. a) Make fireman's hats from oval shaped paper plates. Or Use 12 x 18 red construction paper. Cut a semi-circle from the inside of each plate and fold up the flap to allow space for the child's head and to form a stand up top for the hat. b) Make fire trucks 4½x12 6. View a filmstrip and listen to a recording.	1. Use Let's Visit the Fire Station with plenty of time to examine the colored illustrations and discuss the use of the equipment. 2. Use fold-out, "People in the Neighborhood" with discussion questions: What are the jobs of a fireman? (put out fires, and protect people from fires) Do firemen need special training? How do they fight fires? How do they get there? How can we help them? 3. This will be especially effective if done right after a fire drill. Discuss needs for fire drill rules. 4. Walk to it and discuss its use. 5. Cut out hats and let children paint them red. Discuss the times and places the fire hat is worn as well	1. BOOKS: I Know a Fireman, Williams, Putnam About Firemen, Hefflefinger, Melmont Your World - Let's Visit the Fire Station, Taylor Publishing I Want to be a Fireman, Greene, Children's Press Read About the Fireman, Slobodkin, Franklin Watts, 1967 2. Picture foldouts: "People in the Neighborhood," Child's World 3. Resource person 4. Field trip 5. Paper plates (oval), scissors, red tempra paint, 12 x 18 red construction paper, 4½ x 12 red construction paper. (diagrams on next page) 6. Ginn and Co. has good records and songs on helpers, according to grade level.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Make a "firefly" puppet from a red sock. Paint on a face and add red paper wings.	as the other clothes that the fireman wears.	5. Fireman's Hat 12"x18" red construction paper  fold and cut double cut out shaded area Firetruck 4½"x12" - red construction paper  cut out shaded area - add black wheels - add colori ladder Paste short strips on 2 long ones
8. Draw and paint pictures of firemen at work or make posters of how to prevent fires.	Fire truck 4½ x 12 - see diagram 6. View and listen. Discuss the firemen's actions. If the children wish to dramatize the actions, give opportunity.	6. "Johnny the Fireman" (filmstrip/record, Society for Visual Ed. "Fire Department", (posters/record) Society for Visual Ed. "The Little Fireman" (record) Young People's Records
9. Sing songs.	7. After completing the firefly, Mr. Firefly may talk to the children about fire safety. (Playing with matches, reporting a fire).	8. Construction paper, poster paper, paints
	8. Children may like a choice here of either activity (or both) with a good review discussion before starting.	9. SONGS: "The Fire Station," p. 30-31, Music for Young Americans, 1959, Bk II, American Book Company "Fire, Fire," p. 74, Bk. I, This Is Music, Allyn and Bacon, 1962
	9. Learn words with motions.	

62

Taken from: This Is Music, 1962
Bk. I, pg. 74
Allyn & Bacon



Fire! Fire!

C

Children's Song

Cymbals: × × × ×
Bells: 5 5 5 5 (5 4) (3 2) 3 1 Cymbals: × × × × (5 4) (3 2) 3 1

Fire! Fire! Fire! Fire! Hear the si - ren blow - ing. Fire! Fire! Fire! Fire! Ev - 'ry - bod - y's go - ing.

Autoharp or Piano: C C G7 C C C G7 C

1 1 1 1 2 2 2 (3 4) Sand Blocks: × × × × (5 4) (3 2) 1 —
slowly

Climb the lad - der, Squirt the hose, With a Sh! Sh! Sh! Sh! Out the fire — goes.

C C G7 G7 C C G7 C

Melody patterns for bells:

A: 5 5 5 5 (5 4) (3 2) 3 1

B: 1 1 1 1 2 2 2

Write the two melody patterns on large charts, labeling them A and B. Ask the children to listen for these "tunes" and raise their hands when they hear them in the song. How many times is the A pattern used? How many times is the B pattern used? Let one child, or a group of children, play the A pattern. Have another child or group play the B pattern.

FIRE

Verse for chanting:

ONE GIRL: *"Fire, fire!"*
ALL: *Said Mrs. McGuire.*
ONE GIRL: *"Where, where?"*
ALL: *Said Mrs. Ware.*
ONE GIRL: *"Down town!"*
ALL: *Said Mrs. Brown.*
ONE GIRL: *"Save us, save us!"*
ALL: *Said Mrs. Davis.*
BOYS: *And along came the firemen,*
And saved every one of 'em.

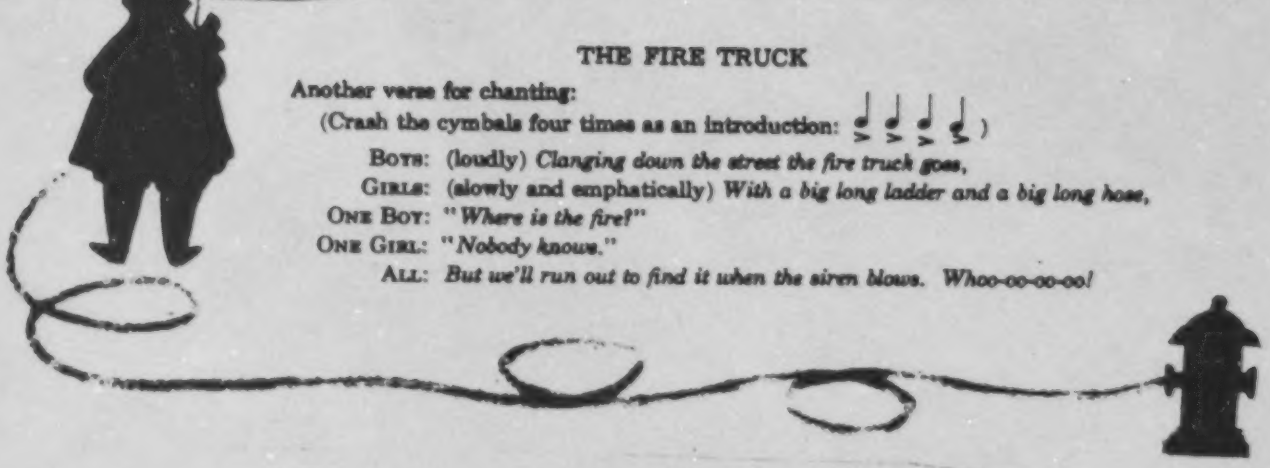
From *The Child's Book of Folklore*, edited by MARION VALLAT EMRICH and GEORGE KORSON.

THE FIRE TRUCK

Another verse for chanting:

(Crash the cymbals four times as an introduction:)

BOYS: (loudly) *Clanging down the street the fire truck goes,*
GIRLS: (slowly and emphatically) *With a big long ladder and a big long hose,*
ONE BOY: *"Where is the fire?"*
ONE GIRL: *"Nobody knows."*
ALL: *But we'll run out to find it when the siren blows. Whoo-oo-oo-oo!*



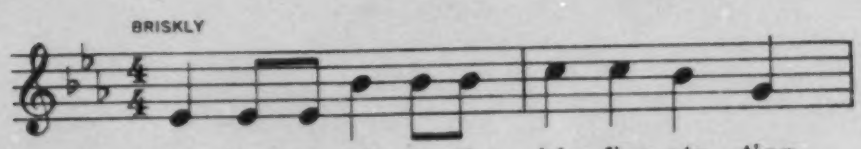
How many phrases have the same tune as the first phrase?
How many phrases have the same tune as the second phrase?
Find the phrases that have higher tunes.

52

The Fire Station

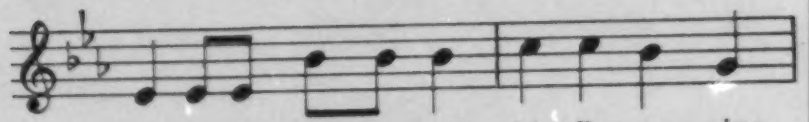
Words and Music by Richard C. Berg

BRISKLY

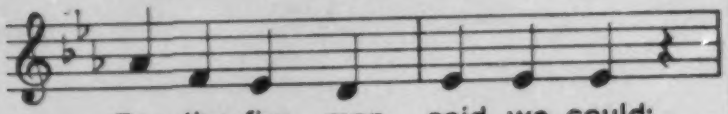


We took a trip to the big fire sta - tion

In our neigh - bor - hood,

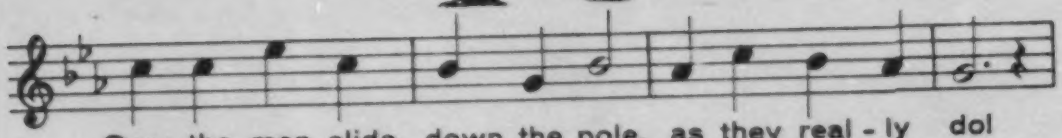


Sat in the shin - y red, big fire en - gine,



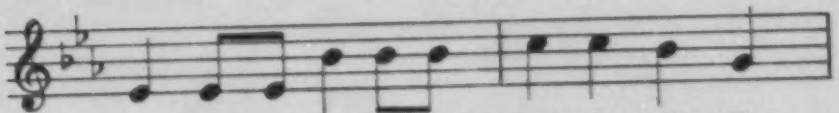
For the fire - man said we could;

Taken from:
Music for Young American
Book II, 1959, Pg. 30-31
American Book Co.

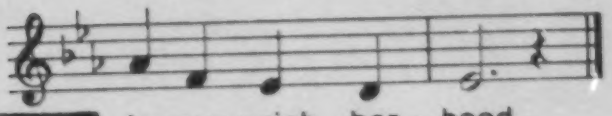


Saw the men slide down the pole, as they real - ly do!

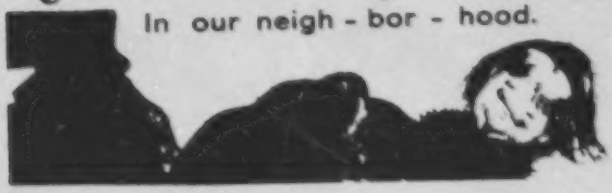
Saw their hel - mets and their ax-es, heard the si - ren, too!



We took a trip to the big fire sta - tion



In our neigh - bor - hood.



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop awareness of self worth

SPECIFIC BEHAVIORAL OBJECTIVE:

Awareness and Coping

a) Students will respond in group discussion to the questions: "What made you feel good today? "What made you feel bad today?"
b) Students will cite disappointments they have met; and class will provide various solutions to coping with the situations.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read: Peter's Three Friends	1. a) Read Awareness and Coping study for background. b) Read and discuss suggested questions in teachers guide of Program for Elementary Guidance.	1. Book: Peter's Three Friends Program for Elementary Guidance Learning Unit from Random House
2. Read additional books to further develop concept. (if you have need).		2. Books - Random House above Switch on the Night The Chipmunk That Went to Church

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Awareness and Coping

1. To help children develop an awareness of life and an ability to cope with it.
2. To help children appreciate the far-reaching effects of their decisions.
3. To create an atmosphere in which children will have an opportunity to make decisions.

A PERSON must observe and be aware of what goes on around him and what goes on inside of him. He should try to understand every experience and his feelings with regard to it. Once he has achieved this understanding he must behave in a successful manner. This is known as coping, and requires making decisions.

Some poor ways of coping are to react to new or unfamiliar situations by pretending they don't exist, shifting the blame to another, admitting defeat before attempting anything, or offering excuses. On the other hand, positive decisions may be very far-reaching, even irreversible. Acting without examining the possible consequences is just as bad as backing out of a situation or shifting blame. Decision making requires an understanding of oneself and one's situation and the ability to look beyond immediate actions to their possible consequences. It is a serious responsibility and children should develop an appreciation of others who are faced with it. The child should become aware of the considerations involved when someone makes a decision, particularly when the decision has a direct impact upon himself. This will aid him in developing a decision-making capability of his own, which he will require early in life. Though few childhood decisions are of any real significance, exercising the machinery will prepare the child for coping with problems which will arise as he grows older.

Permission to reproduce
granted by Random House

Peter's Three Friends

by Winifred Bromhall

p. 2 ► This was the day he was going to see his friends again.

1. Why are people anxious to see their friends when they return from a trip?
2. Are their friends usually anxious to see them?

p. 6 ► Mr. Milligan liked all children and dogs and puppies. But he liked Peter and Hans best of all and, of course, both Peter and Hans loved to visit him.

1. Why do you think Mr. Milligan liked Peter and Hans best?
2. How do our friends let us know they like us?

p. 10 ► Still, it had been a great disappointment.

1. Why was Peter disappointed?
2. How do you suppose he handled his disappointment? Did he cry? Did he go look for another of his friends?

p. 12 ► "My new dress," she cried, "you will spoil it with your muddy paws."

1. Why do you think Susie feels differently about Hans now?
2. How do you think Hans feels?

p. 14 ► His feelings were so hurt that he behaved badly—very badly, indeed. Before anyone could stop him, he snatched Amanda from her carriage and ran off with her in his mouth.

1. Was this the proper way for Hans to behave?
2. Was Susie acting like a good friend?
3. How do you think Peter feels?

p. 18 ► Still, they didn't go home, of course, for there was still Mr. Merryweather to visit.

1. Peter didn't let his disappointments spoil his day, did he?
2. Do you think this time things will turn out all right?

Permission to reprocue
granted by Random House

PETER'S THREE FRIENDS by Winifred Bromhall

p. 20 ► There were spiders' webs on the ceiling, and old canvases and papers on the floor. Peter thought it was the very nicest house he had ever seen.

1. Why do you think Peter was so fond of Mr. Merryweather's home?
2. Should people like others for what they have or for what they are?

p. 24 ► How Mr. Merryweather laughed! He laughed so hard that tears ran down his cheeks.

1. How is Mr. Merryweather making Peter feel better?
2. How do you suppose he knows what to do to make Peter happy?
3. How should people help others when they are feeling badly?

p. 28 ► How happy Peter felt. All the disappointments of the day were forgotten.

1. How did Mr. Merryweather help to cheer Peter up?
2. How can our friends help us when we are disappointed?
3. How can we help ourselves if we have a day like Peter has had?

SUMMARY DISCUSSION: When things go wrong, it is better to keep trying till they go right, than to give in to the disappointment. This is known as *coping* with our problems.

Further Reading:

SWITCH ON THE NIGHT by Ray Bradbury
BOO by Munroe Leaf
THE CHIPMUNK THAT WENT TO CHURCH by Winifred Bromhall

Permission to reproduce
granted by Random House

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self worth

SPECIFIC BEHAVIORAL OBJECTIVE:

Unit IV
Understanding Independence

a) Draw illustrations of what a "good-guy" and "old-lazy" could be doing in the same situation. b) List what parents do for us; review list; and find out how many of these things we could do ourselves.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities are attached as they are listed in the teachers manual of the DUSO Kit.	1. Use the various methods offered in the DUSO kit to develop the concept that each of us have differences.	1. DUSO kit. (Developing Understanding of Self and Others)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

UNIT IV

Unit Theme: Understanding Independence

As each child moves from the home to the school, he is confronted with new expectations from adults. His dependence may have been appropriate in the past; it may even have been encouraged by his parents. Each child needs to understand how, in time, he can develop increasing self-reliance and learn to function without continuous supervision.

This unit helps children understand that they must make choices involving value judgments, standards of conduct, and courses of action. They learn to appreciate the relationship between their behavior and its consequences.

The Unit IV activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, and D. There is no particular order in which the Unit IV activities must be presented. They may be used in any sequence or clustering desired. However, certain activities should not be used unless the story for that cycle has been presented. In such cases, the story is indicated as a prerequisite for the activity.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT IV OVERVIEW

Introductory Story IV: Prince Lazy Bones, Page 84

Unit Song IV: Do This, Do That, Page 84

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories Posters	Good Guy and Old Lazy, Page 86 Do your best—Do only what you have to do	Blepo's Basket, Page 89 Do it now	John Teaches Himself, Page 92 Do it yourself	It's a Free Country, Page 95 Think what might happen
Problem Situations	Bobby and the Cartoons, Page 86	Mary's Bike, Page 89	Tommy Stays Home, Page 92	Terry Is Late, Page 95
Role Playing Activities	Big Trouble, Page 87	But I Need It! Page 90	The Sitter, Page 93	Mother Won't Care, Page 96
Puppet Activities	The Box of Goodies, Page 87	Little Red Riding Hood, Page 90	Mary's Problem, Page 93	Peter Rabbit, Page 96
Supplementary Activities	1—Make Up a Story, Page 87 (Prerequisite: Story IV-A, Good Guy and Old Lazy) 2—Draw a Picture, Page 87 3—Question and Answer Game, Page 88	1—Dramatize Story, Page 90 (Prerequisite: Story IV-B, Blepo's Basket) 2—Make Busy Beaver Hats, Page 91	1—List Things Parents Do for Us, Page 93 2—Draw a Picture, Page 94	1—Draw a Picture, Page 96 2—Tell the Class, Page 97
Supplementary Reading	*Umbrella*, Page 88	*The Lazy Beaver*, Page 91		*The Tale of Peter Rabbit*, Page 97 *Once a Mouse*, Page 97

72

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitude toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of workers involved in production of the classroom pumpkin, each student will be able to state orally at least five of the workers involved.

Holidays: HALLOWEEN

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1

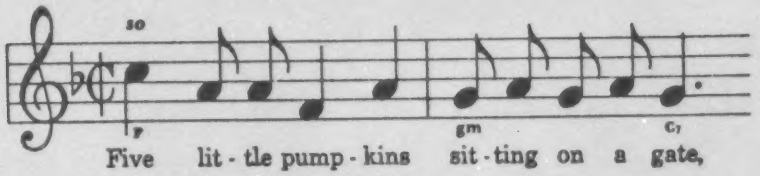
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have a real pumpkin for the group to see and handle.	1. Discuss: 1) What was the beginning of this pumpkin? 2) What workers were involved from seed to classroom? 3) Who cleans the pumpkins and dries the seeds? 4) Who packages them? 5) Who sells them? 6) How are they sent to the store? (Train, bus, drivers, loaders, deliverymen) 7) Who arranges them for sale in the store? 8) Who sells them to the gardener? 9) Who plants them? 10) Who tends the garden and picks them? 11) Who brings them to market? 12) What worker brought this one here?	1. Large pumpkin from local garden or store.
2. Carve pumpkin into a jack-o-latern and scrape out all seeds.	2. Talk about the size, shape, color, stem, and seeds of pumpkin. Count seeds as a math activity.	2. ---
3. Sing a song.	3. Sing with actions.	3. SONG: "Jack O'Lantern" (attached) "Five Little Pumpkins" Attached
4. The Teaching Pictures (Halloween)	4. Use suggestions in packet.	4. PICTURES: Teaching Picutres - Holiday Theme Cook Publishing Co.
5. Read any available Halloween stories.		
6. Plant seeds from the pumpkin.		
7. Seeds could be roasted and salted then eaten.		

SUGGESTED CORRELATION FOR THIS ACTIVITY: Could be used with a unit on seeds.
Similar activity could be used in discussion with any holiday.

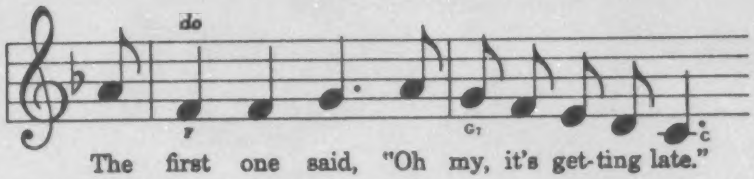
Five Little Pumpkins

Unknown

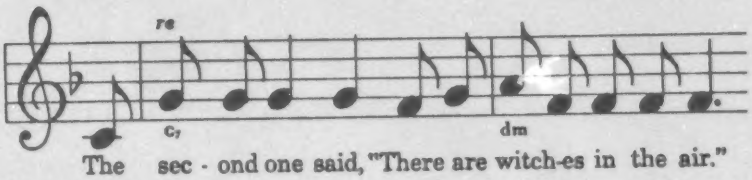
L. B. P.



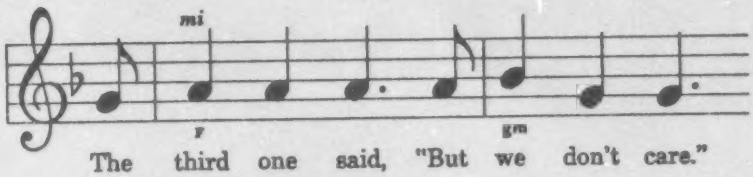
Five lit - tle pump - kins sit - ting on a gate,



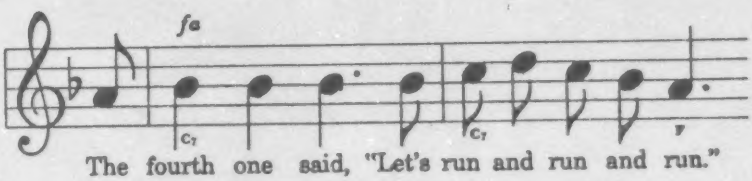
The first one said, "Oh my, it's get-ting late."



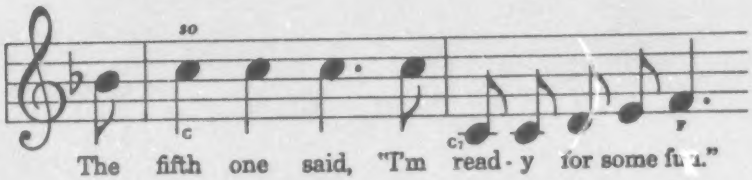
The sec - ond one said, "There are witch-es in the air."



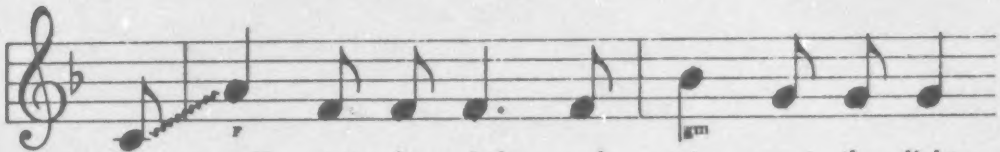
The third one said, "But we don't care."



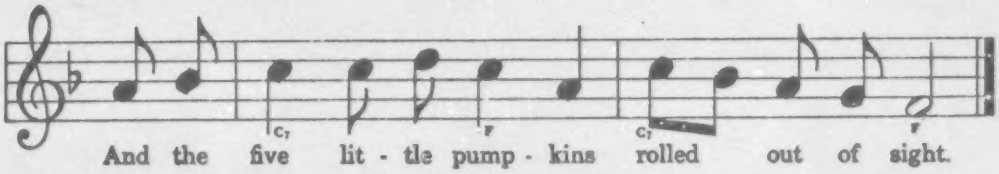
The fourth one said, "Let's run and run and run."



The fifth one said, "I'm read - y for some fun."



"Oo - oo!" went the wind and out went the light,



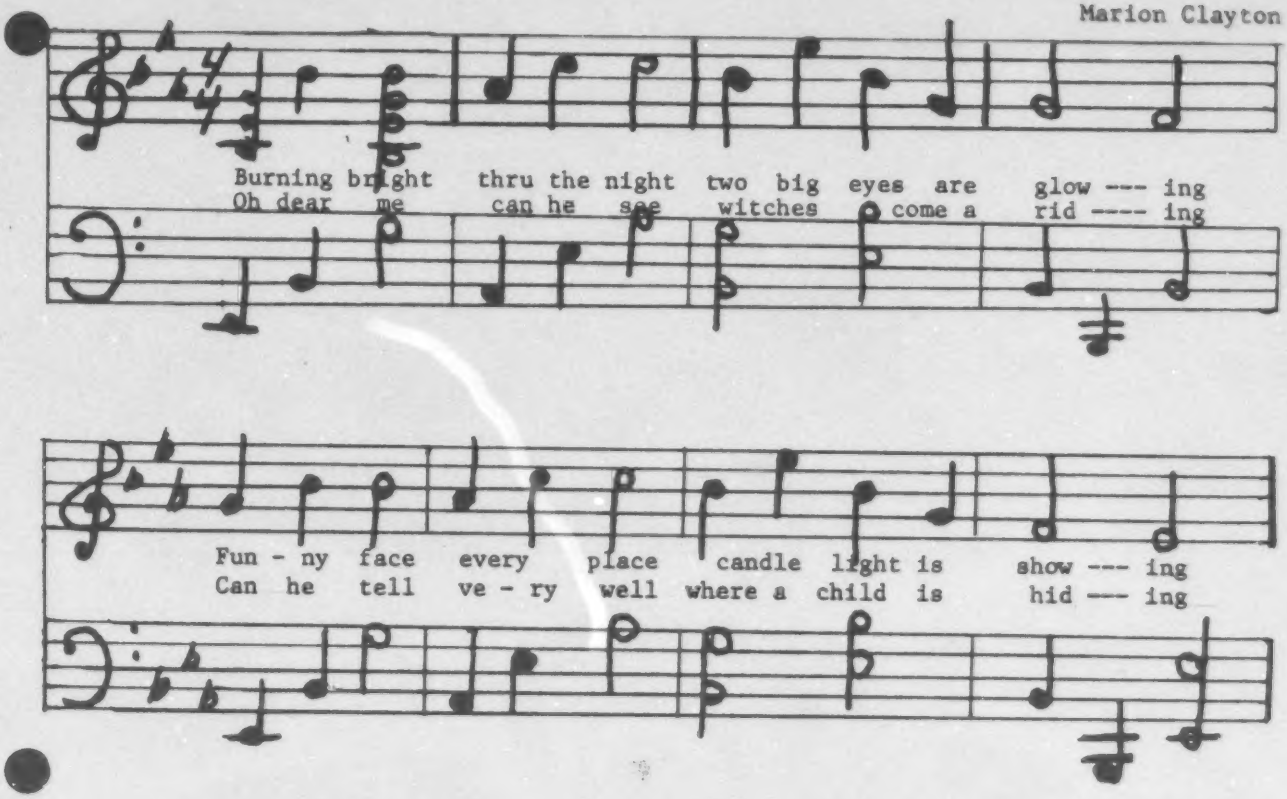
And the five lit - tle pump - kins rolled out of sight.

Reproduced from SINGING AND RHYMING, Enlarged Edition

8 Recording – Songs from SINGING AND RHYMING, Album 3-A
Related Listening – Elgar: FAIRIES AND GIANTS (from "Wand of Youth Suite, No. 1")
RCA ADVENTURES IN MUSIC, Grade 3, Volume One

JACK O'LANTERN

Marion Clayton



Grade Teacher

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: 1. To demonstrate the student's understanding of the value of cooperating in the planning of a party, groups of students will plan an assigned segment successfully, based on teacher observation. 2. To demonstrate a knowledge of workers involved in producing and distributing party supplies, students will correctly name five different workers involved.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Plan a Halloween party. 2. List and discuss workers involved in foods, party treats, and costumes. 3. Assign committees to the various duties involved in planning and giving the party. 4. An apple bob can be used to lead into the workers and source of apples. (Tie apples on a string instead of putting them in water.) 5. Plan a party with activities directed toward a specific subject.	1. Plan the menu for the party. Emphasize that these supplies are the result of many workers' efforts. Have students list workers that were involved in getting these supplies to you for this party. Discuss and encourage costuming. Encourage original costumes made from items at home. List the workers involved in obtaining such items. Suggest and discuss bobbing for apples as a party game. Talk about where the apples will come from, ask questions that will bring discussion about fruit growers, pickers, transportation, etc. 2. Let class suggest workers listed. 3. Give each small group responsibility for some phase of the party.	1. Food and costuming brought by children.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a student's knowledge of a paper boy's work, each student will be able to name at least one job responsibility and one reason that a newsboy's job is important to us.

IMMEDIATE NEIGHBORHOOD: Newsboy (November)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Display a daily newspaper and show students the different sections. Hold discussion on how many people have worked together to produce this paper. 2. a) View and discuss the illustration of newsboy on the picture fold-out. and b) "Newspaper Boy" (filmstrip) 3. Have an older brother (or a friend) come to the classroom to tell the children about being a newsboy. 4. Learn newsboy chant. 5. Check at home to see how many papers come daily, weekly 6. Make a news bulletin board for mounting news pictures and	1. Have children examine the sections, and then bring a paper from home so that each will have his own to examine. Point out concepts such as: newspapers are printed in a newspaper office; newspapers are taken by truck (or car) to newsboys; many people work at newspaper office, but the delivery boy is the youngest. 2. a) Show filmstrip and record b) Must be from same school - (6th Grade) Plan talk to first grade 3. Have the newsboy tell all the phases of being a newsboy: getting up early, taking the papers in all kinds of weather collecting; being sure that everyone on his route has their evening paper. 5. What papers come? Report and bring copies of old ones to school. Find out why families want a newspaper. Why is it important? Why is the newsboy an important worker?	1. Newspapers from home. 2. Picture foldouts: "People Who Come to My House," Childs World WOW Educ-Craft ECF 102 "The Newspaper Boy" Denoyer-Geppert (filmstrip) 3. Resource person 6th grade 4. Chant: I ride my bike around (pretend to ride bike) With my papers in a sack. I go to many houses, Delivering papers from my pack. (pretend to deliver papers) I like to be a paper boy And ride my bike around. (pretend to ride bicycle) 7. Song: "Newsboys" p. 84, This is Music, Book 2 1961, Allyn and Bacon

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
items of current interest to the children.	6. Encourage children to look for at at least one item each which interests him, and bring it to class for the board.	
7. Sing song.	7. Sing the song and adapt motions for it.	
8. Write riddles. Could bring in newspaper to circle letters or words they know.	8. May initiate riddles by having children supply sentences that will describe the newsboy without actually saying his name or job. Record them on the chalk board to be read as a chart experience by the children.	
9. Make a class newspaper as a writing and language arts activity.		

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate child's knowledge of the relationship of jobs performed by pilgrims and the same job performed today, each student will be able to make at least one comparison by drawing illustrations of "then and now" jobs.

THANKSGIVING HOLIDAY

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Arrange First Thanksgiving pictures depicting pilgrims on bulletin board. Also use Teaching Picture.	1. Include if possible 1. Mayflower, 2. landing of pilgrims, 3. cabin built, etc. Use suggestions in packet.	1. Magazine pictures (Ideals) or whatever local source available
2. Construction activities: Log cabins Mayflower	2. Use large set (or 2 or 3 combined) of Lincoln logs to construct small cabin and a large community house. What workers were involved? Or use milk cartons for base and roll brown paper construction strips on pencils for logs. Use small cartons for small cabins and a double 2 quart carton for the large community house. Discuss types of work. Ships - Use large wooden blocks for base, large white sails of wrapping paper mounted on base. (shipbuilders: discussion)	2. Lincoln logs, large building blocks, large roll wrapping paper
3. Read stories and discuss living conditions in the community the pilgrims built. Compare to ours.	3. As stories are read, discuss the conditions of living as they relate to present day. How did they get ready for winter? How do we? Why did they have a feast? Why do we?	3. Squanto and the Pilgrims, A. M. Anderson Wheeler Publ. Co., Chicago, 1949 Meet the Pilgrim Fathers, Elizabeth Payne, Step-up Books, Random House, NY, 1966
4. Begin a "Thank You" Chart.		4. Large tagboard (22 x 28)
5. Dramatization		5. Simple role-playing props (hats, shawls, axes made in school, etc.)
6. Fall food display. Can lead into a unit on vegetables and fruits.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY

7. Make Indian headbands for boys and pilgrim caps for girls and wear them to a "feast" (in cafeteria) shared by other rooms of same grade level.

8. Can make a mural of Thanksgiving feast, etc.

9. Make candles in baby food jars.

10. Make a booklet of Indian sign language.

11. Make hand Indians and turkeys.

12. Include origin of popcorn with Thanksgiving and Indians. Use Childcraft Story "Magic Seeds." Make popcorn trees by filling paper cups with plaster of paris. Stick in tree branch and let set. Glue pieces of popped corn on branches. Pop corn with children and let them eat some before you make the trees.

SUGGESTED TECHNIQUE

4. Chart will be used to record "Thank You" suggestions from children.

5. Dramatize any pilgrim work activity especially interesting to children: cutting trees, cooking over open fire, washing in stream, fishing, hunting, etc. How has workers' jobs changed.

6. Arrange a table with fall collection of home grown foods.

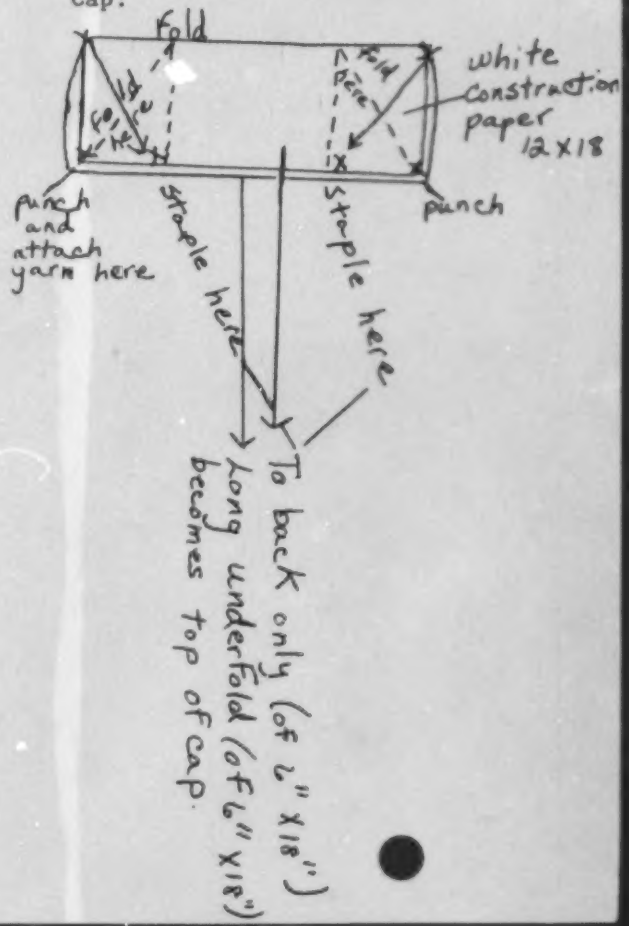
7. Use headband with large varying colored feathers. Use 12 x 18 white construction for girls cap. Fold lengthwise, then fold this in thirds, unfold and grasp double ends laying "fold" corner back into a triangle on the end square. Staple. Then fasten strip of yarn to corner to tie under chin. "Feast": with milk break (just before Thanksgiving) candy corn - corn bread - popcorn - and any other treats suggested (cookie or cupcake)

8. Sing song, "Thank You for the World So Sweet." Children can make up verses too.

RESOURCE MATERIALS

7. Headband:

Cap:



We memorize this - say it three or four times a week. The kids love it. Good to use with Science.

OUR GOOD EARTH By: Mrs. Selma K. Evju

Our Good Earth -
With the air, rain and sun,
Gives us EVERYTHING we use,
For work and for fun.

Our food, our clothes,
Our pets, our toys,
Our homes, our tools,
Space crafts with their noise.

Our paints, our desks,
Our birds, our bees,
Bricks, tile, glass and lights -
And our beautiful trees.

So - we'll cherish and love it -
One and all -
And help to conserve it -
Whether large or small.

When you learn this around Thanksgiving (Thanksgiving means: Giving Thanks) or anytime, let the children help you make up many more verses.

(not ours)
Thank you for the world so sweet,
Thank you for the food we eat,
Thank you for the birds that sing,
Thank you God for EVERYTHING.

Thank you for the bees who sting,
Thank you for the birds that sing,
Thank you for the rain and snow,
That makes all plants live and grow.

Thank you for our pretty flag,
Thank you for both Spot and Tag,
Thank you for our parents, too,
Interested in all we do.

Thank you for the sky so blue,
Thank you for the flowers, too.
Thank you for the clouds so white,
Thank you for the snow so bright.

Thank you for our pets and toys,
Thank you for the girls and boys.
Thank you for our homes, so dear,
And our friends, both far and near.

Thank you for our church and school,
Thank you for the brook and pool,
Thank you for the breezes soft,
Cattle food in the farm hayloft.

(You can go on and on - or the children will.)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of a deliveryman's responsibilities, students will collect pictures of things done by a deliveryman and display for group discussion.

IMMEDIATE NEIGHBORHOOD
Deliveryman (December)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Start a bulletin board of pictures of as many kinds of deliverymen as you can find. Display fold-out pictures of the deliverymen who come to our house.	1. Have the children look for, and cut out pictures of the deliverymen they can find. If they cannot find pictures of all, they may draw and color them. Use activity suggestions on fold-outs.	1. Old magazines, newspapers, posters, and drawings. FOLD-OUT PICTURES: "People Who Come to My House," The Child's World, Mankato, Minn. 56001
2. Compose riddles	2. Make up riddles, dictate to teacher and write on chalkboard. Secure answer from group. Copy for a writing lesson. Compile riddles from one week's work into a booklet. Decorate cover with drawings of things the workers deliver.	2. --
3. Read prepared riddles to children.	3. Read riddles to children; have them work out the answers. Give them ditto sheets with the riddle to read and then draw and color an illustration of the worker on the bottom of the sheet. Use only one for each daily activity.	3. Dittos with prepared riddles of various deliverymen. Suggested ones attached.
4. List as a review all the deliverymen that you can think of.		

82

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	4. Discuss their work. What does he bring? Who is he helping? What are the hours he works? Does he wear a uniform? Is it a hard job? Why? What training does he need? Is it a noisy job? Does he help other workers? Who helps him?	
5. (possible in some classes) "Daddy" who is a deliveryman may come and speak to class.	5. Prepare resource person for information children are able to understand.	5. Resource Person

RIDDLES

(on deliverymen)

Many a letter and package he comes to deliver
In the heat of summer or the cold of winter. Who is he?

He drives a white truck that's kept sparkly clean.
He brings something to drink that keeps my teeth strong
and helps me grow. He also brings cottage cheese, cream,
and sometimes even butter. Who is he?

He drives a big truck and it has clothes hanging in the back
all in nice rows; they are covered with plastic to keep them clean.
He doesn't come every day; he comes just once in awhile. Who is he?

He comes from most any kind of store.
Sometimes he brings small packages but sometimes he
brings something very large. He even brings some
new furniture once in awhile. Who is he?

He comes to our house every evening.
As he goes by all the houses in our block, he leaves something for everyone.
My daddy waits for him to come so that he can read the news.
He doesn't ring the doorbell; Daddy has to check to see
if he has been to our house. Who is he?

When he comes, he always rings the doorbell.
He usually has quite a large package.
He wants someone to take care of it right away,
especially if it is cold. When mother opens it,
she puts them in a vase in water, and they smell very nice.
Who brings such things?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of workers involved in producing and delivering Christmas materials, the student will name at least 5 workers involved.

Holiday: Christmas

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read story of the first Christmas.	1. Read and discuss the story. "Why do we celebrate the Christmas Holiday?" In the Christian world it is celebrated as the birthday of Jesus Christ. How do we celebrate? Why give gifts? How are workers a part of this?	1. Stories may come from a variety of sources - school library, children's books, magazines, Bible
2. Sing songs and carols. Listen to records.	2. Sing songs of many phases of the Christmas celebration such as: Away in a Manger Silent Night Santa Claus is Coming to Town Rudolph the Red-Nosed Reindeer I Just Hung Up my Stocking Records for listening: Nutcracker Suite Haukkah Latkes How are workers involved in music?	2. Any series of school song books will supply a variety. Records from school record library.
3. Make bulletin board and room decorations. Use Teaching Pictures to introduce.	3. Bulletin board - Nativity Scene, shepherds and star. What work did the shepherds do? What other workers do we find in the Christmas story?	3. Construction paper, colors, scissors, paste, Teaching Pictures - Holiday Theme - Cook
4. Decorate a Christmas tree.		4. Make tree decorations. Ask those who can to bring an ornament from home.
5. Prepare Christmas gifts a) for parents b) for birds.		5. Construction paper, colors, scissors, suet and netting for treat for birds.
6. Prepare program		6.
7. Bring gifts of canned food for local community giving such as "Open Your Heart."		7. Canned goods furnished by children.
8. Make gifts for parents.		
9. Read about how other lands celebrate Christmas.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
10. Instead of children exchanging gifts, they may wish to send the gift to Children's Village or an old folks home. 11. Ask parents to come to school and prepare a bulletin board for their children as a gift.	4. Discuss workers. Make various decorations. Cut out stars, candles stockings, candy canes, etc. Make paper chains. String short lengths of straws, cranberries, or popcorn. Or bring a few from home. "Are there workers who make them?" 5. a. parents - make a card, letter holder, pencil holder, or anything child is able to make on his own. b. birds - sack of suet - net tied and ready to hang on tree. 6. Use songs and poems learned in activities, in program preparation. Invite parents. 7. Discuss needs of families less fortunate. List foods that are nourishing and also some that would be a special treat. Invite children to each bring a can of food to share with those less fortunate.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop awareness of self worth.

SPECIFIC BEHAVIORAL OBJECTIVE: By teacher observation, each child: a) shows concern for all classmates in work and play, b) Demonstrates self discipline in work and study habits, c) Demonstrates accountability and truthfulness in work and play.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use poem (at end of script sheet in Q. E. D. Box) 2. Show filmstrip and cassette. Repeat this activity for each filmstrip and cassette 1-6 (Perhaps 1 each day)	1. Post poem on door or bulletin board and let children read and discuss. Then have class memorize it. 2. Discuss filmstrip and cassette	1. Poems Of all the things Without reason or use There are few that can equal A silly excuse! It's good to lend a helping hand, And often, in the end, Without quite understanding how, We find we've made a friend! If you're too proud to see your faults, Be sure that others will! Yet you can lose the prize and be A good performer still! When you've finished your work, *That's* the time for play; Putting first things first Is the sensible way! When you think about forgiveness, There's a rule that's tried and true, It's to be as kind to others As you hope they'd be to you! 2. Filmstrips/cassettes: "Tales of the Wise Old Owl" Series I, QED

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to list five jobs that an Eskimo child does at home that is the same as an American child would do, three that are different.

ESKIMO WORKERS
(January)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read a story (or stories)	1. Read the story, examine and discuss pictures.	1. BOOKS: True Book: of Eskimos The First Igloo, Barbara True - Whitman Animals of the Artic, Gwynee Venere
2. Draw illustrations, color and cut out.	2. Draw Eskimo people, (½ walnut shell for face, cotton trim) igloos, Eskimo dogs and dog sleds, seals, polar bears, walruses, etc. depicting Eskimo life. Color and cut out illustrations.	2. Arrange all or as many as feasible of the illustrations into an attractive bulletin board depicting Far North Eskimo Life.
3. List jobs that Eskimos do.	3. Have each child list jobs all members of Eskimo families do. Discuss them, and compare how these needs are met by our own families.	
4. Learn an Eskimo song & game.	4. Learn the song with actions and use until it is very familiar.	4. SONG: "Eskimo Hunter"-American Singer Book 1, attached
5. Make a diorama. Make igloos of paper mache.	5. Use clothespins for base of figures, covering with bits of fur, or fur fabrics for clothing--wrapped, tied, and glued on. Modeling clay can also be used. Glass with blue paper underneath for sea, and padded terrane covered with layered cotton for snow	5. Clothespins Bits of fur or fur fabric Glue Modeling clay Pane of glass and blue paper Layered cotton Twigs, Leather lacing
6. Make booklet depicting Eskimo life.		
7. Have an Eskimo feast		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	formations. Use paper mache' igloos and sleds made of rolled paper on twigs and leather lacing.	Additional Books: Achoa - Boy of the Arctic, Dominie Darbois, Follett Publ. The Eskimos Knew Tillie S. Pine and Joseph Levine, McGraw Hill The Polar Bear Twins, Jane Lampkins E. M. Hale and Company A Dog Team for Ongluk, Terry Shannon Melmont Publ. Chicago Robbie and the Sled Dog Race Sara and Fred Machetanz

The Eskimo Hunter

Adapted — BATTLES AND DRUMS — Eskimo Folk Song

Tribe

1. See, here comes the hun - ter! What are you bring - ing?
2. Shake, shake, shake the rat - ties, Beat on the tom - tom,

Hunter

Seals I am bring - ing, Fish I am bring - ing.
Beat on the tom - tom, Beat on the tom - tom.

Tribe

We'll have meat and will be warm When cold winds blow.
Shake, shake, shake, and beat, beat, beat The hunt - ing song.

(162) Taken from: American Singer, Book I.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of workers affected by the weather and seasons, each child will be able to name at least 3 outdoor workers and how their jobs are affected by the weather.

WEATHER AND SEASONS (ongoing)

SUGGESTED SUBJECT AREA Social Studies or Science

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Keep a daily calendar. (large wall type) Label each month as Fall, Winter, Spring, or Summer.	Mark the calendar daily, noting the date, day of week, month and year. Also draw illustration of the daily weather (clouds, snow, rain, sun) and record the morning temperature.	1. Large roll paper Teacher-made calendar with large squares for daily record
2. List and discuss workers who are affected by weather and seasons. Use resource persons for class discussion if available.	2. Farmer: how his work is influenced by weather and seasons. Postman: influence of weather on mail delivery Bus driver: seasonal problems House builder: seasonal influences City: snow removal equipment and workers	2. Resource people Personal pictures or slides as well as magazine pictures
3. Have children bring in and display seasonal things to bring seasons into good focus.	3. Arrange things on a large table or corner being sure to label them. (especially spring and fall) Promote thorough discussion of items brought.	3. --
4. Perform experiments in class.	4. Freeze water in both tin and glass containers to show expansion of water as it freezes. Show movement of air with ribbons attached to fan. Show condensation with can of ice in water over pan of warm water.	4. Household articles: cake pans, tin cans
5. Read story. Discuss weather reports and work of the weather man.		5. BOOKS: I Know a Weatherman, Williams, Putnam What Will the Weather Be, Barr Albert Whitman Pub. Katy and the Big Snow
6. Listen to weather reports on tv or radio.		6. Room tv or radio
		7. SONG: "Raindrops" p. 56, Music for Young Americans, Book I, ABC 1966

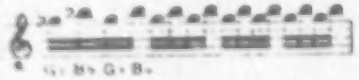
SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Talk about how seasons affect animals hibernation, migration, etc. (This unit would work well in the fall.)	5. List workers in story. Discuss work of each one.	8. Magazine article: "Thorton the Thermometer" Instructor, Jan. 1971
8. Make weather booklet. Each child draw a picture and label it Rainy, Snowy, Sunny, Cloudy.	6. Discuss advantages of knowing what to expect from weather. (dress, activities, etc.)	9. Ranger Rick magazine could be used. Good articles.
		10. Resource person: Miss Williamson from State Department on Dental Health

Taken from:
Music for Young Americans,
Book I, p. 56, ABC 19[illegible]

The two notes in this repeated pattern could be fast little raindrops:



The same notes lower down on the keyboard could make sharp raindrops:

Big fat raindrops could be made with these two notes on the lower part of the keyboard:

2-2-4

Raindrops

Words and Music by Daniel Hooley

LIGHTLY

Drip-py, drop-py, slip-py, slop-py, driz-zle, driz-zle! Rain-y day!

Ev-'ry-thing out-side is sop-py! Driz-zly, rain-y day!

Plip! Plop! Rain-drop! Such a rain-y day!

If this rain should ev-er stop, we could go out to play.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of the responsibilities of a doctor, each child shall be able to name and explain two duties of a doctor and name two reasons why we take shots.

IMMEDIATE NEIGHBORHOOD: Doctor (January)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read stories to the children about doctors and health helpers. 2. View film. 3. View picture fold-outs. 4. View filmstrips. 5. Sing songs, and learn chant. 6. Invite a doctor to the classroom to talk to pupils. 7. Role play.	1. Discuss duties and responsibilities of a doctor. Ask who has been to the doctor? In the hospital? Who else helps keep us well and strong? Can we also help? 2. View or discuss different visits to doctors. Who else has been there? etc. 3. Use suggestions for activities on back of pictures. 4. Discuss the duties carried out in the film and dramatize if there is interest - such as at morning health check time. 5. Memorize words and adapt some motions for the song learned. 6. Let him explain basic duties and allow time for questions. Talk about	1. BOOKS: Your World Books - Let's Go to the Doctor's Office and Let's Visit the Hospital Taylor Publishing Come to Work with us in a Hospital, Wilkinson, Sextant Series I Know a Nurse, M. Schima A Community Helper Book, Putnam About Friendly Helpers for Health and Safety, Hoffman - Melmont 2. FILM: Encl. Brit. - #2743 "The Doctor" 3. Picture fold-out: "People in the Neighborhood," The Child's World 4. FILMSTRIP: Long Filmslide Service Community Helpers Series "The Doctor" "The Nurse"

SUGGESTED CORRELATION FOR THIS ACTIVITY: The Bismarck Drug Kit can be tied in with a discussion on medicine.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Health rules like washing hands and keeping fingernails clean and clipped can be emphasized now. An ambulance driver might come to talk about his job and show the ambulance. Field trip to clinic, doctor's office or emergency room. Have school nurse come in to explain her duties.	medicine. Why it is important - what it does - when we take it - its good - its dangers. Why we have shots - do they hurt - how much. 7. (Alternative for #3) Have a doctor of the week for health check time.	5. SONGS: "The School Nurse," Music for Young Americans, ABC, Bk. I, 1966 Chant: attached 6. Resource person (parent) Doctor show and explain the innoculation instrument. Ambulance Driver School Nurse

CHANT FOR DRAMATIC PLAY

Girls: Doctor-man, Doctor-man,
Make us well as fast as you can.

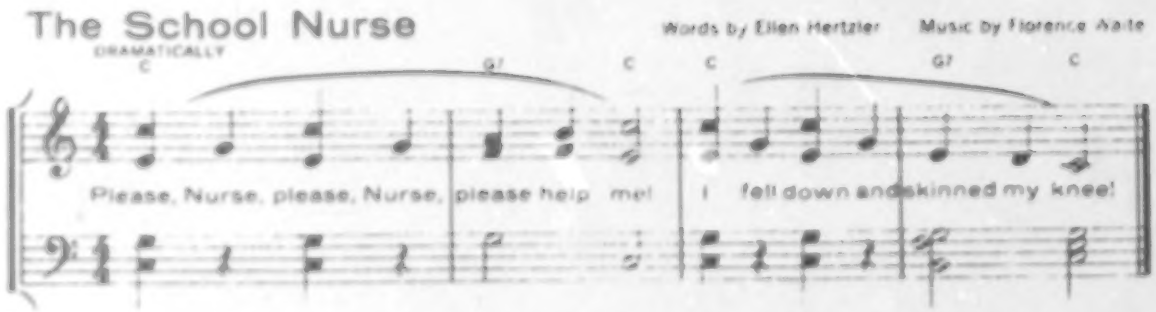
Boys: Take a pill if you will.

Girls: Doctor-man, Doctor-man,
Make us well as fast as you can.

Boys: Stay in bed, stay in bed,
Stay in bed with a cold in your head!

Girls: Doctor-man, Doctor-man,
Make us well as fast as you can.

Boys: Please, please, whenever you sneeze
Cover your nose whenever you sneeze!
I am the doctor-man.
I can make you well, I can!



Taken from: Music for Young Americans, Bk. I
American Book Co. 1966

96

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of types of work existing during Lincoln Era, each child will be able to draw and label three different jobs Lincoln did during his lifetime.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

GREAT MEN OF OUR NATION:
Abraham Lincoln

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Prepare a bulletin board.	1. Arrange pictures on Lincoln's life to create interest.	1. Teaching Pictures - Holidays Theme, Cook Publ., Magazines, newspapers, packets, etc.
2. Read stories about A. Lincoln.	2. Read and discuss story stressing his pioneer home life and the effort he made to get an education. "What was his father's work?" etc. "During the course of the story of his life, how many jobs did he work at? Did he like these jobs?"	2. BOOKS: <u>Abe Lincoln</u>, C. I. Judson <u>This is my Country</u>, Barr, Whitman Publ. <u>If You Grew Up With Abraham Lincoln</u>, Ann McGovern
3. Make log cabin of Lincoln logs. Draw and color log cabins for room decoration.	3. Put Lincoln Log Cabin on table. Use modeling clay to base branches (taken from trees at home or schoolyard) to simulate wooded area. Pile cut up "wood" and "axe" to side of cabin in yard. Expand into a diorama (if interest is high) depicting a settlement,	3. Lincoln logs Modeling clay and branches from trees (children can bring them in)
4. Make mural of Lincoln at the many jobs he did during his lifetime. Person who thinks of the most jobs can be Lincoln for the day.	4. Prepare a mural base. Have children draw, color, and cut out, Lincoln doing variety of jobs. Past to mural and add some background.	4. Wrapping paper Paste, paper, crayons, scissors, etc.

SUGGESTED CORRELATION FOR THIS ACTIVITY: This can be a continuation of the Pilgrim unit in talking about early American life. Can also be correlated with writing - Find pictures in color books etc. of pioneer life - candle making, tanning hides, etc. The students decide on what to write about each. Booklet can be made of them.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	5. Why was Lincoln a great man? What actions made him especially important? Would you feel as Lincoln did about holding people slaves? Use selected activities from "Teaching Pictures" in #1.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE:

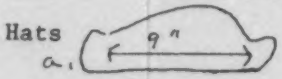
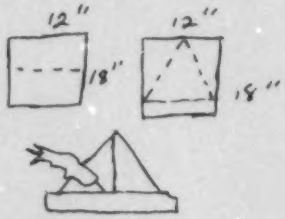
Great Men of our Nation:

George Washington

a) To demonstrate a child's knowledge of the relationship of jobs in Washington's time, and the same performed today. Students will make a list of comparisons.
b) the class wil explain why they think George Washington was a great man.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

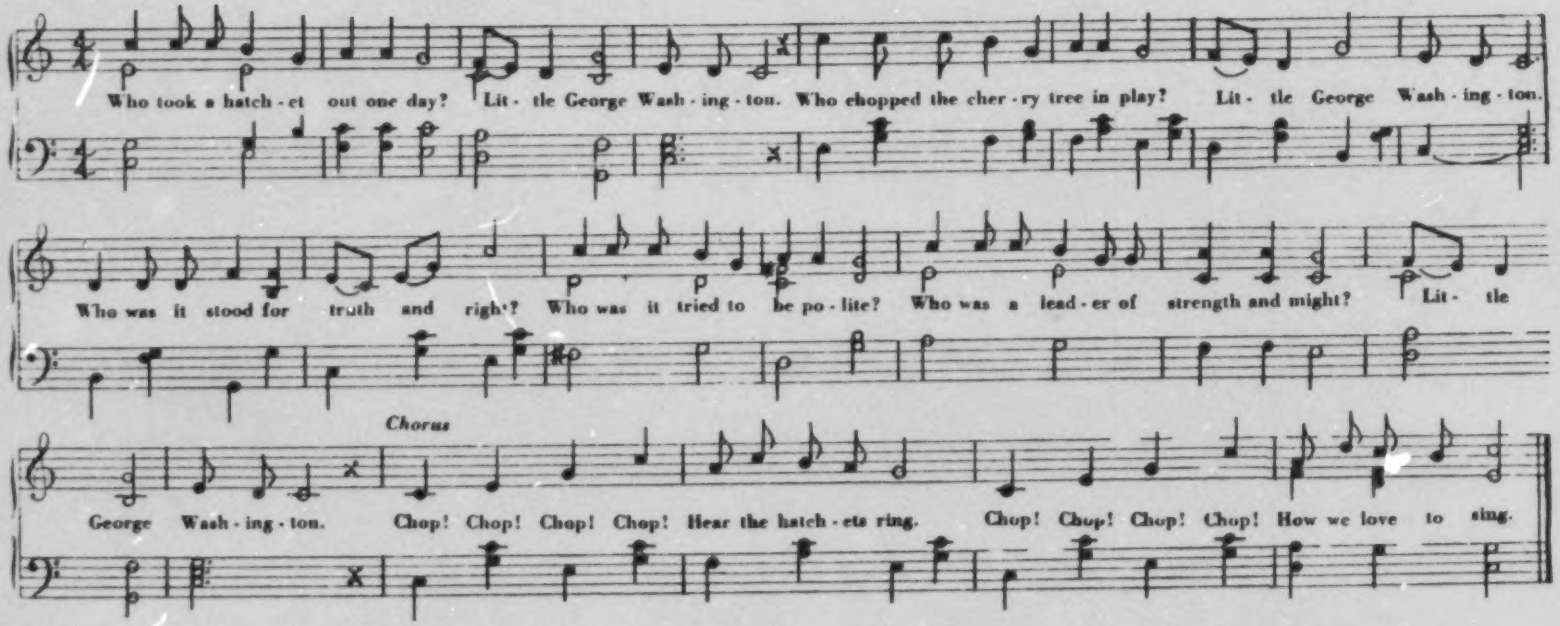
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Prepare a bulletin board with pictures of Washington's life.	1. Arrange pictures to create interest. Use teaching suggestions in packet.	1. *Teaching Pictures - Holiday Theme, Cook
2. Read stories and poems about G. Washington.	2. Read and discuss Washington's life in early America. How does it differ from ours? How did he go to school? How did he feel about learning? Emphasize how he felt in many life situations. Ask how each pupil might feel in a similar situation.	2. BOOKS: George Washington, C. I. Judson The Story of Mt. Vernon, N. Miller
3. Make patriotic marching hats and perhaps hatchets to decorate room.	3. Make and wear hats to use while marching to any lively march record.	3. Hats a.  1 red 1 white 1 blue staple ends for 3-cornered b. hat. 
4. Song	4. March to other rooms or meet in gym and sing patriotic songs - use drums with sticks.	4. "Little George Washington" "Betsy's Tea" (attached)
5. Make original 13 star flag.		5. Book: What Does the President Do All Day
6. Choose a George and Martha for the day. Have them wish for something that George would have wished for.		
7. Make paper chain flag like present flag or make out of egg cartons and paint. Paste on stars.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

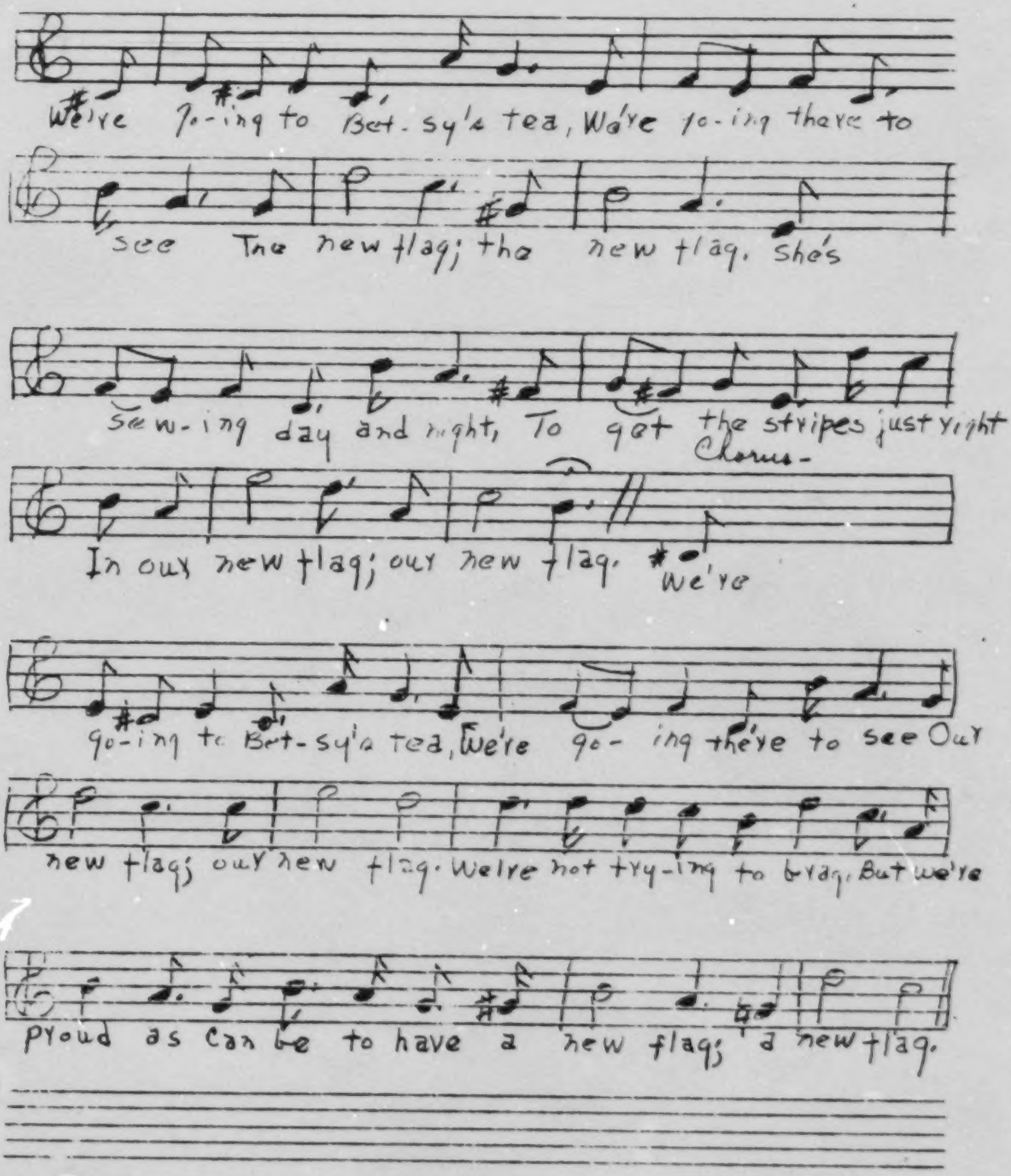
Little George Washington

Traditional

Edited and Arranged by Margaret Wallert



Betsy's Tea


We're go-ing to Bet-sy's tea, We're go-ing there to
see The new flag; the new flag. She's
sew-ing day and night, To get the stripes just right
Chorus-
In our new flag; our new flag. We're
go-ing to Bet-sy's tea, We're go- ing there to see Our
new flag; our new flag. We're not try-ing to brag, But we're
proud as can be to have a new flag; a new flag.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an awareness of self-worth

SPECIFIC BEHAVIORAL OBJECTIVE: Each child lists those people he wants to send a valentine, and orally explains some of the reasons he wishes to give them.

HOLIDAYS:
Valentine Day

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Display array of valentines on bulletin board to promote discussion. Read St. Valentine story.	1. Read story. Discuss Valentine Day practices. Why do you give someone a valentine? Who can you give or send a valentine?	1. Stories attached: "St. Valentine" "Little Boy Blue's Valentine"
2. Make valentines. Use "Teaching Pictures" for ideas.	2. Make valentines from construction paper, paper lace doilies, etc. - for mother and dad, grandmother, grandfather, and friends, showing that valentines can help express many feelings - of love, respect, admiration, companionship.	2. Teaching Pictures - Holiday Theme, Cook Construction paper paper lace doilies scissors paste suggestions attached
3. Make a post office of shoe boxes. (Correlate with next activity)	3. Arrange shoe boxes in post office forms. Paint and number boxes and post a list of "box owners" with their number for mailing. (lead into activity on mailman and post office)	3. Shoe boxes brought by each child Tempra paint
4. Songs	4. Use songs available from series in your school.	
5. Plan a party	5. Plan - food - assign committees for work. During party post office will be dismantled and each child's "box" given to him (containing his valentines)	5. Selected Mothers supply treats.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Correlates with "money" in Math if students make their own stamps and money to "by" Valentines.

102

Suggested Stories

Little Boy Blue's Valentine

It was getting close to Valentine's Day and Little Boy Blue was thinking about Little Miss Muffet. He said, "What can I give Little Miss Muffet that she will like?"

He went to the drug store down the street and he saw a large counter with all kinds of beautiful red hearts with lace doilies and lovely pictures. The druggist offered to help Little Boy Blue. The valentine Little Boy Blue liked best of all cost 10 cents. He looked in his little purse and he only had 1 cent.

Little Boy Blue said to himself, "I need some more money." He decided to go and see Mother Goose. She was very happy to see him because she needed an errand boy to go to the store for her. When he came back she gave him 2 cents. She said, "You can help other people and earn some more pennies."

Little Boy Blue went along the street and met Jack and Jill's mother. She asked him to please help Jack, he always seems to stumble when carrying his pail of water. He helped him and Jack's mother gave him 2 cents. He had already earned 4 cents.

He walked along hoping he could earn some more money. Little Boy Blue walked by a beautiful flower garden. Mary Mary Quite Contrary was picking flowers and putting them into a basket. She asked him to please help and what do you think—she gave him one cent. Little Boy Blue had 6 shiny pennies.

The Old Woman Who Lived in the Shoe lived on the same street. She was in a terrible state. She didn't have a can of broth, and the children were so naughty she couldn't leave them. Little Boy Blue went to the store, bought the broth and the Old Woman Who Lived in the Shoe gave him 2 cents.

Old Mother Hubbard needed someone to go to the store. Little Boy Blue skipped down to the market for her and she gladly gave him 2 cents.

Little Boy Blue counted all his pennies - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. He had 10 pennies. He was so happy he skipped along on his way to the drug store. He walked along and met Tom Tom the Piper's Son who was carrying a white kitten. Tom said he did not want the kitten and was planning to throw him away. Little Boy Blue felt very sorry for the white kitten so he gave Tom his 10 pennies and said he wanted the kitten.

Here he was with the kitten in his arms, his pennies were gone, and he couldn't buy the valentine. Mother Goose saw Little Boy Blue carrying the kitten, looking very sad. Mother Goose brought him a pretty basket with a handle on which she tied a big bow. Next she fastened 2 pretty red hearts on the basket. Little Boy Blue helped her write a card, To Miss Muffet. He placed the fluffy white kitten carefully in the basket.

He carried the basket carefully to Miss Muffet. She thanked Little Boy Blue and said, "This is the loveliest valentine I have ever had in my whole life."

Saint Valentine

A humble monk called Valentine lived in a monastery across the sea. All the other monks were talented. One was an artist, another a doctor; a writer; and a teacher.

Valentine longed to be recognized and to do some great thing and thought about it a great deal as he worked in his garden. He used to gather flowers which he gave to all the children. He liked to hang flowers on the door of a birthday child or a sick child. Everybody grew to love Brother Valentine.

After Valentine's death, people said, "Let us give gifts to our friends on February 14 and call it Valentine's Day. So now on St. Valentine's Day we send our friends little tokens of remembrance to say we love them.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of the job responsibilities of postal workers, each child will be able to: a) Illustrate three postal workers performing different duties b) Explain very basically how a posted letter gets to its destination.

SUGGESTED SUBJECT AREA Soc. Studies

SUGGESTED GRADE LEVEL 1

Immediate Neighborhood
Mailman - Post Office (February)

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read stories from resource books.	1. Use stories and illustrations to acquaint children with post office function.	1. BOOKS: I Want to be a Postman, Carla Greene, Children's Press True Book of Our Post Office, Miner, Children's Press *I Know a Postman, L. Henroid, A Community Helper Book, Putnam & Son Let's go to a Post Office, N. Buchheimer, G. P. Putnam & Sons, New York Mr. Zip and the U. S. Mail, Jene Barr Albert Whitman & Company, Chicago A Letter to Amy, Ezra Keats, Harper and Row, New York At the Post Office, Colonius, Melmont
2. Make a model post office.	2. Use shoe boxes for individual boxes. Stack, tape together, paint, and arrange like a section of the post office. Correlate with Valentine's Day so there will be lots of mail. Number post office boxes, and post the list of assigned numbers to each student's name. Children may use the post office for notes and various types of mail to their friends.	2. Use shoe boxes brought from each home.
3. View the picture fold-out and discuss jobs of the mailman.	3. Questions: Where does the mailman get the mail? Where does he take it? Do many people work at the post office? Is mail brought to the post office too? From where? Who and what carries mail? Who is mail sent to?	3. Picture fold-outs: People Who Come to my House. Child's World, Mankato, Minn 56001
4. Arrange a bulletin board and table display of postal items.	4. Display as many different kinds of things that come through the mail as	4. Items brought from home that have come through the mail and been discarded.
5. Sing songs.		
6. View a filmstrip.		
7. Meet the mailman that comes to your school.		
8. Write a letter to mother and dad, and address an envelope.		
9. Write a letter to a friend and mail it.		

104

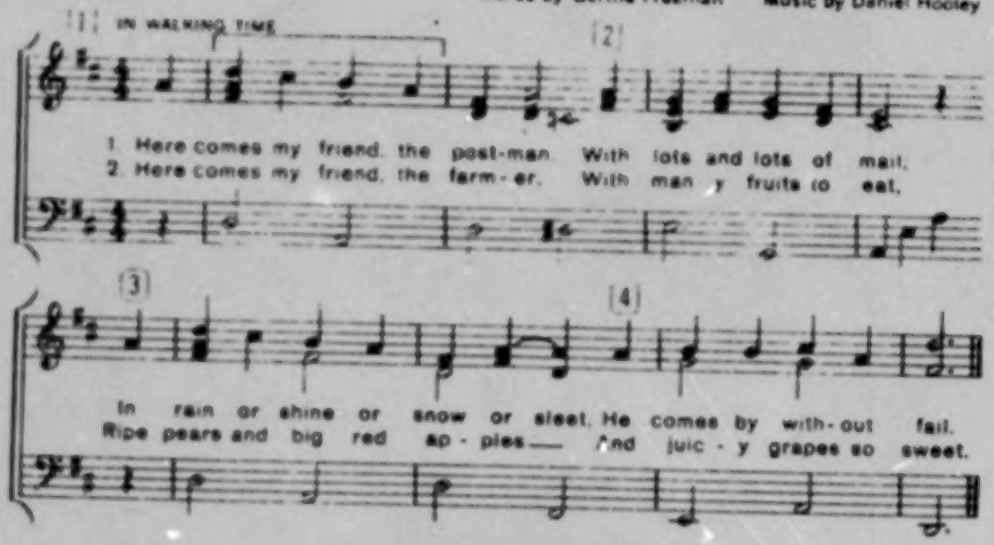
SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	possible. Encourage children to bring old envelopes with cancelled stamps, magazine wrappers, small boxes or parcels, check the items to determine the cost of the mailing.	5. SONGS: "Helpers," p. 44, Music for Young Americans, Gr. 2, American Book Co. 1966
	5. Learn words and adapt motions where possible.	6. FILMSTRIP: "The Post Office and Postal Workers," 140-C, Workers for Public Welfare, Eye Gate House, Inc.
	6. View, discuss, and count (or enumerate) the workers in the filmstrip.	RECORDS & FILMSTRIPS: "Let's Go to a Post Office" Putnam
	7. Meet the mailman and arrange to have him come to the room for a brief interview with the children, explaining the kind of mail he brings, how long his route is, how he carries all the mail, and about how many homes are on his delivery route.	7. Resource person.
	8. Tell them about the post office.	8. Use regular post office to send the letter.

Helpers

Words by Bertha Freeman Music by Daniel Hooley



Helpers

(page 44) ● 3-2-4 **Key of D** **Starts on A (5-So)**
Rhythm Tempo Creative Activities

PROCEDURE. Call the children's attention to the performance direction "in walking time." Ask a few children to walk around the room at a normal, even pace, while others play rhythm instruments or tap in time with the walkers. Let them establish an even beat, and then ask the class to sing the song at this tempo. In this way your pupils will see for themselves exactly what "in walking time" means.

The children might like to make up extra stanzas about other community helpers. To do this they must see the relationship of the words to the music. The idea that there must be a syllable for every note, excepting the last two notes of line 3, which may be sung as one half note, will not be too difficult for the children to understand and apply. You might assist them by asking one child to draw the quarter-note rhythm on the chalkboard.

2. Here comes my friend, the policeman,
He's walking on his beat;
He watches all the children
And helps them cross the street.

3. There are so many helpers
Who work for us each day,
We wish to thank each one of them
For helping us this way.

Taken from: Music for Young
Music for Young Americans, Grade 2
1966, American Book Co.

106

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate child's knowledge of the dairy industry, each child will be able to name at least 3 different dairy products and draw illustrations of a dairy barn, a dairy cow, a delivery truck explaining at least one function of each one.

IMMEDIATE NEIGHBORHOOD: Milkman (February)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Milktime discussion.	1. Use questions to start discussion: Who brought the milk for us today? How did he bring it? Where did he get it? What did he bring it in? How did he get it all in the school?	1. Free or inexpensive materials on dairy products can be obtained from: National Dairy Council 111 North Canal Street Chicago, IL 60606
2. Arrange for the daily delivery man to visit the classroom bringing dairy products with him. He can tell how he performs his duties, discuss uniform, etc.	2. Arrange for a little time with him so that he can tell briefly how they bring the milk, when they start in the a.m., how often they come, how many milkmen in our town.	2. Local resource person.
3. View picture fold-out and film.	3. Use suggestions given with kit. Discuss: What is a modern dairy farm? an electric milker? large tank truck? pasteurization, etc? Discuss film.	3. Picture fold-out: "People who Come to my House," Child's World FILM: "Milk," 11 min., #1494, b/w, Encl. Brit. Ed. Corp.
4. Read stories.	4. Especially examine and discuss all illustrations.	4. BOOKS: Your World: Let's Visit a Dairy At the Dairy, Hastings, Melmont Dairyman Don, Community Helpers Series I Want to be a Dairy Farmer, C. Greene I Know a Dairyman, Stanek, A Community Helper Book
5. Draw illustrations of the milkman, his truck, and crates of milk.	5. Color and cut out the drawings and use them for a bulletin board and booklet.	5. Construction paper, crayons, scissors
6. Sing song.		
7. Play games.		
8. Churn butter. Taste buttermilk.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	6. Adapt motions	6. SONG: "The Milkman," p. 28, Music for Young Americans, Bk. I, ABC, 1959 "Milk," p. 10, Capt. Kangaroo (copy)
Make ice cream	7. Name places and products as suggested in the game.	7. Games are attached
For milk break, make chocolate milk with Nestle's Quick	8. Each child bring a baby food jar from home. Day of experiment, place about 1 inch of cold heavy cream into each jar and screw tops on tightly. Seat the children on a rug and ask them to shake the jars vigorously (loosening cover once or twice to let out gas). As cream separates into lumps of butter, drain off buttermilk. Give each child a plastic spoon to spread his butter on a saltine cracker for tasting.	8. Baby food (or other small jars) brought by each child if possible. A few should be provided for those who do not bring them.

BEFORE AND BEFORE GAME:

Where did milk come from before the milkman brought it to your house?
Before the dairy gets the milk?
Before the dairy farm gets the milk?
The cows gave it to the farmer first.

WHAT ELSE GAME:

Name what else comes from milk - such as:

buttermilk, butter
whipped cream, ice cream
cottage cheese
yogurt
sour cream

The Milkman

Words by Marianne St. John Music by Stephen Scott

NOT TOO SLOWLY

I've nev-er seen the milk-man. I've nev-er seen his store,

Yet ev-'ry morn-ing he will leave two quarts be-fore my door.

Taken from:
Music for Young Americans Book I
pg. 28, 1959, American Book Co.

Taken from:
Captain Kangaroo, pg. 10

Milk

Text by LEO PARIS
Music by LEE HERSCHEL

F

1. I start with the grass that grows so ___ tall, I'm made in the cow_ that stands in her stall. I go in a can to the rail - road track, And ride in the train that goes click - e - ty clack
2. I'm in the ___ truck that stops at your door, I'm in a ___ bot-tle your moth-er can_ pour. And I'm in your cup and_ white or brown, You pick me ___ up and_ drink_ me down.

B♭ C7 F B♭ F

Copyright MCMLVI by Lee Herschel and Leo Paris
World Rights Assigned to Reynard Publishing Company, Inc.
World Rights Assigned to and Controlled by Sam Fox Publishing Company, Inc., New York, N.Y.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: That the child will be able to understand and discuss people's need and use of the products that come from one source of our trees. That the child will understand that sap is a liquid that comes from plants and trees.

Sugar Maple Tree Products

SUGGESTED SUBJECT AREA _____

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Examine resource pictures of maple trees, groves, sap-drawing, and late winter thawing.	1. Study and interpret pictures; pass them around and foster a good discussion (see attached list of possible questions) of the activities shown in the pictures; include in the discussion: making syrup, source of maple furniture, fuel for fireplaces, and even enjoyment of the shade the tree offers.	1. Get pictures (colored if possible) that show drawing off sap, hauling it to the sugar house, and the boiling off process. (Ideals, or other magazines have these from time to time.)
2. Arrange bulletin board.	2. Have the children help arrange a bulletin board to show the story of activities of the maple syrup season on a farm.	
3. Read a story	3. Use the story "Maple Syrup Time" (attached) to read to the children. This may be spaced for 2 or 3 days as it is quite long.	3. "Maple Syrup Time" by Marjorie Atkins Elliott, pictures by Irma Wilde
4. Have pancake breakfast.	4. Have children drink only milk before coming to school; then bake pancakes right in the school room on large griddle serving on paper plates, with butter and maple syrup.	4. Pancake mix prepared at home evening before. Syrup (maple mix of 15% sufficient for maple taste). Butter or margarine, paper plates, forks from school kitchen.
5. Eat maple candy.	5. Serve a piece of maple candy with milk.	5. Maple candy, if available in your area.
6. Color a picture.	6. Discuss seasons & color or paints needed.	6. Reproduce copies of attached pictures of boy and girl gathering maple sugar sap.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Maple Syrup Time

Understanding To Be Developed. People need and use many products that come from trees.

FACTS

Plants and trees provide some saps that are useful to man. Maple syrup and maple sugar are made from the sap of the maple tree. Most sugar that is bought in stores is made from the sap of sugarcane. Sap obtained from pine trees is used in the making of turpentine. Although not considered true sap in botanical terms, juices from certain plants and trees are also used to make rubber and gum.

MAKING MAPLE SYRUP

In the late winter and early spring, sap is running in maple trees. Sugaring days come in with freezing nights and thawing days. Most of the sap collected to make maple syrup and maple sugar comes from sugar maple trees. However, black, silver, and red maples are also sources of maple syrup and sugar. Trees are tapped by boring holes about 3 inches deep into the tree trunk on the south side of the tree. Plastic tubes, or spouts, are inserted into the holes. The sugar sap comes from the layers just under the bark. The sap drips out into covered pails, plastic bags, or plastic tubing. Plastic tubes and bags have been found to have some drawbacks. (squirrels gnawing holes, sap freezing in the tubes) The colorless sap is taken to the sugarhouse and boiled to remove the water. When some of the water has been boiled off, maple syrup remains. Boiling the sap longer forms maple cream, soft sugar, and then hard sugar. About 40 gallons of sap are required to make one gallon of syrup. Farmers make more syrup than sugar because there is more demand for syrup.

Maple sugar was first made in America by Indians. The Indians taught maple sugar-making to the settlers. Early colonial maple sugar wasn't as good as our maple sugar today. It was made out in the open. Rain, bark, and bits of dirt got into it. It was quite dark and strong. Still, it was the chief sweetening agent during colonial times.

SCIENCE RELATED ACTIVITIES

- Have the children name some of the ways in which they have used maple syrup. (on pancakes, waffles, French toast, and as topping for ice cream)
- On your *Weekly Reader* News Map, help the children to find some of the larger maple syrup producing areas. (northern New York, Vermont, Pennsylvania, Ohio, New Hampshire, Michigan, Wisconsin, Maryland, and Canada)
- Discuss the various steps in gathering the sap and making it into syrup and sugar. Use the pictures on p. 3 and the following list to trace the steps in sequence.

112

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Using visual aids a student will demonstrate a knowledge of workers in the space industry by identifying at least 6 workers.

SPACE WORKERS (introduction)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. For a motivating experience, use a large bulletin board with planets and sun drawn roughly to scale. 2. Use books for stories and information gathering so that stories may be written. 3. List kinds of workers involved in our national study of space (limited) 4. View filmstrips. 5. Use Environmental kit from the Coke Company.	1. Have the bulletin board planets labeled and promote discussion of a) time to orbit sun, b) temperature of planet, c) possibility of life on planet. 2. Discuss bits of information found about space and write independent stories about it. Draw illustrations of the written story and color them. Compile into a story book. 3. Time the activity to correlate with some NASA activity if possible and watch it on TV in the classroom. Ask questions: Who makes the rockets? the instruments? the materials in the rockets? the fuel to power them? the pilots' or astronauts' food? What about the work of the astronauts themselves? the men who keep contact with them during a space trip? Which job would you be interested in doing? 4. Discuss and draw illustrations of area covered in film.	1. Planet drawings 2. BOOKS: Space, Marian Tellander (Follett Beginning Science Book) The Sun, Our Nearest Star, Franklyn M. Branley True Book: Moon, Sun & Stars, John Lewellen True Book: Space, Illa Podendorf I Want to be a Space Pilot, Greene, Children's Press Your World Let's Visit a Spaceship, Pope Taylor Publishing Co. 3. -- 4. FILMSTRIPS: Filmstrip House Space: - How an Astronaut Lives - Night & Day (rotation) - Our Solar System - Our Moon

SUGGESTED CORRELATION FOR THIS ACTIVITY: Correlate with any possible national space project. May also use with science unit on rockets.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Workers

a) Given five riddles about workers, the student will solve at least 2 of the 5 presented.
b) They will begin to make choices of occupations that interest them at this time.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read riddles to children and have them identify worker explained in riddle.	1. Select riddles from attached sheet describes workers children have discussed previously.	1. Attached Sheet (Read some) (Ditto others)
2. Solve Riddles	2. Use dittoed riddles for children to read, draw illustrations and label.	2. Use attached sheet for resource on dittoed riddles.
3. Write riddles	3. Everyone selects own subject and writes riddle (giving answer on back) Share by reading aloud to class and calling on the members of the class to discuss.	
4. Complete first row of <u>What I Want to Be When I Grow Up.</u>	4. Discuss with students: What workers have you seen or read about that you would like to be? Why would you want to be this type of worker? Please complete the line pertaining to your grade level now. Give your first, second and third choice. These will be passed on to your next year's teacher and you will be able to add to it each year. The fact that they may change many times before they actually choose one specific job. (continued)	4. Attached Sheet #2
5. Bulletin Board of drawings children have made about what they want to be.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	5. Arrange a bulletin board of drawings children have made about what they want to be when they grow up.	5. Construction paper Crayons paint chalk
6. Show filmstrip	6. Review Discussion	6. Filmstrip: BFA "Who Helps Us"
7. Write a story "When I Grow Up"		

Primary

You are suppose to visit me twice a year. I help take care of a very important part of your body. I like you to brush your teeth after each meal. Who am I? (Dentist)

I bring milk to your houses. I drive a big truck. I also have cream, butter, and eggs in my truck. Who am I?

She wears a white dress. She helps people who are sick. She helps to make people well. What is her job?

I travel many miles every day. I bring letters and packages to people. Who am I?

Mr. Jones uses an instrument to check my eyes. He has me read a chart on the wall. If my eyes do not see very well, he gives me glasses.

I plant the seed for your puffed wheat. Most of my day is spent in the fields. I use many large machines. What is my job? (Farmer)

Many a letter I have seen him deliver in the heat of summer or the cold of winter. (Mailman)

He sweeps the floor and washes the windows. We see him in school. Who is he? (Janitor)

I help children cross the street. I help to keep our community safe. Part of my work is to see that laws are not broken. I am your friend. You can recognize me by the uniform I wear. Who am I?

He wears a white coat while examining your throat. And as he looks in your ears tells you never to fear. He takes your temperature with a stick called a thermometer. Who is he? (doctor)

I work where people borrow and use information from newspapers, magazines, records, films, and books. Not every school or city has me. My job is known as a librarian.

Mr. Brown lives in our town. He is always ready to help. He travels in a fast, red truck. He helps put out fires. What does Mr. Brown do?

Miss Smith visits our school. She checks our eyes and also teeth. Who is she?

I drive a large white truck which helps me deliver food to families in the city every day. My food comes from farm cows. You can eat some of these products and also drink some of them. Who am I?

I wake you in the morning. I hustle you off to school. I heal hurts and tuck you in at night.

John is a boy. He works for a large company. He helps us have things to read in our home. He carries rolled up printed sheets from door to door. Het gets money for these sheets. Part of this money he gets to keep for himself. What is his job? (Paper boy)

I am up bright and early when you are fast asleep. I'm busy driving truck and delivering something good for you to drink.

ELEMENTARY SCHOOL

WHAT I DESIRE TO DO OR BE WHEN I GROW UP

CHILD'S NAME _____ _____ GRADE

FATHER'S NAME _____ _____ OCCUPATION

MOTHER'S NAME _____ _____ OCCUPATION

Please list three kinds of jobs (occupations, vocations or professions) that you would enjoy doing when you grow-up. You may change your choices each year, if you feel different about your earlier selection.

DATE	GRADE	1st Choice	2nd Choice	3rd Choice	Teacher	Remarks
	KDG.					
	1st					
	2nd					
	3rd					
	4th					
	5th					
	6th					

PLEASE KEEP IN CHILD'S FOLDER

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop awareness of self-worth.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate an awareness of individual ability, students will select a part in a play (or story dramatization); or do hand work to demonstrate what he feels he does best, in preparation of Easter materials and activities.

HOLIDAYS: Easter

SUGGESTED SUBJECT AREA Social Studies

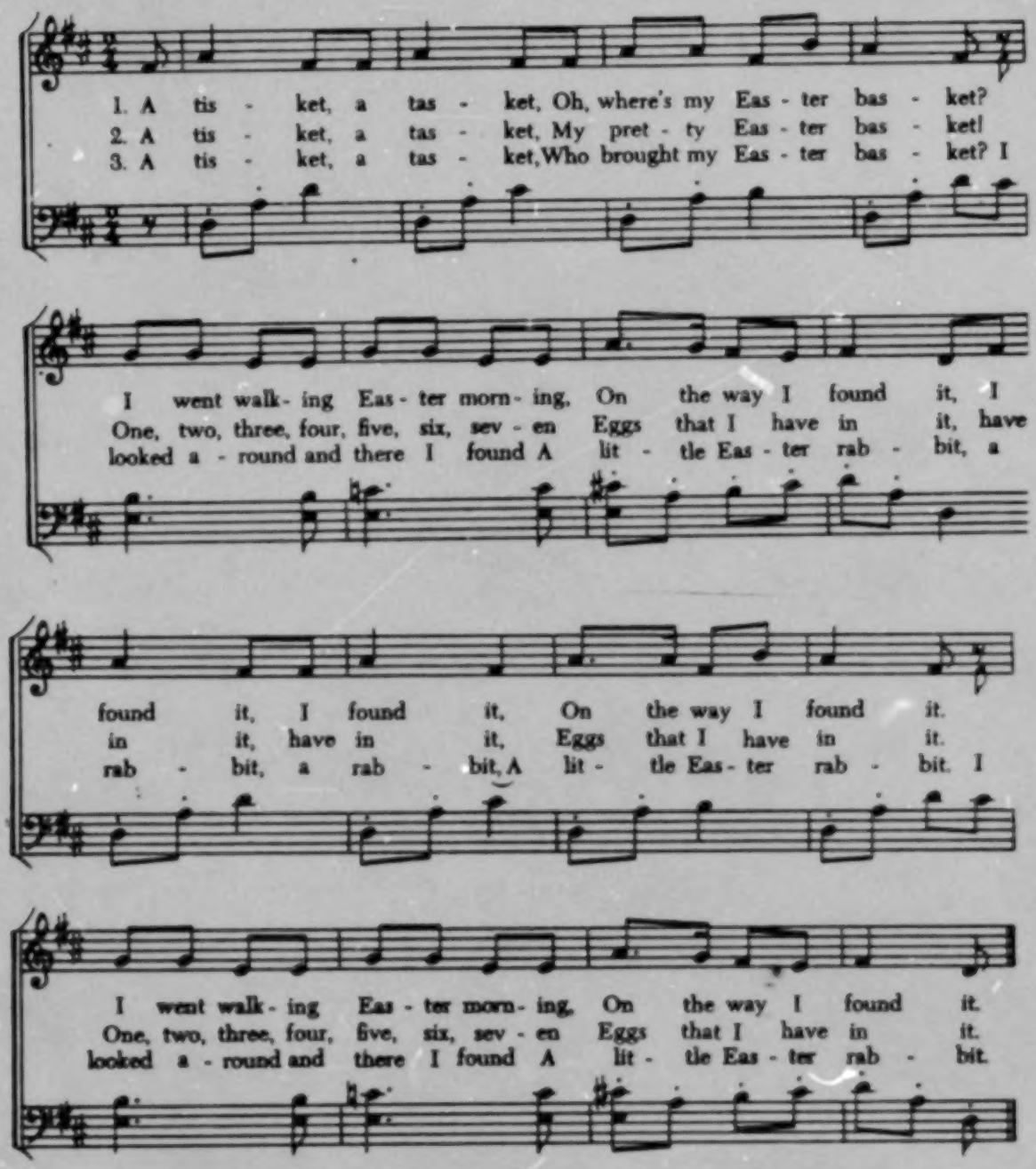
SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read stories	1. Use a variety of stories about Easter stressing the new awakenings of spring flowers and baby animals.	1. BOOKS: What's Inside?, Scholastic Bk. In Johnny's Back Yard, Mecks Happy Easter, Wiese Mr. Rabbit and the Lovely Present, Zolotow Surprise Egg, Derman The Littlest Rabbit, Krause Country Bunny & The Golden Shoes, Dubois Heyward Other stories from Instructor, Grade Teacher, etc. as well as those brought by children.
2. Make room decorations	2. Making room decorations involves child in transforming thoughts into examples. Make rabbits, ducks, chicks, eggs, Easter hats.	2. Construction and tissue paper, paste, scissors, crayons.
3. Hatch eggs. (Pick up eggs at hatchery just 3 days before hatching date.) Use "Teaching Pictures" to help children understand how incubator takes place of mother hen for hatching eggs. May also use Farm Workers activity.	3. Use small room incubator with clear plastic top so eggs can be watched and a record kept of temperature and turning and days of incubation. Discuss how mother hen does this.	3. Small incubator Teaching Pictures "Holiday Theme" and "A Trip to the Farm" Cook. Pictures/records "Farm and Ranch Animals" SVE.
4. Sing songs.	4. Sing songs with actions and rhythms.	4. SONGS: "Here Comes Peter Cotton Tail" "Animals" "Bunny Hop" "My Easter Basket" (attached)
5. Dramatize	5. Dramatize story of "Peter Rabbit" with simple stage props such as rabbit ears and bows for ties or aprons.	5. Simple play props
6. Dye Easter eggs	6. Bring two hard boiled eggs from home. Prepare dyes and each child dye his own.	6. Eggs and dye.
7. Make "rabbit hat" by using paper plate; add two pink balloons for ears and ties.		
8. Make Easter basket from paper plate and half of oatmeal box, paint, add flower decoration and grass.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

My Easter Basket

Adapted by Mary Joye American Folk Song
Arranged by James Rooker



Taken From: Making Music Your Own, Kindergarten Edition. Silver Burdett

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: HOLLAND WORKERS (late March or April) — Given 5 products produced in Holland, student will be able to identify 5 workers and their responsibilities in the production and transportation of said goods to the U.S.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read stories.	1. As stories are read, share the illustrations and later draw, color, and cut illustrations. Use as room display, possibly creating a bulletin board scene.	1. BOOKS: The Dutch Twins, Lucy F. Perkins Houghton Mifflin Busiest Boy in Holland, Lisl Weil
2. Bring tulip and hyacinth plants into the room for blooming time. (Note whether bulbs are imported from Holland)	2. If obtained early, the growth from shoots to blooming can be observed. Discuss the types of work involved in raising fields of tulips and hyacinths for market.	2. Obtain bulbs or plants from greenhouse.
3. Discuss the work involved in milk and cheese products (when this part of the story is reached).	3. Bring or have children bring cheese products to school that have been imported from Holland. Discuss the many workers involved in bringing this product to the United States.	3. Imported cheese products from Holland.
4. Have children bring information from home on parent ancestry from Holland. If possible, use a parent resource person (or others) to come to class.	4. Discuss ancestry from this country, and if possible, have resource person talk to class and show pictures from the country explaining the dikes and mills.	4. Pictures of dutch mills, canals, dikes, tulip fields, etc. gleaned from magazines.
5. Sing a song.	5. Learn actions with song.	5. SONG: (copy attached) "The Land of the Dutch, Dutch, Dutch"
6. Make a windmill		

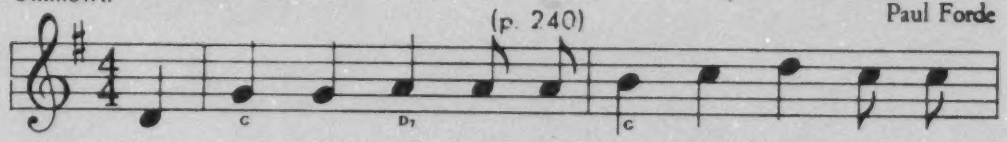
SUGGESTED CORRELATION FOR THIS ACTIVITY:

122

Taken from:
Singing Every Day, Book 4.
Ginn

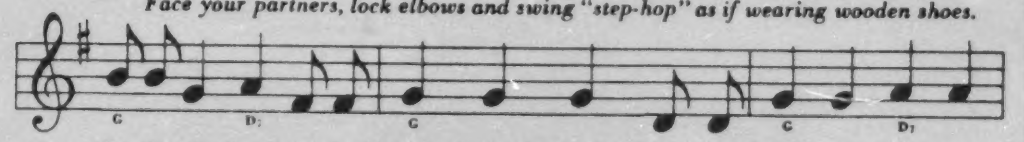
The Land of the Dutch, Dutch, Dutch

Unknown (p. 240) Paul Forde



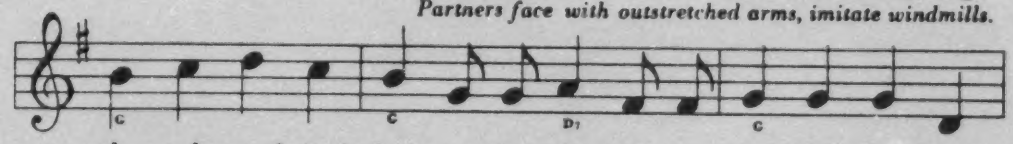
A - way 'way off 'cross the seas and such, Lies the

Face your partners, lock elbows and swing "step-hop" as if wearing wooden shoes.



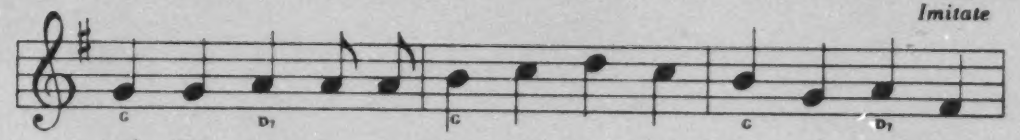
lit-tle flat land of the Dutch, Dutch, Dutch! Where the wind-mills' arms go

Partners face with outstretched arms, imitate windmills.



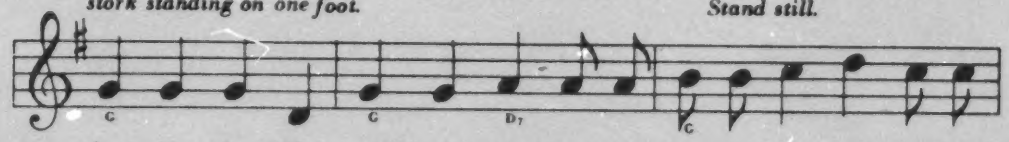
round, round, round, And sing to the cows with a creak-y sound. Where

Imitate



storks live up in the chim-ney top, And wood-en shoes pound

stork standing on one foot. *Stand still.*

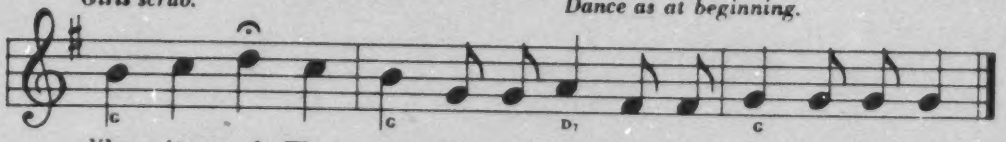


plop, plop, plop! Where milk cans shine in the shin-i-est way, And the

Stamp. *Boys shine milk cans.*

house-maids scrub, scrub, scrub all day. Oh, that lit-tle toy land, I

Girls scrub. *Dance as at beginning.*



like it much, That prim lit-tle, trim lit-tle land of the Dutch.

Stamp, stamp, stamp.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of a babysitter's responsibilities, each child will be able to name or draw illustrations of three jobs the babysitter is likely to be asked to do.

IMMEDIATE NEIGHBORHOOD: Babysitter (March)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discussion	1. Oral discussion by questions: Does the family depend on her? What does she do to help the family? What responsibilities are entrusted to her? How often is she needed? Why does she do babysitting? Is she paid for working? Do you like her? Why? Why not?	
2. Draw pictures of the babysitter at work.	2. Draw and color or paint the illustration. Arrange on a bulletin board titled the "Babysitter at Work." Use as many kinds of jobs as possible.	2. Paper, colors, or paints.
3. Have the class make up riddles.	3. The riddles may depict the variety of jobs the babysitter does. Have the children share them with the class and guess type of job. Pictures may be drawn on back of page to give a further clue if needed.	
4. Dramatic play.	4. Act out the jobs the babysitter does at your house.	
5. Sixth grade girl or lady from community who babysits come to classroom to tell about her job.		

124

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of workers in the pet industry, student will be able to name five workers and state one job responsibility of each.

GENERAL - PETS
(any opportune time during the year)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Bring in fish, turtles, or small animals in a cage to be observed and cared for.	1. Give each child the opportunity to feed, clean up after, and generally care for one or the other of the school pets. Discuss the importance of constant good care. Why do we need to provide care for these animals?	1. Buy or ask children to bring fish, turtles, or other pets that can be kept such as mice, gerbils, hamsters.
2. Use Teaching Pictures. Make a list of the pets of all the children in the room.	2. Use suggestions in packet.	2. Teaching Pictures - Pets #41467, Cook SVE - Picture Story Study Prints -"Pets"
3. Read a story.	3. Carefully examine illustrations. Let each child tell about his pet and invite him to bring him to school to show it to the class. Mothers are usually cooperative about taking it home right after Show and Tell if it is a pet that would be too disturbing to leave in school.	3. BOOKS: Your World - Let's Choose a Pet Pope, Taylor Publishing
4. Discuss the care a veterinarian gives to a sick pet. Resource person may be obtained.	4. If possible, use a resource person who is a veterinarian to talk to your class, and then engage children in discussion through opportunity for questions.	4. Resource Person
5. Write stories and draw and color pictures of pets.		5. --
6. Sing songs.		6. SONGS: "I had a Little Turtle," p. 17 "Where O Where has my Little Dog Gone," p. 16, Music in Our Town, 1962, Silver Burdette "Little Hamster," p. 36, Music Thru the Day, 1956, Silver Burdette
7. View filmstrips.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

125

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
8. Visit pet shop on a field trip or have pet store owner visit classroom and discuss care of pets.	5. Arrange a bulletin board display of stories and illustrations or use the same material to compile a book of pets. 6. Memorize songs. Create actions whenever possible. 7. Discuss Filmstrip. Pretend the pet is yours. How would you care for it? What would you feed it?	7. FILMSTRIPS: Eye Gate House - Blackie, My Pet - My Cat, Taffy - My Dog, Spot - My Pet Canary

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of the responsibilities of a cleaning lady, children will be able to name 8 jobs that a cleaning lady may be expected to do.

IMMEDIATE NEIGHBORHOOD: Cleaning Lady - (April)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use "Guessing Game" to introduce our worker of the month "The Cleaning Lady" 2. Sing a song. 3. Write stories and draw illustrations. 4. Dramatize. 5. Have cleaning lady visit class; show uniform, tools, etc.	1. Chant: "A Helper In the Community" Here she comes, here she comes, It's only eight o'clock It's only eight o'clock The lady wearing an apron has soap, rags, pail, broom, and mop. What will she do today while we are in school? When we get home at four o'clock, you will see what she did for us. The house will smell so fresh, clean, and be free of dirt and dust. Who is she? (The cleaning lady) 2. Tune: "Here We Go Round the Mulberry Bush" This is the way she scrubs the floor, scrubs the floor, scrubs the floor. This is the way she scrubs the floor to make it clean and shiny. This is the way she washes our clothes, (etc.) so we go neat and tidy.	1. -- 2. -- 3. -- 4. --

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	3. Tell how a cleaning lady helps at "your house." - Or how a cleaning lady could help, if you had one. 4. Act out one of cleaning ladies' jobs and have classmates guess.	

127a

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of benefits received from a garbage collector's work, each child will be able to name 2 benefits we receive.

IMMEDIATE NEIGHBORHOOD:
Garbage Collector (May)

SUGGESTED SUBJECT AREA: Social Studies

SUGGESTED GRADE LEVEL: 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View and discuss the picture fold-out of the sanitation workers.	1. Use suggestions for activity in packet.	1. Picture Fold-Out: People Who Come to my House, Child's World, Mankato, Minnesota 56001
2. Read stories.	2. Read stories and discuss illustrations. With class have a question and answer discussion: a. Why do you think men collecting garbage are important workers? b. What are the reasons why men collect garbage? (guards the health of all, prevents pests, and guards against air pollution) c. Name other jobs sanitation workers do: 1. pick up paper from sidewalks, parks 2. cuts away tree branches (either fallen or dead) and carries them away. d. Are garbage men paid well for their valuable services they offer the community?	2. BOOKS: Clean Streets, Clean Water, Clean Air, Cynthia Chapin, Albert Whitman Co., Chicago About Friendly Helpers Around Town by Hoffman, Elaine; Melmont Publishers, Inc., Chicago (also Children's Press, Chicago) Let's Go To a Sanitation Dept. J. Cochrane
3. Recite riddles and let children guess the answers.	3. Riddles: I drive a truck down the street	4.
4. Take a walk in the neighborhood to watch sanitation workers on the job.		5.
5. Provide clean-up time for the children to clean up room or playground.		6. Filmstrip: "The Sanitation Department Crew" (color) Community Helpers Series 2 McGraw-Hill
6. Have students write their own stories or riddles about the garbage man and the jobs he does. (use filmstrip)		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

128

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Make a "Litter Man" bulletin board. Have a man on background - tack litter collected from playground and room on the "Litter Man".	And help to keep the city neat. Guess who I am! I help to keep the germs away, By hauling the old food away. Guess who I am! I sweep and sweep with all my might, Until the city looks clean and bright. Guess who I am! You see me when the snow is deep, Pushing it up into a heap. Guess who I am! I am an important helper. I come to your house often. I pick up the garbage. I keep the city clean. I help keep you well. I get money for doing this work. What is my job?	
8. Invite garbage man in to talk to your class. (head of Sanitation Dept.)	4. Time walk so garbage men may be observed at work. 5. Make clean-up time a regularly scheduled activity to develop sharing, give and take, and responsibility. 6. Prepare class for writing stories or riddles by using filmstrip first.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Given a list of 6 workers that involve birds, the student will identify four workers that work with birds.

BIRDS: What Workers do they benefit? (April-May)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Display largest color illustrations available of six or eight birds common to the area. (one at a time - as they are studied) Also bird nests if available.	1. Read and discuss information on the bird chosen for the day. Be sure to bring into the discussion what workers these birds help by consuming either weed seeds or insects.	1. PICTURES: "Birds of Our Land" - teaching pictures, David Cook Publishing Co. Elgin, Illinois 60120
2. Enjoy several stories about birds.	2. Use the stories for literature and enjoy and discuss them.	2. BOOKS: Dead Bird, Margaret Brown; Birds, Isabel Wasson, (Follett); True Books: Birds We Know, M. Friskey; City Birds, L. & J. Hawkinson; Birds Eat and Eat and Eat, Roma Gans; Bird Nests, Nina Shackelford
3. Draw free hand illustrations of birds each day as they are studied.	3. Draw the illustrations, color them (make male and female to show variation in color) and cut them out to use on bulletin board or booklet.	
4. View filmstrips.	4. View, discuss differences in colors and shapes.	4. FILMSTRIPS: Bird Study, SVE 427-24 Nests & Eggs of Birds 427-25 Beaks & Feet of Birds; Birds--How They Live & Help Us, SVE 447-3 Birds That Live Near People; #1305 "Birds Around Us and Where to Find Them," Budek
5. Write a story about the bird studied each day.	5. Write the short story about the bird, and compile them with the colored illustrations to make a booklet of birds common to the area.	
6. Take a field trip.	6. Observe as many kinds of birds as possible.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

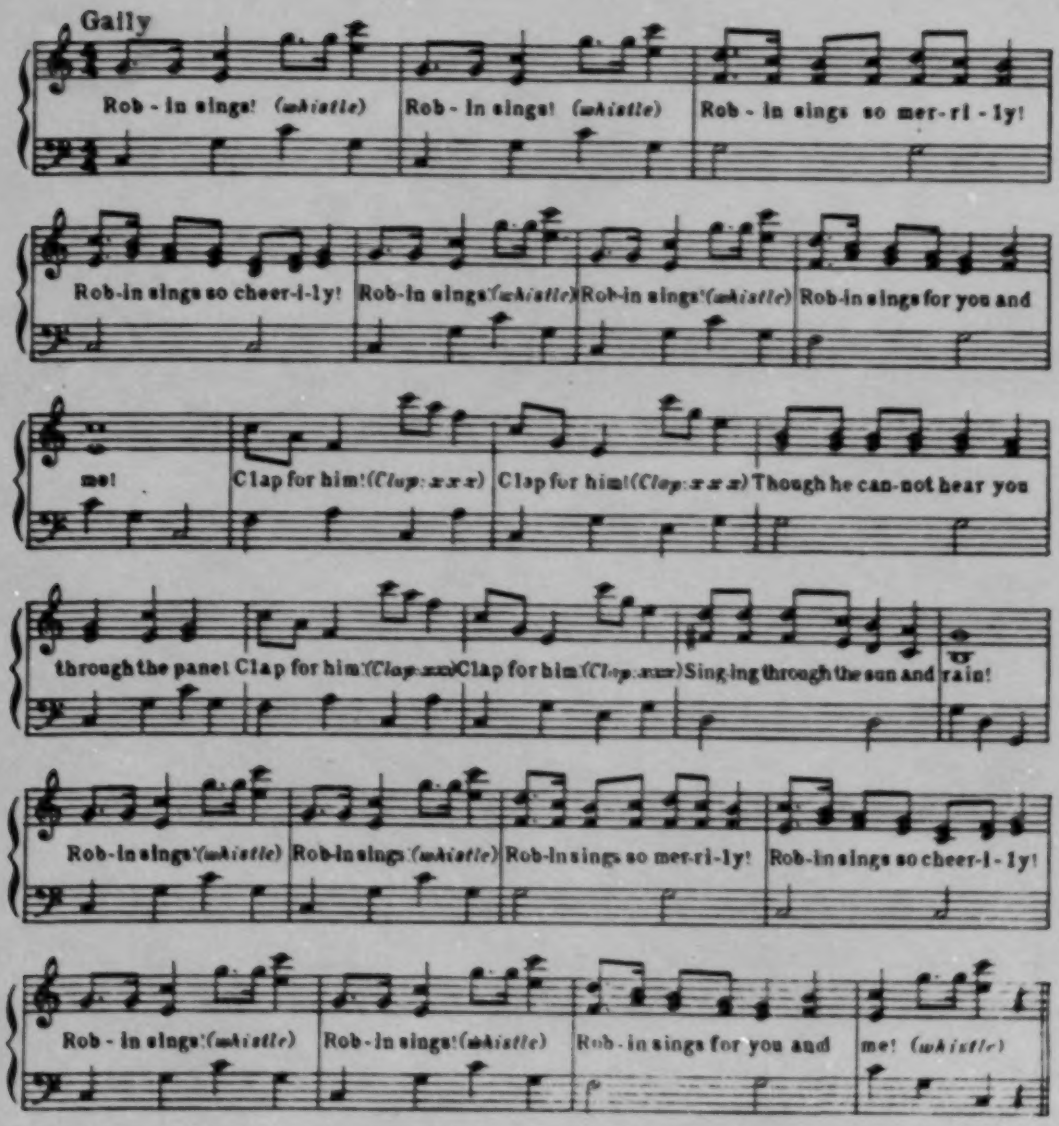
CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Sing songs.	7. Sing songs often. Children will enjoy dapted actions.	7. "Robbin Sings"
8. Make bird feeders in fall.		
9. Fold paper to make box house. Stick toothpick in for perch.		
10. Put "fan folded" paper in slit for wings.		
11. Cut pattern of bird and cover with cotton.		
12. Put scraps of yarn or broom straws on bushes to help birds find supplies for building nests.		

Taken From:
Grade Teacher Magazine Song Book

The First Robin

Words and Music by LOIS MYERS EMIG



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will demonstrate an appreciation of their mother's home work responsibility by name or illustrating two ways that they can help around the home.

HOLIDAYS: Mothers' Day

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Prepare a puppet show, a musical program or any other type of program. Read about 5 stories on the type of program you choose.	1. Teacher and class select stories for puppet shows. Make puppets: draw character in each story (select a story with several characters for interest and action), color and cut out, paste on heavy tag board and cut out again, tape a stick to back and use bookcase (or any suitable front) to present show. Some children read while others manipulate puppets.	1. Construction paper, crayons, scissors, and paste. Heavy tag board, rulers or sticks - 12"-18" long.
2. Make Mothers' Day cards. Make carnations.	2. Cards - 9 x 12 pastel construction sheet. Fold and each child will decorate front in his own way. Also write a message or a poem inside that demonstrates his feelings for mother. Carnations - colored facial tissue folded lengthwise and cut; gathered through center of strip and fastened in center with green chenille covered wires. Separate tissue folds and fluff up.	2. Construction paper - 9" x 12" sheets, colored tissue, green chenille wires
3. List jobs you can do to help mother. Use Teaching Pictures for discussion.	3. Use pictures to start discussion. Discuss many ways we can be of help so	3. Teaching Pictures - Holiday Theme, Cook Publishers
4. Plan a "tea" party for mothers after the puppet show.		4.
5. Plan a field trip to the supermarket to buy party needs.		5. Transportation: Contact mothers from another year so no mother from from the room need work in the preparation.
6. Write invitations to the puppet show and party.		6.
7. Give show and tea party.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
8. Make bulletin board using real pictures of the children's mothers. Pictures may be of mothers when they were children.	that things run smoothly for mother and all family members. Then list jobs. Take home to show mother. Also discuss purpose in setting aside a Mothers' Day. 4. Plan menu together. Have committees to get certain items such as: cookies, mints, kool-ade, napkins. Each child brings 10¢-15¢ from father for expenses of party. 5. Each committee finds and buys the item assigned to them. 6. Address to mothers as a letter of invitation. 7. Treat mothers as guests. Introduce them. Serve them first. Have working committees assigned for preparation.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of the responsibility of a farmer, students will identify at least 6 ways that a farmer helps those of us that live in the city.

FARM WORKERS
(April-May)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1

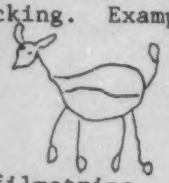
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read farm stories. 2. Plant seeds. (Beans germinate quickly and are large enough to see separate parts easily as they grow.) 3. Set incubator. (or use with Easter activity) 4. View films. 5. Work out a farm diorama. 6. Display as many farm activity pictures as possible. 7. Use Teaching Pictures to motivate. Have a farm product display. (More seasonal in fall) 8. Make seed mosaics. 9. Collect insect zoo.	1. Discuss as they are read to relate farmer's work (production) to our needs. How many kinds of farms? 2. Plant in small boxes so they may be taken home and planted outside. Show germination by planting seeds in a large jar lined (and center stuffed) with paper toweling, very damp, seeds inserted between glass and toweling. 3. Incubate and hatch chicks in the classroom. Keep a record of the days of incubation, the temperature, the turning of the eggs. Discuss the workers who operate hatcheries, and what products their work furnishes. 4. View and discuss film. 5. Make and paint the farm house, barn, and other farm buildings out of cardboard; farm animals of folded construction paper (for stand-ups); a	1. BOOKS: Shad of Circle C Ranch, A. Gustafson The Little Farmer, M. Wise Brown See Our Pony Farm, Elizabeth L. Stewart Big Red Barn, M. Wise Brown The Little Duck Who Loved the Rain, Ingrid and Edgar d'Aulaire Johnny and the Monarch, Marg Friskey Don't Count Your Chickens, d'Aulaire About Farm Helpers, Payton, Melmont Who Took the Farmers Hat? J. L. Nodset 2. Bean seeds, pots, and potting soil (milk cartons can be used) 3. Incubator: available with clear plastic tops to watch eggs, and hatching process. Get eggs from hatchery 3 days before they hatch. Prevents death of chicks. 4. FILMS: Encl. Brit. #2778 - The Farm Community, 14 min. #2557 - The Farm Family in Spring, 15 min. #2654 - The Farm Family in Autumn,

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY

10. Make leaf animal or person figures. Use actual leaves, press, and paste to backing. Example:



11. View filmstrips.

12. Field trip - farms

13. Have children bring in farm implement toys or model (stand-ups) of farm implements, animals and buildings can be purchased from Colborn School Supply for approximately $2.95.

14. Use "Ballet of the Unhatched Chick" by Masoarski to act out hatching egg. Good music to inspire acting.

SUGGESTED TECHNIQUE

wheat or corn "field" in a large low flat box planted in approximately 2" of dirt.

6. Relate duties of each pictured worker.

7. Discuss. Then explore kinds of workers who help farmers. Write stories. The display can include: apples, apple cider, pumpkins, gourds, corn ears and stalks, wheat shafts, pieces of wool, leather, carrots, potatoes, tomatoes, turnips etc.

8. Collect seeds - beans, corn, sunflower, bird seeds, pumpkin or melon. Make outline on colored paper to be filled in with seeds. Coat area to be covered with glue and arrange larger seeds individually - sprinkle small ones.

9. Collect live insects. Discuss and observe. Look up library information. Use magnifying glass to study. Keep in jars with ventilated lids.

10. Press leaves or fern. Place on paper. Dampen old toothbrush with water color or tempra paint. Rub the paint filled brush back and forth over small piece of window screen held 6" from paper. Several colors may be used. Remove leaf.

11. View filmstrips for review.

RESOURCE MATERIALS

FILMSTRIP: Encyclopaedia Britannica "Living on a Farm"

5. Cardboard boxes, paint, seeds

6. Picture set: *Teaching Pictures, A
7. Trip to the Farm, D. C. Cook Pub. Co., Elgin, Ill. 60120

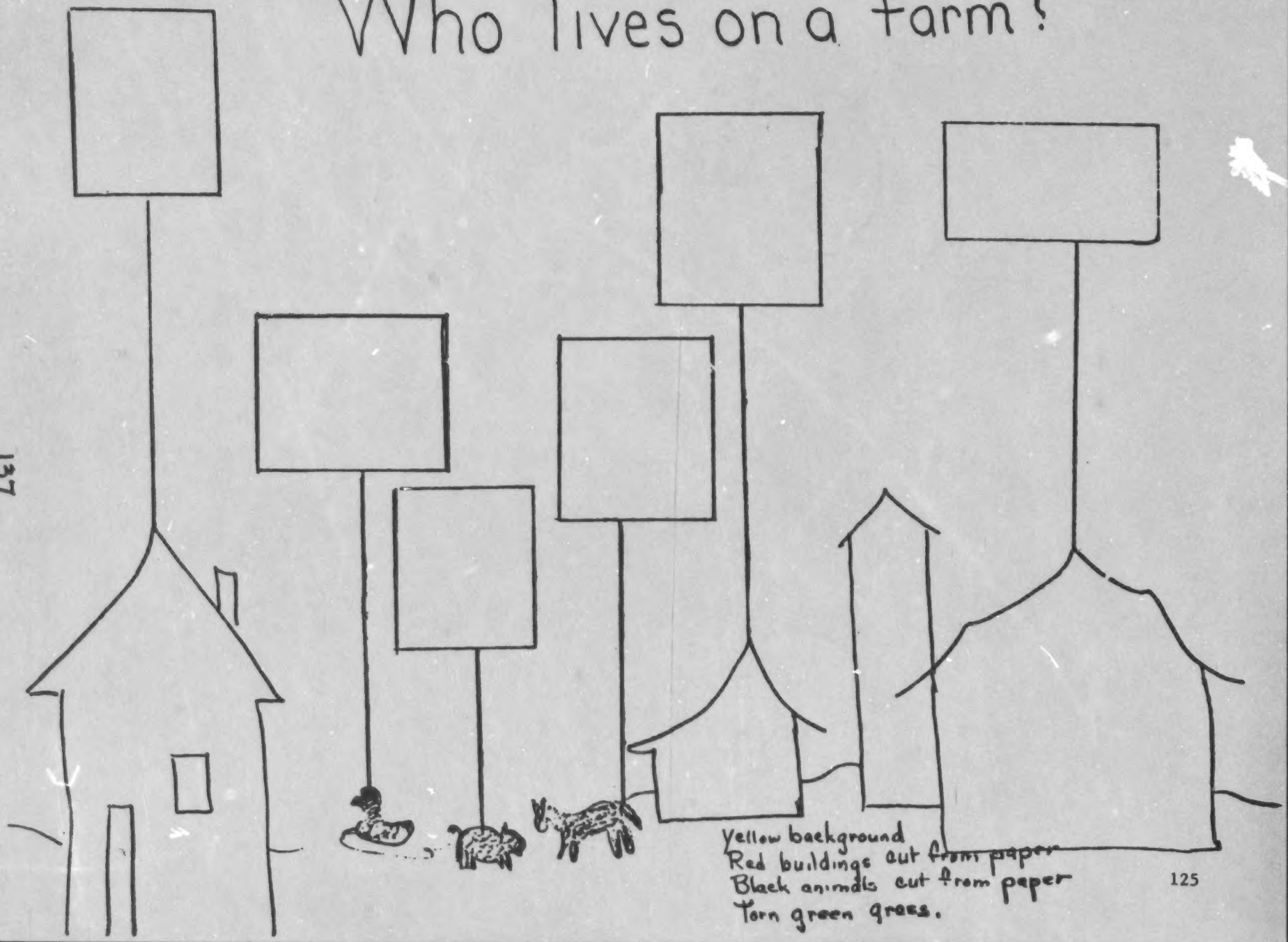
8. Most of these seeds are available in packages at food markets.

9. Baby food jars are good for this.

10. Tempra paint, old toothbrush, 6" square window screen, leaves.

11. *Long Filmslide Service
Farm Fathers - Series One
My Dad is a Cotton Farmer
My Dad is a Fruit Farmer
My Dad is a Truck Farmer
Farm Fathers - Series Two
My Dad is a Poultry Farmer
My Dad is a Cattle Rancher
My Dad is a Veterinarian
My Dad is a Sheep Rancher
My Dad is a Hay Farmer

Who lives on a farm?



Yellow background
Red buildings cut from paper
Black animals cut from paper
Torn green grass.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Given a list of 15 jobs related to the circus, the student will demonstrate his knowledge of said jobs by identifying five of those listed.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL K-1

(Maybe used selectively) ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show a film about the circus.	1. Show the film "The Big Top" which shows many of the people that make up the "World of Work." Talk about the film after viewing it. How many jobs can you recall that were shown?	1. Film: "The Big Top"
2. Read circus stories.	2. Bring books from the library to your room. Let the children read these books. Read the more difficult ones to them.	2. Books: Daffy, Adda Mai Sharp Black Goes to the Circus W. Farley *The True Book: The Circus
3. Go to the circus. Shrine Circus may be timed for this activity.	3. This would be a good way to introduce your circus study or to complete it. Timing would be a deciding factor.	
4. Discussion on circus performers.	4. This discussion may be related to the circus directly if the class has seen it; otherwise, use pictures to relate to the various workers. Questions: What circus performers did we see? What did they do? List: Ringmaster, clowns, acrobats, jugglers, animal trainers, etc. Draw, color, and cut out your favorite performer.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Discussion on circus workers.	5. Relate to circus (as in #6) if possible. Questions: What workers were busy while we were watching the show? What were they doing? List: Animal keepers, electricians, workers to set up tents, load and unload animals, popcorn and peanut men, balloon men, ticket sellers, etc. Draw, color and cut out favorite worker.	
6. Discussion on circus animals.	6. Relate if possible (as in #6, #7). Questions: What animals did we see? Which one was your favorite? List: Lions, monkeys, horses, tigers, elephants, dogs, bears, etc. Draw, color, and cut out favorite animals.	6. Weekly Reader Set - "Circus Story" (Colored pictures)
7. Arrange a bulletin board.	7. Place all the colored cut outs of the children's work on a bulletin board under a "big top." Add side shows later.	7. Large roll brown paper. Use "Carnival of Animals" by Saint Seans. Children can act out animals suggested by music.
8. Sing circus songs.	8. Teach songs about the circus, performers and animals.	8. SONGS: Music for Young Americans, 1966 "Let's Have a Circus," p. 57 "The Ponies," p. 58 "The Lion Tamer," p. 59 "Clowns," p. 60 (attached) "Snake Charmers," p. 61 "The Circus Parade," p. 62 "Jumbo," p. 63 (attached) "The Merry-go-round," p. 64 Our First Music, C. C. Birchard & Co. "Circus Time" "Playing Bear" "The Lion" "A Monkey's Tail"
9. Paint large clowns and work into a circus mural. One or two life size ones may be made by drawing around a child lying on the floor. Or you may make a paper bag clown. Add a head, feet (big floppy shoes) hands, etc. to bag. Paint clown suit on bag.	9. Arrange on a mural or have a "Parade of Clowns." If they are added to a mural, use some of the people and animals the children have already made. During this activity, especially discuss the duties of a clown. (If this gets extra large it may be used in the hall outside the room.)	

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
10. Plan a circus in your room. Children are the performers; make costumes, do acts (children plan their own), have popcorn, balloons, etc., invite parents.	10. Let the children act out: tight rope walker, juggler, clown, etc.	10. Suggestive props: hats, ties, masks, etc.
11. Construct a circus ring.	11. Make a circus ring from corrugated paper, and place on table and fill with sand. Back (so they will stand) cut-out that children have already made and use them in the ring or make circus animals out of clay and place them in the ring or use unshelled peanuts and toothpicks to make circus animals to be placed in the ring. (or several small rings.)	11. Corrugated paper.
12. Write stories	12. Write independent stories about the animal and trainer, or worker, that again is a favorite; and illustrate the story with colored drawings at the end.	

IT'S CIRCUS TIME!

Any Colors you choose.
Pictures of circus
helpers and
animals

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (letter for this purpose attached) Form XX

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. Have the resource person ask students, "What do you think I do?" before he begins his actual presentation.

8. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Dear _____

My students are studying _____
We would like to have some first hand knowledge about this area. We are interested in the work you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job
2. Duties (simplified)
3. Training or preparation required.
4. Physical characteristics needed.
5. Social characteristics needed.
6. Do you work alone or with others.
7. Do you need to get along and cooperate with other workers.
8. What school courses helped a great deal in preparing you for this work?
9. Why do you work?
10. Do you like this job?
11. What are the good and bad points about it?
12. How and where training can be obtained.
13. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____

Number of students _____

Description of facilities and equipment available _____

_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

FOLLOW-UP

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and deffinite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil Teacher Preparation

Watch for:
1. Working condition
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

FIELD TRIPS

Grade 1

Resource People

1. Tour Guides

   a. Talk on children's level

   b. Clear and audible voice

   c. Split groups so all can hear and benefit

   d. Give children ideas of what to look for before entering work area. If it is noisy, discuss briefly what will be seen, and then review after leaving the noisy area.

   e. Emphasize role of worker and not necessarily the product.

   f. Emphasize qualities needed in workers:

      1) punctuality

      2) getting along with co-workers

      3) responsibility to do your best work.

   g. Introduce workers as they are encountered on tour, with comments like "Mr. _____ is the man who does_____."

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

E. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House, Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Dansville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

ACCESSION NUMBER: VT101985

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. SECOND GRADE GUIDELINE.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; VOCATIONAL DEVELOPMENT; *CAREER AWARENESS; *CLASS ACTIVITIES; TEACHING GUIDES; SELF CONCEPT; OCCUPATIONAL INFORMATION; RESOURCE MATERIALS; *GRADE 2; BULLETIN BOARDS

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 177P.; SEE RELATED DOCUMENTS VT 101 983, VT 101 984 AND VT 101 986 THRU VT 101 989 IN THIS ISSUE.

ABSTRACT: THE NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION WAS DEVELOPED AND FIELD-TESTED IN THE BISMARCK DISTRICT AND IN OTHER SCHOOLS THAT BECAME INVOLVED DURING 1970-1973. MATERIALS WERE COMPILED FOR TEACHERS' USE IN INTEGRATING CAREER EDUCATION ACTIVITIES INTO THE EXISTING CURRICULUM, ADAPTED TO LOCAL SCHOOL NEEDS. INCLUDED ARE CAREER EDUCATION PHILOSOPHY (K-6), OBJECTIVES, AND DEVELOPMENT CONCEPTS. SECOND GRADE SPECIFIC OBJECTIVES ARE TO DEVELOP AN UNDERSTANDING OF ONE'S SELF-CONCEPT, TO DEVELOP POSITIVE ATTITUDES TOWARD THE WORLD OF WORK, AND TO PROVIDE GENERAL OBSERVATIONAL EXPERIENCES OF WORK, AND TO PRESENT APPROPRIATE OCCUPATIONAL INFORMATION. THIS VOLUME CONTAINS MATERIALS ON THE OBJECTIVES FOR GRADE 2, INCLUDING BULLETIN BOARD IDEAS. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 985

GRADE 2

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

CE005 383

VT 101 985

Second Grade Guideline

of the

Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

"BUY NORTH DAKOTA PRODUCTS"

TABLE OF CONTENTS
Second Grade

I. Development of Positive Self-Concept

Understanding Choices and Consequences 4
DUSO Unit VIII Overview. 5
Moods and Emotions 6
Understanding Emotional Maturity 8
DUSO Unit VII Overview 9
Self-Understanding 10
Understanding of Emotions. 11
Truthfulness and Playing Fair. 12
Realistic Values 13
Self-Confidence. 15
Understanding Goals and Purposeful Behavior. 19
Understanding Mastery, Competence and Resourcefulness. 21
Trust. 23
Being a Friend 27
Understanding Needs. 28
Curiosity. 32
Responsibility 36-37
Behavior 38
Self-Analysis. 40
Me Book. 42-45
Cooperation. 46
Song - Lazy Man and Busy Man 48

II. Development of Positive Attitudes Toward Work and Workers

Work Habits. 1
Why People Work. 53
Letter to Parents. 55
Song - Heling Mother Bake a Cake 57
Interdependency of Workers 111, 124
Values and Attitudes 126

III. Providing Occupational Awareness

Introduction to the World of Work. 49
Song - When I Grow Up. 52
Producers of Goods and Services. 58, 114, 132, 137
People Who Protect Our Health. 59
Job Families 50
Doctor's Need of Basic Skills. 61
Nurse. 65
Eye Doctor 67
Dentist. 68
Garbage Collector. 70
Community Protectors 71
Policeman. 72
Song - The Traffic Officer 75
Fireman. 78
The Fire Game. 81

Community Helpers Who Feed Us. 86-107
Farmer 86
Song - The Farmer. 88
Song - Sheep Shearing. 90
Types of Farming 92
Dairyman 93
Workers in Supermarket 95
Foods. 97
Song - Groceryman. 99
Workers that Produce Food. 102
Monetary Reward. 104
Song - Dream Shelves 106
Workers that Help Feed Us. 107
Architecture and Math. 113
Tools of a Trade 117
Song - Johnny Works With One Hammer. 120
Riddles. 121, 140
Repairman. 122
Song - Leaky Faucet. 123
Construction Workers 127
Community Helpers that Provide Service 129-143
Telephone Manners. 133
Post Office Occupations. 134
Aerospace Occupations. 135
Song - Our Friend the Librarian. 139
City Helpers Game. 141
Look and List Game 142
Who's the Worker Game. 143
What's My Line 143

IV. Bulletin Board Ideas

Social Skills. 3
Who Works in Our Town. 56
Stop for Safety. 77
Fireman. 85
Pounds and Ounces. 101
Community Helpers that Help Feed Us. 108
We Work Together 110
Lasso A Good Book. 112
Men and Machines Build Buildings 116
Safety 144, 145
Rural Workers. 146
Our Helpers. 147
Community Helpers. 148, 150
More Helpers 149
Our Christmas Store. 151

V. Appendices

Appendix A - Resource People Guidelines. . . . . .
Appendix B - Field Trip Guides . . . . . .
Appendix C - Suppliers . . . . . .

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

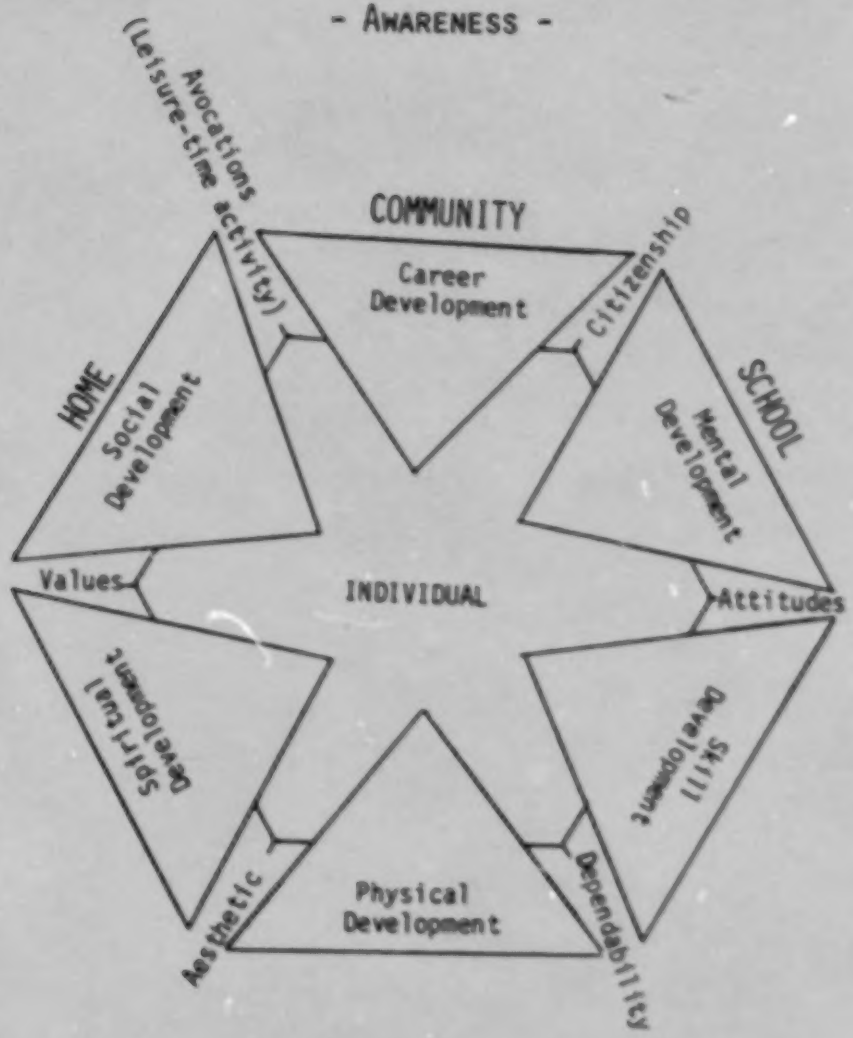
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B. Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

SECOND GRADE SPECIFIC OBJECTIVES

I. To develop an understanding of one's self-concept

A. My feelings toward myself and others

B. My similarities and differences

C. Responsibility toward self and society

D. Inherent capabilities

II. To develop positive attitudes toward the world of work

A. To accept and respect self and others

B. Individual work to be dependable, responsible and cooperative to meet personal and social needs

C. People work for various rewards or satisfactions

D. Develop the appreciation of the dignity and worth of honest work

III. To provide general observation experiences of the world of work

A. School is a part of the preparation for a career

B. To develop the child's awareness of the responsibilities and understanding of our community helpers

IV. To present appropriate occupational information about the world of work

A. Develop child's awareness that individuals need special training for most careers

B. Develop an understanding that some workers produce goods; others produce services

C. Develop the child's awareness that positions are related within job families

CAREER DEVELOPMENT ACTIVITIES

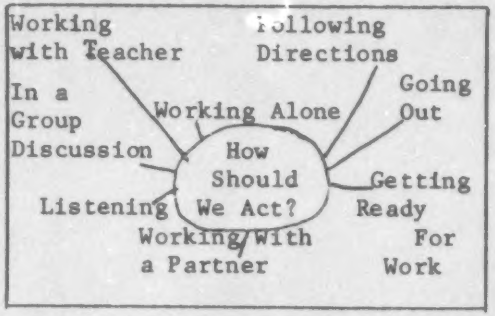
BROAD OBJECTIVE: Individual work to be dependable, responsible and cooperative to meet personal and social needs.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's ability to understand that school helps to develop individual and group skills, each student will name at least one correct procedure to be followed in a presented activity.

Self-concept: Work Habits

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

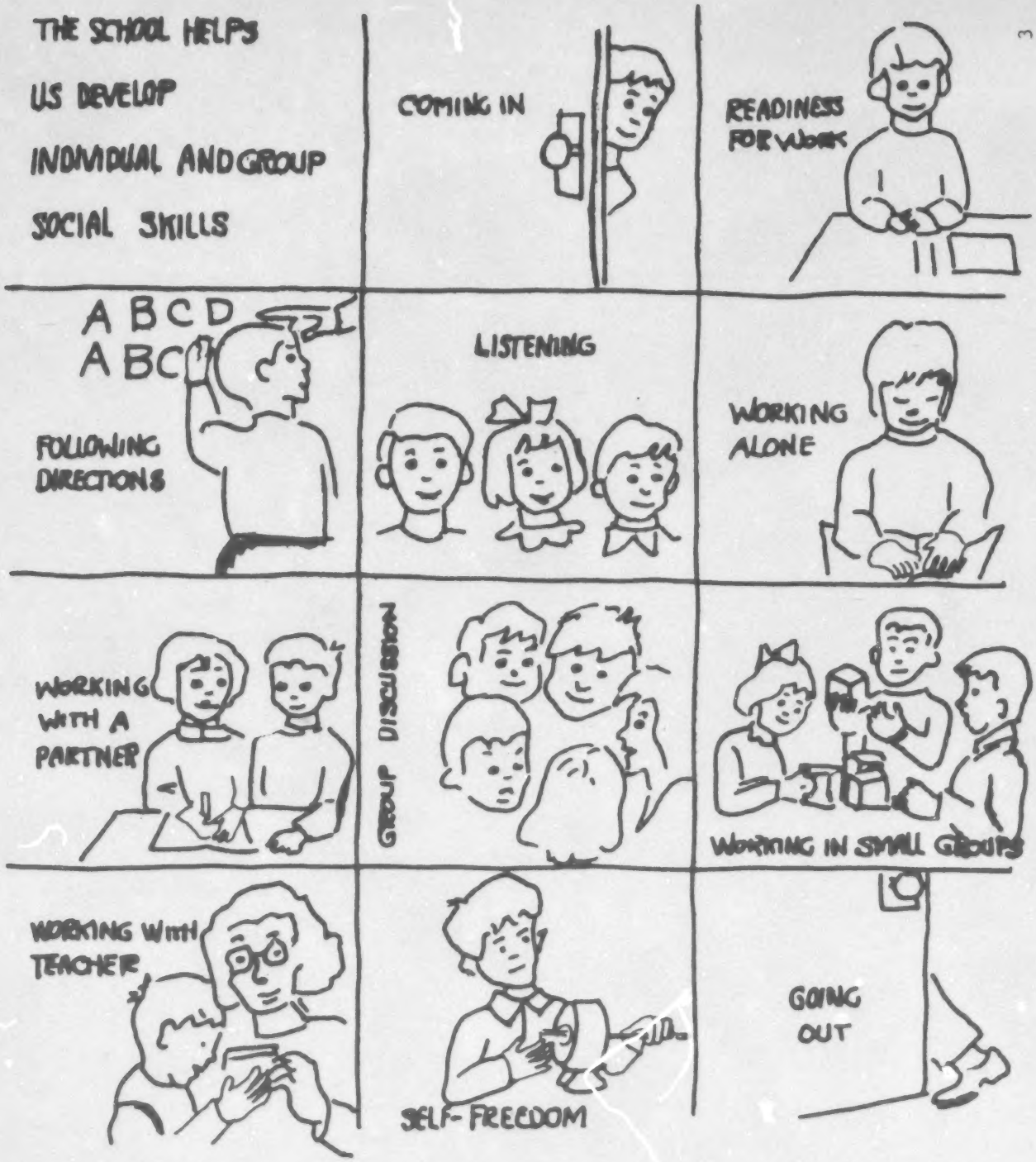
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show transparency of a couple of pictures, on overhead projector for discussion.	1. You could begin by making a large transparency of one or two of the pictures and putting it on the screen. Discussion on the correct procedures that should be used in the classroom and then have the kids demonstrate (choose one) the correct way of coming in the classroom, getting ready for work, etc.	1. See attached sheet
2. Bulletin Board display with pictures and phrases. 	2. Use this bulletin board as a motivation and reminder for the first week. This activity needs preparation (making pictures) before school starts.	2. Enlarge pictures, string of yarn to each picture. Letters to spell words inside circle.
3. View Filmstrip. (con't)	3. Discuss the filmstrip. For review	3. "The Classroom #641232 School Series Rules and Plans Set I McGraw Hill

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCZ MATERIALS
	or follow-up, discuss the need for making plans for classroom activity.	
4. Draw pictures	4. Child draws which one they do best and worst.	
5. Role Playing	5. Children role play teachers and various behaviors discussed.	
6. Writing sentences	6. Each child will write a sentence for one of the topics discussed.	
7. Duso Kit	7. Teacher may use suggestions on the Duso Kit Teachers Guide.	7. Duso Kit Units VIII Overview attached. Associated Guidance Service
8. Listening Activity: Directions - (Listen) Place all of the things in the bag. Close the bag with the stick pin. Tear hole in the tissue paper for a poncho for your partner. Eat one candy kiss, give the other to one you love. Blow up both balloons, pop one, keep one. Put on hats and tags. "Pop" the brown bag last!	8. Give the directions before the party bags are passed out. Do not repeat directions.	8. You need the following: small brown bag stick pin one sheet of tissue paper two candy kisses two balloons party hats name tags
		9. "Manners Can Be Fun" (book/record) Lippincott
		10. "Tales of the Wise Old Owl" series, QED (Cathedral) filmstrip/cassette

F



Taken from:
Self-Enhancing Education
Norma Randolph
William Howe
Elizabeth Ackterman

UNIT VIII

Unit Theme: Understanding Choices and Consequences

Every child develops a value system, and he must learn that his feelings, values, and behavior are integrally related. He must come to recognize and accept the consequences of his behavior.

This unit focuses on helping the child understand personal integrity in relationship to group pressures and personal standards.

The Unit VIII activities are presented in the cycle organization shown in the overview table. Thus, a regular sequence would be presented by using the Cycle A activities and then proceeding with Cycles B, C, and D. However, there is no particular order in which Unit VIII activities must be presented. They may be used in any sequence or clustering desired.

The activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT VIII OVERVIEW

Introductory Story VIII: Duso and Flopsie Flounder, Page 150

Unit Song VIII: Flopsie Flounder, Page 150

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories	The Swinger, Slinger Train, Page 152	The Box from Rainbow Lake, Page 155	Just a Little Peek, Page 157	First in Line, Page 159
Posters	The group is not always right	Be honest	Play fair	Each of us is important
Problem Situations	Mary Can't Go Barefoot, Page 152	What Happened? Page 155	Joey Remembers, Page 157	Mary's New Friend, Page 159
Role Playing Activities	Bonfire, Page 153	The Tablecloth, Page 156	Do I Have To? Page 158	The Half-Built House, Page 160
Puppet Activities	You Can't Play Unless, Page 153	It's Mine! Page 156	Let's Pick On . . . Page 158	I Am Better, Page 160
Supplementary Activities	1—Discuss What to Do, Page 153 2—Play with Puppets, Page 154 3—Tell the Class, Page 154	1—Take Me to My Home Game, Page 156 2—Discuss with Class, Page 156	1—Draw a Picture, Page 158 2—Find a Picture, Page 158	1—Drawing, Page 160 2—Everyone Is Necessary, Page 161
Supplementary Reading	*The Happy Owls*, Page 154		*If Everybody Did*, Page 158	*What Color Is Love*, Page 161 *The Country Bunny and the Golden Shoes*, Page 161

CAREER DEVELOPMENT ACTIVITIES

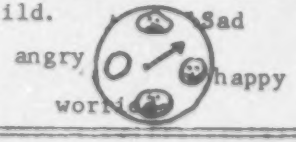
BROAD OBJECTIVE: To develop an understanding of ones self.

SPECIFIC BEHAVIORAL OBJECTIVE: Given eight posters which identify different emotions, student will demonstrate his understanding of at least four of the eight emotions presented on the posters by naming the poster.

Moods and emotions

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Bulletin board of posters, pictures, and name of emotion.	1. Use each poster and follow the suggested procedure on the back of each one. Use extra pictures to help clarify the emotion.	1. "Moods and Emotions Posters" Child's World, Inc. 515 N. Front Street Box 711 Mankato, Minn 56001 (joy, sadness, compassion, loneliness anger, thoughtfulness, love, frustration)
2. Write paragraphs	2. After posters are completed, write a paragraph or tell about a time when child has felt frustrated, angry, etc.	2. Writing paper, pencils
3. Sing Songs		3. Songs: "If You Can't Say Something Nice" The Magic of Music, Ginn 1970 Gr. 2. p. 70-71 "Let Us Smile" Growing With Music Prentice Hall. Englewood Cliffs New Jersy 1963. Gr. 2
4. Make clock with hands for each child. 	4. As children read stories, have them put hand on the emotion they are reading about.	4. Paper plates, or paper circles brads, crayons.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCZ MATERIALS
5. View filmstrip and listen to record.	5. Discuss when we have feelings of sadness, happiness, anger, fear.	5. Focus on Self Development Science Research Associates, Inc. 259 - E. Erie St. Chicago, IL 60611 Unit C filmstrip and record "Circle of Feelings"
6. Role Play	6. Have children make faces of a feeling by creating a situation; finding an injured animal, going to the dentist; being pushed or shoved, getting a new toy.	
7. View and discuss photo boards.	7. Children discuss what is happening in each picture, identify the feeling and relate an experience of their own.	7. Photo boards.
8. Happiness is _____ pictures	8. Make a "Happiness is ____" picture to show what you would enjoy doing most right now.	8. 9 x 12 white construction papers; colors.
9. Duso Kit Unit VII	9. Use suggestions in Duso Teachers Guide	9. Duso Kit, AGS Overview for Unite VII attached.
10. Booklet	10. Make a booklet. On each page child makes a picture of himself in a different mood.	10. #1215 "Understanding Our Feelings" 28 photos to develop understanding of self and others. Instructo

19

UNIT VII

Unit Theme: Understanding Emotional Maturity

Children need to recognize and understand the difference between ineffective responses to stress and change and more effective responses. They need to understand that children sometimes use psychosomatic illness, temper tantrums, crying, or anger to get their way and force others to give in.

In this unit the teacher helps the class explore the purposive nature of emotions. More courageous and effective responses to stress and change are emphasized.

The Unit VII activities are presented in the cycle organization shown in the overview table. Thus, a regular sequence would be presented by using the Cycle A activities and then proceeding with Cycles B, C, and D. However, there is no particular order in which Unit VII activities must be presented. They may be used in any sequence or clustering desired.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT VII OVERVIEW

Introductory Story VII: Duso and the Worrywart, Page 134

Unit Song VII: Worry Song, Page 134

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories	The New House, Page 136	The Watermelon Contest, Page 138	The Jogger, Page 141	The Bike, Page 144
Posters	Give it a try	Be patient	A way to feel better	Be responsible
Problem Situations	A New Teacher, Page 136	Hurry Up, Johnny, Page 138	The Storm, Page 141	Tina Isn't Afraid, Page 144
Role Playing Activities	Being Afraid, Page 137	The Spider, Page 139	The Cross Neighbor, Page 142	Lost! Page 145
Puppet Activities	The Doctor, Page 137	Growing, Page 139	School Time, Page 142	Sleeping Outside, Page 145
Supplementary Activities	1—Draw a Picture, Page 137 2—Find a Picture, Page 137 3—Magic Mirror, Page 137	1—Make a List, Page 139 2—Tell the Class, Page 139 3—Magic Mirror, Page 139	1—Make a Worry Bird, Page 142 2—Enact Worrying, Page 143	1—What Would Happen? Page 145 2—Find a Picture, Page 145
Supplementary Reading	*Angelique*, Page 137	*Wait Till the Moon Is Full*, Page 140 *The Carrot Seed*, Page 140	*The Rich Man and the Shoemaker*, Page 143	*The Tale of Squirrel Nutkin*, Page 146

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self.

SPECIFIC BEHAVIORAL OBJECTIVE: The student will demonstrate his understanding of at least four emotions presented in the films and books.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View films	1. Discuss films with class.	1. Films: Getting Angry BFA Playing Fair BFA Understanding Ourselves BFA
2. Read Books		2. Books: B. MacDonald, Mrs. Piggle Wiggle series. Lippincott Kline, Runaway John Random House

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of ones self.

SPECIFIC BEHAVIORAL OBJECTIVE: The student will demonstrate his understanding of at least four emotions presented in the films and filmstrips.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View films	1. The synopsis, discussion questions and concepts are on the inside of each cover for the film.	1. Films - Telling The Truth, BFA The Right Thing to Do, BFA
2. View filmstrip	2. Children tell or write a possible solution to the problem in the filmstrip. These are open-ended stories. You may allow phonetic spelling and creativity.	2. Filmstrips: #134-C Open Ended Stories The Purse The Painting The Warning Blinder The New Building Imperial Film Co.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of the responsibility toward self and society.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a child's understanding of telling the truth and playing fair, each child will relate two reasons why it's important to tell the truth and play fair.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Role-playing	1. Develop situations or problems for them to act out.	
2. Puppet Play	2. Use resource materials to make puppets; especially the face for expression of emotions.	2. Light bulb, tennis balls, toilet tissue roll, milk carton, sock. May choose to make paper bag puppets, stick puppets or finger puppets.
3. Art	3. Have class draw pictures of what they don't like, what they'd like to see.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop understanding of one's self-concept

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a child's understanding of realistic values, each child will write at least one reason why his wish could or could not come true.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2

Citizenship

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Wishing game	1. Bring in some type of fairy tale motivational device - Example genie lamp, wand, magic frog, magic fish, etc. - and have children sit in circle on floor with this in the middle. Teacher says "This is our magic genie lamp I will rub it three times and the genie inside will let us all make three wishes." Pass the lamp around and let each child rub and make three wishes.	1. Motivational device (Refer to technique column)
2. Listen to cassette tape	2. Then children listen to open-ended cassette tape "Making Best of What You Have". After the tape have a discussion of what should be done.	2. Cassette: Living With Others-Citizenship II, Part 4, "Making the Best of What You Have" H. Wilson Corporation
3. View filmstrip	3. Closely related to this area is a filmstrip on lying. You could use this as a follow up activity.	3. "What Do You Think About Lying?" 131-3 Series: What Do You Think Imperial Film Company

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. List children's wishes	4. Keep list of wishes to refer to in case some come true (what they wanted for their birthday, etc.) so they can see which ones were realistic.	4. How To Catch A Crocodile Robert Poch, Random House
5. View filmstrip	5. View and discuss filmstrip.	5. You Got Mad, Are You Glad? (filmstrip/cassette) Guidance Associates

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge that self-confidence is required for success each student will relate one experience in which they have felt successful.

Success

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read and Discuss books.	1. Discuss the book with the help of suggested questions that are included. Discuss with the children some goals or skills they have tried to reach and tell how they have been reached.	Books: 1. Kate Can Skate, Olds Helen D. Knopf, Alfred A. New York Jim Can Swim, Olds Helen D. Knopf, Alfred A. New York The Fitfiddles Keep Fit, Steiner, Charlotte. Knopf, Alfred A., New York
2. Mural	2. Have class make sequence mural of the story.	
3. Duso Kit Unit V and VI	3. Use suggestions in Duso Kit Teachers Guide.	3. Duso Kit Unit V and VI American Guidance Serv.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Physical Education, Health

Success

1. To help children gain the self-confidence required for success.
2. To provide an environment in which every child will have a degree of success.
3. To encourage children to appreciate success in others as well as in themselves.

SUCCESS is the achievement of a goal which has been selected as being valuable. It is one of the most important factors in motivation, for a child who has experienced success, or even foresees the prospect of success, will be aroused to action.

A basic requirement for meaningful or repeated success is perseverance, the ability to keep trying after defeat. Another requirement is selecting goals of high interest, for if a goal is very desirable the individual will be more likely to persevere until he has attained it.

However, it is important to remember that goals must be consistent with the individual's abilities and limitations. Also, he must understand that some things can never be achieved, and that occasional failure is to be expected in all undertakings.

All these considerations are pertinent for young children. The child needs to experience success that he can value, in a situation that has challenged him. Moreover, he cannot tolerate too great a lapse between effort and achievement. An adult can keep his goal in mind through long periods of attempt and frustration, but if success is too far removed from the child's attempts, he may give up.

It is also important that goals be varied from child to child, consistent with the abilities of each. The standards of success in school are fixed and arbitrary, and may be beyond the reach of the child with less than the required ability. However, he must have his goals and his successes, no less than the brightest achievers in the school.

Kate Can Skate

by Helen Olds

p. 2 ► "You'll learn," Mother said. "I'll buy you a pair of skates."

1. Do you know how to skate?
2. Was it easy or difficult to learn how to skate?
3. Are you happy you learned?

p. 7 ► "No, I want both skates on! Please," she said.

1. Is Kate anxious to learn how to skate? Why?
2. Do people often learn something more easily if someone helps them? Like what?

p. 8 ► The strap was loose. Down she went on the sidewalk.

1. Why do people sometimes make a mistake or have trouble when they are learning something new?
2. What should people do when they make a mistake?
3. Do you think Kate will give up?

p. 10 ► "Of course you'll learn," Tom said. "All you need is practice."

1. Why is practice necessary when people are learning something new?
2. If people want to do something strongly enough, should they keep at it until they do it?

p. 12 ► "Thanks," said Kate. "I'm not going to try any more. Skating is no fun."

1. Why do you think Kate said that skating is no fun?
2. Do you think Kate should give up?
3. Will she ever learn to skate if she doesn't keep trying?

p. 14 ► She had been a crybaby over one little fall. Could she learn to skate and surprise the others?

1. Do you think Kate now has a better chance of learning how to skate?
2. What do you suppose will happen the next time she falls?

KATE CAN SKATE by Helen Olds

p. 16 ► She put on her skates and fastened the straps tightly. Then she stood up and hooked the handle of the umbrella over the clothes dryer.

1. Kate has thought of a way to help herself, hasn't she? What else might she have used?
2. How will this help her learn how to skate?

p. 18 ► She went a few strokes, then tumbled over; but she wasn't hurt because of the heavy dungarees.

1. What should Kate do now?
2. Is she learning how to skate?

p. 22 ► "Why Kate! You can *skate!*" they said.

1. How do you suppose Kate felt then?
2. Do you think the girls were proud of her?
3. Was it worth all the hard work to be able to skate with the others?

SUMMARY DISCUSSION: Some things we want very much are hard to get. Often, we fail many times before we get them. But, if we try and keep trying, most often we will be able to reach our goal. Remember the hardest goals to reach are often the ones most worth reaching.

Further Reading:

BOO by Munroe Leaf
LITTLE BLACK, A PONY by Walter Farley
COWBOY ANDY by Edna Chandler
HOW TO CATCH A CROCODILE by Robert Pack
JIM CAN SWIM by Helen Olds
THE FITFIDDLES KEEP FIT by Charlotte Steiner

Taken From: The Random House Program For Elementary Guidance
Random House/Singer School Division

UNIT V

Unit Theme: Understanding Goals and Purposeful Behavior

Every child needs to see that the antidote for vacillation, lack of confidence, disappointment, and fear of failure is courage. He also needs to become aware of the relevance of tasks involving home, school, and community for his present and future goals as well as the value of planning for the accomplishment of these tasks.

Unit V is designed to increase each child's understanding of the need for a courageous, resourceful approach to the attainment of his goals.

The Unit V activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, and D. There is no particular order in which the Unit V activities must be presented. They may be used in any sequence or clustering desired.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT V OVERVIEW

Introductory Story V: Lefty's Hamburger Stand, Page 100

Unit Song V: Things That I Wonder About, Page 100

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories	The Swing, Page 102	The Best Way to Learn, Page 105	The Loafers, Page 108	The Traffic Light Song, Page 111
Posters	It takes courage to try	I wonder why	Plan ahead	There is a reason to learn
Problem Situations	Tina and the Class Play, Page 102	Can I Skate? Page 105	No Present from Flopsie, Page 108	Joey Learns to Count, Page 111
Role Playing Activities	It Isn't As Hard As You Think It Is, Page 103	What Else? Page 106	Ready or Not? Page 109	Not Today, Page 112
Puppet Activities	The Girl Who Knew What to Do, Page 103	Chicken Little, Page 106	Mrs. Payne's Party, Page 109	Traffic Song, Page 112
Supplementary Activities	1—Mountain Climbing, Page 103 2—Tell the Class, Page 104	1—What's in the Bag? Page 106 2—Describe It, Page 107 3—Are You Interested in It? Page 107	1—Two New Songs, Page 109 2—Plan with the Class, Page 110	1—Applying the Rules, Page 112 2—Make Up Short Stories, Page 112
Supplementary Reading	*The Little Engine That Could*, Page 104			

32

UNIT VI

Unit Theme: Understanding Mastery, Competence, and Resourcefulness

Many children have ability but lack the desire to achieve. Having low self-esteem, they lack the courage to try. They must be helped to realize that competency and achievement are the products of desire and ability.

This unit focuses on the child's need to understand his capacities realistically.

The Unit VI activities are arranged in cycles as shown in the overview table. A regular sequence of presentation may be followed by using the Cycle A activities and then proceeding to Cycles B, C, and D. There is no particular order in which the Unit VI activities must be presented. They may be used in any sequence or clustering desired.

These activities may be modified. If an activity is not appropriate for a particular group, it should be adjusted to that group or not used.

UNIT VI OVERVIEW

Introductory Story VI: Duso and Squeaker, Page 116

Unit Song VI: Have a Go at It! Page 116

Activities	Cycle A	Cycle B	Cycle C	Cycle D
Stories Posters	Thaddeeus Platypus, Page 118 Have a go at it	The Big Race, Page 121 Try another way	The Swimming Kangaroo, Page 124 Be yourself	Peekaboo Emu, Page 127 I'm glad that I am me
Problem Situations	Robby Won't Try, Page 118	Robby at the Jungle Gym, Page 121	Robby Somersaults Best, Page 124	Robby Reaches the Top, Page 127
Role Playing Activities	What Shall I Do? Page 119	Buttons! Buttons! Page 122	Birds in the Nest, Page 125	The Careful Worker, Page 128
Puppet Activities	Janie, Page 119	John Won't Try, Page 122	Cat in a Tree, Page 125	I'm Okay, Page 128
Supplementary Activities	1—Make a Paper Shoe, Page 119 2—Tell the Class, Page 120	1—What Happened Next? Page 122 2—Challenge Game, Page 123 3—Singing, Page 123	1—Let Me Be in Your Circus Game, Page 125 2—Tell the Class, Page 126	1—Sing About the Class, Page 128 2—Draw a Picture, Page 130
Supplementary Reading	*Whistle for Willie*, Page 120	*Maxie*, Page 123	*Just Me*, Page 126	*The Little Rabbit Who Wanted Red Wings*, Page 130 *Little Toot*, Page 130

34

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self-concept

SPECIFIC BEHAVIORAL OBJECTIVE: To help children acquire a better understanding of trust and that trust leads to a more harmonious society, the children will relate one time when they were entrusted with something.

SUGGESTED SUBJECT AREA Self- Concept

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read and discuss books	1. Discuss book with the help of suggested questions that are included. Discuss with class what trust is and how we can behave so we will be trusted.	1. Books: Edith and Mr. Bear Wright, Random House Bridget's Growing Day, Bromhall, Random House
2. Play	2. Let children act out story using doll, teddy bear and clock to put on play.	2. Doll, teddy bear and clock

SUGGESTED CORRELATION FOR THIS ACTIVITY: Language Arts - dramatics

Trust

1. To help children acquire a better understanding of trust.
2. To encourage children to be trustworthy.
3. To help children understand that trust leads to a more harmonious society.

TRUST is the confidence one person has in another, a belief that he can be depended upon to act as he says he will. It is important that we learn to trust others and that others learn to trust us.

A small child soon learns to trust his parents to feed him when he is hungry and to keep him warm and comfortable. The growing child continues to place trust in others until their actions show him that they cannot be depended upon. A child who has lost trust in others may "give up" because he feels too threatened to move forward. It is important, therefore, that children continue to place trust in the right people.

The child must also learn to be trustworthy himself. Parents begin trusting their children early in life by giving them more freedom and the opportunity to make some decisions. As the child grows, others will feel he is trustworthy if he shows them that he keeps his word. When he says he will perform a task, or otherwise obligates himself, he must make every effort to do what he has promised. If he has ever been disappointed because someone failed to keep a promise, he has certainly wondered if the person could be counted on the next time.

It is important, then, to trust people and to have them trust us. Although we cannot control the actions of others, we must accept the responsibility for our own behavior. Our actions, therefore, can encourage others to have confidence in us.

Edith and Mr. Bear

by Dare Wright

p. 1 ► "Be quiet, Little Bear. I'm reading to you," said Edith.

1. Do you like to be read to?
2. What kind of stories do you like best?

p. 2 ► "Of course he will," Edith said. "He always does."

1. Why do you suppose Edith is so sure Mr. Bear will bring them presents?
2. What are some things parents do for children?

When we count on people to do something, we say we TRUST them.

p. 11 ► And that's where the clock went—right up in the middle of the high mantelpiece.

1. Why did Mr. Bear put the clock up so high?
2. Why didn't Mr. Bear want Edith to play with the clock?
3. Is Edith old enough to understand why the clock must be placed high on the mantel?

p. 12 ► Edith built a stairway of chairs and books, and climbed up to where she could touch the clock.

1. Why do people sometimes do things such as Edith has done when they know better?
2. Do parents sometimes have to put things up high because they cannot trust their children to leave them alone?

p. 16 ► All Edith could think of was how to hide the dreadful thing that she had done.

1. Why do you think she hides the broken pieces?
2. Do you suppose this is what Mr. Bear would want her to do?
3. What do you think Mr. Bear would have wanted Edith to do?

p. 18 ► Edith opened her mouth to say "I did it," but the words didn't come. She shook her head.

1. Did Edith tell the truth? Why not?
2. Did Mr. Bear think Edith would lie to him?
3. Mr. Bear has trusted Edith to tell the truth—What is trust, then?

EDITH AND MR. BEAR by Dare Wright

p. 23 ► "Oh, Kitten," she said, "you're the only one I can tell."

1. Why do you suppose Edith trusted her secret to the kitten?
2. Why *doesn't* she trust Mr. Bear?
3. Can it be that Edith is ashamed to tell Mr. Bear? Why?

p. 36 ► "Now, now, no talking until we get you warm and clean you up."

1. What was Mr. Bear worrying about more—that Edith had run away or that she was cold and dirty?
2. What was Edith worrying about more—being cold and dirty or that she had not done what Mr. Bear trusted her to do?

p. 40 ► "Mr. Bear, I did it, I broke your clock. And now you won't love me anymore."

1. Do you think Mr. Bear will still love Edith?
2. Did Edith expect Mr. Bear to love her?
3. Why do you suppose Edith felt Mr. Bear wouldn't love her anymore?

p. 53 ► "Well, the boat I thought about getting on," corrected Edith quickly, because never again did she tell Mr. Bear a lie.

1. Is Edith learning how to act with people who trust her?
2. What is she doing so that people will trust her?
3. Do people like to feel trusted? What things can they do so that others will trust them?

SUMMARY DISCUSSION: TRUST is expecting people to do what they have promised they will do. We must learn to behave so that other people will trust us.

Further Reading:
BRIDGET'S GROWING DAY by Winifred Bromhall

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's understanding of their needs of others, each student will name at least one way in which you can be a friend.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View films	1. Discuss films with children as suggested on the film sheet that is included in film case.	Film: Being Friends, BFA Cooperation, BFA Understanding Others, BFA
2. Read books	2. As an independent activity let the children read these books at a reading center and relate them to the class. Children may draw and color a picture showing what they like to do with a friend.	2. Books: Having a Friend, Miles Peter's Three Friends, Bromhall Random House
3. Calendar for February	3. Make a calendar for February. Hearts which open; inside each one a pupil has written a brief "A Friend is....."	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Art, Language, Reading

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's understanding of their needs and the needs of others, each student will name at least one way in which attention can be given to those that need it.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

Knowing My Needs

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read Our Veronica Goes to Petunia's Farm, and use suggested format of questions. 2. Ask students who would like to read and give an oral report. 3. Puppet Play	Introduction: Name some needs that everyone wants satisfied: 1. Food 2. Clothing 3. Shelter 2. Discuss the oral reports and ask for the similar concept of the needs of characters and how it relates to them. 3. Have class make puppets of characters in Veronica Goes to Petunia's Farm and give play	Books: 1. Our Veronica goes to Petunia's Farm Duvoisin, Roger. Alfred A. Knopf New York, 1962 2. The Chipmunk That Went to Church Bromhall, Winifred Alfred A. Knopf New York 2. Good Day! Which Way? Steiner, Charlotte. A. Knopf 3. Stick puppets. Make larger pictures of characters put on long stick.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Dramatics, Art, Health

Knowing My Needs

1. To assist children in understanding their needs and the needs of others.
2. To help children develop a feeling for the mistakes and misfortunes of others.
3. To encourage a classroom situation in which attention can be given to those who need it.

EVERYONE has certain needs which must be satisfied. The basic needs of all human beings are food, clothing, and shelter. In addition, there are many things an individual requires in his association with other people.

One of these is the need for attention, the desire of a person to be noticed and recognized by the people around him. This need is so strong in some that they will do almost anything, even cause a disturbance, to be noticed. Another is the need for acceptance, the desire to be included by others in groups and activities. Every human being also has a need for affection, and desires the love of his parents and the regard of his teachers, classmates, and friends. Everyone feels a need for the respect of others and for success.

The individual must know his needs to better understand himself and the reasons for his behavior. Adults generally consider the needs of children, but the children themselves may be unaware of their needs. The needs are there, and the child responds to them, but has yet to learn to think of them as needs, or as causes of some aspects of his behavior. In addition, there may be needs which neither child nor adults perceive.

It is extremely important that each person develop a satisfying conception of himself, which requires an understanding of one's needs and of the individual differences between people that give rise to different needs. If a child realizes that everyone has different capabilities and different needs, he is more apt to create a satisfying conception of himself as well as an ability to appreciate the accomplishments of others.

Our Veronica Goes to Petunia's Farm

by Roger Duvoisin

p. 3 ► Truly, thought Veronica, a hippopotamus's paradise.

1. What is a paradise?
2. What do boys and girls need to be happy?
3. What would a children's paradise be like?

p. 5 ► "Well," said Ida, the hen, "I don't like the look of a hippopotamus. It's neither a hen, nor a duck, nor a cow, nor a sheep, pig, donkey, goat, goose, horse, cat, dog. It has no place on a farm."

1. Do you think the other animals will make Veronica feel welcome?
2. Does everyone like to feel welcome? Why?

p. 6 ► "Good morning," repeated Veronica. "I am Veronica, the hippopotamus."

1. Were the other animals being polite to Veronica?
2. Should people speak to others who have been kind enough to speak to them?
3. Why do you think they are ignoring Veronica?

p. 8 ► Veronica ate the grass with little appetite. It did not seem just right either. Even the mud puddle was no longer a just-right mud puddle.

1. Why are things no longer just right for Veronica?
2. Why does Veronica want the other animals to like her?
3. Why would she be happier if the other animals liked her?

p. 13 ► The green grass was less tasty. She lost her fine, big appetite.

1. Why do you think Veronica lost her appetite?
2. Does everyone need to eat?
3. Can it be that Veronica needs friends almost as much as she needs to eat? Does everyone also need friends?

p. 18 ► "Why did she say 'thank you'?" asked Goat. "Ah . . . well, I took some hay to her. Maybe she will eat it."

1. Why do you think this will make Veronica a happier hippopotamus?
2. Do you think she will eat now?

OUR VERONICA GOES TO PETUNIA'S FARM by Roger Duvoisin

p. 22 ► "She is better, she is better," said Straw, Clover, Noisy, Cotton, and all the others in turn, as they walked into the meadow.

1. Why are the animals all feeling gay again?
2. Why does everyone need others to be kind to them?

p. 30 ► Veronica said the farm was even more beautiful than it seemed the first day she came. IT WAS INDEED JUST RIGHT.

1. Why did the farm seem more beautiful?
2. How can friends help make people happy?
3. Why do you think everyone needs friends?

SUMMARY DISCUSSION: There are some things we need in order to live and grow, like food and clothing. There are other things we need in order to be happy. Friendship is one of these things.

Further Reading:
WHAT'S A COUSIN? by Helen Olds
GOOD DAY! WHICH WAY? by Charlotte Steiner
THE CHIPMUNK THAT WENT TO CHURCH by Winifred Bromhall

Taken From:
The Random House Program for Elementary Guidance
Random House/Singer School Division

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self-concept

SPECIFIC BEHAVIORAL OBJECTIVE: To develop activities that spark curiosity and to discover the joys that can be received from curiosity, each child will be able to relate at least two advantages and two disadvantages of being curious.

SUGGESTED SUBJECT AREA Self-concept

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read book Petunia Takes a Trip.	1. Discuss book with class with the help of questions that are included.	1. Petunia Takes a Trip Duvoisin Random House
2. A few children may read books and report on them.	2. Children report on books read. Discuss with class the best way to handle curriosity so that they will not be harmed	2. Lonely Veronica Roger Duvoisin Twinkle, the Baby Colt Barrett, Lawrence Edith and Mr. Bear Wright, Dave. Random House

SUGGESTED CORRELATION FOR THIS ACTIVITY: Drug Kit

Curiosity

1. To encourage stimulating classroom activities which will in turn spark curiosity.
2. To help children discover the joys which can be reaped from curiosity.
3. To encourage study of a child's curiosity.

CURIOSITY is a feeling inside a person that causes him to explore and to learn, to find out about things and how they work. It is of great benefit if it leads to learning, to the thrill of discovery; but it may draw the individual into dangerous situations as well. The child must learn to examine the situation and determine if there is any danger involved before he succumbs to his curiosity.

The progress of civilization from the Stone Age to the Age of Science is a result of facts learned and discoveries made through curiosity. The *individual* benefits from curiosity, for it influences the way he appears to other people. A curious child is apt to be eager and alert and will make a far better impression on others than a child who never seems anxious to learn anything.

Curiosity, however, is not an incidental part of the process of learning, but a basic characteristic which requires organized attention. Too often, a child's curiosity tends to diminish in late childhood and adolescence. In the young child, one question leads to another, and his curiosity may be stifled by an adult who feels incapable of providing sufficient answers. The child, however, will usually be satisfied with an answer that need not be adult-like in depth or scope.

Curiosity is a stimulus for learning. Dampened, it will lead to a withering of interest; inflamed, it can spark the child to the full exploitation of his capabilities.

Petunia Takes a Trip

by Roger Duvoisin

p. 2 ► "Where does it come from?" asked the goslings. "Where does it go?"

1. Where do you think it comes from? Where do you think it goes?
2. Have you ever wondered where little goslings go when they follow their parents?

p. 5 ► And she did calisthenics in the middle of the farmyard, every morning and every afternoon.

1. Why is Petunia working so hard to find out where the plane goes?
2. When people want to find the answer to something, what should they do?
3. If Petunia asked *you* what she should do, what would you tell her?

p. 11 ► She had the sky all to herself. It was wonderful.

1. Have you ever wondered what it would be like to be able to fly?
2. How do you think birds fly?
3. How could you find out for sure how birds fly?

p. 13 ► Blown about the black clouds like a leaf, she could not tell which was up and which was down.

1. Is Petunia in trouble?
2. Did she get into trouble by trying to find out where the planes go?
3. What do you think will happen to her?

p. 15 ► "Oh, what an adventure," said Petunia, above the big city. "Where am I? What am I going to do?"

1. How did Petunia come to have this wonderful adventure?
2. Now are there even more things she wants to find out?
3. How is Petunia finding out the answers to her questions?

p. 18 ► While Petunia ate a triple-decker sandwich the policeman and the taxi driver told her about their city, how beautiful and big it was.

1. Do you suppose Petunia ever ate a triple-decker sandwich before?
2. Do people enjoy eating things that are new to them? Give examples

36 CURIOSITY

by Roger Duvoisin

p. 24 ► And they drove Petunia to a place where there was a house so tall that its roof was hidden in the clouds.

1. What are some new things Petunia has learned so far?
2. When she wondered where the airplane was going, do you think she imagined she would see all this?

p. 26 ► "How can you live in the big city?" she asked him. "You are so small! You would be happier on a farm."

1. Why does Petunia think the sparrow would be happier on a farm?
2. Everyone is not alike and would not be happy doing the same thing. How do people differ from one another?

p. 30 ► Many a time afterwards she told her children about the beautiful, big, BIG world one could see beyond the hills.

1. How did Petunia satisfy her curiosity?
2. Do you think the goslings will be curious about things as they grow?

SUMMARY DISCUSSION: The best way to learn about things is to ask questions. We must be careful, however, not to satisfy our curiosity in ways that might harm us.

Further Reading:
LONELY VERONICA by Roger Duvoisin
TWINKLE, THE BABY COLT by Lawrence Barrett
EDITH AND MR. BEAR by Dare Wright

Taken From
The Random House Program for Elementary Guidance
Random House/Singer School Division

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of one's self-concept.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of responsibility each child will tabulate daily for two weeks showing that he has kept his room at home neat and his desk at school neat 80% of the time.

Citizenship

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Listen to cassette tape	1. Listen to this open-ended tape and have a discussion afterwards on what the children would do or have each child draw a picture of what he thinks should be done.	1. Cassette: Living With Others - Citizenship II, Part 3, "Sally's Room" H. Wilson Corp.
2. Give children chart that will be checked daily	2. Pass out dittoed chart that you make on a 8½x14 ditto (long ditto) and have students put name and begin their chart. This activity could be done right before milk break so that those that don't have a clean desk can clean it during this time. You might choose two people (or have class choose) to be desk checkers and they could put stars if desks are neat.	2. Chart made by teacher "Tales of the Wise Old Owl" series QED (division of Cathedral Films) Manners Can Be Fun, Leaf. Lippincot

Name _____	Mon	Tues	Wed	Thurs	Fri	Mon	Tues	Wed	Thurs	Fri
My room is neat (at home)										
My desk is neat (at school)										

Put a star if neat, an X if not.

SUGGESTED CORRELATION FOR THIS ACTIVITY: This activity would be effective at beginning of school year.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To accept and respect self and others

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate his knowledge of the meaning of responsibility by stating two instances in which he has been responsible and two instances when he has been irresponsible in the past week.

Responsibility

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip	1. a. Introduce film by asking."Will someone tell what might happen if you are told to do an errand and then forget to do this errand?" b. What does being responsible mean?	Filmstrips/cassettes: 134-C Open Ended Stories "The Open Gate" Imperial Film Co.
2. Write a paragraph to the ending of this story.	2. Discuss that there are many possible ways to end the story and they are to complete the story in their own way.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Responsibility toward self and others

SPECIFIC BEHAVIORAL OBJECTIVE: After completing the activity each child will be able to distinguish between a pleasing sound and a disturbing noise by listing five of each.

AWARENESS

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 1-2-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Filmstrip and cassette tape.	1. Show the filmstrip "There Are Sounds Around You". Upon completion discuss the sounds that appeal to us - (example: Piano, singing, etc) and discuss noises we don't like (ex. people arguing, banging on a piano, etc.)	Filmstrip/cassette "Outset/Listen: There Are Sounds Around You" (part 2) Guidance Assoc.
2. Awareness Walk	2. The children will take a walk as a class around the school. This is a listening exercise and before leaving the game should be explained.	
3. Game: What I Heard Name Noise / Pleasant sound	3. This game is to list all the pleasant sounds and noises that the student can remember. The one who remembers the most and has them in the correct place is the winner. You do not count those that are not in the correct order. (Continued)	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Sound Day	4. The following day you could have each child bring in something that would make an interesting or unusual sound. Each child would make his sound and class would decide whether it was pleasing or a disturbing noise. There should be a discussion of Noise Pollution and how in our growing society we need to be courteous to others. Example should you mow the yard at 6:00a.m. saturday morning? Noisy motor-cycles? Practice playing your instrument early or late?	
5. Make Instruments.	5. Make and use instruments from "This is Music" (drum from coffee cans, triangle from hanger and nail.)	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop an understanding of oneself.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of self, each student will be able to write a paragraph about themselves including at least one sentence telling about things they enjoy doing.

Self Analysis

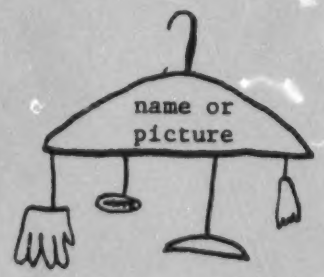
SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View strip and listen to cassette.	1. Because there are three parts to this lesson, suggest this be developed over three separate periods. Following each part discuss the information as it may relate to child.	1. Filmstrip and cassette: Who Do You Think You Are? Guidance Associates
2. Write stories about themselves, with a baby picture pasted on sheet.	2. As each part is heard have children write a paragraph about themselves with the picture pasted on the writing paper.	2. Writing paper, cut in half picture or photo of each child.
3. Draw pictures	3. Following the discussion and writing of paragraph on actions have each child make a picture of themselves doing something they enjoy. Put stories and picture together as a booklet.	3. 4½ x 6 white construction paper.
4. Me Booklet	4. Following filmstrip "Who Do You Think You Are" have child make his own booklet.	4. See insert p. 15 A-0

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Duso Kit	5. Follow directions in teacher's guide, Book 2.	5. Duso Kit American Guidance Service
6. Individual moble (art)  	6. Draw and cut out things that are characteristic of each one such as hand, foot, favorite toy, sport, book, clothes, food, or hobby. Cover hanger with colored paper and identify. Hang up art pieces.	6. Hangers., string or yarn (different lengths), construction paper

All About ME

Dear Mom and Dad,

I hope you like my book. I did the nicest work that I could. It's all about me!

Since I am an important person at home, at school and in my world, this is an important book.

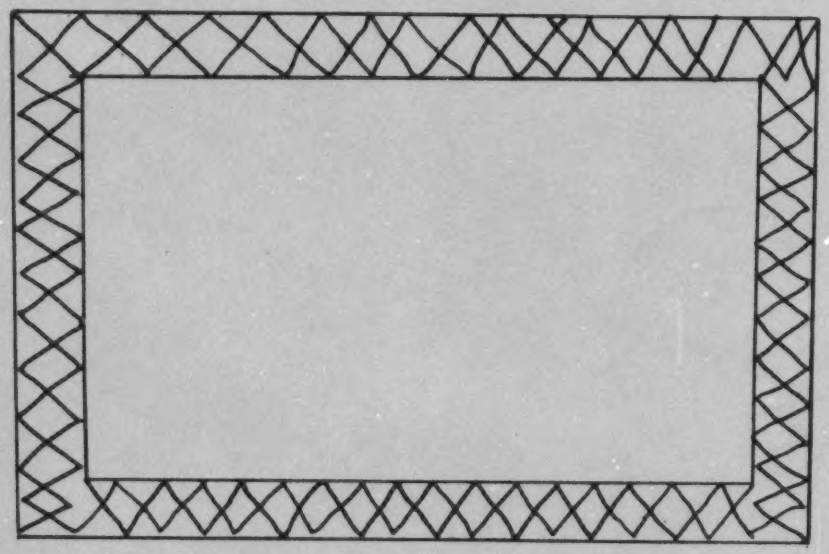
May we sit down and read it together sometime?

Love,

_____

54

I Look At Myself



See me. I'm _____
(Name)

Poems About Me

Growing

When I ask Mother
she doesn't really know:
"What's inside of me
making me grow?"

So I ask Father
who doesn't grow a bit;
"What's inside of YOU
making you quit?"

And Father says, "Hmmm...
I'm busy now, Son..."
So I STILL don't know
how growing is done.

-Aileen Fisher

Everybody Says

Everybody says
I look just like my mother.
Everybody says
I'm the image of Aunt Bee.
Everybody says
My nose is like my father's.
But I want to look like
ME!

-Dorothy Aldis

Something About Me

I am ____ years old. I

Making Friends

_____ and I like to _____

We are friends.

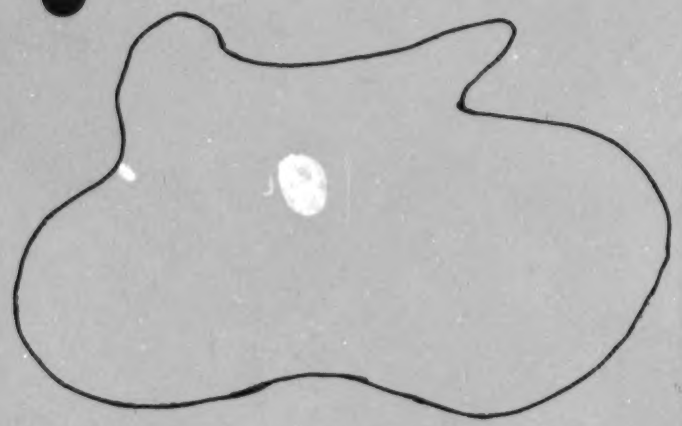
Having Fun

I like to play

I Like to Wear

My favorite clothes are

My Favorite Color



This color is . I like it because .

I Get Ready for School

Before school I

I Like to Eat

The food I eat best is

My Favorite Season

The Seasons

Spring is showery, flowery, bowery;
Summer: hoppy, poppy, croppy;
Autumn: wheezy, sneezy, freezy;
Winter: slippy, nippy, drippy.

- Mother Goose

This is

What Kind of Weather Is It?

Sometimes it's hot. | Sometimes it's cold.

I like a _____ day best because _____

sunny - snowy - cloudy - rainy - foggy - cold - hot - cool - warm

Pretending I'm Grown Up

I like to play I am a _____

Maybe someday I will be! _____

A Surprise

Look at my pretend friend.

He is a _____

He _____

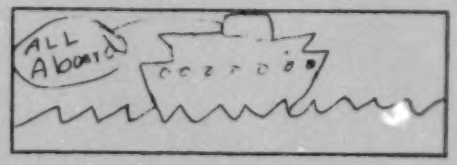
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate his knowledge of cooperation by working cooperatively with other students throughout the year.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 1-2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. a. At the beginning of the year we start on a pretend trip on board a big ship. Teacher - Navigator Children - Crew Monitors - Captain Desk - Deck Anchor - Put up at beginning of the day and down at end of day. Trip lasts for nine months. Travel around the world (May choose to travel by car, train, jet, etc.) b. Read books in resource.	Discuss workers on a ship and ask students if they think these people have to work together to get to a certain place. Talk about what implication this has in the classroom.	1.a. Bulletin Board  b. Books <u>Your World Let's Visit a ship</u>, Pope, Billy N. Emmons R.A Taylor Publ. Co. <u>I Want to be a Ship Captain,</u> Greene, Carla. Children's Press
2. Show film or pictures of people in other places.	2. Discuss places children might want to visit. •Discuss similarities of homes, clothing, country, people, etc.	Ships Honor Roll (Use all year) Larry, Wendy, Sherrie, Terry Captains
3. Creative "Around the World Experience Corner".	3. Let the children make the objects that you are emphasizing from the country discussed.	(Cont)

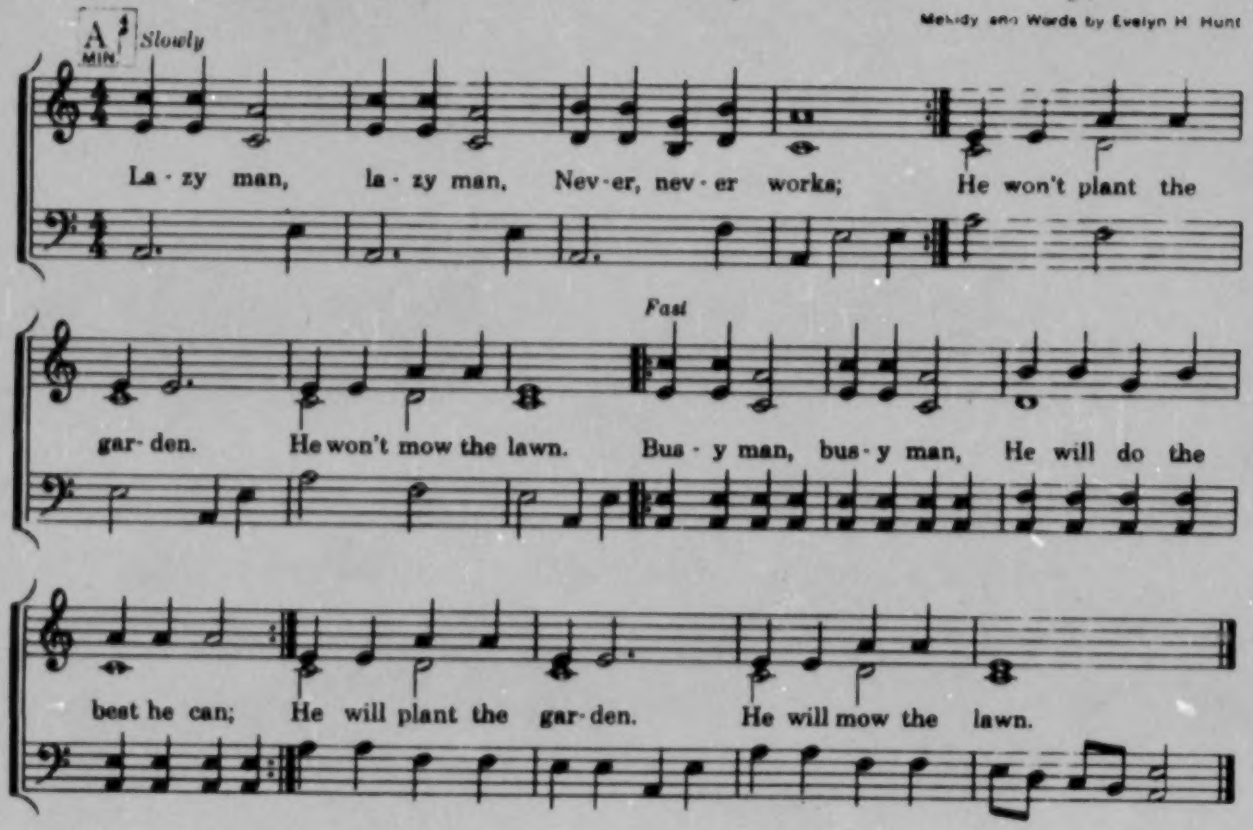
SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Sing songs		2. pictures of people in other lands. 3. Materials from home, Child Craft Golden Encyclopedia, Upper Grade geography and history books 4. "The Lazy Man and The Busy Man" P. 50 This is Music (attached) Allyn, Bacon Gr. 1, 1965

The Lazy Man and the Busy Man

Melody and Words by Evelyn H. Hunt



Taken from:
This is Music
Allyn, Bacon

Let some of your children move like the "lazy man" and others move like the "busy man." Ask the children who are watching the dancers to see if they can guess what they are doing.

Play slowly, once through, for the lazy man. Play fast, once through, for the busy man.

Bells: |:8 8 6 – |8 8 6 – |7 7 5 7 |6 – – – :|
C C A C C A B B G B A

|3 3 6 6 |3 3 – – |3 3 6 6 |3 – – – |
E E A A E E E E A A E

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observational experiences of the World of Work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of community workers each student will be able to list five workers and tell why they are important in the community.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

Introduction to World of Work

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show film or filmstrips. 2. Bulletin board idea: LET'S THINK AHEAD 3. Read poems and sing songs and dramatize. 4. "Our Town" - Students write down what he will be when he grows up. Who would be missing if this were all we had in our town? Who else is important and why? (avoid stereotype occupations)	1. Students count number of jobs that are covered in film or filmstrip. Discuss workers students are aware of in the community and what they do; also why they are important to us. List work suggested on board. Discuss - What they think they want to be? What significance does occupation have? What do they know about the job that they want to do? 2. LET'S THINK AHEAD Draw around the shadow of each student's head (silhouette). Use filmstrip projector for light to make shadow. Before you discuss the work, have students think ahead to what they want to be. After you discuss the work, ask if any have changed their mind. 3. Teach the poems and songs and have children suggest dramatization.	1. Filmstrip/record: #101 "Wally the Worker Watcher" World of Work series. Dennoyer-Geppert Film: Career and Costume Circus Communico 2. 3. Poems: "When You're Grown Up" Grace Nash (attached) "What Would You Like to Do" (attached) "Future Plans" (attached) Song: "When I Grow Up" (attached) Life In Our Community, Book I "Father's Work". Gel-Sten

SUGGESTED CORRELATION FOR THIS ACTIVITY:

WHAT WOULD YOU LIKE TO DO?
By Gayle L. Kloppenburg

What kind of work would you like to do?
When you're all grown up and not in school

Would you like to be a doctor who helps
make people well?
Would you like to be a salesman with
something fine to sell?

Would you like to be a pilot flying high
up in the air?
Or a fireman or a policeman helping
people everywhere?

Would you like to teach nice boys and
girls to read and write and spell?
Whatever job you choose to do, work
hard and do it well!

WHEN YOU'RE GROWN UP

When you're grown up as big as me
What do you think you are going to be?
These magic shoes will help you to walk,
So, please put them on without any talk,
Lace them up tight and then you can be,
A policeman or doctor, mother or teacher,
space pilot, driver, a nurse or a preacher.
Everyone practice until I clap three,
Then each on will show what he wants to be.

by Grace Nash

FUTURE PLANS BY HARRIETTE WILBUR PORTER

MY BROTHERS AND THEIR PLAYMATES ALL
KEEP PLANNING WHAT THEY'LL DO
WHEN THEY ARE VERY BIG AND STRONG
AND EDUCATED, TOO.

JOHN WANTS TO BE AN ENGINEER,
AND CARL A PASTRY COOK.
AND GEORGE WILL GO TO PRACTICE LAW,
AND BEN WILL WRITE A BOOK.

TOM SAYS HE'LL BE A CARPENTER
DON WANTS TO BE A COP.
AND BOB WILL KEEP A GROCERY STORE
OR ELSE A CANDY SHOP.

THEY'RE ALL SO FULL OF BUSINESS PLANS
THEY WON'T HAVE TIME TO BE
THE PRESIDENT IN WASHINGTON
WHICH LEAVES THAT JOB FOR ME!

From the Instructor, F. A. Owens, Pub. Co.

When I Grow Up

Music and Words by Judy Rector
Adapted

Brightly

C

1. What do you want to be when you grow up?

C G

What do you want to be?

C7 F

What do you want to be when you grow up?

C G7 C

What do you want to be?

Second stanza—piano accompaniment as before

2. I'll be a doc-tor when I grow up,

That's what I want to be.

I'll be a doc-tor when I grow up,

Just you wait and see.

Sing the first stanza to the children. Then ask one child, "What do you want to be when you grow up?" After he tells you, let him sing about it—along with you, if he needs help in singing. Your voice, quietly in the background, will give him confidence until he is able to sing by himself. Both boys and girls enjoy telling what they want to be when they grow up. Perhaps "a teacher," "a nurse," "a dancer," "a cowboy," "a space man," "a carpenter," or "a pilot" will be suggested. As you sing, adapt the rhythm of the song to the pattern of the words.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Following discussion and use of filmstrips, each child will be able to write three reasons why people work.

SUGGESTED SUBJECT AREA Social Studies

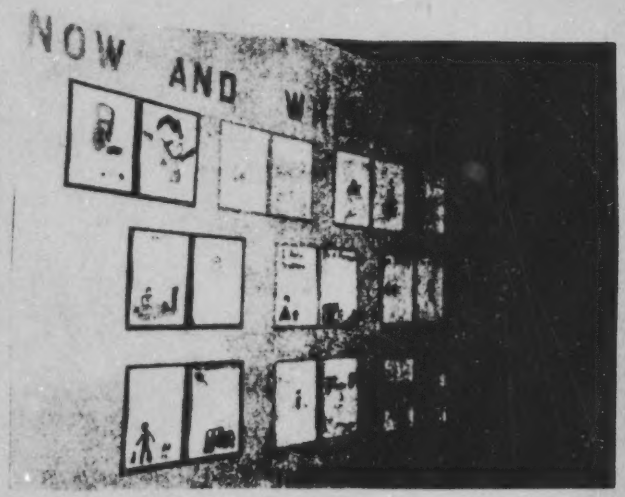
SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books.	1. Discuss: a. Children recognize parents as community helpers. b. Why do parents and neighbors work? c. What do they have to do with some of the money.	1. Books: Friendly Workers Around Town Hefflefinger and Hoffman, Children's Press. About Men At Work, Radlauer, Ruth Children's Press. Mommies at Work, Merriman. Scholastic Book Service
2. View filmstrip	2. Discuss what parents do at home and the need for jobs outside of their homes.	2. Filmstrps: 201 "What Else Do Fathers Do?" 202 "Just What Do Mothers Do?" World of Work series, Denoyer-Geppert 136-M "Fathers Work" Imperial 137-M "Mothers Work, Too" Imperial 107 "Some Neighborhood Helpers" Eye Gate House "People At Work", Eye Gate House
3. Resource people	3. Send out attached letter to parents of students that have	3. Parents, suggested letter

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	3. continued - jobs which apply to this grade level asking them to come in and discuss their job.	
4. Use bulletin board ideas of grouping workers with posters or sketch workers. (see attached sheet) Or use ideas of using hands.	4. Have children find which jobs they see in the filmstrips and what their parents do that are pictured on bulletin board. Group some workers as suggested on page 56.	4. Posters: Community Helpers Hayes School Pub. Co. Inc. Wilkinsburg, Penn.
5. Read poem.		5. Poems enclosed.
6. Sing song		6. "Helping Mother Bake a Cake" (attached)
7. Have each child take a sheet of paper home and trace their parent's hands.	7. Discuss with students how people work to be dependable and responsible.	7. 9 x 12 white construction sheets writing paper
8. Have students take the returned drawings and cut out the hands.	8. Ask students if they ever stop to think what their parents do for them.	
9. Have students trace and cut out letters spelling, "Home and Community Helping Hands" for bulletin board headings.	9. Discuss how each of their parents is a community helper as well as a helper at home.	
10. Have students mount hands of their parents on the bulletin board.	10. Discuss importance of hands.	
11. Have students write two or three sentences telling what these hands do.	11. Discuss how a doctor and a garbage collector both use their hands.	
12. Bulletin Board		



SUGGESTED LETTER TO PARENTS

Alternative: Interview

Dear Mr. _____
(parent or guardian)

The students in our class are studying about the importance of all types of work. We want to learn more about the work of each of the parents of all the boys and girls in _____'s class.
(child's name)

Would you answer these questions for us and send it to school by your child? We will study how your job affects our lives.

1. What is your job? _____

2. What are some of your duties? _____

_____

3. Is there anything about your work which the children in our class would enjoy seeing (pictures, materials, tools, uniforms, etc.?

_____

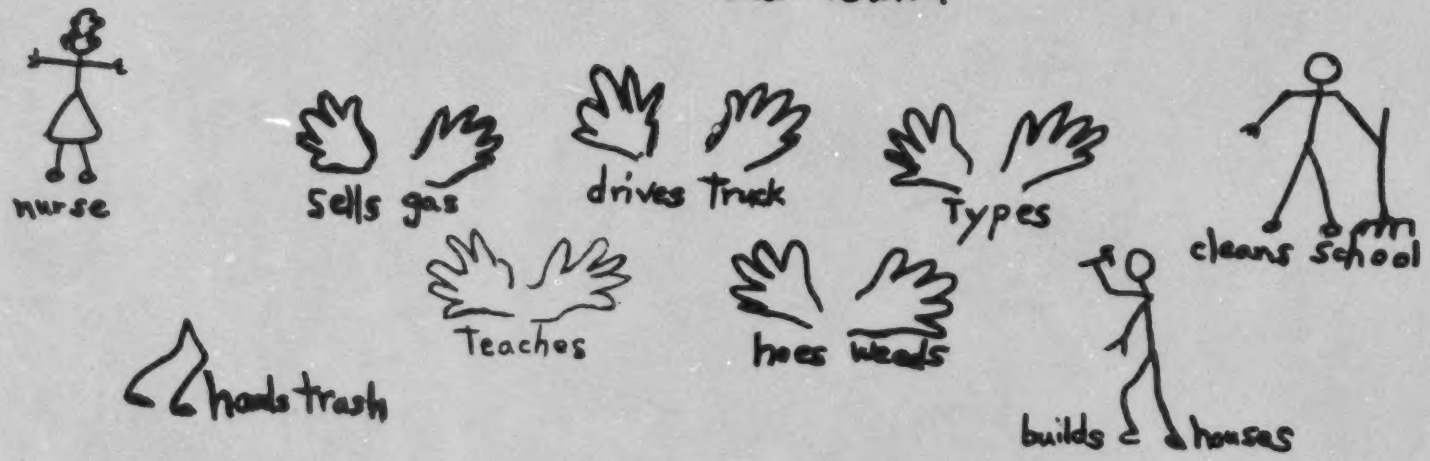
_____

4. Would a field trip to your place of employment be beneficial at this grade level? _____

Thank you for your consideration.

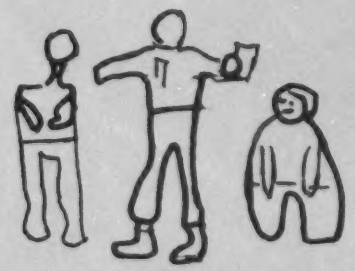
_____
Sincerely yours,
(teacher)

Who Works In Our Town?

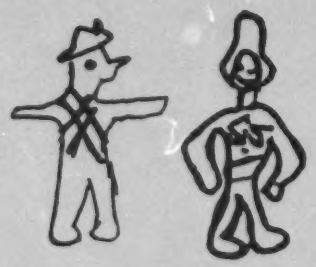


In our town workers...

build things

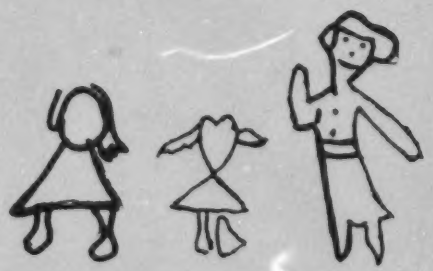


protect us



repair things

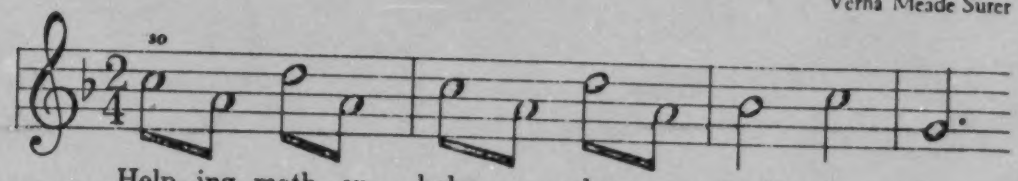
help us learn



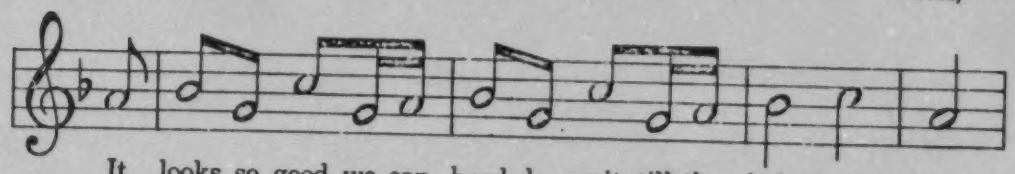
Helping Mother Bake a Cake (p. 229)

V. M. S.

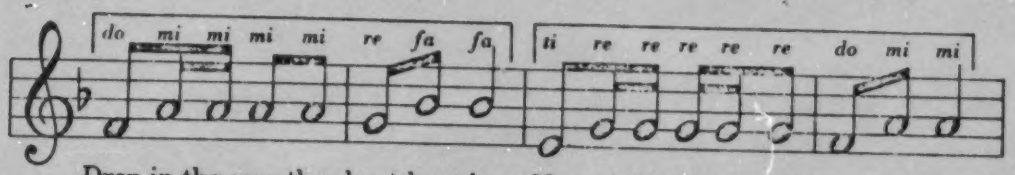
Verna Meade Surer



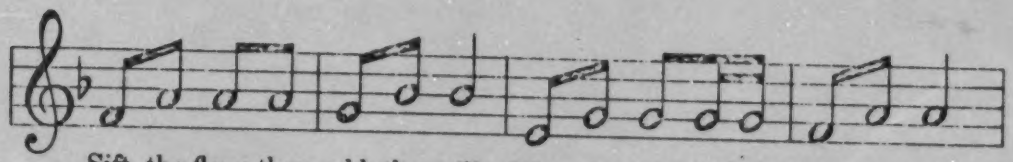
Help - ing moth - er bake a cake we think is fun,



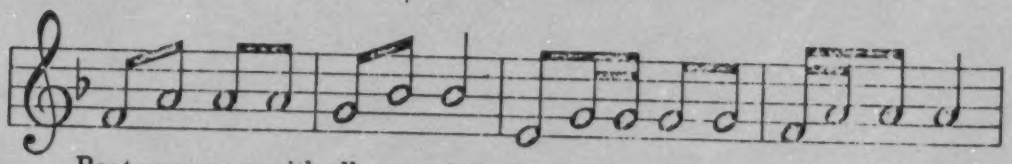
It looks so good we can hard - ly wait till the bak - ing's done.



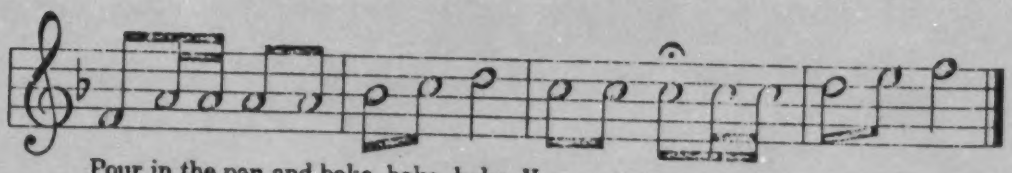
Drop in the eggs then beat, beat, beat, Now add the sug-ar to make it sweet,



Sift the flour, then add the milk, Stir, stir, stir, till it's soft as silk.



Beat once more with all your might, Just to be sure it's fluff-y and light;



Pour in the pan and bake, bake, bake. Yum, yum, yum, can't you taste the cake?

Taken from:
Singing and Rhyming, Book 3. Ginn

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate student's knowledge of workers that produce goods and those that produce services each student will list two workers that produce goods and two workers that produce service.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip	1. Discuss with aid of picture charts: a. Jobs that provide products and services. b. Let the children name jobs or services some parents do. c. What do these people need to know in their jobs? d. Why are these skills or jobs so important to us?	1. Filmstrips: "City Helpers" Our Community Helpers series. Long filmslide "William, Ramon, Andy and Five Friends at School" BFA 1. We Learn on a Trip 2. Finding Our Way
2. Use Chart	2. Use small pictures of members of families and make a chart of the skills of their parents or people they might know who give service to others.	2. Picture Charts "People Who Come to my House" "People in the Neighborhood" Child's World, Inc.

Worker	Things they do	People who use the help
MOM	cooks shops cleans	Our family
DAD	paints houses	Everybody in town

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

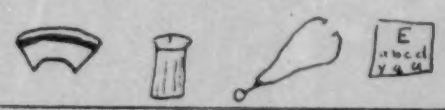
BROAD OBJECTIVE: Develop the child's awareness that positions are related within job families.

SPECIFIC BEHAVIORAL OBJECTIVE: After introductory activity each student is able to name four workers within the area of those who protect our health.

(People who protect our health)

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Make bulletin board display of pictures, information or articles the children may bring or create that pertains to this family of workers. People Who Protect our Health 	1. Motivate discussion by asking for a list of workers that protect our health. Doctor, Nurse (Medical or dental) Dentist, Garbageman, eye doctor, etc. Introduce the unit with any one of suggested activities listed in the activity column.	1. Picture Posters: SP-124 "Hospital Helpers" SVE Flannel Board: #150 "Community Helpers" Instructo
2. Pictures, tools or trade uniforms. 3. Make up riddles about these workers. 4. Use filmstrips. 5. Make a booklet of creative stories or ditto pages for each using cover design of hats, caps or equipment of workers. 6. Book.	2. Show pictures of tools or uniforms and have children guess which job it represents. 3. Children read or tell riddles and let them name the worker. 4. Discuss filmstrip.	2. 3. Made by teachers or children. 4. Filmstrips: 107-A "The Neighborhood Doctor" 107-B "The Neighborhood Nurse" 107-C "The Neighborhood Pharmacist" 107-D "The Neighborhood Optometrist" Eye Gate House "Our Health Department" Encyclopaedia Britannica 6. About Friendly Helpers for Health and Safety, Hoffman, Hefflefinger. Melmont

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Develop the child's awareness that positions are related within job families.

SPECIFIC BEHAVIORAL OBJECTIVE: After pictures have been displayed children will be able to match number of pictures with the name of the worker.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Teacher presents the picture story study prints to children.	1. As an introduction or as a review these pictures with records, stories, things to talk about, words to know and suggested things to do provide much help and instructional aids for the teacher to use as she wishes.	1. SP-124 "Hospital Helpers Society for Visual Ed a. Surgical Group b. Ambulance Helpers c. Reception desk helpers d. Doctor examing patient e. Preparing patient for X-ray f. Nurse and aide g. Dieticians check food h. Physical therepist
2. Bulletin Board	2. As children have been introduced to prints arrange them on a bulletin board and name each worker. Later number each picture to accomplish behavioral objective.	2. Letters "Hospital Helpers" on bright color background for display.
3. View film	3. Discuss and have children relate their own hospital experience.	3. Film: #2485 "The Hospital" Encyclopaedia Britannica

SUGGESTED CORRELATION FOR THIS ACTIVITY:

72

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observational experiences of the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completing activity about the doctor each student shows that he is aware that school is a part of preparation for a career by relating how school prepares a person to become a doctor.

SUGGESTED SUBJECT AREA Social Studies

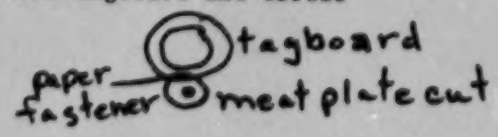
SUGGESTED GRADE 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books from resource list.	1. Who do you call when you or a member of your family becomes ill or is injured. In what ways does he help us? What education or training do they need?	1. Books: True Book of Health, Haynes. Childrens Press Boy Doctors-Will and Charlie Mayo, Hammontree. Bobbs-Merril I Want to Be a Doctor, Greene. Childrens Press How Doctors Help Us, Meeker, Benefic Press Doctors and Nurses-What Do They Do?, Greene. Harper Come to Work With Us In a Hospital, Wilkinson. Sextant About Dr. John, Thompson. Melmont About Jill's Checkup, Jubilier Melmont
2. Use a real stethoscope. Have the children listen to each other. Use a thermometer. Weigh and measure the children as the doctor or nurse does.	2. Weigh and measure children. Chart information for future reference for growth.	2. Bring Thermometer and stethoscope, scale and measurement tools.
3. View filmstrip	3. Review the work that a doctor does to protect our health.	3. Filmstrip: "The Doctor" Community Helpers series Long Filmslide Service Filmstrip/record: "Doctor's Office Workers" Community Workers and Helpers-Group 1 SVE

continued

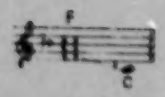
SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Sing Songs		4. Music: "Miss Polly Had a Dolly", This Is Music, Allyn Bacon (attached) "For Health and Strength", Making Music Your Own, Silver Burdett (attached)
5. Make Hat	5. Use tagboard and circle 	
6. Role play	6. Put on uniform (old white shirt) and hat that kids have made and role play operation. Use stethescope and different tools that you have available or that children have drawn.	6. old white shirt - hats that kids make.
7. Film		7. Filmstrip: 107-A "Doctor" Eye Gate House Film: #2743 "The Doctor" Encyclopaedia Britannica

74

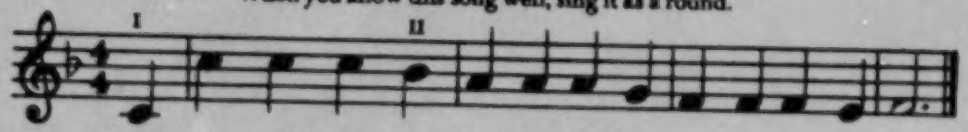
▷ *For Health and Strength*



Old English Round

Taken from:
Making Music Your Own
Silver Burdett

When you know this song well, sing it as a round.



For health and strength and dai - ly food We praise Thy name, O Lord.

On another day, have the children outline the rise and fall of the melody by moving their arms in the air as they sing this round.

You can play an introduction to this song and continue the pattern throughout the round just as in "Scotland's Burning." Page 33.

In this song, the tonal center is F. It is in the first space of the staff. Find F on the tuned bells. Start by counting F as "one." Count up five bars on the lower row to C. Play this fifth step of the scale; play the C an octave below; play the tonal center, F.

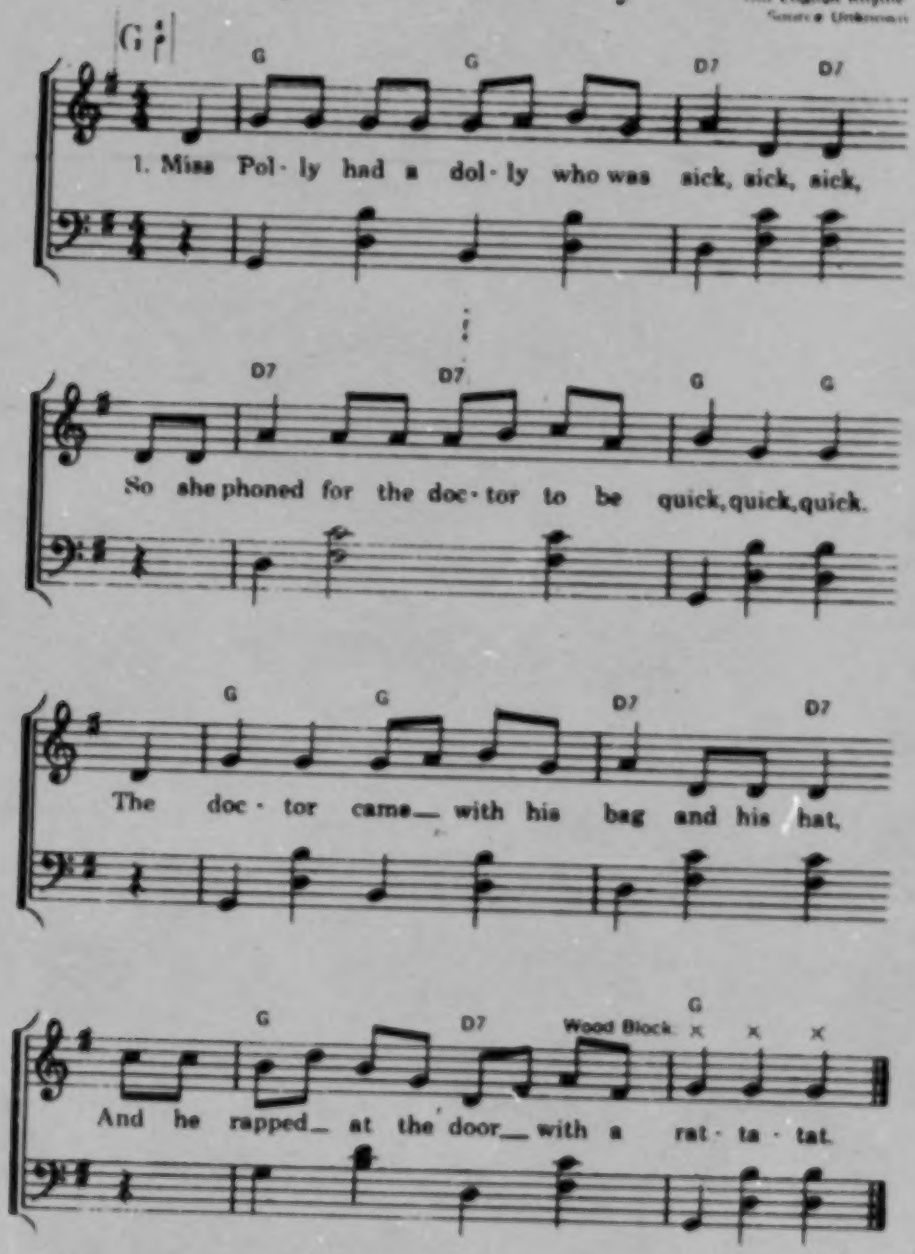
Point out to the children how F relates to the group of three bars on the upper row of the tuned bells, how C relates to the group of two bars.

This is how the introduction looks when it is written on the staff:

[illegible] for "Scotland's Burning." Point out to the children that in [illegible] the tones is the same. Both introductions follow the pattern [illegible] the tonal center, although the tonal center [illegible]

Miss Polly Had a Dolly

Old English Rhyme
Source Unknown



2. He looked at the dolly and he shook his head;
Then he said, "Miss Polly, put her straight to bed."
He wrote on a paper for a pill, pill, pill,
"I'll be back in the morning with my bill, bill, bill."

Taken from: This Is Music, Allyn Bacon

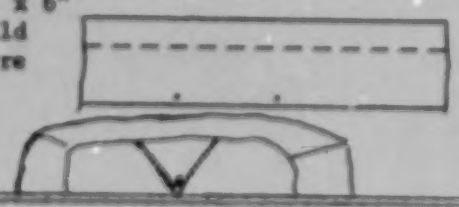
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activities student will be able to demonstrate at least one way that a nurse helps a doctor.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books from list	1. Discuss the work that a nurse does a. What kinds of nurses are there? (school - medical - dental)	1. I Want to be a Nurse, Children's Press, 1224 Van Buren St. Chicago Ill 60607 About Miss Sue, the Nurse, Frances B. Thompson, Chicago, Ill, Melmont 1963, Gr. 3 I Know A Nurse, Marilyn SchimaR.N. and Polly Bollam, Putman
2. View filmstrip	2. Following filmstrip ask: a. What training or education do they need? b. How does a nurse help a doctor? c. What kind of a person do you think a nurse should be?	2. Filmstrips: "The Nurse" Community Helper Series McGraw Hill, Color, Gr. 1-3
3. Make a Nurse's cap	3. Make a nurse's cap. 18" x 6" Fold Here 	3. Nurse's cap - 12x18" white construction paper.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Make play: with a nurse kit Dress up in nurse type uniform Have a few girls dress up in white and act out a skit they have made up.	4. Role play	4. Nurse uniform (white shirt) nurse's cap
5. Write a poem.	5. Write a short story about a nurse and draw a picture of a nurse. Cut paper in symbol for creative writing. (cap shape)	
6. Sing Songs		6. Song: "The School Nurse" Making Music Your Own, Silver-BurdettCo Gr. 3
7. Bulletin Board	7. Nurse's Name — yarn — Picture of	7. Yarn, picture of nurse
8. Put together "nurse puzzle".	8. Within experience or learning center or individual activity - children put together puzzle of nurse.	8. Community Helper Puzzle NURSE Developmental Learning materials
9. Filmstrip		9. 107-B "The Neighborhood Nurse" Eye Gate House (filmstrip)
10. Resource Person	10. Explain to nurse that she should role-play different operations and shots - blood pressure.	10. School nurse.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of the work of an eye doctor each student will be able to state at least one thing about an eye doctor's work.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use the eye chart - check childrens eyes with the Snellen "E" Chart	1. Display picture of eye. What does an eye look like? Why do we need to visit an eye doctor?	1. Sellen eye chart
2. Read book	2. Discuss Story	2. Pictures of the eye Book: About Glasses for Gladys, Mary K. Eneson, Chicago, Ill. (Melmont) 1962 Gr. k-3
3. View filmstrip	3. How can the eye doctor help you? What training or education does an eye doctor need?	Filmstrip: "Optometrist" 107-D Neighborhood Helpers Series Eye Gate House.
4. Resource person	4. Have eye doctor come to talk to class.	4. Resource person
5. Puppet Show	5. Have children act out (with puppets) the importance of wearing your glasses and child going to get glasses. Try to improve the image of wearing glasses.	5. 2 puppets, eye doctor, child, teacher

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Following reading and discussion of books student will be able to write at least three sentences telling what a dentist needs to know.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Start a tooth brushing check each morning. Display large dental posters.	1. Why should we brush our teeth?	1. Tooth brushing chart
2. Read from book list	2. How can we keep our teeth strong and healthy? Why do we need to visit the dentist? How often? How important is education to a dentist?	2. Books: I Want to Be a Dentist, Greene. Childrens Press; So You Want to Be a Dentist, Greenberg. Harper & Row; About Jack's Dental Checkup, Jubelier. Childrens Press
3. Write - Poem - Story or riddles on a shaped paper.	3. Write a poem or riddle about a dentist.	5. Resource person
4. Art	4. Make a tooth picture.	6. Filmstrips: "The Dentist" Community Helper Series. McGraw-Hill; "The Dentist" Our Community Helpers Series II. Long Filmslide
5. Resource person - Dental Nurse	5. Visit from a resource person.	7. Songs: "All My Teeth" (attached); "The Dentist", Music For Young Americans, Grade 1, pg. 29. American Book Co.
6. View Filmstrips		8. Chair for "patient" and white shirt for dentist to use.
7. Sing Song		9. "Dental Health Coloring Book" from Health Department
8. Role Play	8. Have children role play the dentist and what he does.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Use during Dental Health Week

All My Teeth

WORDS BY MADELEINE A. DUFAY
FRENCH FOLK SONG

Home tone: B♭
Starting note: F (*so*, 5)

The translation of this gay song retains the idea of the original French text.

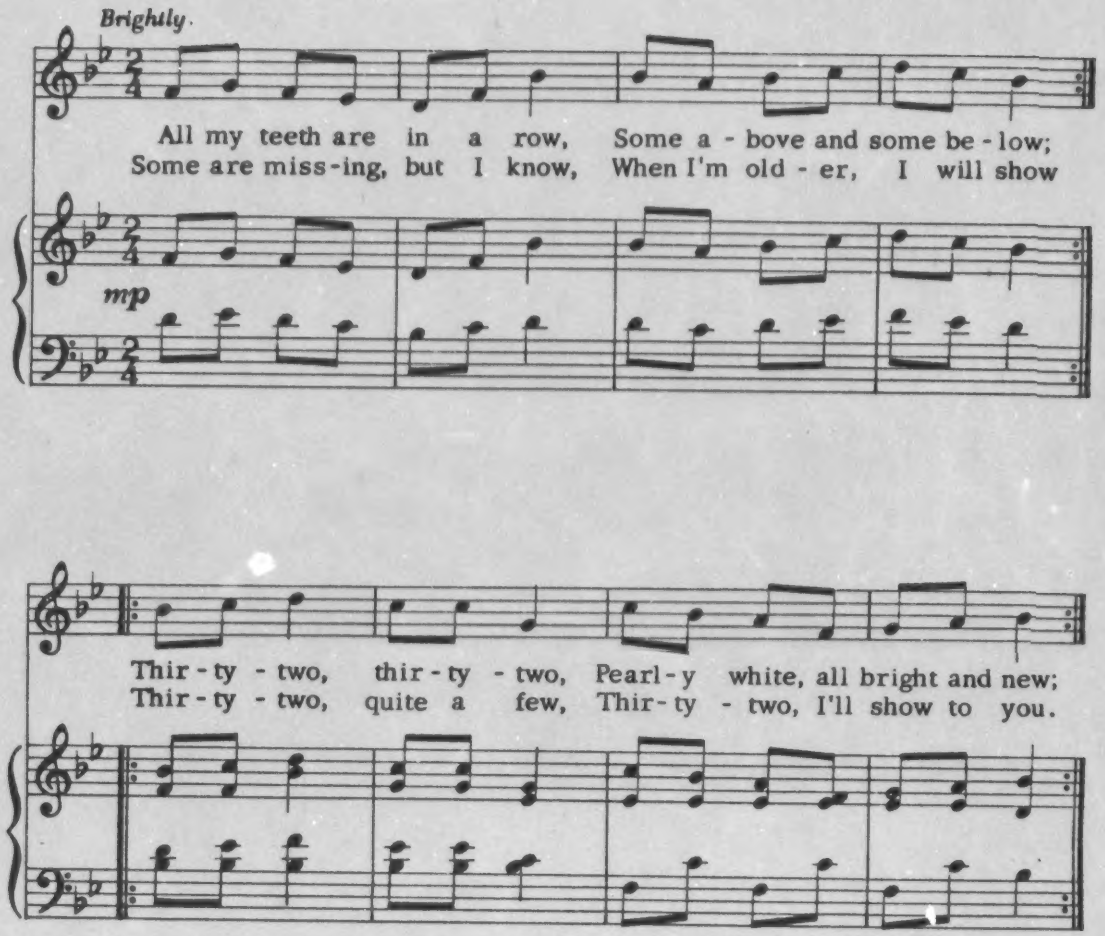
MUSICAL LEARNING

- This song should be sung very rhythmically and in a detached staccato style.
- To help the class see the relationship between the rhythm of the words and the melody, have them say the words before they sing the song.
- Point out to the children that only two kinds of notes are used in this song (♩) and (♫). The words we say quickly are set to eighth notes. The words we hold onto are set to quarter notes. (Both kinds of notes can be drawn on the chalkboard.)

RELATED ACTIVITIES The children might be interested in discussing teeth, starting with the 20 baby teeth and proceeding to the wisdom teeth which bring the adult set to 32.

SUGGESTED ACCOMPANIMENT The boys and girls may clap or use rhythm sticks, or pencils on desks, marking two beats per measure throughout the song.

RECORDING This recording has been made by a child, joined by a chorus of children. The xylophone, playing sharply in thirds, provides an accompaniment that suggests two rows of teeth.



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: After completing the activities student is able to state at least five reasons why the garbage man is important in protecting our health.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Pick up garbage around the school yard. 2. Read stories 3. View filmstrip 4. Draw four step picture tracing the garbage they pick up. 1 | 2 3 | 4 5. Resource Person	1. How can we help the garbage man? 2. How do garbage men help protect our health? Is it a hard job? Why? Is it an important job? Why? Who would make a good garbageman? 3. Discuss filmstrip 4. Write the 4 steps of garbage disposal a. Child puts in can b. Garbage man picks up c. Big white truck takes to dump d. Dump being covered over with dirt 5. Have someone come from the Sanitation Dept. to explain what is involved in the job.	1. Large paper sacks. 2. Books: Clean Streets, Clean Water, Clean Air, Chapin, Albert Whitman and Co. Let's Go to a Sanitation Dept. Cochran, Johanna. G. P. Putnam I Know A Garbageman, Williams. Putnam 3. Filmstrip: "The Sanitation Department Crew" Community Helpers Service #1-2 McGraw Hill - textfilm division 30 W. 42nd Street New York, New York 5. Resource Person

SUGGESTED CORRELATION FOR THIS ACTIVITY: Environmental Education, Earth Patrol, Weekly Reader

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Following the activity each student will be able to draw a picture showing at least one way that a community helper protects us.

SUGGESTED SUBJECT AREA Social Studies

People Who Protect Us IV

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books	1. Who protects us? Do any children have a protecting job? (Life guard - junior patrol)	1. Books: You Visit a Fire - Police Station Leonard Mashover, Chicago, Ill. Benefic Press, 1965 - Gr. 1-3
2. Display posters	2. Use posters to display and discuss.	2. Posters: SP-119 "Police Department Helpers", SP-120 "Fire Department Helpers", SVE
3. Field trip to fire station or police department.		3. See Appendix B
4. View filmstrip	3. Use suggested guide 1. Which workers did you observe? 2. Did they wear a special uniform? 3. Observe the equipment used.	4. Filmstrip: Policemen & Firemen - Gr. 2 International Visual Edu. service 1960 "The Fireman" McGraw-Hill "Fire House" Community Helpers Series. G. P. Putnams Sons. New York (record also)
5. Children put together puzzles.	5. As individual project, or in activity center let children put puzzles together.	5. Community Helper Puzzles "Fireman" "Policeman" Developmental Learning Corp.
6. Make paper dolls	6. Make paper dolls and clothes for workers; let class handle and dress.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

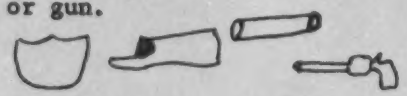
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Following the use of resource materials each student will be able to write at least three sentences to show that he is aware of the training and education of a policeman.

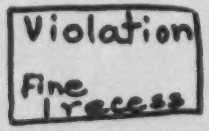
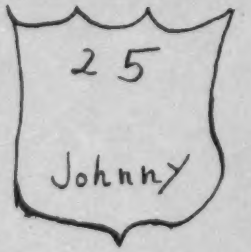
SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books		1. Books: About Policemen, Dillon. Childrens Press Your World-Let's Visit a Policeman, Pope. Taylor Publishing True Book of Policemen and Firemen, Miner. Childrens Press I Want to Be a Policeman, Greene. Childrens Press You Visit a Fire-Police Station, Mashover. Benefic Press Policeman Small, Lenski. Walch Squad Car 55, Barr. A. Whitman About Police Around the World, Landin. Melmont I Know a Policeman, Bruce. Putnam
2. View film or filmstrip		
3. Make child size drawing of a child. (Have them lay on the floor and draw around them.) Color clothes to show the uniform of the worker.	3. Let the children display uniform and tell what each worker does. Each child would listen carefully so child will have an original idea.	
4. Write a story, poem or riddle on a badge or hat or club or gun. 	4. Children choose a piece of equipment to draw and color. After writing is completed have children read them to the class. Display on bulletin board.	
5. Have a policeman come in and talk to the children.	5. Have children discuss with policeman. a. the equipment he uses.	
6. Sing Song		
7. Play Intersection game.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	5. cont b. How he helps people c. What training is needed	2. Film: Policemen, Gr. 2-3 11 min Sound color Britannica 1953
	7. Teach game of intersection for a physical education activity (attached)	Filmstrip: Community Helper Series -Policeman L.F. S. "Police Station" Community Helper Series, G. P. Putnams Sons NY (record) "Johnny the Fireman", SVE Community Poster, F. A. Owens Co.
8. Tickets	8. Have class make tickets Room violation ticket 	3. Large sheet of paper, colors
		4. 4½ x 6 inch sheets of construction paper.
		5. Resource person: Local policeman
9. Bulletin Board 	put on desks; remove if they aren't good citizens 	6. Songs - "The Traffic Officer" The American Singer Bk 2. (attached) "Policeman" Music In Our Town Silver Burdett. (attached)  Name tag for field trip.

CONTINUATION ACTIVITY SHEET

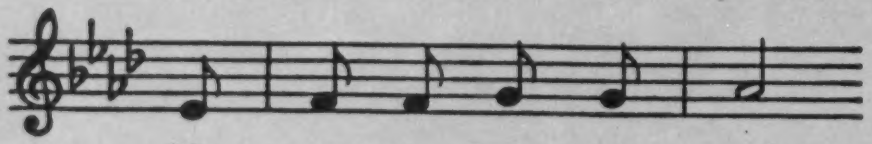
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
10. Role Play	10. Get from Police Dept. or make a hat, badge, and other things that a policeman uses and have children role play the different activities the policeman has. (traffic duties,etc)	10. Hat, badge
11. Fingerprint children. May put fingerprint on card with name and address for child to take home.		11. Stamp pad, paper
12. Make scrapbook	12. Have class make scrapbook on people who protect us. This scrapbook could be left in your classroom for a resource all year and then could be a special prize for something at the end of the year, or could be donated to the library for a resource material	12. Pcitures, stories, photos, and any other materials for your book (all made by kids.)
13. bulletin board		13. Enclosed Stop for Safety
14. Teacher presents the picture story study prints to children.	14. As an introduction or as a review these pictures with records, stories, things to talk about, words to know suggested things to do provide much help and instructional aids for the teacher to use as she wishes.	14. Police Dept. Helpers Sp.119 a. Traffic Control Officer b. Administering First Aid c. Crime Lab. In Operation d. Crossing Guard and Patrol Boy e. Roll call f. Target Practice g. Squad car officers h. Police Canine patrol S. V. E. Singer
15. Field trip		15. Field Trip Guidelines in Appendix B.

The Traffic Officer

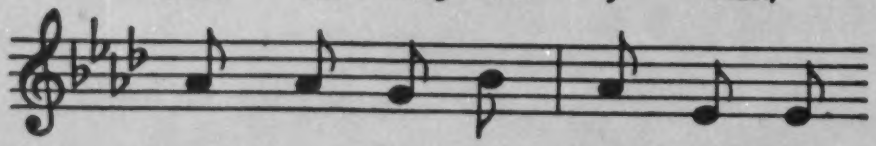
ROTE

J. W. Beattie J. W. Beattie

1. On our way to school each day
2. Some-times when we're near-ly late



We meet a friend-ly man,
And run-ning ver-y fast,



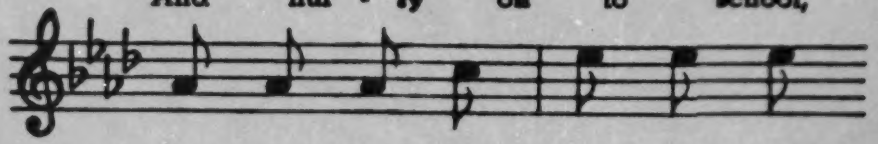
Dressed up in a u-ni-form,
Stop-ping us, he makes us wait

Taken From: The American Singer, Book 2.

He helps us all he can;
Till all the cars are past;

Stand-ing on the cor-ner there,
Then he beck-ons when to cross

He holds his hand up high,
And hur-ry on to school,



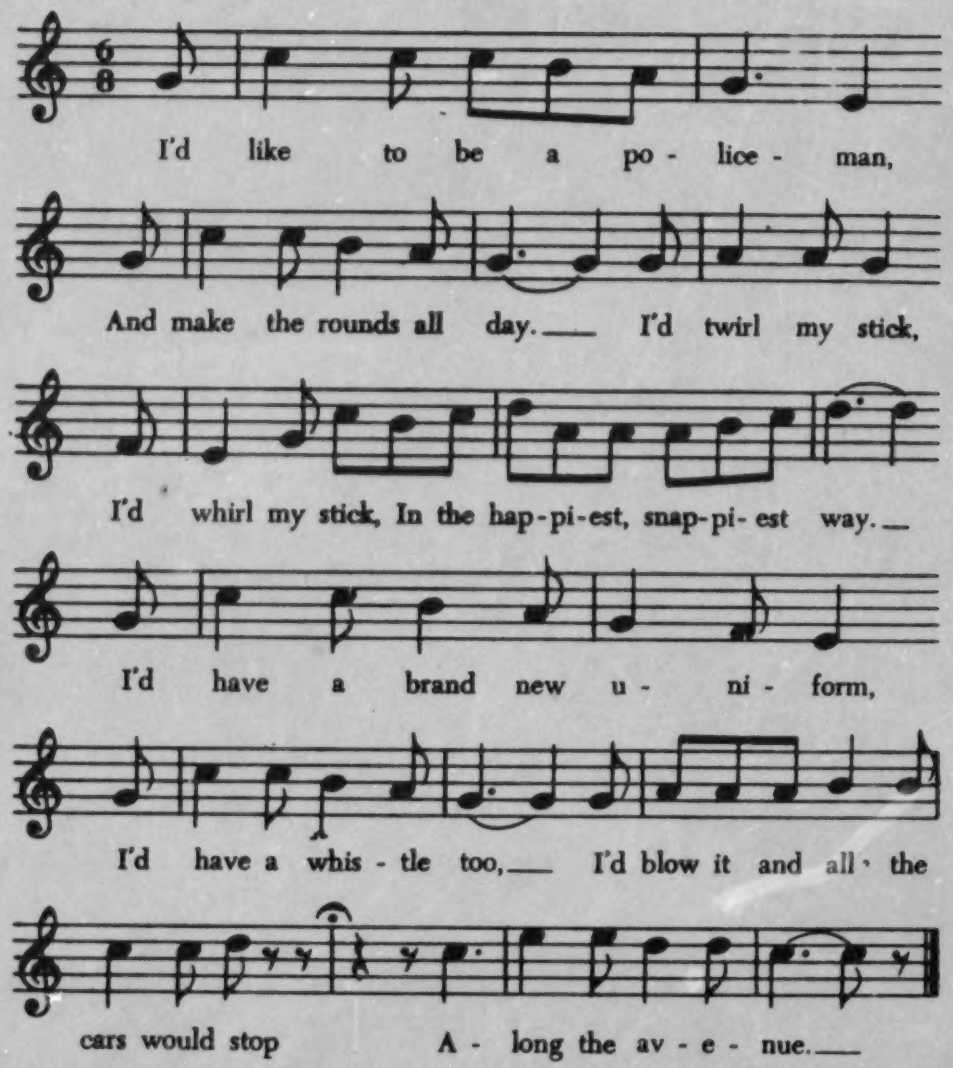
Stops the traf-fic in the street
Cau-tions ev-'ry-one of us:

Till we are safe-ly by.
"O-bey the traf-fic rule."

Policeman

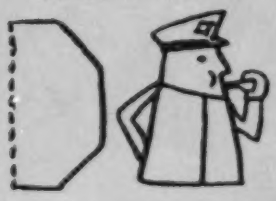
WORDS AND MUSIC BY ERNEST GOLD

Taken from:
Music In Our Town
Silver Burdett



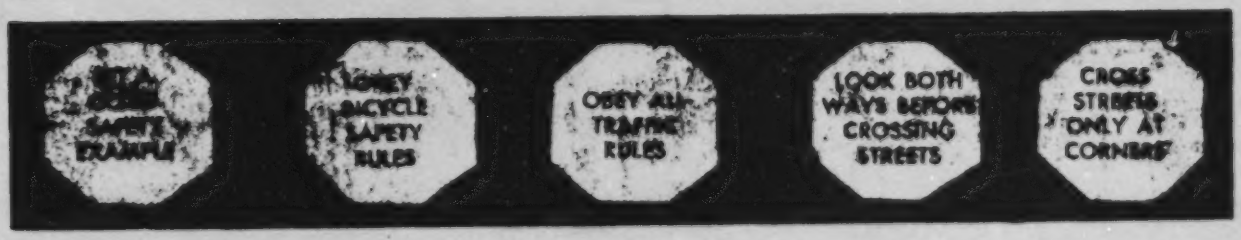
STOP FOR SAFETY

BULLETIN BOARD



A friendly traffic patrolman has a huge red stop sign behind him on the bulletin board. White cut-paper letters, "STOP," are added. Make a border of small stop signs that are printed with street and public safety rules. Point out that patrolmen are friends. Also remind that foolish daring can lead to danger. Each child might trace around a stop sign shape on white drawing paper. He might draw or paint a safety-approved scene.

CHILD'S PROJECT



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observation experiences of the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Following the use of resource materials each student will be able to recite at least five ways to show he is aware of the responsibilities of a fireman.

SUGGESTED SUBJECT AREA Social Studies

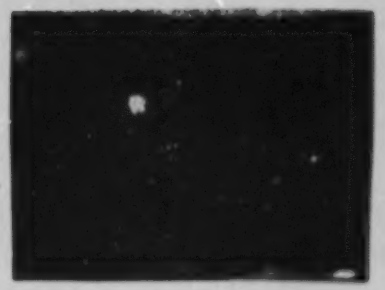
SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Take a trip to the fire dept. or view films and filmstrip.	1. Use suggested questions for trip given on separate sheet. What do you know about a fireman?	1. Field trip to fire station Guidelines -(attached)
2. Read books	2. Have children divided in groups to read the books in resource area.	2. Books: The First Book of Firemen, B. Brewster $2.81, Baker & Taylor Gladiola Avenue Memence Il 60954 I Want to Be a Fireman, Children Press About Firemen, Hefflefinger & Hoffman Fire Snorkel No. 7, Barr, Albert Whitman & Co. 560 W. Lake St. Chicago, Il 60606 Let's Find Out About Firemen Shapp, Charles & Martha, New York Franklin Watts, 1961 Gr. K-3 I Know a Fireman, Williams. Putnam
3. Write story, poem or riddles	3. Write a story about trip.	
4. Make a mural of a house that starts on fire.	4. Use large sheet of paper and have class work together as they show what happens when a house is on fire.	
5. Play the Fire Game (enclosed)	5. Follow the directions given. (attached)	Film - The Fireman - 15 min City Fire Fighters gr. 2-3 lo mins. Sound, B. W. Coronet 1947 Fireman on Guard - Gr. 2-3 11 min sound, color, Charles Cahill 1963 Cities and Protection - McGraw Hill 1968 Gr. K-3 10 min sound color (cont)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		2. continued Books: Helpers Who Work At Night Hefflefinger - Hoffman Your World - Let's Visit A Fire Station, Pope Song - "The Fire Station" Music for Young Americans (attached) 5. Toy telephone, local telephone directory
6. Physical Education Game "There's A Fire in the House"	6. This game is played like the "Squirrels in a Tree" except caller says "There's A Fire in The House" and children run to a new house	
7. Bulletin board		7.



CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
8. Teacher presents the picture story study prints to children.	8. As an introduction or as a review these pictures with records, stories, things to talk about, words to know, and suggested things to do, provide much help and instructional aids for the teacher to use as she wishes.	8. Fire Dept. Helpers sp. 120 a. Truck Company b. Engine Company c. Firemen with equipment d. rope drill e. Answering a call f. sleeping quarters g. fighting the fire h. fire safety instruction S. V. E. Singer
9. Verses for chanting		9. "Fire Fire" "The Fire Truck" (attached)
10. Examine fire extinguisher and how it works.		SPECIFIC GUIDELINES FOR TRIP: A. Explain very simply fire truck, uniform and radio room. B. Explain shifts C. Have someone slide down pole D. Let class try on boots and helmet E. Children draw a fireman's hat to be used as name tag

92

THE FIRE GAME (GRADES K-2)

A. Purpose:

To learn how to report a fire and make an emergency call. To assist in learning names and addresses and in giving directions.

B. Materials:

A toy telephone and the local telephone directory.

C. Introduction:

I hope that you will never have to report a fire but if you need to do so, I want you to know how. There are two ways we can get the fireman right away. Who can name one? Yes, we can use the fire box. (Discuss the use of a fire alarm box.) What is another way to report a fire? Yes, we can telephone. Do you know the number to dial for the fire department? Let's look it up in the telephone directory. (Older children will look for it. The teacher will find it for the kindergarten children and write it on the blackboard.) Would you like to play the "Fire Game"? (Select several children for firemen, one to report the fire and several for spectators and the home owner.)

Procedure - The home owner and spectators notice the fire. One child calls the fire department. He must tell them his name and address. When he does this correctly, the firemen will come and put out the fire. Change groups several times.

D. Variation:

Pictures may be made in the form of cartoons in which the children write what the characters are saying. Small children may draw the pictures, tell the teacher what to write and the teacher caption them. The activity may be used with the policeman instead of the fireman. The child will play that he is lost and must tell the policeman who he is, where he lives, and his telephone number so policeman can see that his parents are notified or take him home. A game in which names and addresses are placed on the board and the children must locate their own may be used for this same purpose.

E. Correlation:

Older children may write their names and addresses as writing and language work. Art may be a correlation.

Taken from:

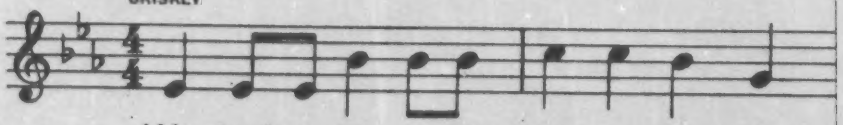
Music for Young Americans

How many phrases have the same tune as the first phrase?
How many phrases have the same tune as the second phrase
Find the phrases that have higher tunes.

The Fire Station

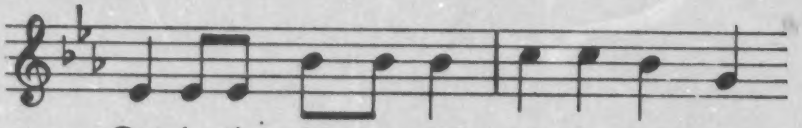
Words and Music by Richard C Ber

BRISKLY



We took a trip to the big fire sta - tion

In our neigh - bor - hood,

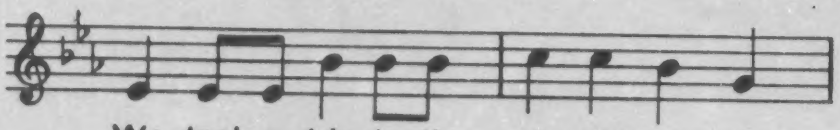


Sat in the shin - y red, big fire en - gine,

For the fire - man said we could;

Saw the men slide down the pole, as they real - ly do!

Saw their hel - mets and their ax-es, heard the si - ren, too!



We took a trip to the big fire sta - tion

In our neigh - bor - hood.

FIRE

Verse for chanting:

ONE GIRL: *"Fire, fire!"*
ALL: *Said Mrs. McGuire.*
ONE GIRL: *"Where, where?"*
ALL: *Said Mrs. Ware.*
ONE GIRL: *"Down town!"*
ALL: *Said Mrs. Brown.*
ONE GIRL: *"Save us, save us!"*
ALL: *Said Mrs. Davis.*
BOYS: *And along came the firemen,*
And saved every one of 'em.

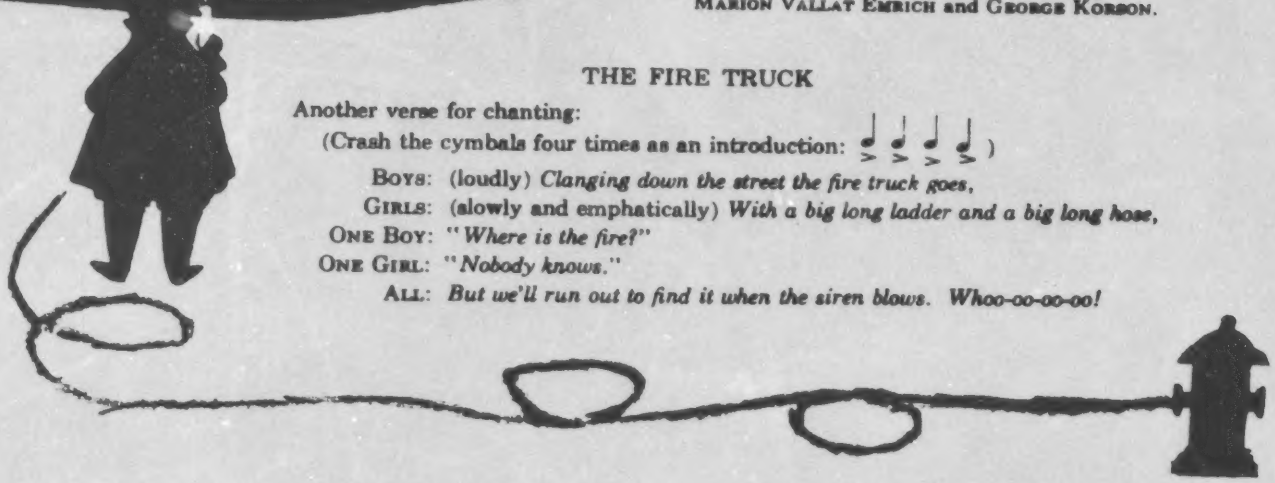
From *The Child's Book of Folklore*, edited by MARION VALLAT EMRICH and GEORGE KORSON.

THE FIRE TRUCK

Another verse for chanting:

(Crash the cymbals four times as an introduction: ♩ ♩ ♩ ♩)

BOYS: (loudly) *Clanging down the street the fire truck goes,*
GIRLS: (slowly and emphatically) *With a big long ladder and a big long hose,*
ONE BOY: *"Where is the fire?"*
ONE GIRL: *"Nobody knows."*
ALL: *But we'll run out to find it when the siren blows. Whoo-oo-oo-oo!*



General objectives:

To improve fluency in phrase reading, to introduce new words or give practice in review words or arithmetic skills, to correlate the social studies unit and reading

Kindergarten

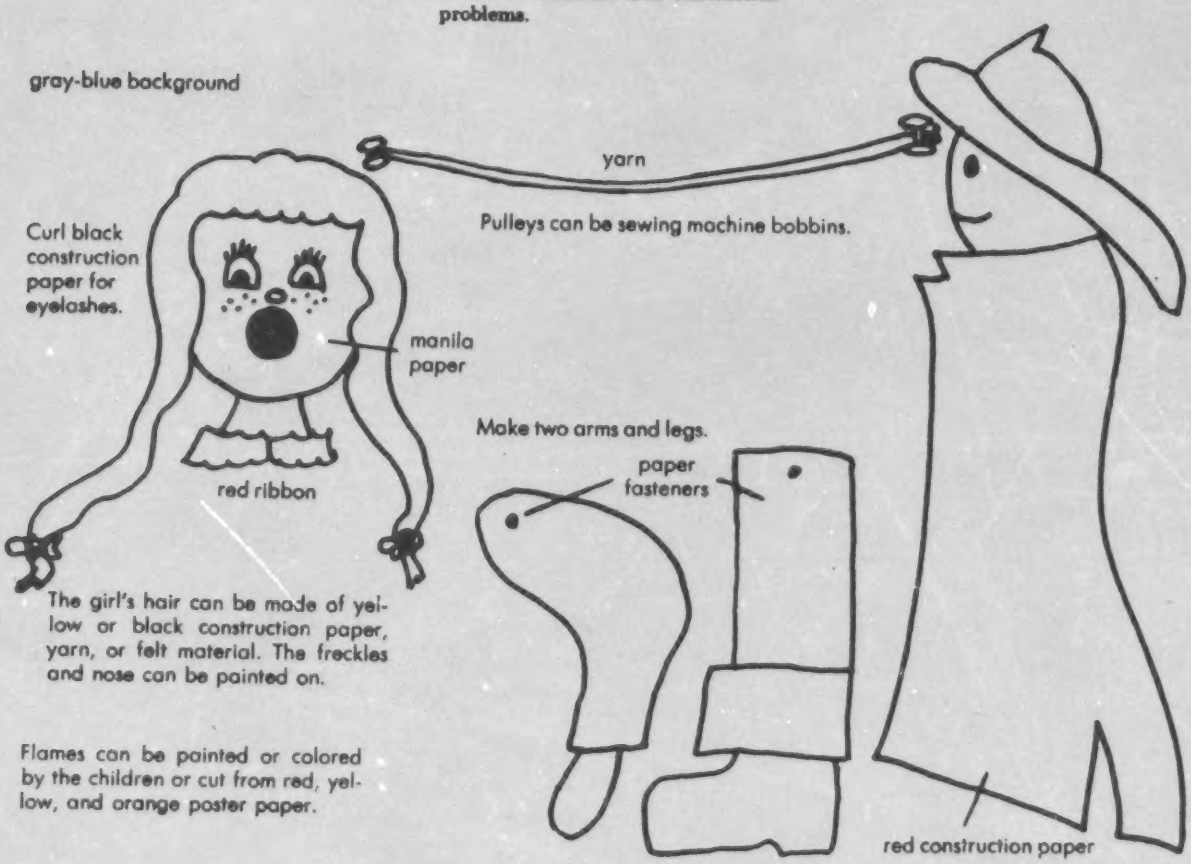
The rungs of the ladder should be numbers, number words, color words, or names of children. Fire prevention should be discussed and the class might dramatize what to do in case of fire at home or school.

Grades One and Two

Appropriate phrases may be changed frequently in order to stress fluency in new and review words. The child helps the fireman climb the ladder by pulling the rope and reading the phrases. The yarn rope can be removed from the lower pulley so that the child can stand closer to the phrases as he reads them. The ladder may be used also for spelling words or addition and subtraction problems.

Grade Three

Words such as "there", "where", "then", "saw", and "was" should be used in phrases to give practice in discrimination. New number words; e.g., "four hundred", "two thousand", or "five hundred twenty-one", could be on the ladder. Also, the ladder rungs could bear words to be looked up in the dictionary.



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to state at least five ways that the farmers helps to feed us.
Community Helpers
Who Feed Us.
Farmer

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip or film	1. Discuss why we need farmers in the community. a. Why is the farmer important to all of us. b. What food products come from the farm? c. What tools and machinery are needed on the farm? d. What workers are needed on the farm. e. What other community helpers does the farmer depend on?	1. Filmstrip: "An American Farmer" Encyclopaedia Britannica Film: "One Day on the Farm" Coronet 10 min.
2. Read books	2. Books may be used as independent reading followed by oral reports.	2. Books: I Know a Farmer, Nathan. Putnam I Want to Be a Farmer, Greene Childrens Press About Farm Helpers, Payton Melmont Let's Go to a Farm, Sootin. Putnam Let's Visit a Farm, Pope. Taylor Publishing The Little Farmer, Brown. Hale
3. Write short story and draw picture.	3. Following the reading and filmstrip a. Write a paragraph telling what they would like to do to help on the farm. b. Draw and color a picture showing what they would like to do on the farm and tell about it. Or make a mural as a class project telling	4. Songs: "The Mill", Making Music Your Own, Silver Burdett
4. Sing songs		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

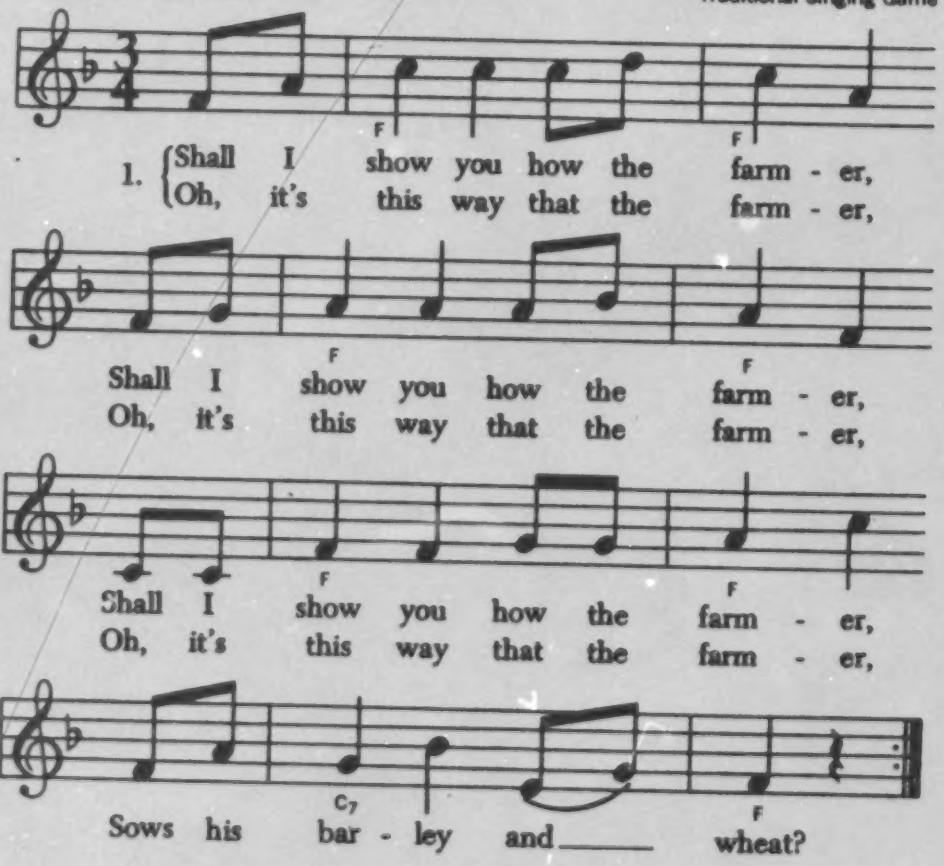
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	3. Con't - about workers on the farm.	4. Cont Songs "The Farmer" Discovering Music Follett Publishing Co, Chicago, Ill p. 48 "I Want to Be a Farmer", Music Through the Day, Silver Burdett Morristown NJ 1956 p. 58 "The Cowboy", Exploring Music, Grade 2, Holt Rinehart Winston "Sheep Are Coming Down the Road" Music in Our Town, Grade 2 Silver Burdett "Sheep Shearing" Making Music Your Own, Grade 3 Silver Burdett
5. Bulletin Board	5. Make circle board. Uncover one circle as you study that worker. Idea on pg. 109	
6. Make farm	6. Have class make or bring farm barn, horses; leave on display for class to handle.	6. Farm buildings and animals
7. Put puzzles together	7. Let children use puzzles as an individual project at an activity center.	7. Community Helper (Job puzzles) "Farmer" Developmental Learning Corp.
8. Make scrapbook of community helpers that feed us.	8. Children draw pictures, write stories, and teacher takes photographs of things dealing with this area. Use as a resource in library corner all year and then can be used as special prize for student at end of year or could be donated to the Library.	

The Farmer

Taken from:
Discovering Music
Follett Publishing Co.

Well accented

Traditional Singing Game



2. Mows his barley and wheat?

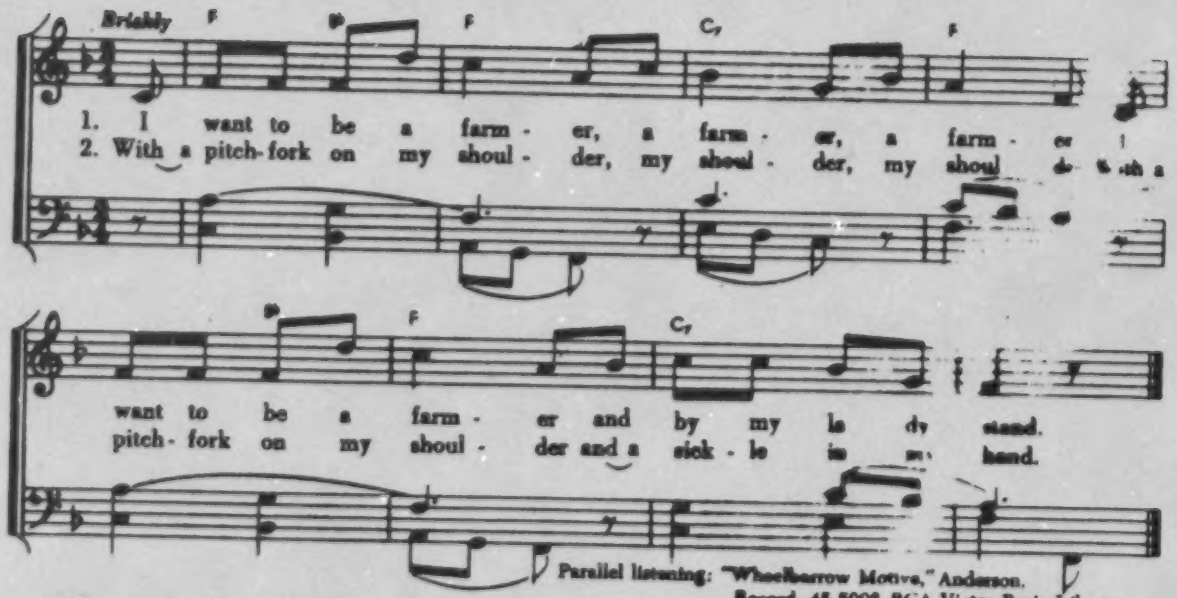
3. Threshes barley and wheat?

I Want To Be a Farmer

AMERICAN PLAY-PARTY SONG

Take from:
Music Through the Day
Silver Burdett

I went to drive a tractor, bring the cows from pasture . . cut and bale alfalfa. We can sing about and dramatize many of the farmer's chores.



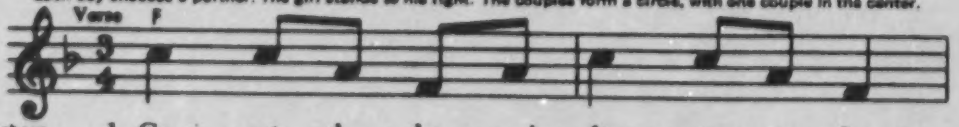
Parallel listening: "Wheelbarrow Motive," Anderson.
Record 45-5002, RCA Victor Basic Library.

▷ *Sheep Shearing*

English Words by Sam Blum Swedish Folk Song

Years ago people had to do everything by hand to get the sheep's wool ready to be woven into cloth. They sang as they worked and danced to their song after the long job was done.

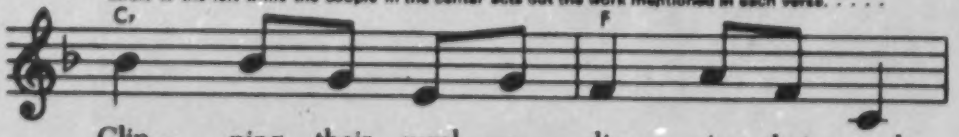
Each boy chooses a partner. The girl stands to his right. The couples form a circle, with one couple in the center.



1. clipping the sheep
2. carding (combing) the wool
3. spinning the wool
4. dyeing the wool

1. Go get the sheep, we're clip - ping to - day,
2. Tell Moth - er dear we're card - ing to - day,

Circle to the left while the couple in the center acts out the work mentioned in each verse. . . . .



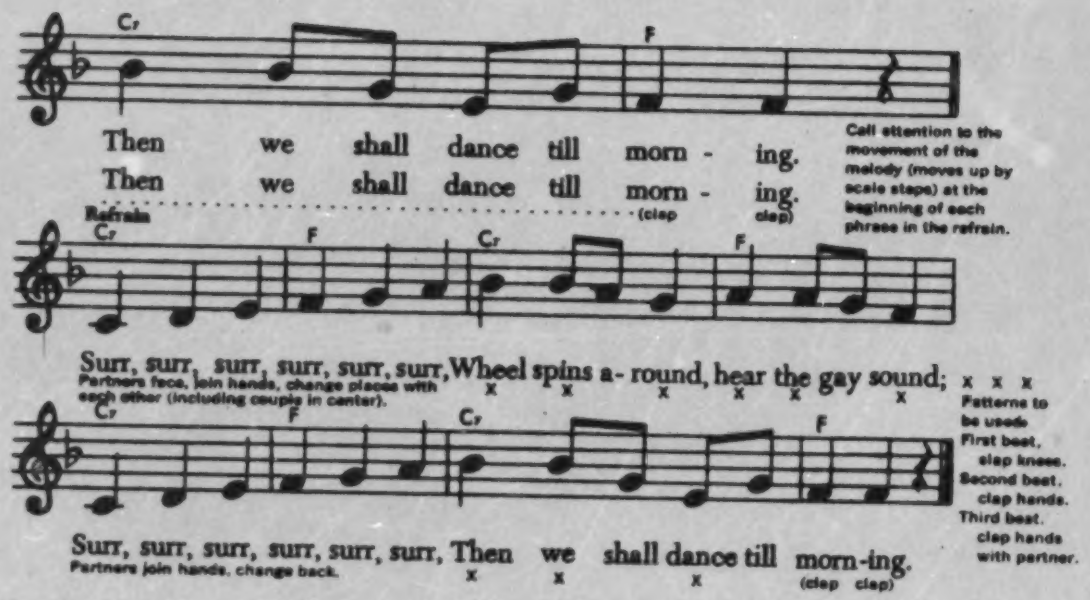
Clip - ping their wool, yes, clip - ping their wool
Card - ing the wool, yes, card - ing the wool

So we can knit some stock - ings for you,
So we can knit a scarf for her, too,

Circle to the right. . . . . .

Taken from: Making Music Your Own, Grade 3, Silver Burdett

102



3. Tell brother John we're spinning today,
   Spinning the wool, yes, spinning the wool
   So we can knit a lace for his shoe,
   Then we shall dance till morning.

4. Tell sister Jane we're dyeing today,
   Dyeing the wool, yes, dyeing the wool
   So we can knit a sweater of blue,
   Then we shall dance till morning.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of types of farming, each student will be able to differentiate between specialized and diversified farming.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrip or film	1. Discuss the different types of farms and how they are changing.	1. Filmstrips: "Farm Fathers" Series I and II Long Filmslide Service "To A Ranch" Eye Gate House "Cattle Raising" #54-G Eye Gate House Films: "Where Does Our Meat Come From" 11 min. Coronet
2. Read books	2. Discuss the new words these farm fathers need to know.	2. Books: True Book of Cowboys, Martini. Childrens Press Let's Find Out About Cowboys, Shapp. Franklin Watts I Want to Be an Orange Farmer, Greene. Childrens Press
3. Class project	3. Divide the class into two groups. Have one group construct a model of a diversified farm and one a specialized farm.	3. Small plastic animals, toy machinery, toy farm buildings.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Develop an understanding that some workers produce goods others produce services.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of the dairyman each student will be able to draw at least three pictures of dairy products that are delivered by the dairyman.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View Film, Adventures in Dairyland and discuss.	1. Discuss who some of the workers are that help feed us.	1. Film - Adventures in Dairyland 28 min. color, American Dairy Assoc. Dairy Farm 15 min, Coronet
2. Read books about the dairyman.	2. How many different workers are there on a dairy farm?	2. Books: I Know A Dairyman, Stanek Muriel, Putnam, 1970 I Want to Be a Dairy Farmer, Greene, Carla Children's Press At the Dairy, Hastings, Childrens Press. Let's Visit the Dairy, Pope B. Taylor Publishing Co. How We Get Our Dairy Goods, Banks Majorie Ann. Benefic Press, 1963 Gr. 2-4, Chicago, Ill Come to Work With Us in a Dairy Sextant Series. Ice Cream for You and Me Join Us For Lunch More Milk Please Delivering Milk to the Home plus many other materials for a minimal charge from National Dairy Council 111 North Canal Street Chicago, Ill. 60606
continued		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
3. View filmstrips pertaining to the dairyman.	3. Name the milk products we eat that the dairyman furnishes us.	3. Filmstrip: "The Milkman" Our Neighborhood Helper, Series Gr. 1-3 Jam Handy 1966 "The Milkman" Our Community Helpers Series L.F.S. Resource material from National Dairy Assoc. See appendix Film - From Cow to Carton, #2878 Excello Corp- Classroom Service Dept Modern Talking Pictures 912- Lyndale Ave. S., Mpls. Mn 55420 (order and pay postage)
4. Display cutouts from magazines of various milk products for a bulletin board.	4. Children make a bulletin board with teacher.	
5. Chart story.	5. Develop with the class a chart story titled: "Our glass of milk depends on a chain of workers."	
6. Puppet play	6. Make puppets for class to use in play.	
7. Mural	7. Make mural for dairyman showing how milk gets from farms to homes.	
8. Teacher presents the picture story study prints to children.	8. As an introduction or as a review these pictures with records, stories, things to talk about, words to know and suggested things to do, provide much help and instructional aids for the teacher to use as she wishes.	8. Dairy Helpers (pictures/records) SP-122 Singer SVE

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will demonstrate in role playing a worker working at a job and other children will be able to illicite the name of that worker.

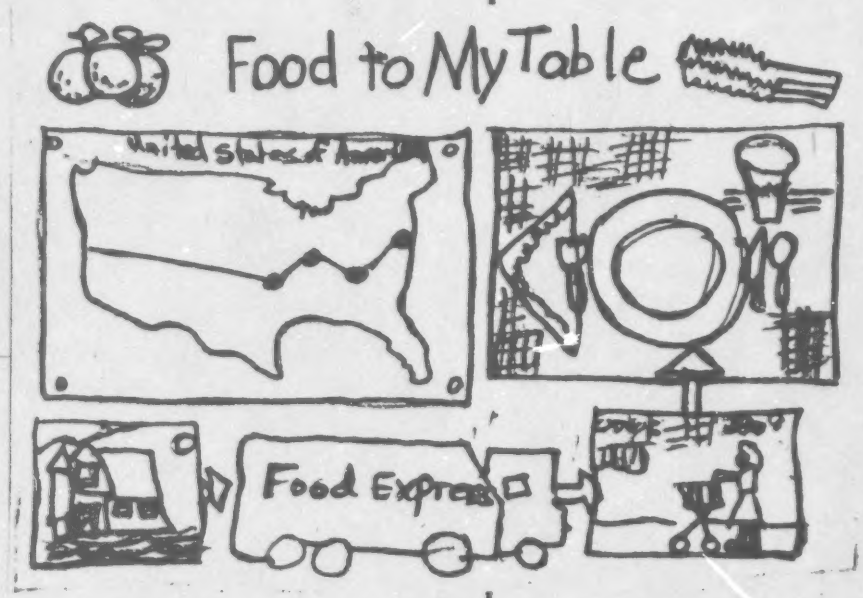
SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL Second

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read books and make up riddles about the various jobs involved in the supermarket. 2. Demonstrate role playing by using one of the worker's job. Display pictures. 3. Write a 'thank you' letter for the privilege of making a visit to the store. 4. View filmstrips or film 5. Sing Song 6. Bulletin Board. alternate idea of bulletin board on next sheet.	1. Use the suggested riddles (attached) to demonstrate a descriptive riddle. 2. Develop a play so children role play the many workers in the supermarket after a field trip has been made. 3. Teach the correct form of a 'thank you' letter and reasons for writing this kind of letter. Emphasize accepting the responsibility to be courteous to other people. 6. Arrange a 'thank you' bulletin board to show we are indebted to 1. People from far off places (e.g.) banana, pineapple 2. People who prepare foods (e.g.) canning or packaging. 3. Means of transportation (e.g.) truck driver.	1. Books- Pope, Billy N. Let's Go To A Supermarket, Taylor Publ. Co. Henriod, Lorraine. I Know A Grocer Putnam 1970 Godspeed, J. M. Let's Go to A Supermarket, Putnam 1961 N Y Buchheimer, Naomi Let's Go to A Bakery Colonius At the Bakery Greene, Carla, I Want to Be a Storekeeper, Childrens Press I Know A Baker, Iritani I Want to Be a Baker, Greene 2. Books- Role Playing Methods in Classroom, Science Research Assoc. Community Activities poster (ditto activities) Set 2 F. A. Owen Teach resource book 4. Films- Stores in Our Community, 11 min., color or b/w Coronet Instructional Films The Food Store (2nd edition) 13 min color or b/w Encyclopedia Britannica (Cont)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
 7. Review with Singer materials	7. Use as materials suggest.	4. continued - People Who Work in Stores Coronet Behind the Scenes at the Supermarket 11 min. color or b/w Film Assoc. of California Filmstrips: "Shopping For Groceries" J. H. 187 OF #5 "A Family Shopping Trip, Society for Visual Education "Supermarket Workers" SVE "My Dad Works In A supermarket" 136-5 Imperial Film Co. "Shopping For Groceries J.H. 1870 #5 5. Song: "Supermarket" This Is Music Allyn Bacon Gr. 2, 1961 7. Supermarket Helpers - Singer S. V. E. A. Serving Produce - customers B. Store Dairy Manager C. Stocking Shelves D. Preparing Meat E. Checking Out an order f. Unloading products G. Packaging Produce.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Following completion of this activity sheet each child will make a picture of foods needed for a nutrious breakfast.

SUGGESTED SUBJECT AREA: Health, Science, Math

SUGGESTED GRADE LEVEL: 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Resource person	1. People bring their own pictures and tell stories about several foods.	County Extension Agent Grocery store checkout girl Grocery store bag boy
2. Set up a supermarket in the room.	2. a) What workers would help you when you go to the supermarket? b) What do you need to have with you before you go to any kind of store? c) What do you need to know about math that would help you in the store?	2. Grocery boxes, cans, toy register, toy money #9315 Milton Bradley Aids.
3. Role play visits to the "pretend" store.	3. Let the children use toy money, letting some be a checker, stock boy, carry out boy, and go to the store to make purchases	
4. Plan a bulletin board emphasizing the foods for a good breakfast (or other meals). Bulletin board emphasizing packaging - pounds, ounces. (attached)	4. Use a white background with blue lettering for contrast. Pump could be yellow with read circle. Insert picture at the top. Place on yellow circle first to simulate glass, basket or plate may be used.	4. White background paper, blue letters, yellow and red construction paper. Pictures of varieties of breakfast food.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	4. continued - Use variety of breakfast foods for the border.	4.
5. Class plans a breakfast and all items needed to be purchased at the store.	5. Role play the job of the housewife planning a nutritious breakfast.	
6. Take a field trip	6. Discuss the various workers children observed at the store. Let them list the various departments they were aware of while at the store. Following this, class may sing "Groceryman."	6. Song: "Grocery Man"
7. Make breakfast	7. Serve the breakfast to the class.	7. Groceries as needed by class.
8. Field trip to Montana-Dakota Utilities Co.	8. Take a trip to MDU especially for food services and home economists.	8. Materials from MDU. See Appendix B for fieldtrip guideline

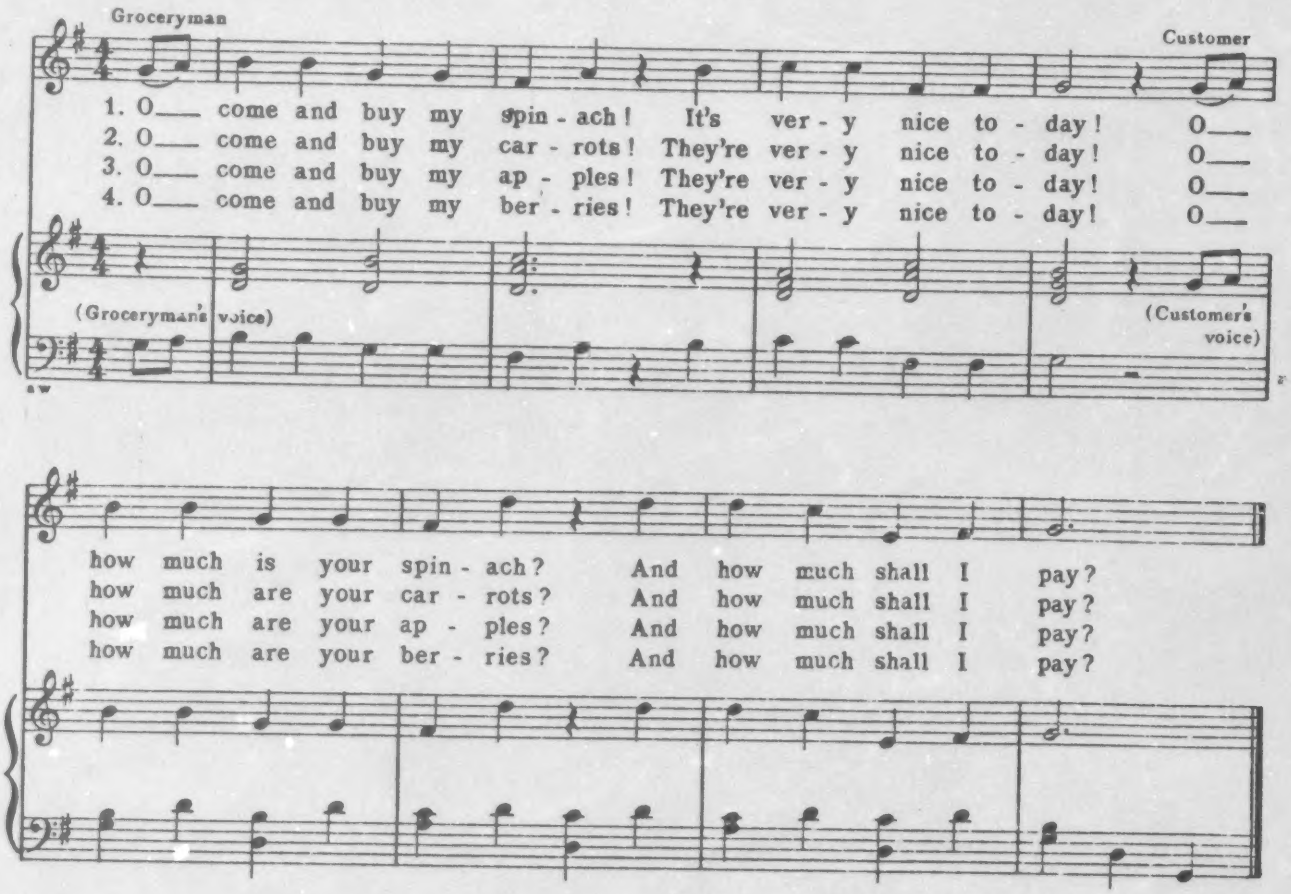
Taken from: Rime, Rhythm and Song for the Child of Today
Schmitt, Hall & McCreary

Groceryman

FLORENCE MARTIN

BILLY WHITLOCK
Arranged by F. M.

This song provides a variety of activity. The "groceryman" and "customer" phrases may be divided between two children, two groups, one child and a group, a group and one child, or between the boys and the girls. Have pupils suggest other items of food with two syllable names such as: lemons, peaches, turnips, lettuce, onions.



I Can't Do That Sum

Key: C Starting Tone: ♪ (5)
Meter: $\frac{2}{4}\left(\frac{2}{\text{♩}}\right)$
Piano accompaniment on page 260

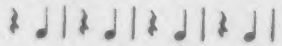
EXPRESSION: This song was written by Victor Herbert nearly fifty years ago. It is from an operetta (a play with spoken dialogue, songs, and dances) called "Babes In Toyland." Mr. Herbert wrote many plays with music. His gay, singable melodies were favorites of the children's great-grandparents.

- MELODY: Listen to the record a number of times before singing the song. Draw attention to the fact that the melody skips up a little higher at the beginning of each of the first three phrases. The fourth phrase moves gradually downward to the home tone.

- RHYTHM: Notice that the rhythm of the song moves with two tones to a beat most of the time. Draw attention to the rests which occur in the first two phrases. Ask the children to chant the words as one child taps the beat.

After the song is familiar, challenge the children to tap the rhythm while they think the words and melody.

This pattern ♫ ♩ might be played on a wood block or tambourine as an accompaniment. Play finger cymbals each time a number is sung in phrase one.



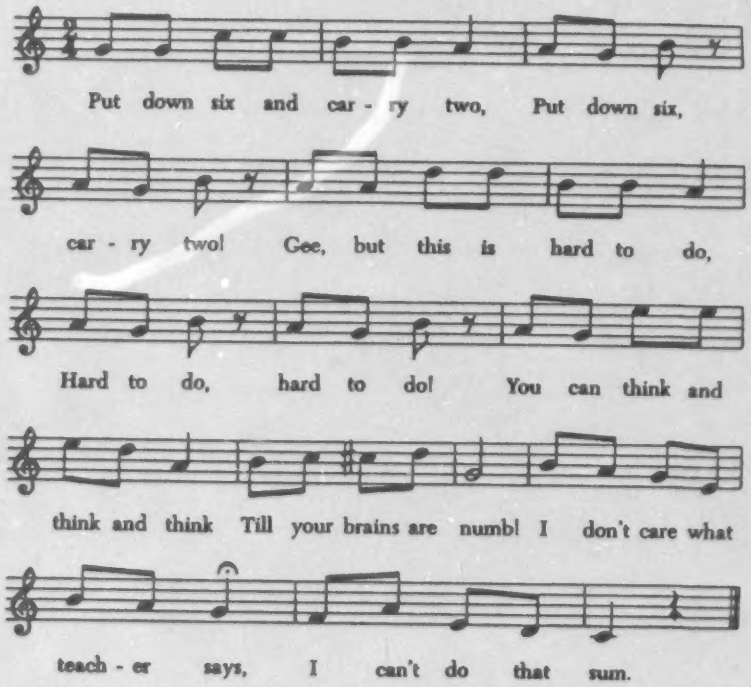
Repeat this pattern throughout the song.

Taken from:
Exploring Music, Holt, Rinehart

I Can't Do That Sum

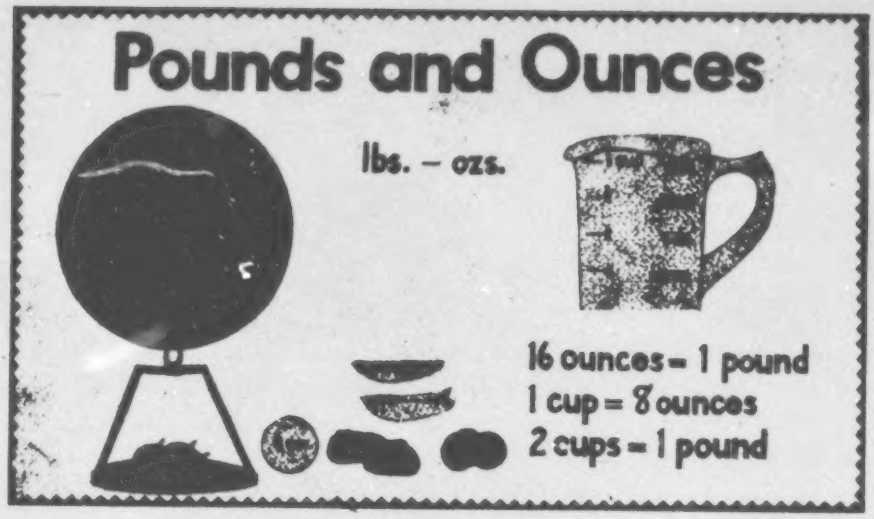
Music by Victor Herbert
Words by Glen MacDonough

When you have learned this song, [illegible] the suggestion in question 5 on page 1[illegible]. Listen to the recording. Is this accompaniment like the accompaniment you planned? In what ways is it different?



Record 6 Side B Band 5. VOICES: children's choir.
ACCOMPANIMENT: piano, percussion.
FORM: Instrumental; Vocal.

Pounds and Ounces



General objectives:

To teach vocabulary and abbreviations for words denoting measurement, to teach concepts of pounds and ounces, to teach the relationship of measuring by cup and scales, to promote interest in discovering actual weights

Kindergarten

Two children together can place an apple and an orange on the scales and move the indicator to show the number of ounces they count. A third child can add an orange and count three more ounces. When a pound is reached, the turn is up for the children who count to the total of 16. The cup can be simplified and used to show how Mother uses it for measuring one half cup, two cupfuls, or two and one half cupfuls.

Grade One

The teacher and pupils can discuss how various items such as potatoes, sugar, and flour are weighed. Use simple oral addition problems such as: "Each potato weighs four ounces. Put three potatoes on the scales and show how much they weigh altogether. Is that weight more or less than a pound?" Use the cup for counting by two's to find how many ounces there are in two cups. Have the pupils find one half cup and one fourth cup in measurement. Let them discover whether a grapefruit weighs more than a cup of sugar. Ask the children to find the weights on sacks of flour and sugar, boxes of raisins and cereals, etc.

Grade Two

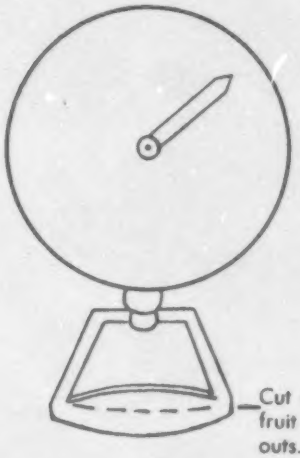
Teach the sound of the vowel blend "ou" in "ounce" and "pound". Introduce written problems in adding weights of fruits and vegetables. Have the children check their answers by showing the corresponding weights on the scales. Introduce the meaning of the equal sign by helping the class measure with a real measuring cup while giving such rules as "16 ounces *equal* one pound", etc.

Grade Three

Use written problems in addition and multiplication for finding the weights of fruits and vegetables. The children should learn the fractional parts on the scale and the cup.

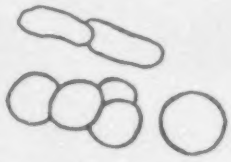
Scales:
Approximate weights are printed on fruits and vegetables that the children draw or cut out. The children place an item on the scale and move the indicator to show the proper weight. Addition or multiplication may be involved by using groups of three bananas, four grapefruit, etc.

Cup:
The cup can be covered with Saran Wrap; and sand, representing sugar, can be poured behind the Saran Wrap to give the effect of filling the cup to one fourth, one half, etc.



Cut a slit here to insert fruit and vegetable cutouts.

Keep the colors of the fruits and the vegetables as similar as possible to the colors of the real ones.



Tape the Saran Wrap securely in back so it can hold the "sugar" (sand).

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to demonstrate knowledge of the source and usefulness of the basic food groups and the different kinds of workers needed to produce this food.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL Primary

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCES
1. Field trip to MDU	1. Home Economist demonstrate and group the different foods in the basic food groups and explain how each group is useful to our bodies.	Science text Magazines from home North Dakota Wheat Commission 316 N. Fifth St., Bismarck, ND 58501 Nutrition kit available free from National Livestock & Meat Board 36 South Wabash Ave. Chicago, IL 60603
2. Read Unit on "Foods" in our Science textbook	2. Discuss foods usually used for breakfast, lunch, dinner and snack.	Filmstrips: Shopping for Groceries, Jam Handy #1875 My Dad is a Poultry Farmer " Cattle Rancher " Fruit Farmer " Truck Farmer The Milkman Long Filmslide Service 7505 Fairmont Ave. El Cerrito, Calif. 94530
3. Meal posters for bulletin board.	3. Children hunt through magazines at home and in school for colored food pictures suitable to plan "This is a Good Breakfast - A Good Lunch - and a Good Dinner" posters. Display posters.	
4. Make Food Mobiles	4. Get Food Mobile packets from North Dakota State Wheat Commission.	
5. Use Nutrition kit	5. Use kit to correlate Study of Foods with study of sets in Math.	
6. Filmstrips	6. Help young children become aware of: a. the different sources of our foods - discuss foods from each source - how made available to us. b. the different types or kinds of workers needed to produce food.	From SVE Singer The Story of Fruits and Vegetables The Story of Meat The Story of Bread The Story of Milk

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Art activity	7. Draw pictures of "I Would Like to be a....." (workers learned from this unit - home economist, home agent, grain farmer, dairy farmer, rancher, cowboy, ice cream man, butter maker, cheese maker, truck farmer, fruit grower, etc.) Display childrens pictures.	Film: "The Food Store" Encyclopaedia Britannica #1587
8. Library books	8. Independent reading and browsing for own pleasure and to get information	Books: True Book of Cowboys, Martini, Childrens Press I Want to be an Orange Farmer, Greene I Want to be a Dairy Farmer, Greene I Want to be a Farmer, Greene Childrens Press Lets Visit the Dairy, Pope, Taylor Pub. Lets Visit A Farm, Pope, Taylor Pub. How We Get Our Dairy Goods, Banks Benefic Press Come to Work With Us in a Dairy, Sextant Series I Know a Farmer, Nathan, Putnam About Farm Helpers, Payton, Childrens Press About Food and Where It Comes From, Shannon, Melmont The Little Farmer, Brown, E. M. Hale On the Farm, Doesch Snipp, Snapp, Snurr and the Buttered Bread, Lindman, Albert Whitman Picture Posters: "Community Helpers" F. A. Owens Animal Picture Series "We All Like Milk" National Dairy Council, 111 N. Canal St., Chicago, IL 60606

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop the concept that people work for various rewards.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student is able to list at least five things that people can buy with money that they get for working.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 2

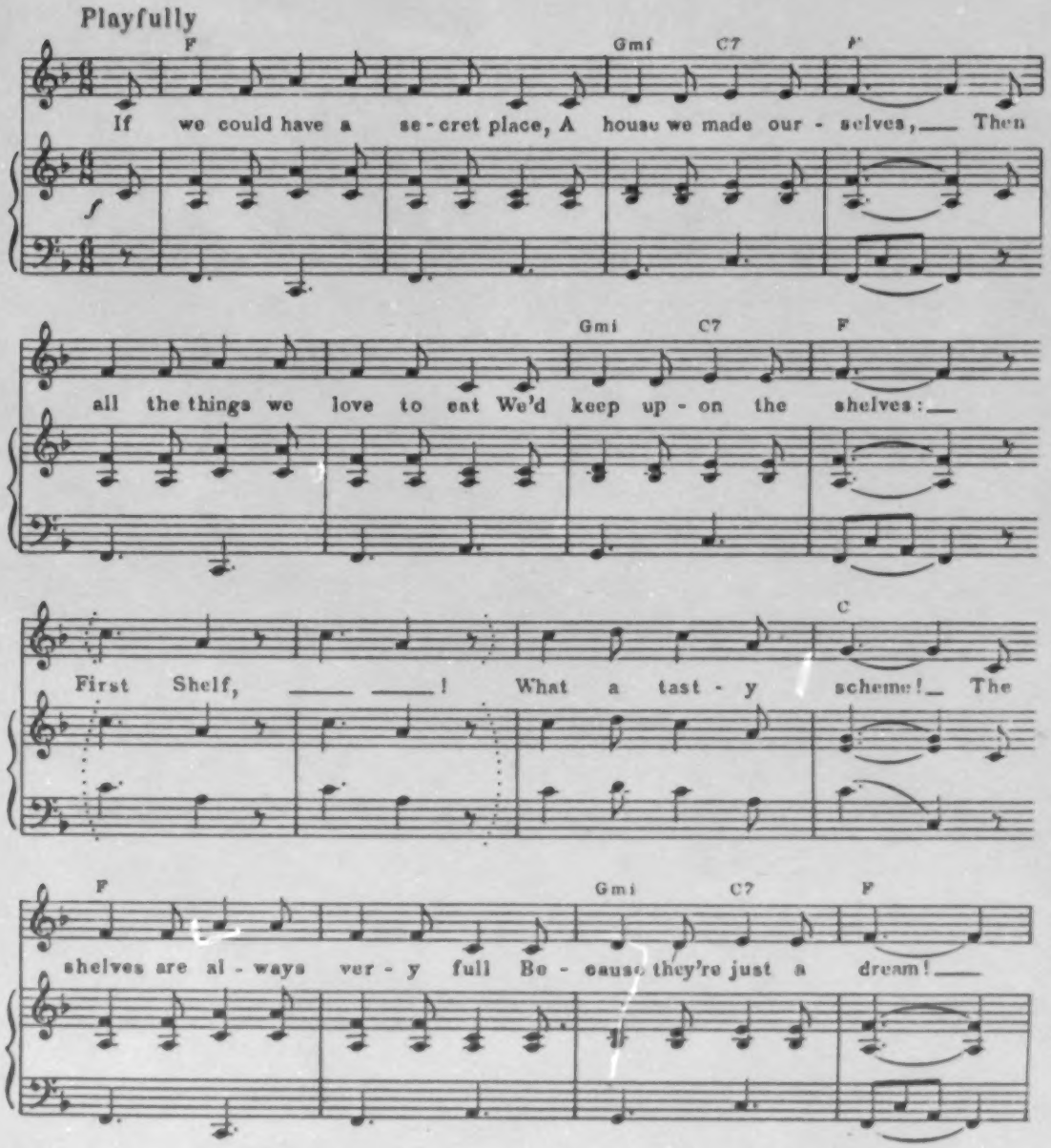
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View film or filmstrip		1. films: 16 mm Coronet film Using Money Wisely filmstrip: "Shopping for Groceries" 18 frames Jam Handy "Using Money Wisely" (filmstrip and record) Society for visual Educ.
2. Have students bring sales pages from their home newspaper. Use these to give students an idea of things that can be purchased with money earned for working.	2. Motivate discussion by asking open ended questions that could be answered in a variety of ways. Suggested questions: What was the most recent thing that you purchased? What would you buy on these sales pages if you had money? What are ways you could get money? Why do you think we use money? What are some other things you would like to buy that are not listed here? Have students make a list of groceries and price that they would buy for one week. Add up total cost.	2. Newspaper Ads Pictures: Learning About Money David C. Cook Publ. Elgin Ill 60120
3. Read book Danny the Dime and make picture.	3. After reading story have children make a picture of 'Danny' buying somethink they would like.	3. Books: Danny the Dime, James S. Kerr T. S. Dennison & Co. What Can Money Do, Barr, Jene Community Helpers Series Albert Whitman & Co Chicago, Ill
4. Sing Song		4. Song: Dream Shelves (Enclosed)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Use the store again for math concepts using small toys, books, etc. (see p. 97)	5. Set up a store in which you sell school supplies, candy, or used comic books which kids have donated from home. They could help mark, price and sell supplies They learn about profit.	5. Children bring used comic books or other articles from home. Articles purchased by the teacher.
6. Estimate number of cookies in a jar or slices in a loaf of bread or beans in a jar.	6. Why do people estimate? Who uses estimating in a supermarket or bakery?	

Dream Shelves



Allowing children to choose favorite foods for the shelves is good motivation for individual singing. For example, class sings "second shelf" and one child sings his own food choice. (See suggestions for aiding uncertain singers on page 31.)

Taken From:
Songs For Our Small World,
Schmitt, pg. 58

DIFFERENCE

Father likes coffee,
Mother drinks tea,
And I have milk, but
they
don't
ask
ME.

—Aileen Fisher

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student makes a chain of circles making a picture in each of the workers that help feed us.

SUGGESTED SUBJECT AREA Language Art

SUGGESTED GRADE LEVEL 2nd

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Develop a continuing experience chart about the people who work in the supermarket.	1. Introduce the new vocabulary within continuing experience chart.	1. Charts
2. Develop a bulletin board of related workers.	2. What would you like to be? (checker, butcher, baker, truck driver, manager. Have children name the workers related in the supermarket family. Cut a suitable size circle, make picture and label.	2. Construction paper, colors letters
3. Review workers - See attached sheet.	3. See attached sheet of stories with question What Is My Job? for examples -	3. Sheet of riddles
4. Bulletin board	4. Make circle bulletin board (see next page) and cover it. Uncover each worker as you talk about him. At the end cover all circles again and have class make chain.	4. pictures of workers or tools of the trade, bright paper for circles and letters.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Community Helpers WHO Feed US

FARMERS

Place picture in circle

truck Driver

Dairy Worker

Supermarket Workers

BAKERY WORKER

We visited the grocery store.

We saw Jane's mother.

She works there every day.

When we buy foods, she takes our money.

She gets money for this.

What is her job?

My brother works at the grocery store.

He puts foods on the shelves.

He puts food in the paper bag.

He gets money for this work.

What is his job?

121

My grandfather helps the groceryman.

He lives on the farm.

He grows vegetables and fruit.

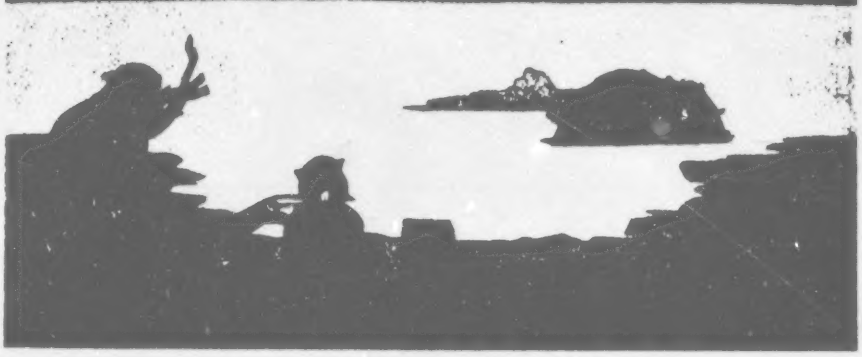
He has chickens and pigs.

He has cows that give milk.

Grandfather sells some of these products to the groceryman.

The groceryman pays Grandfather for these products.

We work together



General objectives:

To teach how some animals work together, to emphasize courtesy and manners in working together at home and at school, to increase the social development of children in group living

Kindergarten

Use this display with a social studies unit on The Home and The Neighborhood. Learn how beavers work together and list ways in which the class members can improve their working together. The children may suggest other courtesy words and phrases.

Grades One and Two

Correlate this board and a social studies unit on Living and Working Together in Our Community. The children should study how beavers, bees, ants, and wild life work together and compare these ways with those in which people work together.

Grade Three

Encourage research work in learning about beavers. Have the pupils compare how animals and people utilize their natural environment. Ways in which we can better cooperate in democracy could be listed and discussed.

Use construction paper throughout.

Cut two of each piece and reverse the pattern to make the third beaver.

The water is made of white butcher paper shaded with blue chalk, and the ground is placed over the white paper. The ground may be gray, gray-blue, or light green. The branches and stumps are light and dark brown.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observation experiences of the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate a knowledge of parent's and neighbor's responsibility to each other, each student will be able to state three workers that need to depend on one another.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Display Community Helpers Posters. 2. Read stories about those helpers. 3. View filmstrips 4. Make booklet of these dittoed stories with pictures. 5. Sing Song 5. Diorama	1. Discuss: What their parents and neighbors jobs entail? That the work that their parents and neighbors do is important to others. That these people have qualified themselves for these positions- That these jobs provide them with money to live, to buy things to support a family. 2. Discuss city departments and after reading books tell where worker would work. 4. Child recognizes his own parents as these community helpers. Read stories, color pictures and complete exercises from Community Helpers Activities Posters. 5. Have class make dioramas of workers.	1. "Community Helpers Activities Posters" with stories and activities. F. A. Owen Publishing Co Danville, N.Y. 2. Books I Want to Be Series 3. Filmstrips: Our Library Our Fire Dept. Our Police Dept. Our Post Office Our Health Dept. Encyclopaedia Britannica The Fireman, McGraw-Hill Visit to a Shopping Center McGraw-Hill "Our Police Dept." Community Service Series GR. 1-3 Color Britannica 1955 5. Large sheets of paper, colors or paints, and boxes.

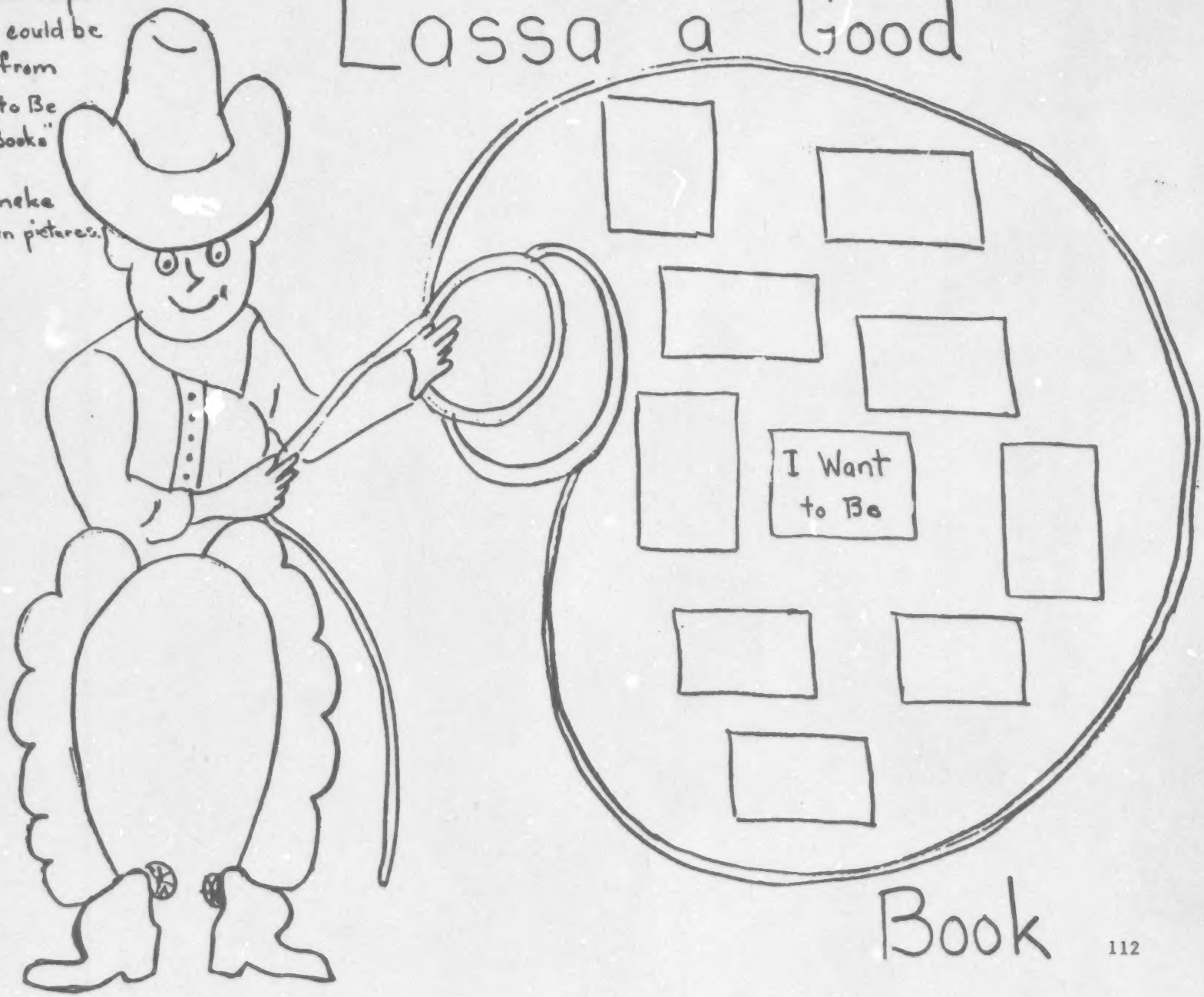
SUGGESTED CORRELATION FOR THIS ACTIVITY:

123

Blue Background
Rope - Use rope
Pictures could be
covers from
"I Want to Be
Books"

Or:
Children make
their own pictures.

Lassa a Good



Book

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of the use of math in an architect's work each student will be able to state at least two ways that an architect uses math.

SUGGESTED SUBJECT AREA Math - Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Bring an example of a blueprint and a house drawing. If possible show the relationship of the blueprint measurements to a house under construction.	1. Within the unit of measuring in Math discover why it is important for an architect and builder to know how to measure. Discuss what skills and training are needed to become an architect.	
2. Children may draw a picture of their room or their house. Have them measure their rooms at home and make a chart of measured rooms showing feet and inches.	2. Demonstrate with rulers how to measure. Capable students may measure their bedrooms showing feet and inches.	2. Rulers, 9"x12" white paper
3. Read book from resource.	3. Review the training of an architect and determine the need for learning math.	3. Baker, Eugene, I Want to Be an Architect. Children's Press, 1969, Chicago, Ill
4. Begin Mural	4. Your mural will show the development of a house and all the jobs that are involved to be continued throughout the unit. Divide class into groups to work on mural.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of various workers each student will be able to state at least five workers that produce goods and five that produce services.

SUGGESTED SUBJECT AREA Social studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1a. Make a field trip to a construction area where houses are at different building stages. 1b. View a filmstrip or film 2. Read Books 3. Sing Songs 4. Put together	1. a. Explain what a house is. b. How are houses made different? c. How many different community workers help to build a house? 2. Use books in resource material to develop each question as they are lettered. 3. Have class develop the mural together by dividing into groups. 4. As an individual project let children put together puzzle of the painter	1. b. Filmstrips: "Building a House in a Little Town" Eye Gate, 30 Frames - color 146-01 Archer Avenue Jamaica, N Y 11435 "How We Get Our Homes" 4 frames color (four parts) Society for Visual Education 1345 Diversey Parkway Chicago, Ill 60614 "Shelter" 6 frames, color 6 parts Encyclopedia Britannica Films, Inc. 425 N. Michigan Avenue Chicago, Ill 60611 "Building a House" Curriculum Filmstrips, 1319 Vine Street Philadelphia, PA 19017 "My Dad is a Carpenter" I.F.C. 2. Books: I Know a House Builder, Bolian, Polly; Schimer, Marilyn: Putnams Son

SUGGESTED CORRELATION FOR THIS ACTIVITY:

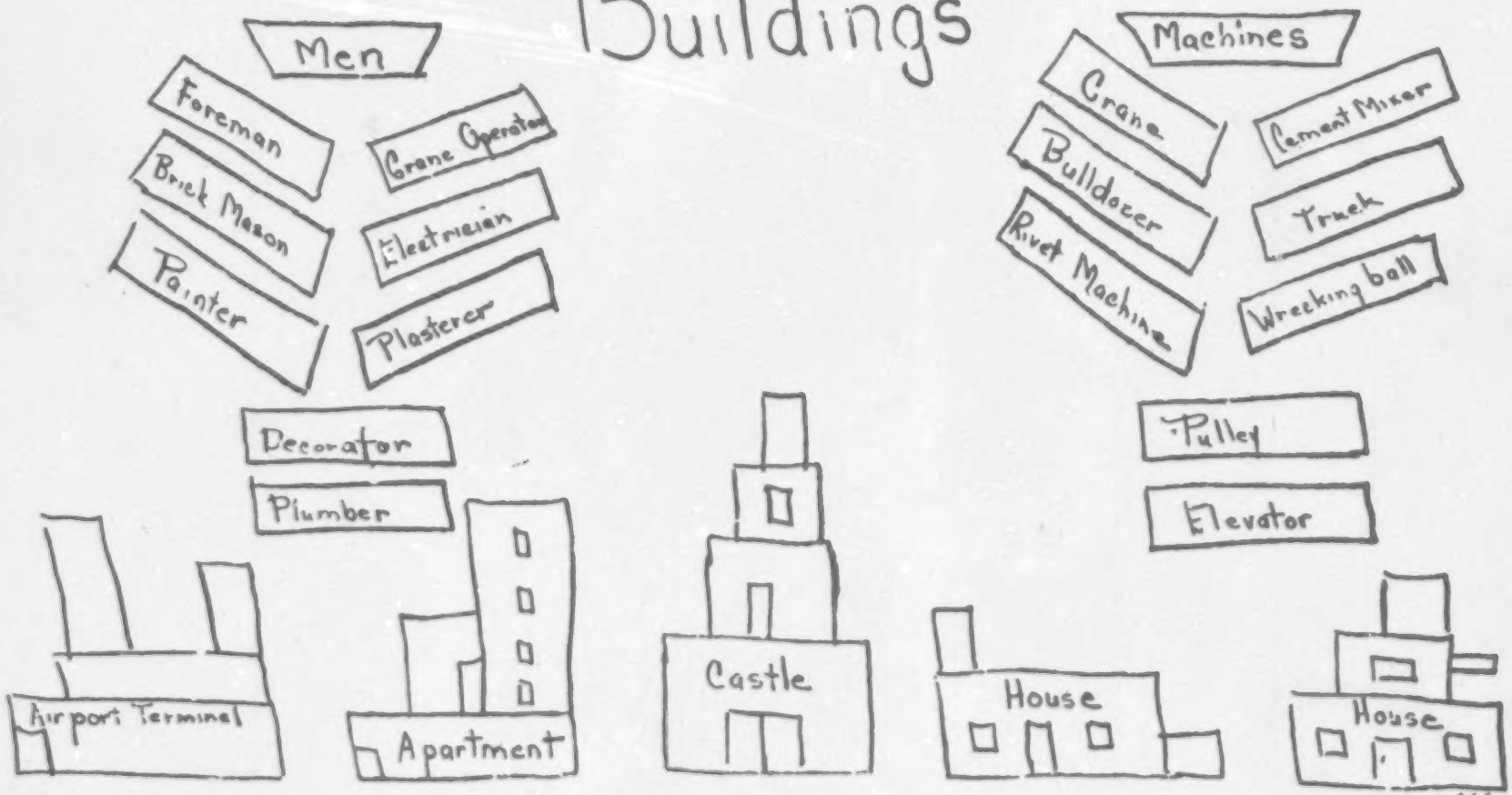
126

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Let's Go Watch a Building Going Up, Goodspeed. Putnam How We Get Our Shelter, Prous. Benefic Press I Want to Be a Carpenter, Greene. Children's Press Come to Work With Us in House Construction, Wilkinson. Sextant Systems Films: "The New House: Where It Comes From" Coronet Films "Building a House" 12 min. color Encyclopaedia Britannica
		4. Songs: "Builders at Work", Together We Sing, Book 2. Follett "The Carpenter", Music for Young Americans, Pg. 30. American Book Co. "Building a House", Music for Young Americans, Gr. 3. American Book Co. "My Father", Discovering Music, Book 2. Follett Pub. "Building", This is Music, Gr. 2. Allyn Bacon Community Helpers Job Puzzles, "Painter". SVE Singer

Lettering Red
Signs Blue
Children build buildings from Cardboard boxes.
Paint with Tempera

Men and Machines Build Buildings



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to role play the use of a tool and at least one other child will be able to name the worker who uses the tool.

SUGGESTED SUBJECT AREA Language Arts - Science

SUGGESTED GRADE LEVEL 2

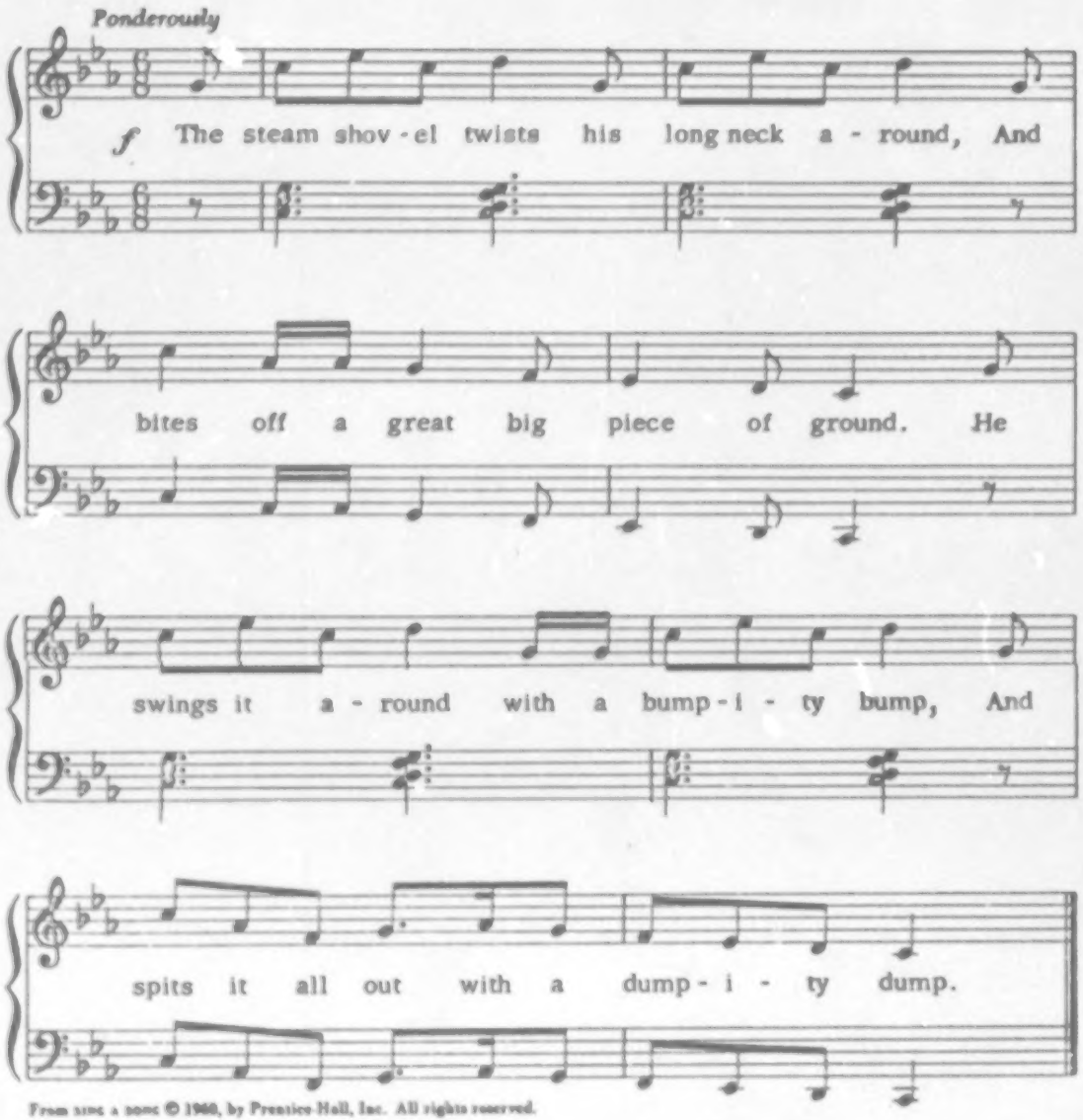
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Bring hand tool, wood, nails and toy machines to display and use.	1. Have children use the hammer, nails and other tools or use popcicle sticks and small nails to build houses.	1. Display of toy tools and real tools Resource person - contractor
2. Write a descriptive paragraph and make a picture about how a tool looks, feels and sounds.		3. Books: The True Book of Tools for Building, Leavett. Children's Press Whose Tools Are These?, Radlauer Grove Press Mike Mulligan and His Steam Shovel, Burton. Houghton Mifflin The Big Book of Real Building and Wrecking Machines, Zafflo. Grossett & Dunlap
3. Read books		
4. Sing Songs		4. Songs: "The Steam Shovel", Together We Sing, Grade 2. Follett "Johnny Works With One Hammer" P. 73, This is Music. Allyn Bacon
5. Riddles	5. Read the riddles that are given and let children make up some riddles of their own to give orally to others.	5. Riddles (attached)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

The Steam Shovel

WORDS BY NONA KEEN DUFFY
MUSIC BY DOROTHY SANFORD

Home tone: C
Starting note: G (*mi*, 5)



From SING A SONG © 1960, by Prentice-Hall, Inc. All rights reserved.

Ask the children to look at the picture in the pupils book, p. 20. Why are the people looking through the fence? This picture tells how interested everyone is in big machines, and also shows how massive these are.

MUSICAL LEARNING

- Notice how the accompaniment adds to the feeling of heaviness and great strength.
- To help the children develop their rhythmic sense, suggest that they sway back and forth on the first and fourth beats of each measure as they are learning the song.

PERFORMANCE To swing the steam shovel around, dig, and dump, the children stretch, bend, pull up, and then relax. Their actions should suggest the heavy, ponderous movements of the steam shovel.

No specific directions are necessary, but the actions should parallel the words of the text.

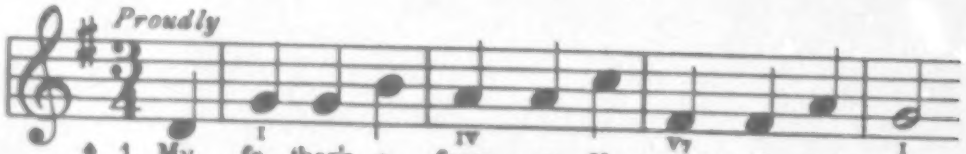
RELATED LISTENING The "Ox-Cart" from Mussorgsky's *Pictures at an Exhibition* (ADVENTURES IN MUSIC, GRADE 2).

RECORDING To create the feeling of the massive, slow-moving steam shovel, the bass clarinet is played in its lower register and heavy chords are played on the piano.

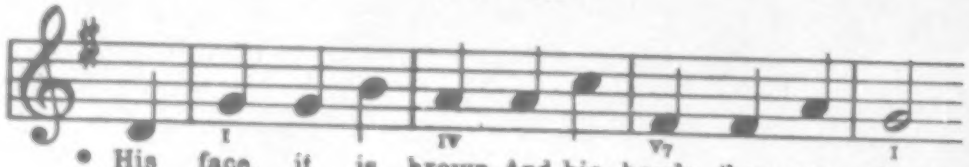
My Father

36

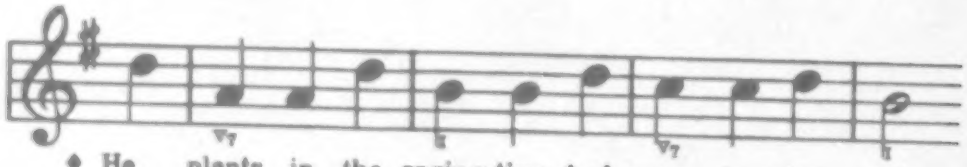
Proudly



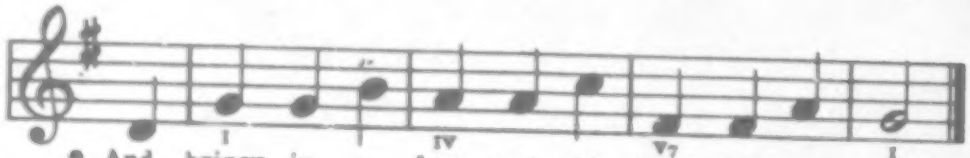
♦ 1. My fa - ther's a farm - er, He works all day long,
2. My fa - ther's a work - er, A good one they say,
3. My fa - ther's a {mer - chant, doc - tor} He works in the town,



• His face, it is brown, And his hands they are strong;
In our bus - y fac - t'ry, Ma-chines run all day,
And helps all the folks From the coun - try a - round.



♦ He plants in the spring-time, And reaps in the fall,
With whir - ring and hum-ming, They clang and they sing;
His days are so bus - y, He has lots to do;

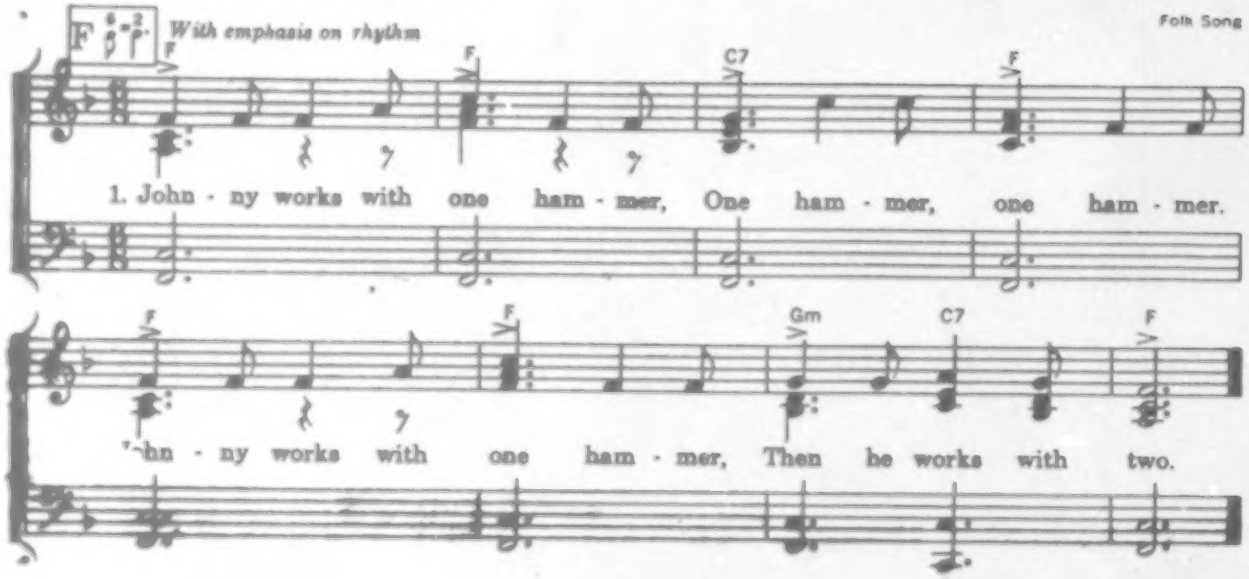


• And brings in a har - vest Of food for us all.
As - sem - bly line work-ers, Make won - der - ful things.
Some day, when I'm old - er, I'll work with him, too.

Taken from:
Music Round the Town, Follett

Johnny Works with One Hammer

Folk Song



(1.) Johnny works with one hammer,
One hammer, one hammer.
Johnny works with one hammer,
Then he works with two!

2. Johnny works with two hammers,
Two hammers, two hammers.
Johnny works with two hammers,
Then he works with three!

3. Johnny works with three hammers,
Three hammers, three hammers.
Johnny works with three hammers,
Then he works with four!

4. Johnny works with four hammers,
Four hammers, four hammers.
Johnny works with four hammers,
Then he works with five!

5. Johnny works with five hammers,
Five hammers, five hammers.
Johnny works with five hammers,
Then he goes to sleep.

Taken from:

This is Music
Allyn Bacon

R I D D L E S

I build new houses, I also fix
old ones.

I use a hammer, a saw and other
tools.

Who Am I? (Carpenter)

I work inside and outside

I use many tools.

I build things from wood.

Who Am I? (Carpenter)

Mr. _____ comes to our house
when Mom needs help because
there is water in the basement,
or the bathtub won't let the
water out. He also helps build
new houses. He works with
pipes. What is his job? (Plumber)

I use many sizes of ladders
in my work. I usually wear a
white cap and have pockets
in my overalls. I sometimes
look quite spotted at the end
of a day. Who am I? (Painter)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After the class has listed on the board various workers who make repairs in homes each child will be able to write names of at least two workers who have come to their homes to make repairs

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read book and view filmstrip 2. Make scrapbook 3. Sing song	1. a. What community helpers come to your house when something needs to be repaired or to keep houses safe and attractive? (e.g.) painter, plumber, electrician, carpenter b. Why do you call these special helpers? 2. a. Look at newspapers and magazines for articles and pictures that are related to home repair. Use these for a class scrap b. Make list of items in their homes that require electricity to operate them.	Resource Book: Freeman, Ira M. All About Electricity, Random House 1957 457-Madison ave., New York, NY 1002 Electricity and How To Use It, Pine, Tillie S. and Joseph Levina - McGraw Hill Book Co., Inc. 1962 Filmstrip: "How Electricity Helps Us" Filmstrip House 2. Bring newspapers and Magazines 3. Song: "Leaky Faucet" Music In Our Town. Silver Burdett, 1962 Gr. 2 p.76 (attached)

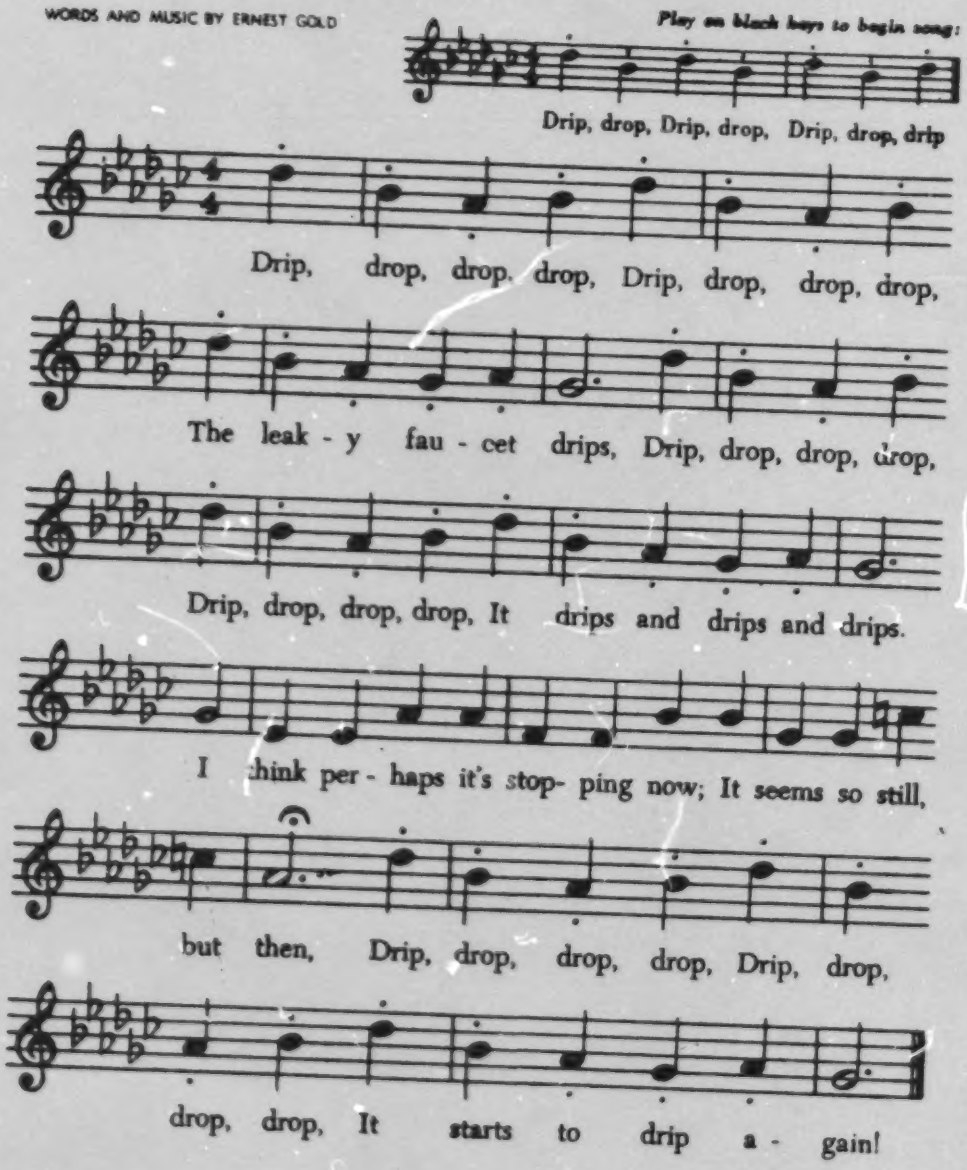
SUGGESTED CORRELATION FOR THIS ACTIVITY:

134

Taken from:
Music In Our Town, Gr. 2
Silver Burdett

Leaky Faucet

WORDS AND MUSIC BY ERNEST GOLD



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to list at least four cooperative services provided by workers in a community.

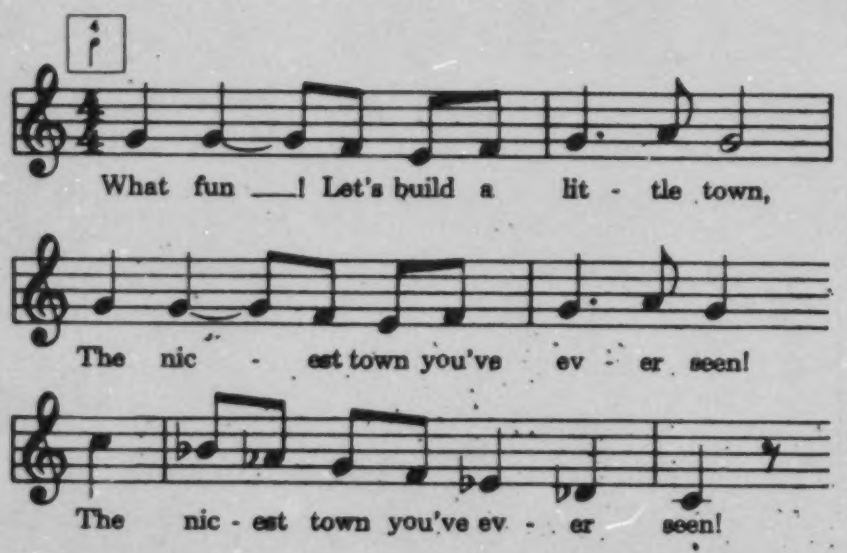
SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. a. Use small milk cartons and cover with colorful paper. Make a roof and chimney and have children paint on windows and doors. Use larger cartons for apartment houses and a school. Set on table and make a town with streets, trees, etc. Caption: Where We Live.	1. a. What do people share in a community that we use in our homes? (e.g) gas, sewer, streets, electricity, and water.	Song: "Let's Build a Town" This is Music , Allyn and Bacon Boston, Mass, Gr. 2 (enclosed)
1. b. Make a sugar cube or plastic brick house as a class project.	1. b. Tell what your home is like. How are homes alike? How might they be different.	May use Lincoln logs or Milton Bradley's Playskool Village in lieu of milk carton village.
2. Sing Song.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

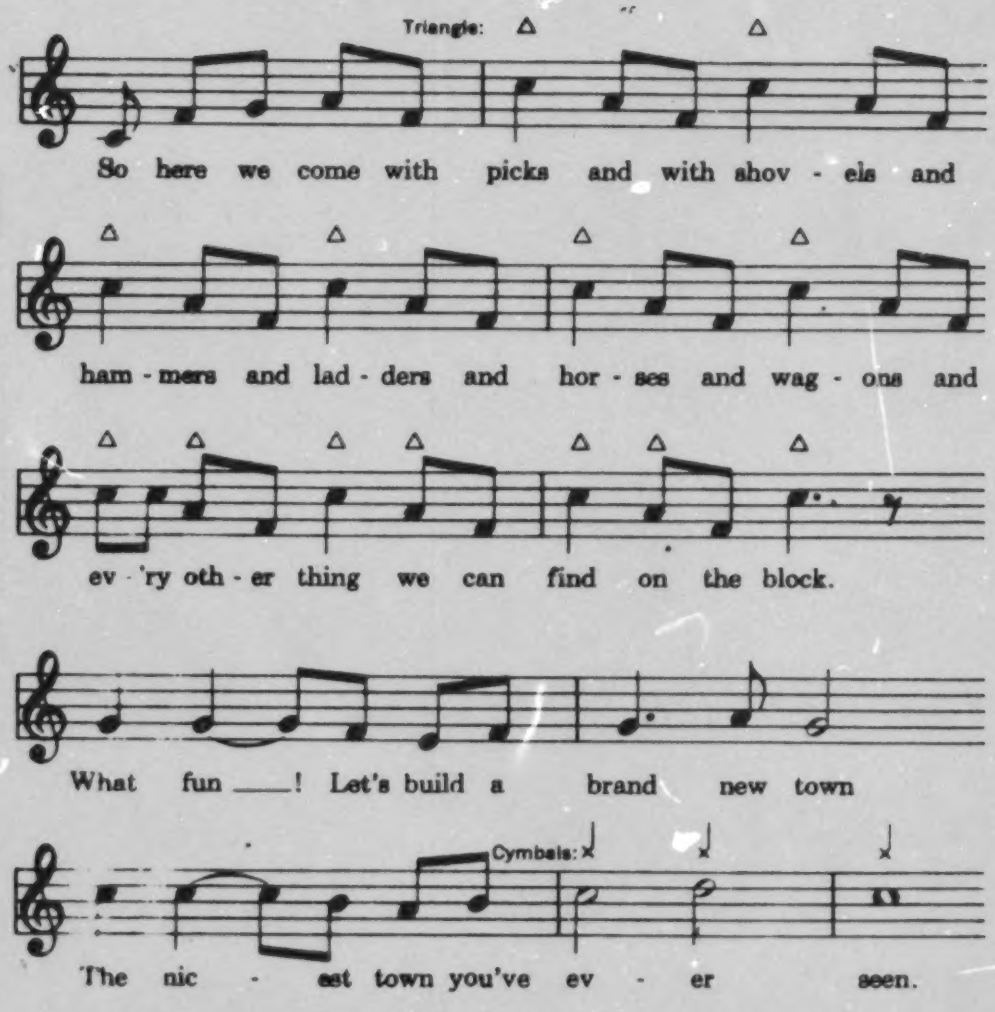
Let's Build a Town



Copyright 1931 by Associated Music Publishers, Inc. Used by permission.

137

Taken from:
This is Music, Grade 2
Allyn and Bacon



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To accept and respect self and others

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate his attitude each student will portray his attitude in the type of ending that he writes.

SUGGESTED SUBJECT AREA Social Studies Language

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show a filmstrip 2. Write story ending	1. Discuss a visit to a building under construction. a. What safety measures were used to protect persons? b. What could possibly happen to persons who did not remember to observe safety rules around construction areas? 2. Have the children write their impressions how they think they would like the story to end.	1. Open-Ended Stories Imperial Filmstrip and cassette "The New Building" 134-3

138

SUGGESTED CORRELATION FOR THIS ACTIVITY:

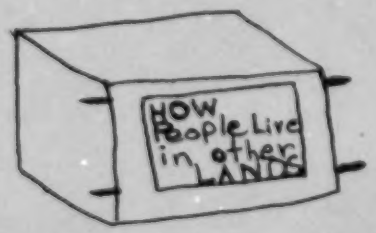
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: From a list of places around the world have child identify the place as the teacher shows pictures of kinds of houses around the world.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. a. Find pictures and display on bulletin board for topic "Many Kinds of Shelter" b. Collect and draw pictures of different kinds of houses from other lands to make a classroom television show. Pictures should be pasted on long strips of wrapping or shelf paper in a determined order. Attach the strip of paper to rollers made of cardboard tubing or on round sticks at both ends. Use a cardboard box.  	1. Explain why there are so many types of houses in the world. 2. Why are certain materials used in building houses in different places? (e.g.) grass houses in hot places. Clay blocks in desserts.	Burns, William, World Full of Houses McGraw Hill Book Co, Inc. 1953 Case, Bernard, Story of Houses Sterling Publishing Co., Inc. 419 Park Avenue S. New York, NY 10016 Carter, Katherine, True Book of Houses Childrens Press 1957 Hurd, Edith Thatcher Somebody's House Lothreys, Lee, and Shepherd Co., Inc. 1953 Unrell, Catherine, Big City Homes

SUGGESTED CORRELATION FOR THIS ACTIVITY:

139

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
2. a. Bring samples of materials used in building different kinds of homes and label.		
b. Have children make different homes from other lands.		
3. Puppets	3. Make puppets from different lands to show people in buildings.	
4. Learn "hello" and "good-bye" in different languages.	4. Language Arts: Pick out a language from a different country such as French, German or Spanish. Learn to say "Hello" and "Good-bye" in these languages.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate students knowledge of community establishment that provides services, each student will be able to list at least three workers who provide services.

Community Helpers that Provide Service

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Display Community Helpers posters and pictures. 2. Make Booklet of dittoed stories with these pictures Set I: 1. Barber 2. Gasoline Man 3. Zoo Keeper Set II 1. Waitress 2. Moving Man 3. Tree surgeon 4. Shoe Repairman 5. Telephone operator 3. Book Reports	1. a. Discuss workers who provide services. b. Name some of these workers 2. a. Why are these jobs important to them and to others? b. Give example of a service they would like to perform in the community. 3. Have the children select a book about a job they would like to know more about and give an oral report.	1-2. "Community Helpers posters" with stories and activities F. A. Owen Publ. Co. (fold outs) Danville, N.Y. Books 3. I Want to be Series: Carla Greene 1. Mechanic 2. News Reporter 3. Bus Driver 4. Restaurant Owner 5. Telephone Operator 6. Truck driver 7. Zoo Keeper 8. Beauty Operator 9. Sales Clerk 10. Secretary 11. Taxi Driver all from Childrens Press 12. Librarian 13. Pilot 14. Teacher. I Know a Librarian, Virginia Voight I Know a Garageman, Barbara Williams G. P. Putnam's Sons, N Y 1967 Miss Terry At the Library, Barr Albert Whitman , 560 W. Lake St. Chicago, Il 60606 Hastings, At the Dairy Colonius, At the Zoo Let's Go to a Garage, Goodspeed

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		3. Books Continued Come to Work With Us in: Department Store A Newspaper Hotel Sextant Series About Men AtWork Hoffman & Heffelfinger I Want to Be a Beauty Operator Baker I Want to Be a Waitress - Baker
4. View filmstrips available		4. Filmstrips: "Baber" 107E Neighborhood Helpers Series, Eye Gate House "Office Workers" Gr. 2 color Curriculum films, Curriculum Materials Corperation 1960 "The Bus Driver" (Community Helper 1952 Series) Gr. 1-3, Color McGraw Hill "Street Maintenance Crew" Community Helpers Series Gr. 1-3 McGraw Hill "Playing Community Helpers", Gr. K-3 Britannica 1960 "Neighborhood Workers," Gr. 2 Color Britannica "Working in Our Community" City Community Series. Gr. 1-3 color Jam Handy "We Learn on A Trip" "My Dad is a MovingMan" I.F.C. "Service Station" 107H Neighborhood Helper Series II Eye Gate " Service Station Man" World of Work Series Denoyer Geppert

142

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		4. continued "My Dad Works In a Service Station" I.F.c. Bismarck School Filmstrips #1236 "Visit to A Shopping Center" Imperial Film Series #132, 133, 136 "School Workers"- SVE F2 10-1 "Library Workers" S.V.E. F210-2
5. View Films available		5. Films: Helpers in Our Community, Gr. 2-3 10 min, Soun, Color Coronet 1958
6. Sing Song		6. Song: "The Service Station" Music For Young Americans. American Book Company 1959 Gr. 2 p. 32
7. Play game "Service or Goods"	7. For review of producers of goods or services list workers on board and play game - enclosed.	7. Rules on enclosed sheet.
8. Field trip		8. Fieldtrip to shopping center

SERVICE OR GOODS?

A. Purpose: To strengthen the concept of producers of goods and producers of services.

B. Materials: A list of producers of services and goods placed on the board. The children have previously made the list, over the period of time that they have been studying workers in the neighborhood.

Example: doctor - service
baker - goods
dairy - goods
farmer - goods
barber - service
dry cleaner - service

C. Introduction: Let's count off by fours to make four teams. Teams get together so we can play a game.

We have a list of producers on the board. I will point to a producer and you will take turns telling whether this producer deals in goods or services. Just call out "goods" or "services" as quickly as you can. Each team receives one point for each correct answer. The game will last ten minutes. The winner is the team with the most points.

D. Variation: Children may write the names of the producers under the heading, "Goods or Services." This may be used as seat work.

E. Correlation: This type of activity may be used in the study of parts of speech, the identification of arithmetic processes, long or short vowels, identification of flowers or trees, or any study in which a selection of types or process is possible.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After presentation of materials, children demonstrate good telephone manners by role playing in the class.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Children alphabetize names of classmates in a prepared booklet	1. Discuss importance of people whose job it is to put down written material correctly such as the telephone book.	1. Call telephone company for teletrainer teacher's guide, children's books, films and filmstrips.
2. Language activity on correct manners when using the telephone	2. Children plan skits showing poor and good telephone manners, follow with film. See No. 1 under resouce.	2. Teletrainers from Bell Telephone
3. Small group discussion on the ease in which we call and the number of jobs connected with making it easy.	3. After children have completed discussions have them list the number of jobs they came up with.	4. Resource person from telephone office
4. Resource person	4. Bring in resource person to discuss the telephone system	7. Books: Pope, Your World-Let's Visit the Telephone Company. Taylor Pub. Wilkenson, Come to Work With Us at a Telephone Company. Sextant Greene, I Want to Be a Telephone Operator. Children's Press
5. Have children use teletrainers.	5. Children practice making correct telephone calls, also have some children practice being operator and making long distance calls.	8. Filmstrips: #106 "Telephone Services" World of Work series. Demoyer-Geppert #641267 "Communication: The Telephone" McGraw-Hill #107-G "The Neighborhood Newspaper Store" Eye Gate House
6. Other activities		
7. Books		
8. Filmstrips		

SUGGESTED COMPILATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the World of Work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of post office occupations, each student will be able to name 4 jobs that can be found in the post office.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Books		1. Mr. Zip and the U. S. Mail Barr. Albert Whitman
2. Write letters		
3. Get equipment from post office.	3. Mail man's bag and other things that would relate to career development in that area.	3. Call post office.
4. Filmstrips		4. Mail Delivery ECF 107 Denoyer-Geppert
5. Teacher presents the picture story study prints to children.	5. As an instroduction or as a review these pictures with records, stories, things to talk about, words to know suggested things to do provide much help and instructional aids for the teacher to use as she wishes. 6. Class post office at Valentine's Day.	5. Postal Helpers SP 121 Singer SVE a. Highway Post Office Truck b. Loading Relay Trucks c. Delivering Mail d. Sorting Mail e. Canceling stamps f. mailbox pickup g. Serving Customers h. Loading mail at airport.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

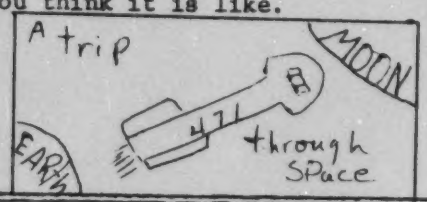
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of aerospace occupations, each student will be able to name four jobs that can be found in aerospace industry

SUGGESTED SUBJECT AREA Science - Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View Filmstrip	1. What have you seen as you visited the airport? List words they suggest to develop terminology.	1. Filmstrip: Airport Workers-Airport Service" 141-5 Imperial Film Co. "How An Astronaut Lives in Space" Filmstrip House
2. Books	2 As books are viewed and read add to the terminology.	2. Books: I Want To Be A Space Pilot, Greene, Carla I Want to Be an Airplane Hostess, Greene, Carla At the Airport, Colonius, Lillian Melmont Publ. Inc. Chicago, Ill Come to Work With Us in Aerospace, Wilkinson, Jean and Ned, Sextant Series Your World-Let's Visit A Spaceship Pope, Billy N; Emmons, Ramona W. Taylor Publishing Co. Series IV I Know A Airline Pilot, Staneck, Muriel G. P. Putnam's Sons, New York Book of Astronauts for You, Branley. Crowell Let's Go to a Rocket Base, Chester, Michael. G. P. Putnam and Sons True Book of Airports and Airplanes Lewellen, John 1956
3. Ask which children would like to read and give report on resource books listed in resource material column.	3. Oral reports and discussion	
4. Make bulletin board. Make rocket from paper towel tube and cover tube and cone with aluminum foil. Slit bottom sides of tube and insert aluminum covered fins. Tape on red, yellow and orange ribbon or crepe paper for fire affect. With tempered or felt tip marker paint on windows,	4. Display Bulletin Board 5. Pretend you are taking a trip through space in an airplane or a rocket and create your own picture of what you think it is like. 	

147

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. continued - numbers and flag.		2. continued Come to Work With Us in an Airport Wilkinson, Jean and Ned Your World - Let's Take an Airplane Trip; Pope Taylor Pub. Co About A Pilot of A Plane Hoffman- Hefflefinger True Book of Space Rodendorf, Illa Children's Press 1959
5. Children create their idea of a trip through space.		5. Colors, 9x12 drawing paper

148

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show that they understand that some workers produce goods, others produce services - by making two columns on goods and services and list five workers

Review

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 2

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrips	1. View to determine which workers produce goods or services. Discuss with the class the workers they see throughout the community. List workers who produce goods or services.	1. Filmstrips: "People We Know" Part II, Guidance Assoc. "A City is Services" "A City is People at Work" Imperial Film Co. William, Ramon, Andy and Five Friends at School - "We All Work" BFA "Having Fun in the City" "To a City" Eye Gate "Visit to a Shopping Center" McGraw Hill
2. Have students give riddles.	2. Have class make up a riddle "Where Could I Buy?" and then another member guess 'where'.	2. Riddles (attached)
3. Read poems applicable in <u>What Will I Be From A-Z</u>	3. Review with poems from resource material.	3. Resource for teacher and class: <u>What Will I Be From A-Z</u>, Gelb. National Dairy Council
4. Write letters.	4. Have the class compose a letter to send to other areas of the country and ask what jobs their fathers do in their area and then compare work.	5. Boxes, paper, paint
5. Build a town.	5. Using various shaped boxes or cartons cover with colorful paper or paint labeling each business and identify whether it provides goods or services.	6. Songs: "What Sort of People Come to Your Town", "A Customer" pg. 127 <u>This is Music</u>, Allyn & Bacon
(cont)		

SUGGESTED CORRELATION FOR THIS ACTIVITY: Language

149

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Sing Songs		6. "Our Friend the Librarian" Songs for Our Small World, Schmitt. (attached)
7. a-Games -The Chain b-Look and List c- Whose the Worker d-What' My Line	7. a. To review the many things city helpers do for us, follow directions on enclosure. b. To review with seatwork what a community is made up of in order to have a good place to live. c. Play the games	7. a. Picture cards b. Pencils, crayons, 18 x 8 sheets newsprint.
8. Field trip		8. See Appendix for general fieldtrip guideline.
9. Play	9. Have class give play of famous person (astronaut) going to doctors office who thinks he's important but Doctor and Nurse help a baker who tells what he does and what will happen if he's sick (no cake, bread) a farmer - waitress and so on before they help the astronaut.	9. Hats, badges or something to show what each worker is. Scenery and script.

OUR FRIEND THE LIBRARIAN

Taken from:
Songs For Our Small World, Schmitt

With motion

mf

1. Our friend the li - brar-i - an wel-comes us in And lis - tens to eve - ry re - quest; And then the li - brar - i - an shows us the books That ans - wer our ques - tions the best.

2. Our friend the li - brar-i - an choos-es the books We see on the li - brar - y shelves; And so the li - brar - i - an helps us se - lect The books we may want for our - selves.

Ab Cmi Db Ab Fmi Bb7 Eb7 Ab Cmi Db Ab Bb7 Eb7 Ab

P-74a

RIDDLES

I sit on a chair, I watch people swim. I teach them to be safe when they are in water. Who am I? (Life guard)

Mr. Jones uses an instrument to check my eyes. He has me read a chart on the wall. If my eyes do not see very well he gives me glasses. Who am I? (Optometrist)

You are supposed to visit me twice a year. I help take care of a very important part of your body. I like you to brush your teeth after each meal. Who am I? (Dentist)

Miss Smith visits our school. She checks our eyes and teeth. Who is she? (nurse)

Mr. Brown lives in our town. He is always ready to help. He travels in a fast red truck. He helps put out fires. What does Mr. Brown do? (Fireman)

She wears a white dress. She helps people who are sick. She helps to make people well. What is her job? (Nurse)

I am a helper. I help take care of you. I help you cross the street. I wear a badge. Who am I? (Policeman)

I am an important helper. I come to your house often. I pick up the garbage. I keep the city clean. I help keep you well. I get money for doing this work. What is my job?

I drive a large white truck which helps me deliver food to families in the city every day. My food comes from farm cows. You can eat some of these products and also drink some of them. Who am I?

Mr. Smith looks at my Dad's car. He tells what is wrong with the motor. If there is anything wrong he will fix the motor.

I wear a uniform. I have a captain's stripes on my sleeves. I sit in the seat in front of an airplane. What am I called?

She wears a clean, trim uniform while working at cutting, trimming, washing, frosting, setting and waving. When she is through, there should be a prettier you. (Beautician)

I work in an office. There are pens of animals outside. I take care of sick animals. What Am I?

I work where people borrow and use information from newspapers, magazines, records, films and books. Not every school or city has me. My job is known as a _____ (Librarian)

I work in a large store. I make sure the shelves are full. I count the money. I open the store in the morning and close it in the evening. Who am I? (the owner or manager)

THE CHAIN (Grades K-2)

A. Purpose: To learn the many things city helpers do for us.

B. Materials: Cards containing the picture or the name of a city helper such as policeman, fireman, garbage man, sewage disposal chemist, etc.

C. Introduction: Would you like to play a game about our city helpers? Let's form a circle and hold hands. Now we have a chain. I shall choose one of you to start out as the leader. The leader will stand in the circle and hold up a card so all of you can see it. This card will have the name (or picture) of one of our city helpers on it. The leader will point to one of you and you must tell one way in which this helper helps us. Each time the same card is held up, a different way must be given. If one of you gives a wrong answer, the children on each side will unclasp hands and the chain will be broken. The broken link must go inside the circle until he can earn his way back into the chain by giving a correct answer when another link becomes broken. We want to keep our chain all together. Try not to have any broken links.

D. Variation: The "broken link" may take the place of the leader and thus keep in the game and change the leader often.

A state may be held up and the capital or some other pertinent information about the state may be stated.

E. Correlation: This game may be used in the study of vowels and with arithmetic combinations. Parts of speech may be used for drill in this manner. Geography and history questions may be used in a drill such as this.

LOOK AND LIST

A. Purpose: To determine the different aspects of the community to lead to worthwhile seatwork on what a community is made up of in order to have a good place to live.

B. Materials: A list of types of places found in most communities. This list is placed on the board and later written on paper by the students. Pencils, crayons, 12 x 18 newsprint are needed.

List: Types of places in our community

Places for Fun	Places to Learn	Places for Safety	Places for Service
Parks	School	Fire Station	Beauty Shop
Swimming pool	Library	Police Station	Dry Cleaner

Places for Communication	Places for Transportation
Telephone Co.	Bus Station
Post Office	Taxi Cab Station

Each teacher will have to adjust the list to the community involved. Only the headings are placed on the board. The children will give the answers to place under the headings.

C. Introduction: We have been talking about our community and you have been using your eyes and ears to find out as many things as you can about where we live and what we have in our community.

Look at the list I have placed on the board. Who wants to name one place in our community where we can have fun? (Go through the list and be sure each child knows the words and what they mean. Encourage the children to add to the list. They might add places to buy things, places that make things, places of worship, etc.)

D. Variation: Young children may draw pictures instead of listing. Older children may be asked to write sentences telling how to reach the library, post office, court house, etc.

E. Correlation: This work will correlate with the language arts program and it is a part of second and third grade economics.

154

GAME - WHO'S THE WORKER?

Write the names of community helpers or workers on separate pieces of paper. For younger children, pictures of these people can be pasted on the separate pieces of paper. Place the names (or pictures) in a folder or box. One child choose a name (or picture) without letting the other children see which one it is. Then the others ask questions about the worker the child has chosen, and he answers with a "yes" or "no". The child who correctly identifies the worker can then choose another name (or picture).

WHAT'S MY LINE

Have the child act out in a pantomime form what he is doing. The other children try to guess what his job is.....

taking blood from finger - nurse

hold hose for fireman

pulling teeth - dentist

patrol car driver - policeman

whatever a child can relate to the job.

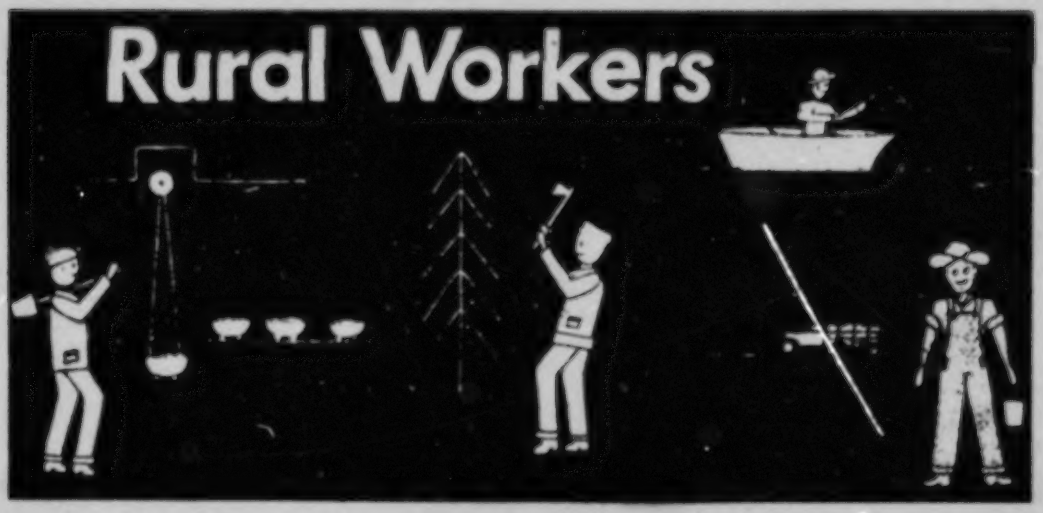
YIELD
ONE-WAY
STOP
RAIL
CROSSING
ROAD

Our Friends
Good morn

Safety Friends
STOP

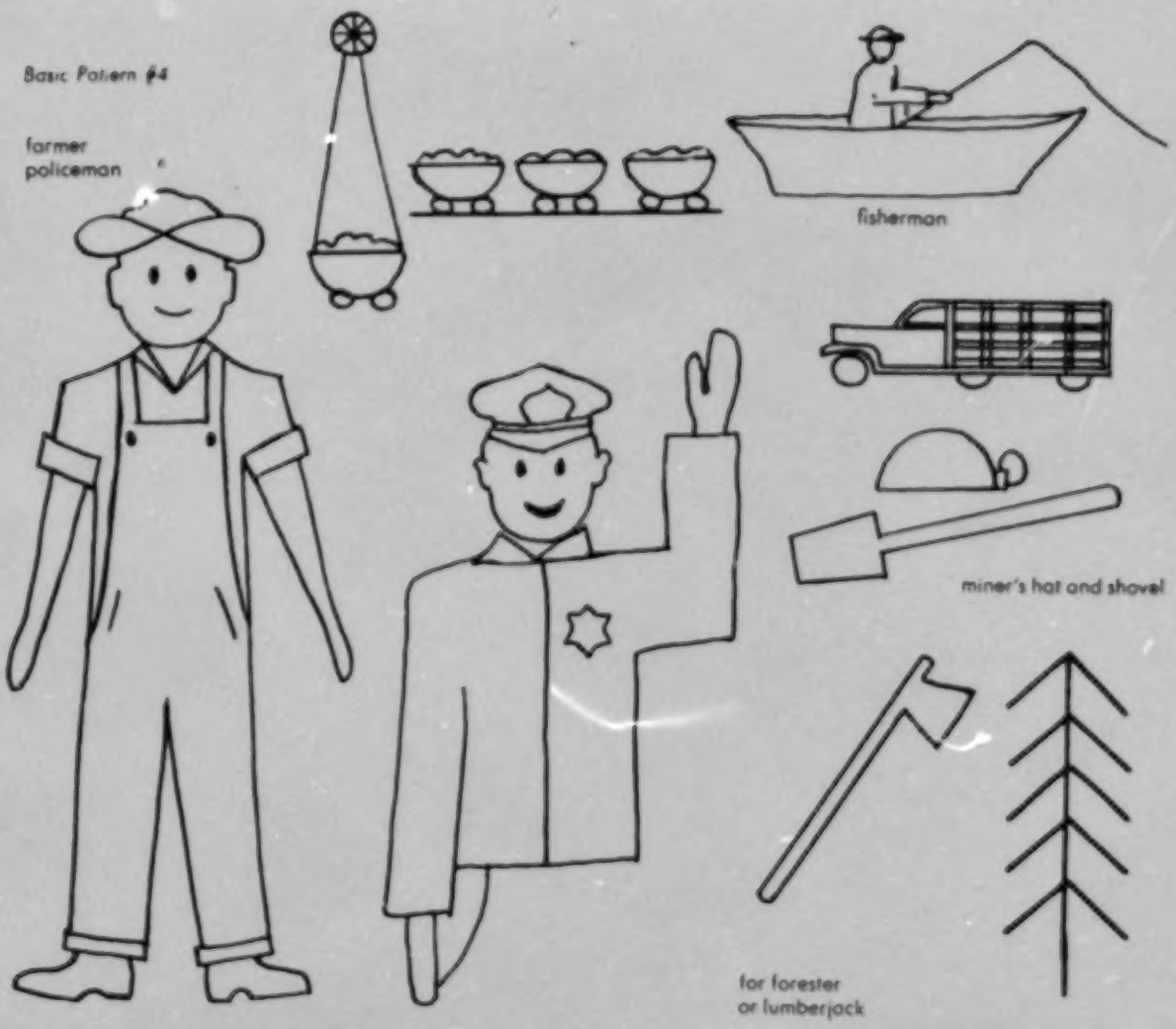
More Friends
"Open wide"
"Say Ah-h"
-after meals"

Rural Workers



Basic Pattern #4

farmer
policeman



Basic Pattern #6

secretary
telephone
operator

Basic Pattern #7

librarian

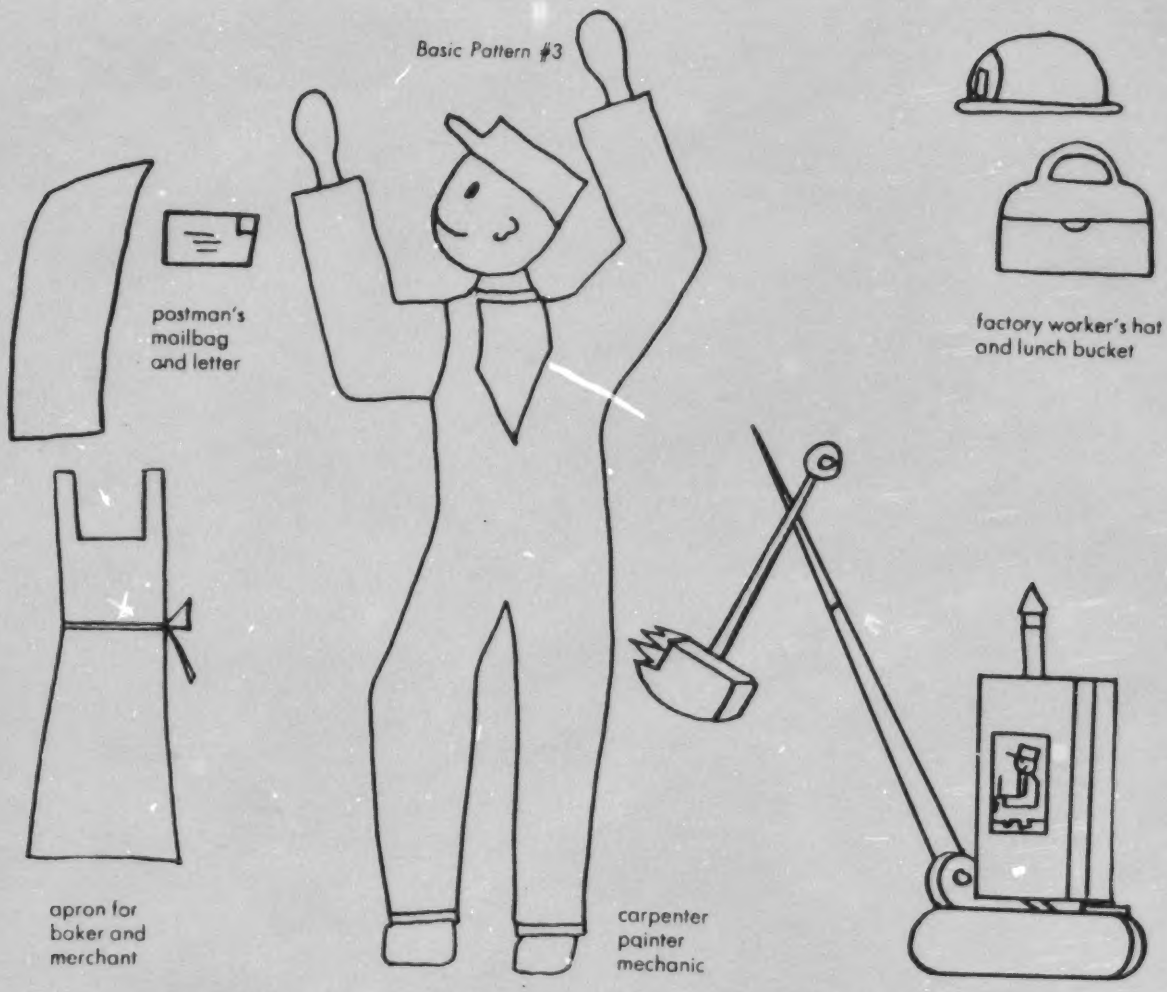
Basic Pattern #5

teacher
nurse
saleslady
housewife

cross guard
social worker
airline hostess
policewoman

More Helpers

Basic Pattern #3



Community Helpers

Use basic patterns of block figures to represent various types of community workers but change hats, background, working implements, etc.

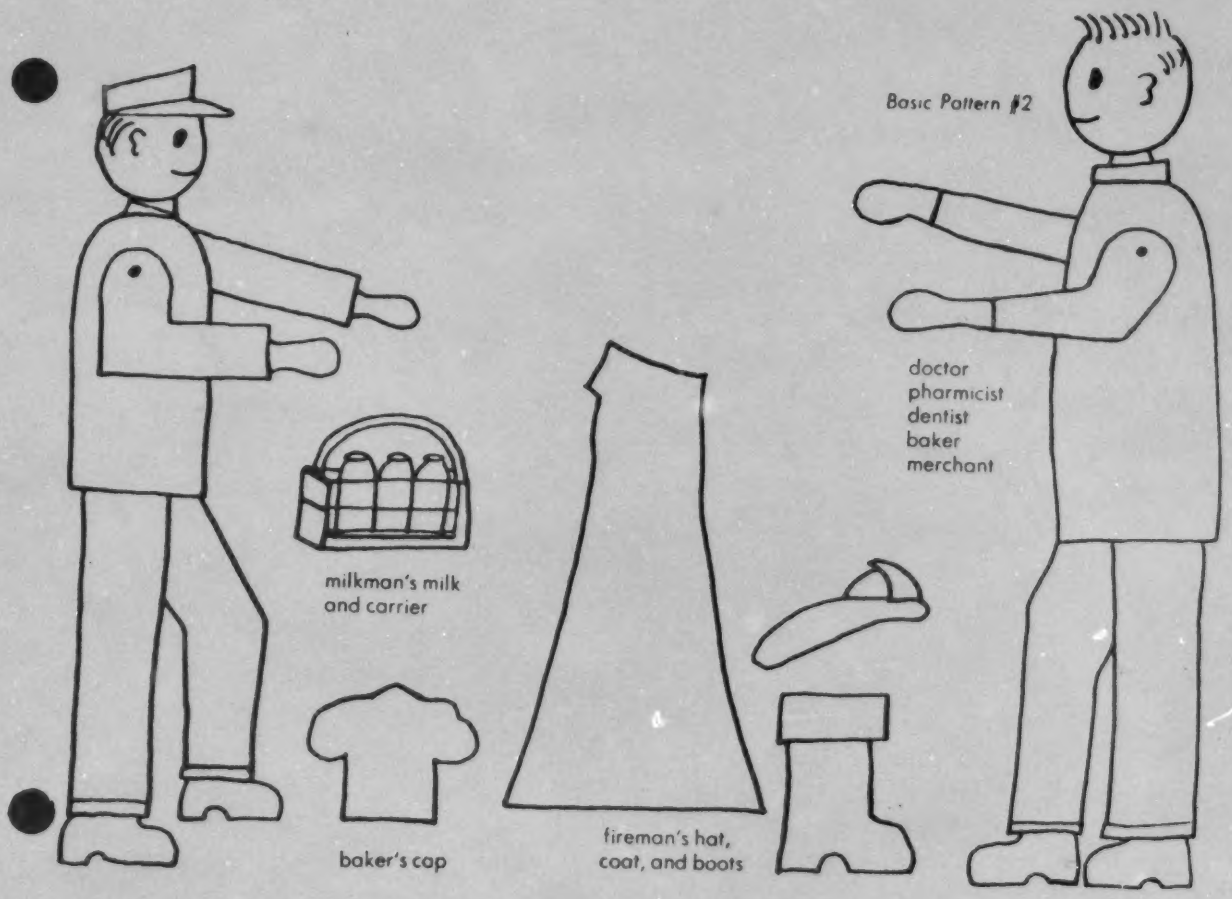
Bulletin boards may be developed with the block figures by using:

(1) White figures on a black background. Use yarn for steps, buildings, streets, etc.
(2) Colored figures and background. The children may paint figures and create backgrounds.
(3) Murals involving the characters.
(4) The figures in separate units or in groups.

Community Workers: bus driver, factory worker, fireman, fisherman, forester, milkman, miner

Basic Pattern #1

This basic pattern may be used for other community workers, such as a bus driver or a banker. The pattern may be turned to face the opposite direction to balance or vary the effect. The arms may be raised or lowered by using paper fasteners to connect them. Children may use creative ideas for adding accessories and background.



General objectives: To correlate art and arithmetic with a Christmas theme, to give practice in reading monetary figures, to develop a better understanding of price values, to solve problems with concrete examples

Kindergarten

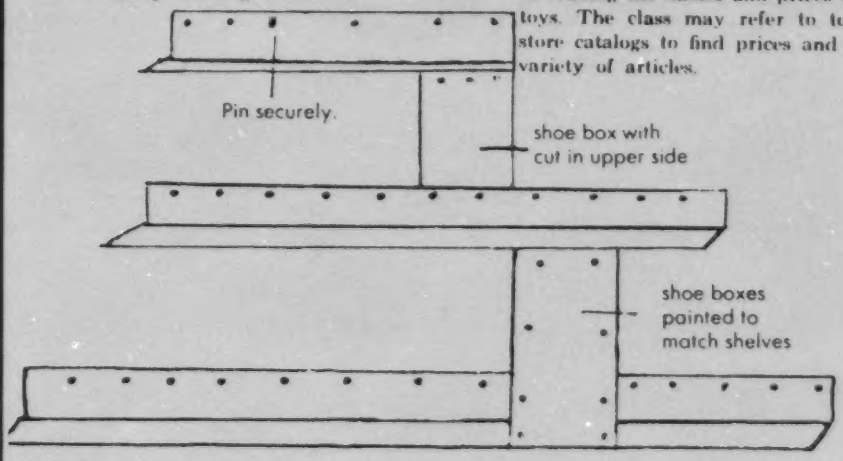
The children can use the play store for dramatizations. Have the children learn the prices of toys and the reasons that some toys cost more than others, materials used in making toys, proper care of toys, and safety in using them.

Grades One and Two

The pupils should learn the costs of toys, but the teacher should adjust prices in problems to avoid borrowing and carrying. Play money can be used for playing store. Make a price list on a chart to give practice in reading the names and prices of toys. The class may refer to toy store catalogs to find prices and a variety of articles.

Grade Three

Use price lists from catalogs and make up problems according to concepts to be reviewed or introduced. The pupils may learn about sales tax. In art the students may make store-display objects pertaining to their hobbies.



Shelves are cut from long boxes, such as television antenna boxes. Paint them with tempera after cutting to desired shape and size.

Teddy bears, pull toys, musical instruments, balls, etc., should be mounted on tag board to give them stiffness.

Large dolls can have movable parts by joining them with paper fasteners; doll dresses can be made with draped handkerchiefs; doll petticoats are made of paper napkins.

Small dolls can be made with bead heads, yarn hair, and pipe-cleaner bodies and appendages. Scraps of materials are draped for dresses.

Dogs can be made of paper towel rollers and tag board heads and feet.

Wind-up toys can be made of modeling clay.

Consult craft books and paper sculpture books for additional ideas in making toys.*

*See Thomas Arthur Koskey, *Creative Corrugated Cardboard; A Handbook for Teachers*, San Francisco, Fearon Publishers, c1957; Nicholas Roukes, *Classroom Craft Manual*, San Francisco, Fearon Publishers, c1960; and William J. Shelley, *Paper Sculpture*, San Francisco, Fearon Publishers, c1957.

CRYSTAL-GAZING

Adults are always asking kids, "What do you want to be when you grow up?" Maybe it's about time to try a new twist on that oldie.

The Challenge. Set up a team of your little language arts "specialists" to do a class prophecy. On the basis of what they know about their classmates (a little interviewing is to be encouraged) have them develop a bulletin board on the order of the one shown. Encourage your crystal-gazers to have good reasons for their decisions as to the futures of their friends.

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (letter for this purpose attached) Form XX

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. Have the resource person ask students, "What do you think I do?" before he begins his actual presentation.

8. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Form xx

Dear _____

My students are studying _____ _____
We would like to have some first hand knowledge about this area. We are interested in the work you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job
2. Duties (simplified)
3. Training or preparation required.
4. Physical characteristics needed.
5. Social characteristics needed.
6. Do you work alone or with others.
7. Do you need to get along and cooperate with other workers.
8. What school courses helped a great deal in preparing you for this work?
9. Why do you work?
10. Do you like this job?
11. What are the good and bad points about it?
12. How and where training can be obtained.
13. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____

Number of students _____

Description of facilities and equipment available _____

_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

FOLLOW-UP

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and definite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil/Teacher Preparation

Watch for:
1. Working conditions
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

GENERAL GUIDELINES FOR FIELD TRIPS

Grade 2

1. The guides and alternates should be chosen by the business so they are always the same people.

2. The guides should take the classes in smaller groups.

3. The guides should name the worker and let them tell what they do (like steno, janitor, manager, etc.) and what education they needed.

4. Send any equipment, posters or information to each school.

5. Send guides sample report card to discuss the social aspects of a job (the second page of the report card - tardiness, getting along with others, etc.)

Sample guide to be sent to place of business before trip:

FIRE DEPARTMENT

1. Explain (very simply) fire truck, rescue truck, uniform and radio room

2. Explain shifts

3. Have someone slide down pole

4. Let class try on boots and helmet

HOTEL OR MOTEL

Would like to see all workers we can:

1. Desk clerk
2. Manager
3. Waitresses
4. Chamber maids
5. Cashier
6. Steno
7. Advertising people
8. Chef
9. Pool caretakers
10. Others

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

E. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House, Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Dansville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

Chronicle Guidance Publications, Inc.
Moravia,
New York 13118

ACCESSION NUMBER: VT101986

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. THIRD GRADE GUIDELINE.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; *CAREER AWARENESS; *CLASS ACTIVITIES; SELF CONCEPT; OCCUPATIONAL INFORMATION; TEACHING GUIDES; RESOURCE MATERIALS; VOCATIONAL DEVELOPMENT; *GRADE 3

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 132P.; SEE RELATED DOCUMENTS VT 101 983 THRU VT 101 985 AND VT 101 987 THRU VT 101 989 IN THIS ISSUE.

ABSTRACT: THE NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION WAS DEVELOPED AND FIELD-TESTED IN THE BISMARCK DISTRICT AND IN OTHER SCHOOLS THAT BECAME INVOLVED DURING 1970-1973. MATERIALS WERE COMPILED FOR TEACHERS' USE IN INTEGRATING CAREER EDUCATION ACTIVITIES INTO THE EXISTING CURRICULUM, ADAPTED TO LOCAL SCHOOL NEEDS. INCLUDED ARE CAREER EDUCATION PHILOSOPHY (K-6), OBJECTIVES, AND DEVELOPMENT CONCEPTS. THIRD GRADE OBJECTIVES ARE TO DEVELOP POSITIVE SELF-CONCEPTS, TO DEVELOP POSITIVE ATTITUDES TOWARD WORK AND WORKERS, AND TO PROVIDE OCCUPATIONAL ORIENTATION TO THE WORLD OF WORK. THIS VOLUME CONTAINS MATERIALS ON THE OBJECTIVES FOR GRADE 3. LISTINGS UNDER THE WORLD OF WORK PROVIDE SOME INFORMATION ABOUT VARIOUS OCCUPATIONS. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 986

GRADE 3

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

VT 101 986

VT101986

CE005 365

Third Grade Guideline

of the

Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

"BUY NORTH DAKOTA PRODUCTS"

TABLE OF CONTENTS FOR THIRD GRADE

I. Introduction

Preface iv
Acknowledgments v
Purpose of this Guideline vi
Career Education Philosophy (K-6) vii
Summary of Career Education Objectives. viii
Concepts to Develop (Grades K-6). ix
Third Grade Objectives. x

II. Development of Positive Self-Concept

Similarities and Differences. 1
Handling Feelings 4
Value Clarification 8
Positive Parent Relationships 9
Setting Personal Goals. 13
Initiative. 17
Leisure Time Activities (hobbies) 21
Responsibility. 33
Cooperation 100

III. Providing Information About the World of Work and Building Positive Attitudes

People I Know 22
Mothers and Fathers Work. 24
Problems of Handicapped People. 28
Newspaper Occupations 29, 32
Interdependency of Workers (people chain) 30
Special Talents in Jobs 34
Class Radio & TV Session. 35
Forestry Workers. 36, 41
Post Office Workers 43
Telephone Workers 44
Cooperation - Sign Language 45
Special Talents in Telegraphy 47
Occupations that Work with Codes. 48
City Hall Workers 49
Cotton Workers. 51
Special Clothing Needed 56
Geographical Impact on Jobs 58
Transportation Workers. 60, 65, 67, 71, 73, 75, 77, 79, 81
Community Tour. 64
Fireman 83
Health Occupations. 85
Nutrition 89
Professional Athletes 99
Working for Various Rewards and Satisfactions 101
Geographical Affects on Work. 102
Consumer Education. 103
Fine Arts Occupations 106

Table of Contents (continued)

III. Appendices

Resource People Guide. 110
Field Trip Guide 114
Suppliers of Resource Materials. 117

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

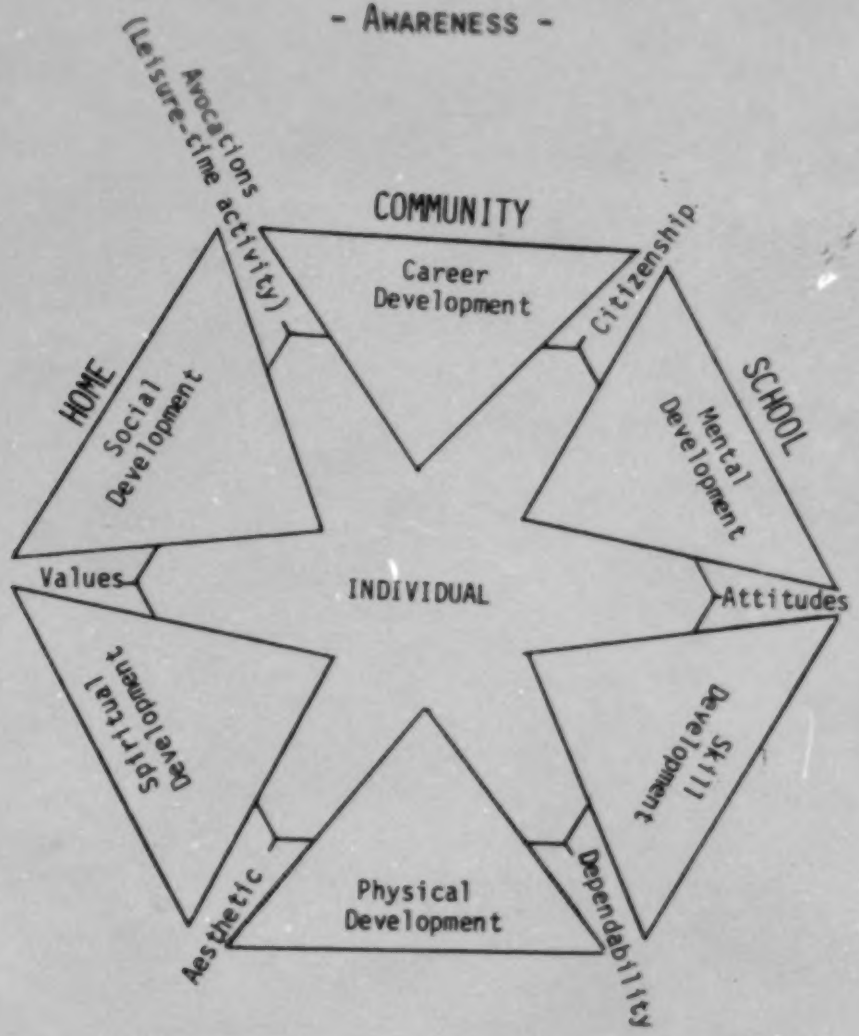
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life-long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B. Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

THIRD GRADE OBJECTIVES

I. TO DEVELOP POSITIVE SELF-CONCEPTS

A. To learn to live with success and failure

B. To develop healthy attitudes toward change

C. To set realistic goals in light of interest and abilities (lightly)

D. To develop healthy attitude toward work

E. To develop healthy attitude toward play

II. TO DEVELOP POSITIVE ATTITUDES TOWARD WORK AND WORKERS

A. To accept and respect self and others

B. To learn that people work for various rewards and satisfactions

C. To learn that all jobs are important

III. TO PROVIDE OCCUPATIONAL ORIENTATION TO THE WORLD OF WORK

A. To provide students with the sights, sounds, feelings, and smells of different occupations.

B. To help students see the wind range of occupations available

C. To develop an understanding that basic skills developed in school have a direct relationship to preparation for the world of work.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self-concepts

SPECIFIC BEHAVIORAL OBJECTIVE: Student will show his awareness of similarities and differences between classmates by listing three ways that he is like his neighbor and three ways that he is different.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Each child is given a peek into a box with a mirror and told that what they see is a very important thing to them.	1. Mirror	1. Mirror
2. Filmstrip	2. Show filmstrip as prelude to discussion of child as a person. This will also lead to discussion of backgrounds (family and experiences). Children should become aware of likes, dislikes, differences and likenesses.	2. Who Do You Think You Are? (filmstrip) Guidance Associates Pleasantville, New York 10570
3. Bulletin Board "Heads" may be put on handles and used in puppets activities	3. Children draw faces of themselves using six inch circle as basic face. Beneath the picture each child write a brief biographical sketch. (in a riddle form, from an Instructor magazine) The add features and cut out. Board can be titled "Here We Are Back in School" if done at the beginning of school year which is the best time. These faces are placed on board with pencil about ten inches long made of construction paper and having childs name. These	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Art: Self-portraits - mix flesh colored tempera paints and have them paint only head and shoulders including top of shirt or blouse they are wearing in their actual colors. (9x11 black construction paper)	3. continued items can be saved for end of the year folders for papers to be saved. A poem "As Long As I Live" can be used as part of folders at end of the year. VARIATION: Children could also draw the whole body to be assembled on the bulletin board for the first week of school. A good title would be "Welcome Back to School" Have children write a simple autobiography and put up their creative work.	3. Time For Poetry, by Arbuthnot "As Long As I Live"
4. Booklets titled "Who Am I?"	4. Booklets are assembled containing snapshots of child and family, story about child and his family, collage picture of items.	Film: Values - Understanding Ourselves. BFA Educational Media - Color - 9 minutes Film: Understanding Myself (Encyclopaedia Brit.) 4. EyeGate filmstrip and cassettes 202A - Who Am I? 202B Why Do My Feelings Change? 202C What Can I Do About It 202D How Can I Improve Myself? 202E What About Other People? 202F Where Do We Go From Here?
5. Game	5. The children may play a guessing game. One child may describe someone in the room and the others may try to guess who it is. After several rounds in the game the teacher may ask, How Did You Know it was "Susan" or"Ben"? etc. Through the responses of the children the teacher may help them understand that everyone is alike in some ways and different in some ways, and it is important to know ourselves.	

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Inventory	6. The teacher may use a check list as a means of helping students to begin to understand themselves. Example: I like to: -- be out doors --be indoors --draw pictures --help people --talk to people --work with machines --do things where I can move around --work with my hands --try new things --make up songs --build things --collect things	Song that may be used as a poem: I like to ride on a load of hay, And tramp in puddles on a rainy day; To swing and swing on the garden gate, And when there's company, to stay up late. Oh, I like high in the trees to climb, And eat sugar cookies six or seven at a time; But some things I like are not best to do, So I don't do all I want - CAN YOU?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self concepts

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of his feelings, each student will relate at least one feeling that he has had during his life and why he felt this way.

SUGGESTED SUBJECT AREA Language arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Read Middle Matilda	Teacher can read the book orally to the class - ask the questions that are suggested to be used with the book.	Middle Matilda, Winifred Bromhall Alfred A. Knopf, Inc. Little Black, A Pony, Farley. Random Edith and Mr. Bear, Wright. Random Peter's Three Friends, Winifred Bromhall Knopf Our Veronica Goes to Petunia's Farm Roger Duvoisn. Random House "Little Pedro" (p.299) in Along Friendly Roads Betts Readers 1963 The Hundred Dresses, Lola Estes. Harcourt Brace & World Filmstrip/cassettes: Who Do You Think You Are? Guidance Assoc. Film: Values: Understanding Others BFA
Discuss the different feelings	Discuss with the children the different feelings they have felt - Variation: Children could also write about their feelings: I get angry when. . . . I feel sad when. . . . I am happy when. . . .	
Draw pictures	Draw a picture of the expression on Matilda's face when she discovered her new dress was missing. Draw a picture of the expression on Matilda's face when her dress was returned. Variation: Have children make own faces resemble Matilda's expression.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Handling Feelings

1. To help children progress from infantile to mature ways of managing their feelings.
2. To encourage children to discuss their feelings and the best ways to handle them.
3. To help children release their emotions in an acceptable manner rather than repress them.

EVERY person has feelings about everything and everyone he encounters. On some occasions there are acceptable ways of displaying these feelings; at other times they must be controlled. A baby or small child may display all his feelings, but he must learn to control them as he grows older.

School children are particularly subject to feelings of jealousy and anxiety. Jealousy may be aroused by inability to compete for attention shown to others; it may be directed at other children, their toys, or their friends. Anxiety is a discomfort that pervades all aspects of a person's life. Its diffuse quality makes it difficult to determine a definite cause or source. The anxious child is edgy and explodes with minimal provocation.

The young child displays feelings of fear, discomfort, pain, and anger by crying. He is expected to control this reaction as he grows older, although in our society women of any age may cry when overcome with emotion. Smiling, laughter, and singing are reactions to feelings of happiness. Envy and rivalry are often signs of jealousy.

The child must learn appropriate ways of handling his feelings and displaying his emotions. He should be encouraged to discuss his feelings, for his performance in school may be blocked by a flood of emotions he cannot control. Just as a football player must be in excellent physical and mental condition to play the game, the child must be in good physical and emotional condition to undertake the challenge of school and study. The assumption that one can, or even should, block out or ignore one's emotions has long been forsaken. Emotions make life interesting and enjoyable. The child must develop an ability to handle his emotions so they best serve him.

Middle Matilda

by Winifred Bromhall

p. 2 ► By the time a dress reached her it was often so faded and shabby, Matilda hated wearing it.

1. What kind of dress do you suppose Matilda really wanted?
2. How does it make people feel to have something that is their very own?

p. 6 ► Matilda was so excited that her fingers were all thumbs. At last the box was opened and there lying on soft, white paper was the most beautiful dress she had ever seen.

1. How do you suppose Matilda felt?
2. Did Aunt Matilda know her gift would make Matilda happy?

p. 12 ► "Wait for us! Wait for us! We want to help you," called her brothers and sisters.

1. How did Matilda feel when she found her dress was gone?
2. How did her brothers and sisters feel? Why?

p. 14 ► How kind they were! Matilda tried to smile.

1. Why did Matilda try to smile?
2. Was she happy or was she trying to show that she appreciated what others were doing for her?

p. 20 ► "As soon as we have fed the animals we must go and find her."

1. Do you suppose they know how the little girl who lost the dress must feel?
2. Why aren't they just going to sit around and wait for some little girl to knock on the door and ask for the dress?

p. 22 ► They asked if anyone had seen a little girl looking for a dress.

1. Grandmother and Peter didn't know Matilda, but were doing her a kindness. Should people be willing to do others a kindness? Why?
2. What important lesson was Grandmother teaching Peter?

MIDDLE MATILDA by Winifred Bromhall

p. 24 ► Mother made them sit down and rest and brought milk and cookies from the kitchen.

1. How did Matilda's family feel when Grandmother and Peter brought Matilda's dress back?
2. What did they do to show that they appreciated it?
3. How do you think Grandmother and Peter felt when they saw how happy they had made Matilda and her family?

p. 28 ► The party turned out to be even more wonderful than Matilda could ever have imagined.

1. Why does it make people feel good to be at a party?
2. Why is it fun to be with other people?

p. 30 ► That night as she lay in bed Matilda said to herself, "This has been the nicest day of my whole life. But the very nicest thing of all is being MIDDLE MATILDA."

1. How did Matilda feel during the day?
   when she got her present she felt _____.
   when she lost her dress she felt _____.
   when the others helped her find it she felt _____.
   when it was returned she felt _____.
2. How does Matilda feel now as she lies in bed? Why?
3. Can what people think about and what they do for others change the way they feel?

SUMMARY DISCUSSION: Everyone has feelings and there are many ways of expressing them and handling them. We should all try to learn the proper ways to show others how we feel and how to behave ourselves when we feel a strong emotion.

Further Reading:

LITTLE BLACK, A PONY by Walter Farley
WHAT WILL I WEAR by Helen Olds
EDITH AND MR. BEAR by Dare Wright
PETER'S THREE FRIENDS by Winifred Bromhall
OUR VERONICA GOES TO PETUNIA'S FARM by Roger Duvoisin

Taken From:
The Random House Program for Elementary Guidance
Random House/Singer School Division

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self-concepts.

SPECIFIC BEHAVIORAL OBJECTIVE: After viewing the filmstrips or films and the discussion the children will be able to draw a conclusion and defend his idea and value in an objective way.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 1-3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use filmstrips and cassettes suggested.	1. These are open-ended situations that allow for discussion or written endings to discuss. The children will be able to share ideas and values with others.	Guidance Associates - cassettes & filmstrips First Things - The Trouble With Truth Parts I & II First Things - You Promised! Parts I & II
2. Draw a picture	2. The children should include in their picture what they think happens next. They should put a caption beneath the picture to tell what is happening.	Film: Values - The Right Things to Do 775-BF5 , color 9 minutes (synopsis in cover of film - also discussion questions provided)
3. Role playing	3. The children could play the different parts of children portrayed in the film and filmstrips. Use variations.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Developing positive self concept

SPECIFIC BEHAVIORAL OBJECTIVE: After reading and discussing this book each child will be aware of the fact that families need each other and be able to write 3 ways he depends upon his family.

SUGGESTED SUBJECT AREA Language - Social Study

SUGGESTED GRADE LEVEL 1 - 2- 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Book	1. Read and discuss book listed. Guide included with activity for discussion questions.	Runaway John, Leonore Klein Alfred A. Knopf, Inc.
2. Write	2. Write an original ending to story which changes the story from midpoint on.	
3. Draw	3. Draw a picture showing how John might have felt with an original ending.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

21

Positive Parent Relationships

1. To assist children in discovering the value of the family and help them see the parental viewpoint.
2. To help children acquire a sense of responsibility toward family members.
3. To encourage each child to contribute to a harmonious family relationship.

THE PERSONS with whom the child spends the most time each day are his parents. He is dependent upon them and will have a close relationship with them throughout his life. The happiness and comfort of the individual depend, in part, upon a good parent relationship.

The child must understand that his parents give him jobs to do and make rules for his behavior to develop his sense of responsibility and self-control. If he forgets that his parents act in his best interest, the family relationship rapidly deteriorates. Another important factor in determining the parent relationship is the child's behavior. An obedient child will usually have a good relationship with his parents. He should show them that he is trustworthy, that his behavior conforms at all times to their expectations.

In fostering a good parent relationship, a balance must be sought. Forcing children may move them but not inspire them; it may arouse hostility. On the other hand, acknowledging a child's every whim will not provide situations in which he can test his standards of behavior. Instead, definite goals leading to successful accomplishment should be instilled in the child to help develop a positive parent relationship.

Runaway John

by Leonore Klein

p. 1 ► "I know," said John. "I'll run away from home. That's what I'll do."

1. Has everyone felt like running away at one time or another?
2. Do parents need their children too much to let them run away?

p. 5 ► "If I run away from home," said John, "I'll have to sleep. I'll need something warm for a cover at night."

1. Who gives John a cover when he is at home?
2. What are some other things parents do for their children?
3. Do you think he'd miss his parents if he ran away?

p. 10 ► Then John said, "If I run away from home, I'll need my dog. I'll need him for hunting and because he'll miss me."

1. Who else would miss him if he ran away?
2. Would his parents miss him? Why?

p. 19 ► So John ran to William's house and asked William to run away from home with him, and William agreed to run away from home with John.

1. Do you think John is really going to run away?
2. What do you think he will want to take with him next?

p. 23 ► "I'll be glad to run away from home with you," said John's mother, and she joined John on the steps of the porch.

1. Why do you think John's mother agreed to come along?
2. Will she be able to help John and William if they all run away from home?

p. 25 ► "And if we run away from home," said John to his mother, "Daddy will be all alone."

1. Why doesn't John want his Daddy to be all alone?
2. Does John's Daddy need John and his mother?
3. What are some things children do for their parents?

p. 26 ► "You know what," said John to his dog, Towser, to his friend, William, and to his mother, "I'll run away from home some other time, when Daddy can run away with us, too."

1. What are some things children enjoy doing with their parents?
2. Does John love his parents? How do you know?

RUNAWAY JOHN by Leonore Klein

p. 29 ► They decided to run away from home with John some other time.

1. Do you think John will ever really run away?
2. Is it important for children to understand their mothers and fathers?
3. Do you think John's parents love him? How do you know?

SUMMARY DISCUSSION: Our parents know what we need to grow up to be adults. For this reason we should obey them. Our parents need us, too, and enjoy seeing us happy.

Further Reading:
HAVING A FRIEND by Betty Miles
TWINKLE, THE BABY COLT by Lawrence Barrett
HOW TO CATCH A CROCODILE by Robert Pack
MOMMIES AT WORK by Eve Merriam
BRIDGET'S GROWING DAY by Winifred Bromhall

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self-concepts.

SPECIFIC BEHAVIORAL OBJECTIVE: After the book has been read and discussed each child will be able to state one personal goal for himself.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Read	Teacher can read to the class How to Catch a Crocodile.	How to Catch a Crocodile, Pack. Knopf, Inc.
Discuss	Discuss the questions provided. They will bring out setting personal goals.	Questions attached
Write statements and draw a picture	Have the children write a sentence telling about something that they want but have to work for. In another sentence have the children think of ways that they can achieve this goal. Below these statements have the children draw a picture of themselves after reaching this goal. Children could share similar incidents after completion.	Another book bringing out setting of personal goals: Do You Know What I'm Going to Do Next Saturday?, Palmer. Random House

SUGGESTED CORRELATION FOR THIS ACTIVITY:

25

Setting Personal Goals

1. To help the teacher understand the necessity of paying more attention to the early goals of school children.
2. To encourage children to be persistent in seeking their goals.
3. To provide an atmosphere in which children will have an opportunity to set and meet goals.

SETTING PERSONAL GOALS is deciding for oneself what is important for one to do or to achieve. A person must first decide what he feels is important, then consider his own abilities and limitations, and finally set specific goals for himself; reaching these goals is defined as success. If he is not realistic in assessing his talents and abilities he may set goals for himself he cannot possibly achieve and thus doom himself to failure.

Personal goals can be considered a map of a person's life as he hopes it to be, useful in choosing the shortest, most convenient route to his destination. Goals also impart a sense of purpose to the activities of daily life.

Personal goals have their roots in early childhood, and result from experiences, particularly successful ones. Childhood goals are often unenduring and of little consequence; however, they are important foundations for the emergence of stronger, more practical goals in adolescence and adulthood.

Too often, a child's goals are adult-imposed and have little meaning for the child. He may not seem to move toward them. This behavior results not from disobedience, but from a failure to understand goals which are not his own. Each child has a unique background of experience, which can serve as a source of personal goals. These need only be a foundation for the channeling of the child's interests. Early goals and experiences are synthesized into the stronger goals of the adult over a long period of time.

Setting childhood goals based on the individual's unique experiences serves to further individualize him. This has important consequences for modern teaching, which stresses the child's uniqueness and individuality. Personal goals may become one of the keys to effective classroom operation for teacher and pupil.

How to Catch a Crocodile

by Robert Pack

p. 2 ► For he liked being zoo keeper; he thought it was swell.
And always he had a long story to tell:

1. Do you know anyone like Mr. Trappi?
2. What do you think this story is about?

p. 4 ► "I'll catch a big one for you," cried Billy.

1. What is a goal?
2. Why would it be hard to catch a crocodile?
3. How do you think Billy will go about trying to catch one?

p. 6 ► "And don't think they're friendly because of their smile.
They've just had a snack, and they're resting a while."

1. Do you think Billy knew what crocodiles were before he said he'd catch one?
2. Does this sound like the kind of job he should try to do?
3. What kind of animals do you think he could catch?

p. 11 ► To bed Billy went and snuggled right in,
Pulling his blanket right up to his chin,
And grinning his very grinningest grin.

1. Why do you think Billy is grinning?
2. Do you think he has an idea about how to catch a crocodile?
3. How would *you* catch the crocodile?

p. 13 ► "What for?" asked his father. "You'll soon see; just wait.
I'll be famous," said Bill. "I'il be rich, I'll be great."

1. What does famous mean?
2. Would everyone like to be known as a famous crocodile hunter?

p. 14 ► "And, most of all, Dad, I hope its O.K.
I need a plane ticket to Egypt today."

1. Why do you suppose Billy is taking all this trouble to catch a crocodile?
2. What kind of things that people do take a lot of work?

HOW TO CATCH A CROCODILE by Robert Pack

p. 17 ► "And tell him to clean out the crocodile pen.
So good-by for now, and I'll see you again!"

1. What is confidence?
2. Does confidence help when people have a job to do?
3. What else helps people to get things done?

p. 28 ► Took out the binoculars, looked through the wrong end,
And what did he see? Can you guess, my dear friend?

1. What do you suppose he saw?
2. Do you think his plan will work?

p. 30 ► It had worked! He was caught! Success, at last!

1. How do you suppose Billy felt when he caught the crocodile?
2. How do people feel when they do something they've always wanted to do?

SUMMARY DISCUSSION: It makes us feel good to have something we are working for, and it makes us feel even better when we get what we wanted. What are some *goals* you have? How do you intend to reach them?

Further Reading:

COWBOY ANDY by Edna Chandler
JIM CAN SWIM by Helen Olds
DO YOU KNOW WHAT I'M GOING TO DO NEXT SATURDAY? by Helen Palmer
BRIDGET'S GROWING DAY by Winifred Bromhall

Taken From:
The Random House Program for Elementary Guidance
Random House/Singer School Division

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self-concept.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge of their own potential each child will be able to write a story relating at least one of their experiences when they were afraid to do something new, but tried it anyway.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Read orally	1. Read orally Jim Can Swim.	Jim Can Swim, Olds. Random House
Discussion	2. Discuss the questions suggested to correlate with this book.	What Will I Wear, Olds. Random House
Write a story	3. Children can write a story about one of their experiences when they were afraid to do something new, but tried it anyway.	What's a Cousin, Olds. Random House

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Initiative

1. To help children discover that they have unlimited potential and inner strengths that only they can develop.
2. To encourage children to become more independent in thought and action within the proper limits.
3. To assist children in discovering the joys of learning to rely on themselves.

INITIATIVE is a drive within an individual that makes him do things on his own. It is like the spring in a wind-up toy. The energy of the spring causes the toy to move in some way. Initiative, the energy within a person, causes him to act.

The person who rakes the leaves or does some job around the house without being told to exhibits this quality of initiative. The child who comes home from school and changes his clothes or does his homework without being told to also shows initiative. The quality of initiative, then, is like a self-starter, moving individuals to action by something within themselves.

A person who shows initiative is generally well thought of by the people around him, is likely to be succeessful, and is usually a leader. Though obviously a desirable quality, initiative must be developed. There are actions which one's initiative may not prompt; these limits, too, must be learned. An individual who acts without society's approval will be punished. He may then withdraw, and allow others to tell him everything he should do; or his behavior may move into the "off limits" area of delinquent activity. It is necessary that the child's initiative be fostered in the proper directions and the proper dimensions.

The child must understand that initiative is to be developed gradually over the course of his growth from a child to an adult. He can develop it by reminding himself to do the things he knows he should do, until this becomes a habit and he begins taking action on his own without having to think about it.

Jim Can Swim

by Helen Olds

p. 3 ► George asked, "You mean you don't know how to swim?"

1. How many of you know how to swim?
2. Did you take lessons to learn?

p. 3 ► "We'll teach him!" they said at the same time.

1. How can people help one another learn to do something?
2. What kinds of things are taught by friends and relatives?

p. 5 ► Jim really wanted to learn, but he was scared.

1. Are people often afraid to try something new?
2. Should they try anyway? Why?
3. Should we sometimes be afraid?

p. 7 ► Then he began to eat as fast as he could.

1. Why is Jim eating?
2. Why do you suppose he doesn't want to swim?

p. 10 ► "I don't *want* to swim!" he yelled after them.

1. Do you think Jim meant this?
2. Why do you think Jim said it?

p. 15 ► He really did want to learn, but he didn't believe he could.

1. Why didn't he believe he could?
2. If Jim really wants to learn what should he do?

p. 18 ► Jim held onto his horse with one hand and moved his arm.

1. Who is teaching Jim how to swim?
2. How is he learning?
3. Why do you suppose he is working so hard at it?

p. 30 ► He was surprised when he realized that he was swimming.

1. How does he feel now that he knows how to swim?
2. Does learning how to do things usually make people feel good?

JIM CAN SWIM by Helen Olds

p. 32 ► They smiled at Jim. They were his friends now.

1. Do you think learning how to swim was worth the effort?
2. How did learning how to swim make new friends for Jim?

SUMMARY DISCUSSION: Often, if we want to do something very much, and work hard enough, we can learn how to do it. Learning to do things on our own is a sign of growing up.

Further Reading:
COWBOY ANDY by Edna Chandler
WHAT WILL I WEAR by Helen Olds
KATE CAN SKATE by Helen Olds
WHAT'S A COUSIN by Helen Olds
PETUNIA TAKES A TRIP by Roger Duvoisin

Taken from
The Random House Program for Elementary Guidance
Random House/Singer School Division

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self concepts.

SPECIFIC BEHAVIORAL OBJECTIVE: The children should be able to write in a paragraph the benefit of having a hobby.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL Third Grade

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discuss	Teacher may ask questions to the class such as: a) What are hobbies? b) What are interests? c) What hobby or hobbies do you like? d) Which would you like to have? etc.	
Hobby show	The children could have a hobby show. This would be a good experience in speaking in front of a group of people. They could explain their hobby to the class and tell what occupations this hobby might lead to.	
	A person might be invited to speak to the class whose hobby as a child led to a vocational choice. The teacher will want to screen carefully before selecting the speaker.	Resource person
Read Books May wish to make puppets of these people.	The children may read biographies of famous people such as George Washington Carver and Thomas Edison to discover child hood interests and hobbies which may have led them to vocational	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward World of Work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list five occupations discussed and list one skill necessary for each and also three advantages and one disadvantage of each occupation chosen.

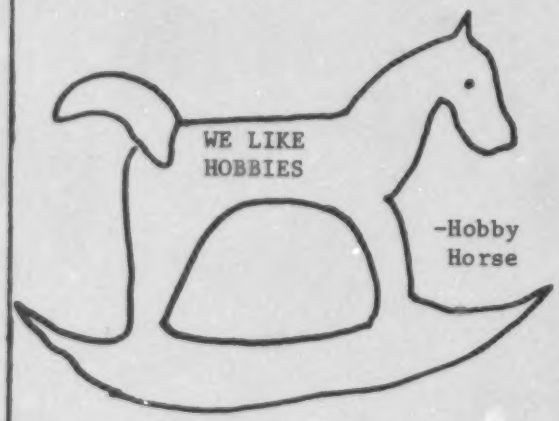
SUGGESTED SUBJECT AREA Social Studies and Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Mirror, Mirror on the Wall What Will I be When I Grow Tall? Resource people Art project	Filmstrip -"People I Know" can be used to introduce occupations. Resource people of various occupations can be called in to discuss their occupations. They should come in uniforms if one is worn and bring any tools used. Using parents of children involved would be most impressive. Children can make folders using rectangles of doiley as mirror frame and snow themselves in chosen occupation; inside a story of why they chose the occupation. Have children bring in some article that represents their parents job such as a uniform - tool, etc.	"People I Know" - Filmstrip Guidance Associates Form showing exact area of interest to class should be provided resource person so he knows exactly what is expected of him. This form should include time and place and approximate time expected to stay.

34

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Bulletin Board	Consult reference books before reporting occupations associated with the hobby. Bulletin board suggestions  Children draw pictures of their hobby. Insects, paper dolls, stamps, doll clothes, trading cards, rocks, leaves,etc.	Children's own collections and interests.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Student will be able to tell about what his father's or mother's work involves and draw a picture depicting it.

SUGGESTED SUBJECT AREA Language and Art

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have student stand before the class and tell about the work of his father or mother. 2. Have students draw a picture headed My father is a ------ or My mother is a ------ Variation: Children could dress up as their parents and tell about the parent's job, or interview parents on tape.	1. Discuss with students the fact that there are about 40,000 different jobs now and today we'd like each of you to share with the rest of the class what one of your parents' occupation is. 2. After each person has told about their parents, have class discuss why this job is important to all of us. 3. If a child's father or mother are not working have him discuss and draw some other relative or friend. 4. Play "Guess Who I Am". The first day ask riddles about what the worker wears. Another day the teacher can change the activity by letting the children pantomi e what a worker does in his job. Could use the workers in the filmstrip or workers like the mothers and fathers of the children in the room. Discuss how the children can help their parents do work in their own homes.	Filmstrip - "Mothers Work Too" Set of 6 strips IFC "Fathers Work" Set of 6 strips - IFC Film - Why Fathers Work, Color 14 min. Encyclopedia Britannica Co. Cassette - My Mother has a Job filmstrip EyeGate Film - Centron Educ. Films Jobs in the City - Women at Work 11 min. color

SUGGESTED CORRELATION FOR THIS ACTIVITY:

36

Home and Family

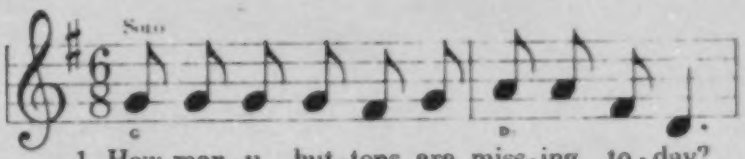
She loves me when I'm glad er sad;
She loves me when I'm good er bad.

An' when my Pa comes home to tea,
She loves him 'most as much as me.

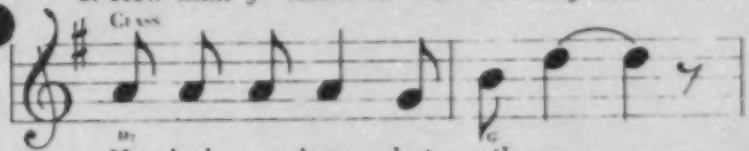
James Whitcomb Riley

Nobody Knows but Mother

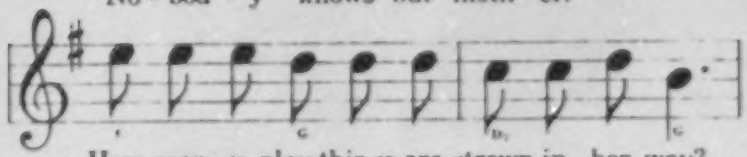
Mary Morrison — p. 275 — Peter Dalton



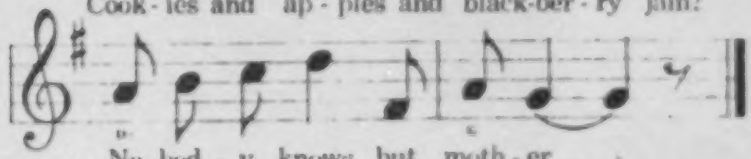
1. How man - y but - tons are miss - ing to - day?
2. How man - y mud - dy shoes all in a row?
3. How man - y lunch - es for Tom - my and Sam?



No - bod - y knows but moth - er.
No - bod - y knows but moth - er.
No - bod - y knows but moth - er.



How man - y play-things are strewn in her way?
How man - y stock-ings to darn, do you know?
Cook - ies and ap - ples and black-ber - ry jam?



No - bod - y knows but moth - er.
No - bod - y knows but moth - er.
No - bod - y knows but moth - er.

The repeated notes make this an easy song to read at sight!

Ach, Ja!

German Folk Song

IN WALKING RHYTHM

1. When the fa-ther and the moth-er take the
2. When the chil-dren and the par-ents go a-

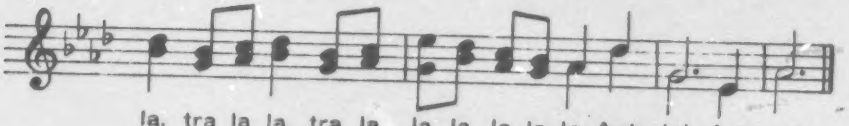
chil-dren to the fair, Ach, ja! Ach, ja!
walk-ing through the fair, Ach, ja! Ach, ja!

They don't have a lot of mon-ey, but they
They see sights they nev-er dreamed of. How they

real-ly do not care. Ach, ja! Ach, ja!
won-der! How they stare! Ach, ja! Ach, ja!

Refrain

Tra la la, tra la la, tra la la la la la la, Tra la



la, tra la la, tra la la la la la la, Ach, ja! Ach, ja!

 A d[illegible] in the Guide. [illegible]ng this song [illegible]

Lullaby and Good Night

Johannes Brahms

Legato

p

1. Lull-a - by and good night! With ros - es be - dight, With down o - ver - spread Is ___ ba - by's wee
2. Lull-a - by and good night! Thy moth-er's de - light, Sweet vi-sions un - told Thy soul shall un -

mp

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes to the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will demonstrate his understanding of the problems the handicapped people have in communications by writing a paragraph describing one handicap.

SUGGESTED SUBJECT AREA Lang. Arts-Soc. Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss the need of physically handicapped people to use other means of communications.	1. Have a pamphlet for each child. Have them read the pamphlets and try to read the braille and learn the sign language. Discuss how you would print braille.	1. Pamphlets on Braille and Hand language for the deaf. Dept. of Public Instruction State Capitol Bismarck, ND 58501
2. Creative Writing	2. Blindfold or plug the ears of a child. Have him tell what it is like, what must be overcome, what substitutions and reinforcements must be made, what must be done to accomplish a new normal life.	Books: Helen Keller Resource person - Some physically handicapped person. Stories in ABC's Triple I Series: "Needing A Friend" p. 156-161 A. B. C. (B) Helen Keller p. 188-190 A. B. C. (F) The Visit to Williams Street. p. 177-88 A. B. C. (D) The Can Do Man, pg. 114-122 A. B. C. (E) Arriba Julio pg. 38-47 (F) A. B. C. The Party that Went to A Girl p. 78-85 (F) A. B. C. A Kind of Miracle p.287-297 (F) A. B. C.
3. Resource Person	3. Invite a handicapped person to visit classroom to relate experiences.	
4. Field trip	4. Visit vocational rehabilitation center.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will show that all jobs are important in gaining an end product by listing at least three jobs connected with producing a newspaper and explaining how each is interdependent upon each other.

SUGGESTED SUBJECT AREA Social Studies & Language

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Children study the different parts of the newspaper.	Obtain a newspaper for each child from your local newspaper. They are usually more than willing to deliver them, which is a lesson in itself. Have the children find the headlines and feature stories, editorials, sports, comics, want ads, advertisements, etc. Discuss the importance of each part of the newspaper and the workers involved in the printing of the newspaper. Have children write their own newspaper with giveaway column, want ads, etc.	Newspaper. Get enough past issues of a newspaper from a newspaper office. This should be enough issues so that each child receives a copy. Plan to get issues early in the week such as Monday or Tuesday. Wednesday's issue is too cumbersome with ads. Come to Work With Us on a Newspaper Wilkinson-Sextant systems, inc.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

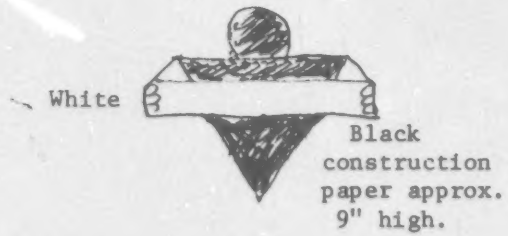
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will display an understanding that all workers are dependent on one another by fitting in at least ten workers on a blank "people" chain.

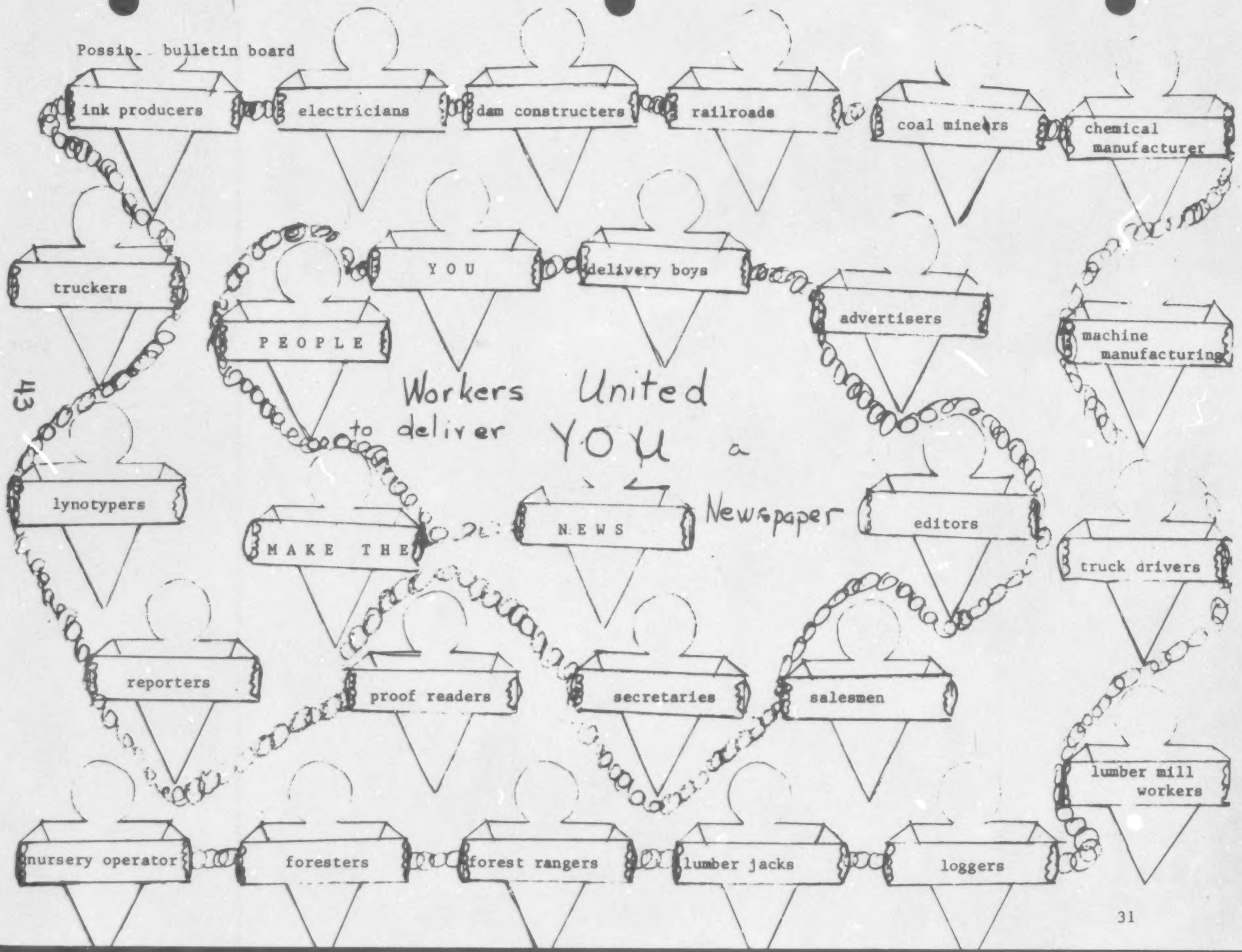
SUGGESTED SUBJECT AREA Social Studies and Language

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Children make a people chain of workers involved in getting the final product of the newspaper to their homes. (Paper doll chains work for this too.)	Back a large bulletin board with bright colored paper. Have bulletin board figures prepared for the children. Example 	Teacher prepared men (for use with bulletin board)
Recall for bulletin board	Have children write a worker on a man and place on bulletin board. Connect with paper chain. Have a dittoed people chain for testing purposes. Sample of people chain attached.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Possib.. bulletin board



43

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observational experiences of the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After a trip to a newspaper office each child displays an awareness of working conditions in a newspaper plant by writing a story about the way the plant operates.

SUGGESTED SUBJECT AREA Social Studies and Language

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Trip to a newspaper office.	Arrange a tour of your local newspaper office. If possible, have a resource person come in and explain some of the workings before the trip.	Newspaper Office Resource Person from newspaper office
Write letters	Write thank you letters to newspaper office after visit.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self concepts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will display a sense of responsibility by bringing a newspaper article on the day preassigned and then relating to the class what is contained in that article.

SUGGESTED SUBJECT AREA Social Studies and Language

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Make a bulletin board to be left up all year. Variation: Draw a newspaper boy holding a newspaper. Around him the children could bring in the news, weather and sports articles.	WHAT'S NEWS? Take a newspaper and add construction paper eyes, mouth , arms, and legs. Children bring news from home. Suggest one group per day. Children tell, not read, what is in the article before placing on the bulletin board. Variation: An additional caption could be "Freddy, The Newshound says - (use a large drawing of a newshound to the left of the "Newspaper Man".) Discuss workers involved in the newspaper production.	Newspaper Class Books 1. I Want to Be a News Reporter by Carla Greene Children's Press, Inc. - 1958 2. Your World - Let's Publish a Book by Pope and Emmons, Taylor Publ. Co 1968 Filmstrip: "Communications: The Newspaper" #641263 McGraw-Hill

SUGGESTED CORRELATION FOR THIS ACTIVITY:

45

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Children display the understanding that some jobs require special talents by electing for their newspaper officers three children who have neat penmanship.

SUGGESTED SUBJECT AREA Social Studies and Language

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Set up a class newspaper. Children choose name and elect an editor, assistant editor and printer.	Discuss the class newspaper which will be published once a month. Have children suggest and vote on names for their paper. All children are reporters and turn in articles the first three weeks of each month. Children elect three people who are responsible for proofreading and printing the stories on dittoes. These children are the editor, assistant editor and printer. A requirement for the position could be neat penmanship. These people serve a certain amount of time and then new officers are elected. Teacher runs dittoes off and the three children put them together to be passed out Friday of the fourth week. May pass copies to all rooms in the school.	Three elected class newspaper officers Books: News Travels, Cynthia Chapin A. Whitman I Want to Be A News Reporter, Carla Greene Childrens Press Let's Go to a Newspaper, Laura Sootin Putnam Filmstrip: The Neighborhood Newspaper Store. Eyegate 107G

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completing introductory material all children will demonstrate responsibility and cooperation by completing their assigned duties for the class radio and television station.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Set up class radio and T. V. station.	1. First day of school teacher opens up the class with her own radio program; songs off a record, weather (suggest class have indoor-outdoor thermometer) sports and news headlines. Children select name for station. Decide on length of time to use. Then children draw for assignments. Each child draw a date from the weather box, news, sports, cameraman, audio sequence, tape recorder, so that you have the assignments for the time alloted. Discuss the duties of each position - training etc.. Use play mike Monday - Thurs. Use real mike and record program on Friday.	1. Newspapers - record - indoor outdoor thermometer, play mike made from broomstick and tin can. tape recorder and microphone T. V. Camera made from small box covered with brown paper, call numbers may be placed on side after selection. 2. T. V. or Radio Studio
2. Preparation for field trip. View filmstrip	2. In preparing to take a field trip to a radio or t.V. station, listen or watch a program, preferably the station that you intend to visit. Discuss what they liked about the way the people spoke and the material listened to.	Film - Communication for Beginners 11 minutes Books: Polly Perry, T. V. Book Ethel E. Bangeth Communication, Jake Forsyth Batchelor Television Works Like This, Jeanne & Robert Berdick Come To Work With Us in a T. V. Station, Jean and Ned Wilkinson

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list five things we get from trees and tell why we need them.

SUGGESTED SUBJECT AREA Social Studies and Science

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Poem	1. Read and discuss the poem, "What Do We Plant?" What different uses of trees are mentioned in this poem?	One Thousand Poems for Children by Henry Abbey. Macrae-Smith Company
2. Discussion	2. Name other products that are a product of the forest. Could mention products found in the classroom.	Regions and Social Needs, Laidlaw Selected page listing in the Index.
3. Take a walk around the school neighborhood. Take note of the types of trees growing.	3. What trees grow well in your particular neighborhood? After walk discuss the types of trees in that area.	Filmstrips and Cassettes: Where do we get our Lumber? 684-1 Where do we get our Paper? 684-3 Imperial Film Company, Inc.
4. Discussion and listing values of planting trees.	4. What are the values of planting trees. a. Conservation b. Produces food c. Homes for animal life d. Human shelt r e. Many by-products made from wood	Films: Encyclopaedia Brittanica A Tree is a Living Thing 11 min, color Living Things Depend on Each Other 11 min, color Forest Ranger, 13 min, color The Lumberman #2257 color
	5. Discuss workers involved in the lumbering industry.	Books: I Want to Be a Forester by Eugene Baker, Children's Press 1969
5. Discussion	What do the following forest workers do: Forester, Swamper, Forest ranger, Bucker	Films: The Logger, 15 minutes Net Film Service, Indiana University, Bloomington, Indiana 47405

48

SUGGESTED CORRELATION FOR THIS ACTIVITY:
Science: Autumn - study of why leaves change color. Also identify trees by their leaves, seeds, nuts etc.
Ecology: Relation of forests to animal life - Smokey the Bear filmstrips & fire prevention.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Write on cards step by step of the process from planting through producing of wood.	6. Write one step per card of the process from planting through the producing of paper. Shuffle the cards, have children arrange cards in the correct order.	Your World Let's Visit a Mill by Billy Pope, and Ramona Emmons, Taylor Publishing co.
7. Bulletin board	7. Have children bring in pictures of finished products of the forest. It can be displayed on a bulletin board.	Song - "The Forest Ranger" p. 111 Music Everywhere Boston C. Birchard & Co.
8. Field trip	8. Plan a field trip to a local lumber yard or tree nursery.	"Smokey the Bear", Discovering Music Together, Book 4, pg. 65 Follett
9. Write letters	9. Write thank you letters to the lumber yard visited.	"The Shantyman's Alphabet" The American Singer Second Edition Pg. 60 American Book Co.

WHAT DO WE PLANT?

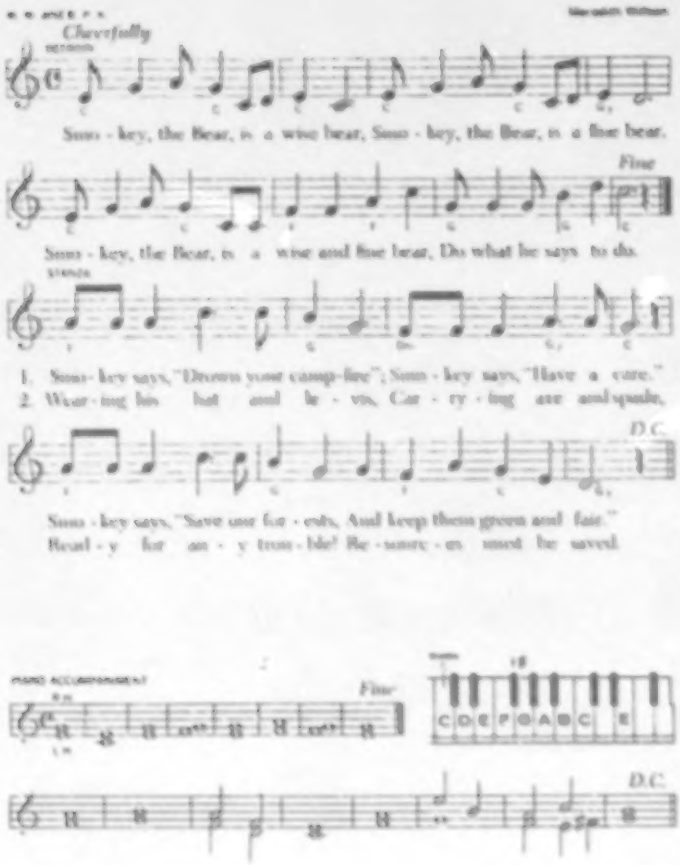
by Henry Abbey

What do we plant when we plant the tree?
We plant the ship, which will cross the sea.
We plant the mast to carry the sails;
We plant the planks to withstand the gales---
The keel, the keelson, and beam and knee;
We plant the ship when we plant the tree.

What do we plant when we plant the tree?
We plant the houses for you and me.
We plant the rafters, the shingles, the floors,
We plant the studding, the lath, the doors,
The beams and siding, all parts that be;
We plant the house when we plant the tree.

What do we plant when we plant the tree?
A thousand things that we daily see;
We plant the spire that out-towers the crag,
We plant the staff for our country's flag,
We plant the shade, from the hot sun free;
We plant all these when we plant the tree.

Smokey, the Bear, Is a Wise Bear



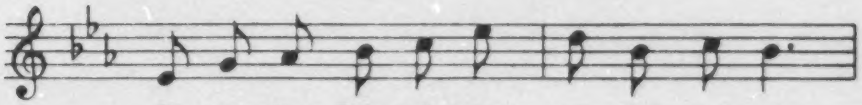
Taken from:
Discovering Music Together, Book 4
pg. 65 Follett

The Shantyman's Alphabet

Traditional ROTE Irish Tune

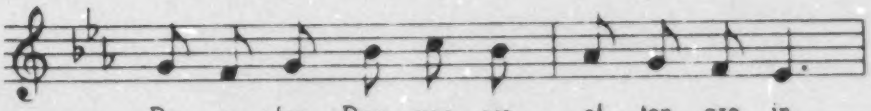
Quite fast

1. A is for Ax - es we all of us know,
2. E is for Ech - o that thro' the wood rang,
3. I is for I - ron to mark out the pine,



B is for Boys who can use them just so,
F is for Fore-man, the boss of our gang,
J is for Job - ber who's al - ways be - hind,

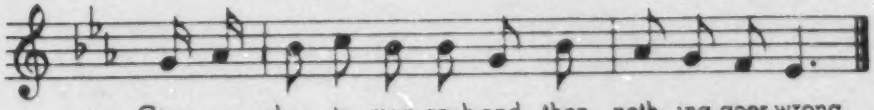
C is for Chop - ping we soon will be - gin,
G is for Grind-stones we keep on the move,
K is for Keen edge our ax - es must keep,



D is for Dan - ger we of - ten are in.
H is for Han - dle so strong and so smooth.
L is for Lad - ders to climb where we sleep.

Chorus after Stanzas 3 and 7

Hi der - ry, ho der - ry, hi der - ry down,



Give a shan - ty - man grub and then noth - ing goes wrong.

Taken from: The American Singer, (Second Ed.) pg. 60, American Book Co.

4. M is for Moss that we dry in a box,
   N is for Needle for darning our socks,
   O is for Owl that cries in the night,
   P is for Pine that must always fall right.
5. Q is for Quarrels we never allow,
   R is for River our logging rafts plow,
   S is for Sledges so steady and strong,
   T is for Teams that will haul them along.
6. U is for Use that we put our tools to,
   V is for Valley we drag our logs through,
   W's for Woods that will bloom in springtime,
   X is for Axe, but it can't make a rhyme.
7. Y is for Yank, who can whistle and sing,
   Z is for Zero that cold winters bring.
   That's all the letters that I can put down;
   Farewell, my hearties. I'm heading for town.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: The children will be able to draw three pictures showing how trees provide human shelter in at least three different geographical areas of the world.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discussion 2. Discussion and reporting when groups have compiled information.	1 & 2 Discuss homes and builders of these homes around the world, reasons for each type and materials used in each. (Stress those that have connection with trees.) Divide into groups to research three areas: rain forests, temperate, and cold mountainous areas. For each area find: How do people of each area make use of trees? (Include ideas on homes and shelter, food, wood products, beautification, usefulness for shade, erosion, ecology, animal shelter, furniture, etc.)	Books: Working Together, Follet Co. Regions and Social Needs - Laidlaw Co. Seleced Index pages Encyclopedias Library Books I Want to Be a Forest Ranger, E. Baker Children's Press - 1969
3. Art project 4. Construction	3. Draw pictures showing different uses of trees - Include shelter aspect of geographical areas discussed. 4. Construct home models from geographical areas, list as many (cont)	Filmstrip - "Building Houses" McGraw Hill 641297 Film: Animal Homes, 11min b/w Your Friend the Forest (Save it or Destroy it!, 6 min color Encyclopedia Britannica

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	used of lumber as you can see around you.	
5. Have resource person visit classroom	5. A Carpenter could relate to students information about his work as a home builder. Blueprint is valuable here.	
6. Creative Writing	6. Write a story describing an area of the world you would like to live in. Tell about the kinds of trees you'd see there - what products we get from them - the type of home you'd have and tell how trees were used in your home. Describe the weather's affect on the kinds of trees grown there.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to write a short report telling about the responsibilities of one worker in the post office.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL Third

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Student will discuss the work of the postal clerk and the postman.	1. Discuss: That the postal clerk can sort the mail much faster if all envelopes are addressed with complete addresses.	Textbook - Our Language Today Textbook - Working Together Bulletin Board on the Post Office
2. Address envelopes	2. Children address envelopes to friends or relatives for letters written in language class.	Comptons Vol. 11
3. Bring used envelopes	3. Bring old, used envelopes from home that the students or their parents received from friends and discuss the mistakes that were made, and make all corrections.	Book: Read about the Postman Louis Slobodkin, 1966 I Want to Be a Postman, Carla Greene Children's Press At the Post Office - Lillian Colonius and Glenn Schroeder, Melmont Publ. I Know a Postman - Lorraine Henroid Let's Go to a Post Office, Naomi Buchheimer
4. Field trip	4. Visit a local post office.	Film: Mailman - 11 min Color Encyclopaedia Britannica Films Our Post Office, 11 min. color Britannica films.
5. Write letters	5. Write thank you letters to post office after visit.	
6. Write to travel bureaus.	6. Write letters to state travel bureaus asking for information. Use the zip code book to check zip codes.	
7. Resource person	7. Invite someone from post office to visit with children about work.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After presentation of materials, children demonstrate good telephone manners by role playing in the class.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Children alphabetize names of classmates in a teacher prepared booklet.	1. Discuss importance of people whose job it is to put down written material correctly such as the telephone book.	1. Teacher prepared telephone book.
2. Language activity on correct manners when using the telephone.	2. Children plan skits showing poor and good telephone manners. Follow with film.	2. We Learn About the Telephone - film Produced by the Bell System and available from your local Bell office.
3. Small group discussion on the ease in which we call and the number of jobs connected with making it easy.	3. After children have completed discussions have them list the number of jobs they came up with. Bring in resource person to discuss the different jobs connected with the telephone system.	3. Resource person from local telephone office.
4. Visit telephone company.		5. Teletrainers available from Bell Telephone office.
5. Have children use teletrainers. Posters and Books that go along with the kit prepared by Bell Telephone. This will come along with the teletrainers.	5. Children practice making correct telephone calls, also have some children practice being operator and making long distance calls.	Books: Your World-Let's Visit the Telephone Company, Billy Pope Ramona Emmons I Want to Be a Telephone Operator Carla Greene
6. Resource person	6. Invite person from telephone company to come to visit with children about work.	Filmstrip: " Telephone Services" filmstrip & record, EduCraft ECF:106 "Communication: The Telephone" McGraw-HillBook Co. 641267 "The Neighborhood Newspaper Store" Eye Gate

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes to the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of Activity 1, students will show that they are aware that cooperation is necessary to complete a job by working out a sign code or skit in small groups.

SUGGESTED SUBJECT AREA Lang. Arts & Social Studies

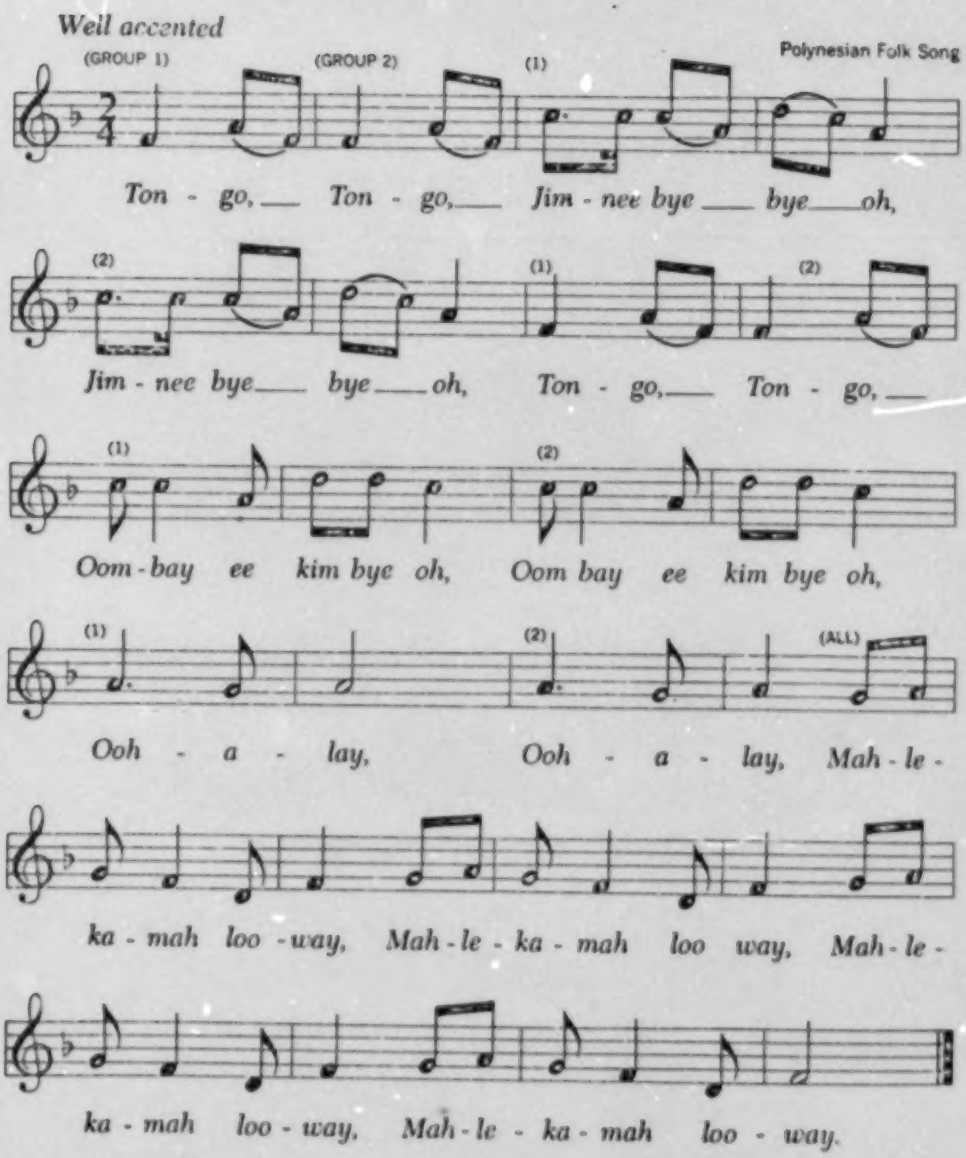
SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss Indian sign language picture language, drum and smoke signals -- lead up to light and telegraph signals and codes.	1. Have small groups work out a sign language, practice and then try to communicate with the rest of the class. Class may work on a picture language mural. Some children may research picture language found on walls of caves. Talk about smoke signals benefits and disadvantages. Children may experiment in free time on working up drum signals. May bring in study of African tribes and communications. Discuss light signals used by the armed forces. If a navy recruiter or parent who served in communications is available, have them demonstrate semaphore code.	1. Resource person - Navy recruiter or parent - telegraph operator Indian familiar with native language. Film: Communication for Beginners Coronet Instructional Films 65 E. South Water Street Chicago, Illinois 60601 Song: "Jungle Drums" p. 30 Music for Young Americans American Book Company "Tongo", Discovering Music Together, Bk. 3, pg. 121 Follett Film: 614 Values - Cooperation BFA 10 min. Book: Never Give Up, "The Talking Leaves" Holt Rinehart ılking ·t 1973

SUGGESTED CORRELATION FOR THIS ACTIVITY: Goes well with Indian Unit.

57

Tongo



Taken from:
Discovering Music Together, Book 2
pg. 40 Follett

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes to the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activities 2, 3, 4 each student demonstrates that he is aware that people use special abilities in their jobs by listing two abilities required to become a telegrapher.

SUGGESTED SUBJECT AREA Lang. Arts & Soc. Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
2. Teacher sends the class a telegram announcing a special event such as a field trip.	2. Go down to a telegraph office to send the telegram. It could contain information about a special event. Bring back the original telegram you wrote. Discuss calling the message in to the telegraph office. Discuss number of workers involved such as the wire stringers, machine manufacturers, telephone company telegrapher and post office. (Copy of telegram is sent through the mail) Discuss training necessary to become a telegrapher.	2. Telegram
3. Class builds their own telegraph.	3. You need two blocks of wood, two strips of tin, 4 nails, insulated wire 40 ft. of thin wire, two batteries. Have children take turns being the telegraphers. The children may send telegrams to each other during certain times of the day. Ex. 8:45 - 9:00 a.m., 12:45 - 1:00pm etc.	3. Completed telegraph
4. Play the game "Telegraph"		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of parts 5 and 6 each child can list at least two occupations, dealing with codes in which they might apply their own abilities and explain why they might qualify for this work.

SUGGESTED SUBJECT AREA Lang. Arts & Soc. Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Discuss codes and people who work with them.	5. Children discuss people who work with coded materials such as FBI agents, scientists, mathematicians, etc. Use resource people. After discussion concerning special interests and talents connected with these occupations; children look at their talents and interests and write a short story telling how they would qualify for this and how they might apply their talents.	5. Resource people.
6. Inventing Codes	6. Find examples or invent your own code. Children could write coded messages to their pals. They could try to "crack" each others codes.	6. Secret codes and messages Scholastic Book Service
7. Resource person	7. Invite telegrapher to visit classroom.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After the tour of city hall, each student will demonstrate knowledge that workers have responsibilities by drawing pictures of two of the workers they saw during the trip.

SUGGESTED SUBJECT AREA Soc. Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Brainstorm session on government officials.	1. Divide class into groups and have each group list as many people as they can who govern them. Example: president, vice president, governor, etc. A class discussion should follow small group discussion with the recorder from each group reporting.	
2. Pupil reports on various presidents, governors, and mayors.	2. Children research a president, governor or mayor of their choice. After child has given report have class list responsibilities and duties each person had.	
3. Visit from the mayor or another city official.	3. If possible have the mayor of your town or city come in and tell the children some of his duties and the duties of people who work with him. He can explain he has another job besides being mayor.	3. Resource person Films: Our Community Services 12 min. color, Encyclopaedia Britannica The Mayor, 12½ min, color EBE
4. Field trip	4. Arrange a tour of city hall, county court house, capital. Have children count the number of different workers and	What Our Town Does for Us Coronet Instruction b/w 11 min

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	4.(cont) have them list and draw pictures of these workers when they get back to school	Books: Community Helpers Books I Know a Mayor - Williams Putnam's Sons - New York - 1967
5. Class elections	5. Have children set up duties of class officers. Divide class into halves (parties). Each half nominates candidates for the various offices: ex. president, vice president, secretary, editor, etc. Have a class election complete with ballots, voting booth (polls), registration, etc. Have a class meeting (class council) at least every other week. Children discuss such things as keeping desks clean, overshoes in proper places, etc. They set up the special activities such as talent show and plays.	About the People Who Run Your City Shvilee Newman & Diane Sherman Melmont Publishing - 1963 Let's Go to City Hall, Louis Wolfe Putnam 1959 Let's Go to Court, McCarthy - Putnam Let's Go to the White House Bernard Rosenfield, Putnam 1959
6. Write letters	6. Write letters to elected officials; this could also include the President of the United States	

62

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list three workers related to cotton and explain in a sentence what each worker does.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss	1. Discuss the growing and use of cotton bringing in a sample of cotton boll and/or cotton cloth. Discuss selling of cotton clothing Have students keep a list of workers involved in the cotton industry. (list should be kept on board)	
2. Art	2. Make a mural showing cotton from the field to the dress Show filmstrips listed in resource materials	
3. Role Playing.	3. Use classroom cupboard depicting each floor of a department store where cotton clothing is sold. Have a group of students responsible for each department. Have them decide which worker each student will be in which department. Use Barbie dolls depicting workers in store.	
4. Field trip	4. Field trip to department store.	

(continued)

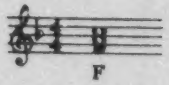
SUGGESTED CORRELATION FOR THIS ACTIVITY: Working Together, Follett
Science - plant cotton seeds

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	4. continued Interview workers in various departments.	
5. Filmstrip and film	5. Students do research on: cotton growing cotton ginning cotton spinning cotton weaving	5. Filmstrip: Cotton Clothing 138-M Imperial Film Company 4404 S. Florida Ave. Lakeland, Florida 33903 Film: Cloth-Fiber through Fabric 15 min. Color Encyclopedia Britannica Films
6. Reports	6. Have students read books about the cotton industry and report to class.	
7. Music	7. Sing department store song together (included on next page as transparency)	7. Songs: "Department-Store Elevator" Discovering Music (Music for Young Americans) Book 2, pg. 16 American Book Co. "Pick a Bale of Cotton" Discovering Music Together, Book 2, pg. 16 American Book Co. "Pockets"
8. Art activity - sewing and cutting	8. Have children dress a paper doll (self-made or commercial) in cotton clothing for bulletin board.	

PICK A BALE OF COTTON

S201R–2A



Key of F Major
Begin on C (*sol*, or 5)
Count: 3 - 4 | 1 - 2 - 3 - 4 | 1 - Sing

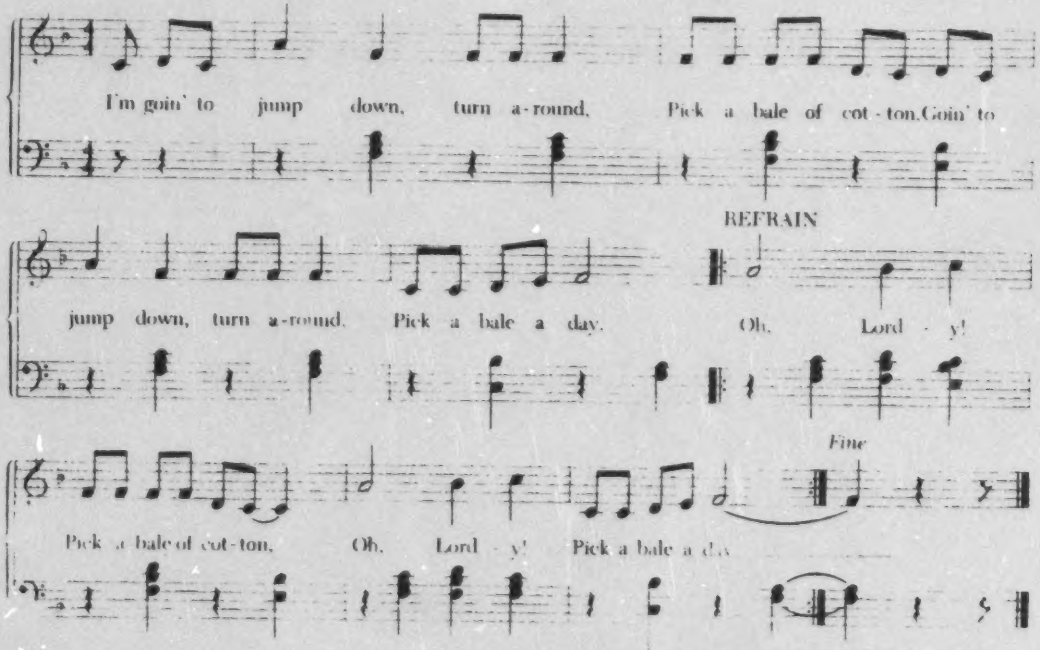
MOVING TO MUSIC

This lively song has a steady beat and invites vigorous rhythmic movement.

1. While second graders may have difficulty clapping on the off-beat as indicated on the child's page, they will enjoy trying to do so.

PLAYING INSTRUMENTS

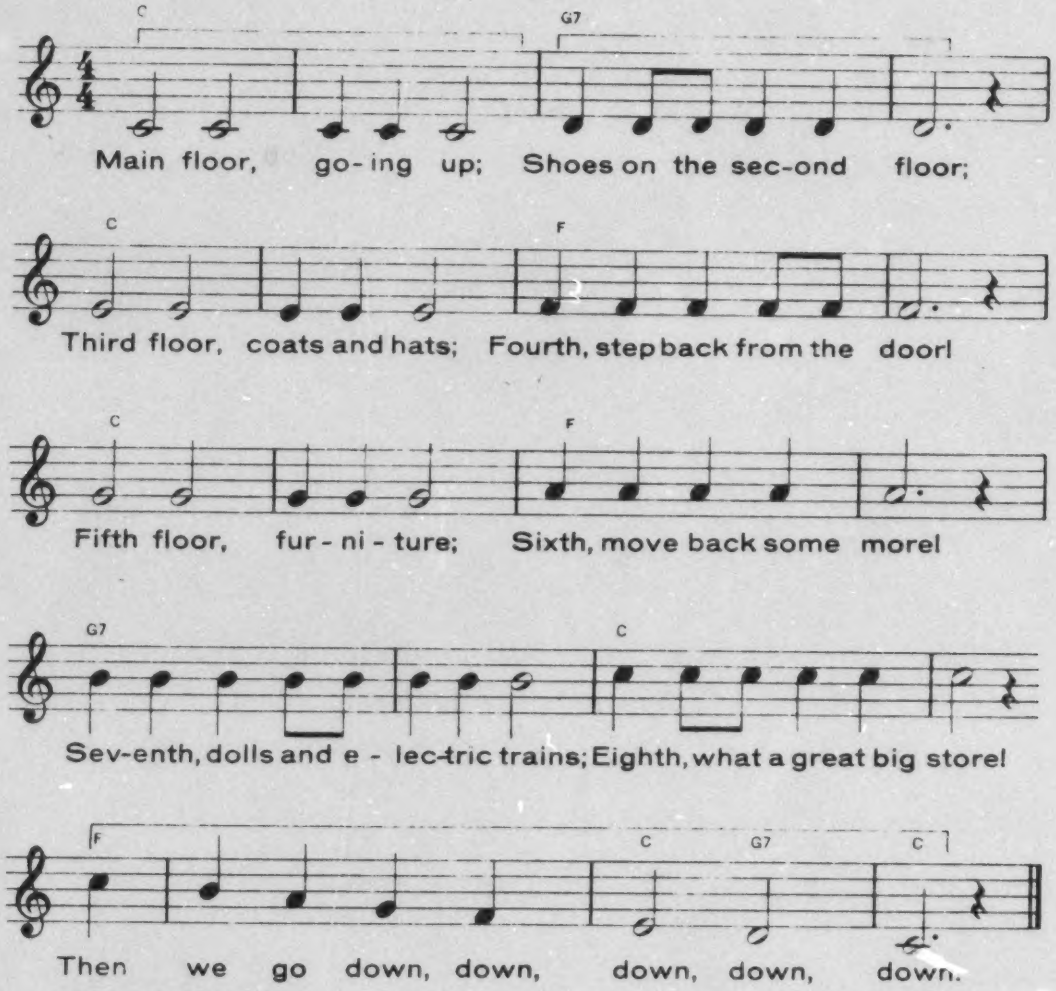
Let children take turns playing the instruments suggested on the child's page. They will be challenged by the concentration required. They may also wish to develop their own instrumental accompaniment.



Find the tunes that stay on the same notes: ⟶
Find the tune that goes down: ↘
The song goes up and down like an elevator: ⟋⟍

Department - Store Elevator

Words and Music by Richard C. Berg



Pockets

Text by LEO PARIS

Music by LEE HERSCHEL

F

1. When you put on your coat, who's in it? On - ly
2. When you take off your coat, don't pop out, Or you'll

C7 F C7 F

you?— Wait a min - ute! We're in your coat,— too!— To
see ev - 'ry - thing drop out. And then how sad you'll be!— When

C7 F C7 F

keep your fin - gers warm in, And put in bits of string,— And
all your toys go roll - ing And bounc-ing down the hall,— With

Gm B♭ F

bot - tle tops and lol - li - pops And al - most an - y - thing!—
choc -'late bars, and sil - ver stars, And bub - ble gum and all.—

67

Copyright MCMLVI by Lee Herschel and Leo Paris
World Rights Assigned to Reynard Publishing Company, Inc.
World Rights Assigned to and Controlled by Sam Fox Publishing Company, Inc; New York, N.Y.
International Copyright Secured
All Rights Reserved, Including Public Performance for Profit

Made in U.S.A.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list five workers in his community and also list any special clothing that these people must wear on their jobs and the reason for the clothing worn.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL Third

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Clothing Unit Reports on how clothing is important to various occupations and how it changes as the job requirements change or technology changes.	1. List on board various jobs with which children are familiar. Have each child select one occupation and interview someone serving in that capacity. The interviews will include the following questions:	Filmstrips: Imperial Filmstrip "Cotton Clothing from field to you"
2. Have children make a list of occupations that require special clothing for their work.	A. What kind of clothing do you wear for your work? B. How does it help you in your work? C. What changes, if any, have been made in the kind of clothing you wear? 2. List these on the board and have children bring pictures showing the different clothing worn in various occupations.	
3. Field Trip	3. Visit a local clothing manufacturing plant to see an article from start to a finished product.	Clothing Factory
4. Write letters	4. Write thank you letters to plant visited.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Hats

Text by LEO PARIS

Music by LEE HERSCHEL

C

1. The fire-man hears the fire-bell ring, and
2. The sol-dier wears me on pa-rade, when

quick-ly puts me on. The cow-boy wears me with a string or
he goes march-ing by. And when you hear the mu-sic played, the

Am G7 C F C F

soon I would be gone. The mail-man, po-lice-man, the man who's at the
tall-est one am I. Your un-cle, your fa-ther, and e-ven lit-tle

C F C Dm G7 C

zoo All put me on and take me off and say, "How do you do?"
you All put me on and take me off and say, "How do you do?"

69

Copyright MCMLVI by Lee Herschel and Leo Paris
World Rights Assigned to Reynard Publishing Company, Inc.
World Rights Assigned to and Controlled by Sam Fox Publishing Company, Inc; New York, N.Y.
International Copyright Secured
All Rights Reserved Including Public Performance for Profit

Made in U.S.A.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to choose one area outside the community and list two occupations that would be found there but would not be found at home and explain why it is not found in our area.

SUGGESTED SUBJECT AREA Soc. Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show filmstrip and discuss	1. Show second half of filmstrip, "Places to Go," and discuss the world as the ultimate of the expanded community. Discuss the opportunities offered in various areas. Discuss the similarities and differences between scenes depicted and those at home. Have children write report on what they have seen titled "If I had a Magic Carpet". Cut 11" by 18" construction paper into curved shape for magic carpet. Fold and cut to about 1 inch of edge. Weave with strips of wallpaper, bunch ends and tie with yarn.	Filmstrip: "Outset/Places To Go" Guidance Associates
2. Have students report Mounting: Wallpaper and construction paper woven magic carpet tied with yarn. Mount report and display.	2. After students have constructed their magic carpet with wallpaper samples discuss workers involved in those two industries. Have students find out where most of our carpeting comes from.	
3. List Carpet Workers	3. List workers in the carpet industry; include duties, training, etc.	

continued

SUGGESTED CORRELATION FOR THIS ACTIVITY

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. List wallpaper workers	4. List workers involved in the wall paper industry, include duties, training, etc.	
5. Field trip	5. Visit a furniture store to see carpet and wallpaper departments.	Local furniture store.
6. Art project	6. Design wallpaper (as an art project) for their own room. Use self-made stencils.	Samples of wallpaper to show for ideas.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student, working as a part of a group will be able to complete a booklet about transportation workers.

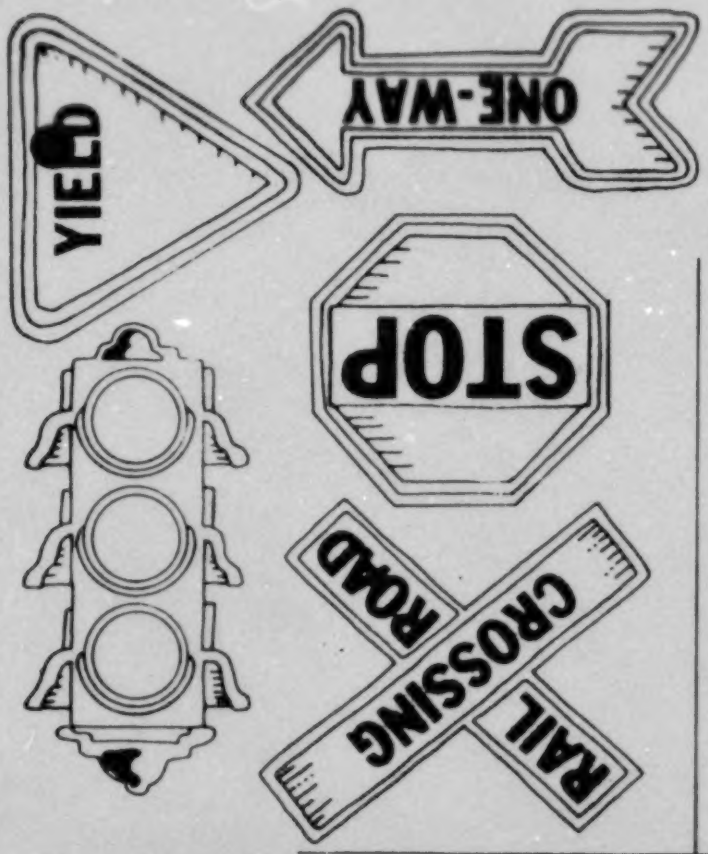
SUGGESTED SUBJECT AREA Social Studies

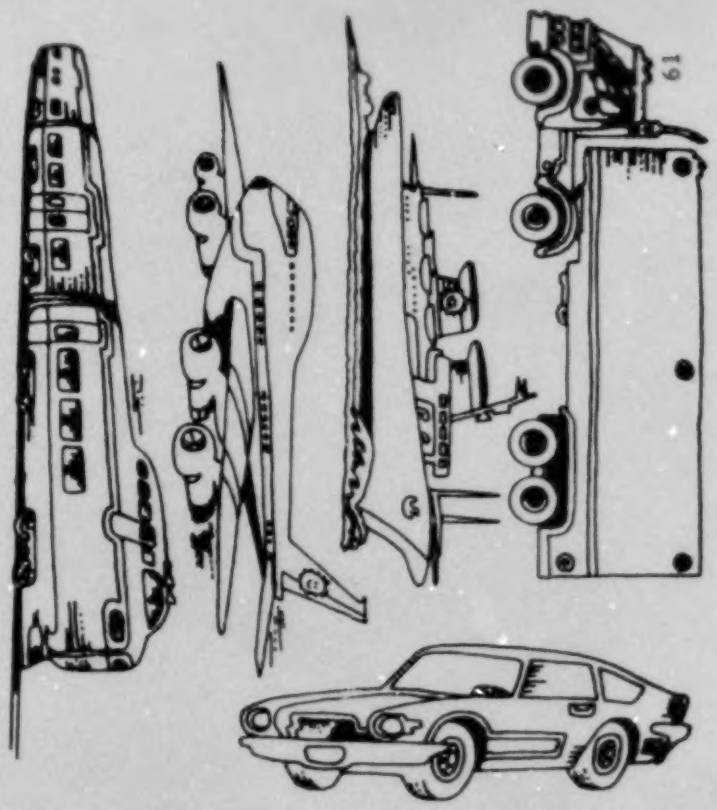
SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
This activity can be used in connection with a transportation unit. Assign groups Give topics Work on a booklet Draw a picture Children report material to class Discussion Draw group murals of: water transportation land transportation animal transportation air transportation, etc.	1. Put children into groups. 2. Assign each group a topic such as car, buses, trains, subways, monorails, airplanes and helicopters, boats, trucks. 3. Each group produces a booklet including: a. What workers are needed b. Who invented it c. When it was invented d. Where invented e. How it is valuable to a city or town. 4. Each child draws a picture of the transportation. 5. One child from each group reports the material to the class. 6. Booklets available for free time reading. 7. Discuss the changes in transportation. 8. How will they change in the future?	1. Golden Book Encyclopedia 2. Books on transportation from school library. 3. Working together by Follett 4. Read to them The Real Future of Transportation by James Vorhees Our Working World Books: The True Book of Travel By Land Joan Beales, Childrens Press Wonderful Wheels Feenie Ziner - Melmont Company Songs: "Let's Take a Little Trip" (attached) "Casey Jones" "John Henry" "15 Miles in the Erie Canal" "Old Man River" "Shenandoah"

72

SUGGESTED CORRELATION FOR THIS ACTIVITY:


YIELD
ONE-WAY
STOP
RAIL
CROSSING
ROAD



Let's Take a Little Trip

Words and Music by Lolly Williams
Verse 3 by Imogene Hilyard
Arranged by Georgette LeNorth

Vacation time is coming. Are you planning a trip with your family? Have you ever ridden on a train? an airplane? a ship?

Enthusiastically

1. Let's take a lit - tle trip. Shall we board a train? We will trav - el
2. Let's take a lit - tle trip. Would you like to fly? We will take an

miles and miles O - ver hill and plain. Woo! Woo! The whis - tle blows,
As - tro - jet, Zoom - ing through the sky. Up! Up! In - to the air,

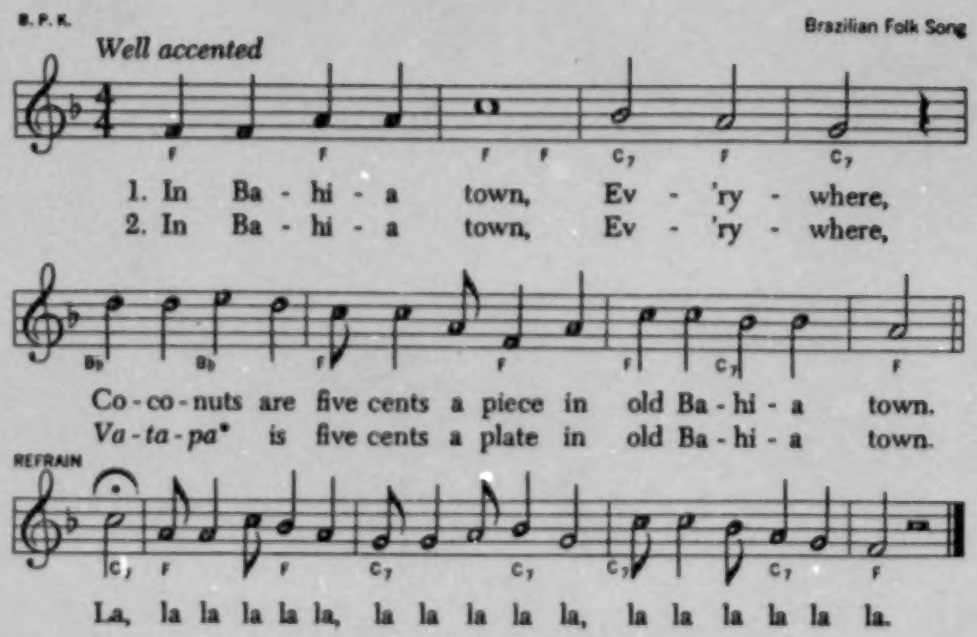
Woo! Woo! A - way!
Up! Up! A - way!
Good - by! Good - by! We'll be back some day.

3. Let's take a little trip. Would you like to sail?
We will board a big steamship, Hear the foghorns wail.
Sail! Sail! across the sea, Sail! Sail! away!
Good-by! Good-by! We'll be back some day.

Taken from:
Making Music Your Own. K
pg. 156 Silver Burdett

74

In Bahia Town



Taken from:
Discovering Music Together, Book 3
pg. 118 Follett

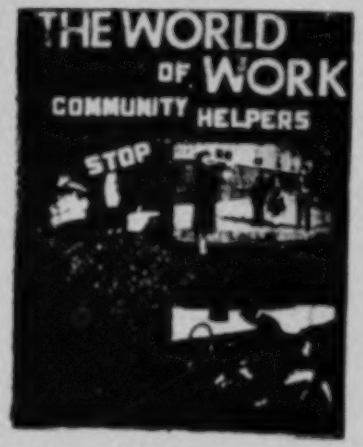
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observational experiences about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list three places in city and list two advantages for their location and one disadvantage.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL Third

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Bus tour of community  	Each child is provided with a map of the city. During class periods they locate areas of interest such as grade school, high schools and colleges, federal buildings, state buildings and city buildings. These are discussed as to their importance to the city and the people. Practice in using maps including directions and symbols is incorporated. Children then tour the city and take pictures of various locations. These are used on a bulletin board with string locating them on city map; this can remain up during school and is useful in future development. Class divide into groups (supervised by Moms) and follow a map to find a certain "treasure".	Map of the city Chamber of commerce Film: Pat Explores His City 14 min. Color Encyclopaedia Britannica Corp.
	Have telephone directory in the room. Have them find the places mentioned. Discuss yellow pages, alphabetical order, tec.	Telephone directory

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to list the three different types of buses and explain in a paragraph the main function of each type.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study of buses 1. Read and discuss	1. History of the bus information available in Read about the Busman.	Read About the Busman, Louis Slobodkin Franklin Watts, Inc.
2. Art	2. Illustrations can be drawn by the children of the different changes and improvements of the bus over the years; under each picture a caption telling about the particular bus. These pictures can be fastened together to make a movie.	Your World Let's Take a Bus Trip, Billy N. Pope and Romona Emmons, Taylor Publishing Co. 328 "Bus Driver," 11 min. Encyclopedia Britannica Co 425 N. Michigan Ave, Chicago, Ill 60611
3. Discuss	3. What are three types of buses? a. cross country b. city transit c. school bus Name some workers that make a bus trip possible. what would a bus driver have to know? a. know names of streets if a city transit b. know the route if cross country c. know road signs (continued)	Filmstrip: "Transportation and Transportation Workers" Eye Gate House Inc. 140-H "City Bus Driver" EBF 11 min. color 2027

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Art	4. Children can make a poster using the different road signs that a bus driver would have to know.	
5. Role Playing	5. Children can build a ticket office. Take turns being the ticket agent. Different color and different price tickets for different places can be purchased by the passenger. Also can role play the ride - stressing good rules for riding in a bus.	
6. Listen to cassette	6. Listen to the cassette part 6 segment 1 - "The Yellow School Bus" Suggestions as to the discussion before the recording and after are included.	Poster: "The Bus Driver" Community Helpers posters Instructor Cassette: "The Yellow School Bus" Living With Others- Citizenship II H. Wilson Corp.
7. Field trip	7. Visit local bus depot for culmination of activity.	
8. Write letters	8. Write thank you letters to bus driver and bus depot workers after trip.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes towards the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: The children will be able to draw a picture showing how people travel by foot and be able to explain in writing the necessity of walking in certain geographical areas and why others walk voluntarily.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discuss how the early people traveled.	Have class discussion establishing the fact that early people traveled over land by foot. How the people transported their products to market.	Working Together, Follett
	Discuss places such as the Congo Basin where the forests are so thick that their transportation would have to be by foot.	Regions and Social Needs Laidlaw Brothers Publishers Pg. 134-135
Compare today's travel with early travel.	Discuss improvements in transportation.	Filmstrip: "Transportation and Transportation Workers" 385 140-H Eye Gate House, Jamaica, N. Y. 11435
Take a walk.	Take a walk around the school. After returning ask some advantages of our transportation over foot transportation.	Songs: (attached) "The Happy Wanderer" This is Music, Book 3, Pg. 94-95, Allyn Bacon "This Land is Your Land" Expressing Music, Book 3 pg. 2 American Bk. Co.
Chalk drawing	Children can do a chalk drawing of what they saw. It could be what the people are doing.	
List some jobs that require walking.	What occupations require walking?	"The Caravan" pg. 81 Music Everywhere, (Singing School) Summy-Birchard

SUGGESTED CORRELATION FOR THIS ACTIVITY: Physical Education and Music

The Happy Wanderer

MUSIC BY FRIEDRICH W. MÖLLER
WORDS BY ANTONIA RIDGE

In marching tempo

C C

1. I love to go a - wan - der - ing,
2. I love to wan - der by the stream

C G7

1. A - long the moun - tain track _____,
2. That danc - es in the sun _____,

G7 C

1. And as I go, I love to sing,
2. So joy - ous - ly it calls to me,

F G7 C

1. My knap - sack on my back _____.
2. "Come! join my hap - py song _____."

Refrain

G7 C

Val - de - ri _____, Val - de - ra _____,

G7 C

Val - de - ri _____, Val - de - ra ha ha ha ha ha,

G7 C

Val - de - ri _____, Val - de - ra _____ _____,

F G7 C

My knap - sack on my back _____.

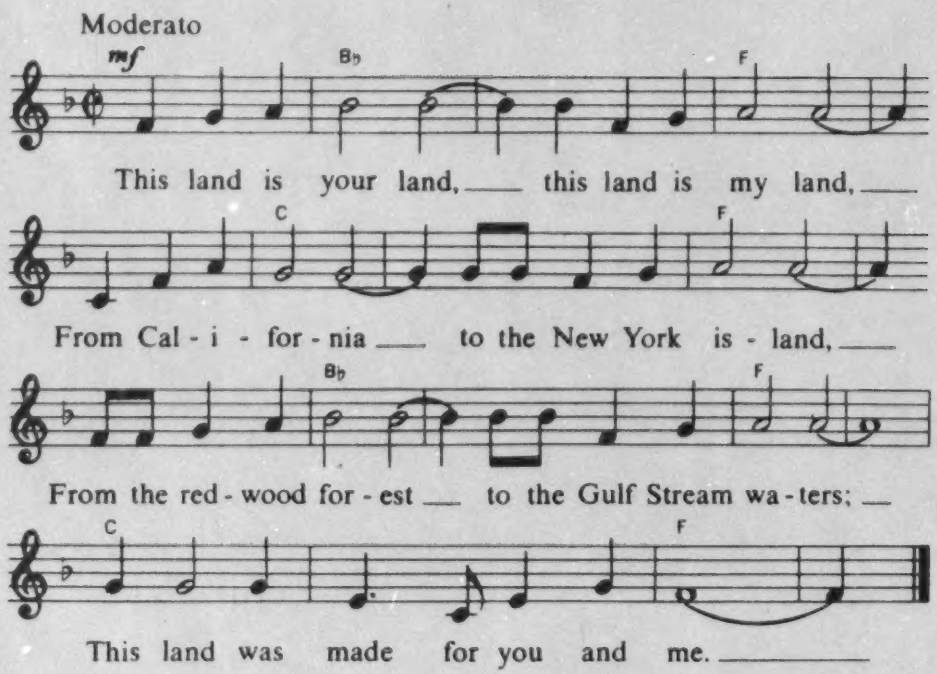
3. I wave my hat to all I meet,
And they wave back to me,
And blackbirds call so loud and sweet
From every greenwood tree.
Refrain

4. High overhead, the skylark wing,
They never rest at home
But just like me, they love to sing,
As o'er the world we roam.
Refrain

Taken from: This Is Music, Book 3 pg. 94-95 Allyn-Bacon

THIS LAND IS YOUR LAND

Words and Music by Woody Guthrie



As I was walking that ribbon of highway,
I saw above me that endless skyway,
I saw below me that golden valley;
This land was made for you and me.

(Refrain)

Taken from:
Expressing Music, Book 3
pg. 2 American Book Co.

I've roamed and rambled and I followed my footsteps
To the sparkling sands of her diamond deserts,
And all around me a voice came sounding;
This land was made for you and me.

(Refrain)

When the sun comes shining, and I wás strolling
And the wheatfields waving and the dust clouds rolling,
As the fog was lifting, a voice was chanting;
This land was made for you and me.

(Refrain)

The Caravan

Children's Edition, Page 81

Stuart Paul

Syrian Tune

Arranged by Gladys Pitcher

Taken from:
Music Everywhere (Singing School)
pg. 81 Summy-Birchard

Steadily, with a heavy swing

1. Slow, slow, heav-y go the cam-els,
2. Slow, slow, dust-y are the cam-els,

Slow, slow, slow!

mf *p*

Slow, slow, cam-els heav-y-lad-en, Swing-ing, sway-ing,
Slow, slow, pa-tient of their bur-dens, Swing-ing, sway-ing,

Slow, slow, slow! Slow, slow,

on the road to Bag-dad, Heav-y goes the car-a-van.
on the road to Bag-dad, Heav-y goes the car-a-van.

slow! Slow, slow, slow! slow!

1. D.S. 2.

D.S.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to draw a picture of some phase of the automobile industry; discuss and explain it to the class.

SUGGESTED SUBJECT AREA Social Studies
Transportation

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities that can be presented with a unit on the automobile.	1. Have the children bring in pictures and models of cars.	Encyclopedia S
2. Discussion	2. Discuss the history; who invented it, when invented, where invented, how it has changed the means of travel in our country.	Film: "A Car is Born" Ford Motor Co.
3. Language - letter writing	3. Write to an automobile manufacturer for pamphlets and pictures of the specialization of work.	The True Book of Automobiles Norman and Madelyn Carlisle Baker-Taylor Company
4. Class project	4. Work on an automobile scrapbook putting the pictures in and labeling the cars the children have collected for magazines.	
5. Discussion and listening Each child might tell about their own car.	5. Have children tell about their trips taken by automobile. Use a map to point out areas where they have traveled.	
6. Class Discussion	6. Have children list all the workers that are involved in the manufacturing transporting to areas to be sold, the selling, and maintenance after being sold.	Filmstrip: The Automible Service Station" Eye Gate House, Inc. 107-H Film: "Industrial Worker" Encyclopaedia Britannica #2852

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Art project	7. Design a car of the future	
8. Field trip	8. Visit a local automobile dealer.	8. Local Automobile dealer
9. Write letters	9. Write thank you letters to automobile dealer after visit.	
10. Discussion	10. Discuss the use of automobiles in certain job areas.	
11. Assemble paper cars	11. Divide class into two groups. Have each group make a certain number of paper cars. One group: each child make a complete car One group: assembly line method	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Children will be able to name three types of trucks used in world of work, describe purpose of each type of truck, and describe the driver's responsibility in one sentence.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss the different types of trucks and their uses.	1. Have children name as many types of trucks as they have seen. Have them think of some of the products in a store that use a truck to transport it there.	Filmstrip: "Truck Transport on the Long Haul" (shows many types of trucks) Academy Films , 748 Seward St. Hollywood, Calif. 90038
2. Draw a Truck May also make different kinds of trucks out of cardboard boxes, etc.	2. Children can draw a picture of the type of truck that they would enjoy driving. Pictures can be put on the bulletin board.	Truck Drivers-What They Do, Carla Greene Harper Crest I Want to be a Truck Driver, Carla Greene, Childrens Press
3. Children bring in their toy trucks.	3. Children can bring their trucks and have a sharing time. Have each child write a riddle describing a truck, children can guess.	Big Book of Real Trucks - Grosset Films: "Truck Driver," 16 min, describes trip of a long distance by Encyclopedia Britannica
4. Name workers who are involved in a truck trip. Do any of your fathers drive truck?	4. Discuss who are some of the workers necessary to make a truck trip possible.	Let's Go to a Truck Terminal Marian Talmadge and Iris Gilmore Putnam
5. Field trip	5. Make a field trip to a local trucking company	
6. Discussion	6. Talk about and discuss what the children saw and learned.	
7. List what they saw and learned	7. List what they had seen and learned.	

SUGGESTED CORRELATION FOR THIS ACTIVITY: Art and Science

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	7. continued This could be a chart.	
8. Write thank you notes.	8. Write thank you letters to the trucking company.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to draw a picture showing four different types of boats and explain orally the main function of each type.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Map and globe work	1. Use a globe, point out that more than half of the world is covered with water.	Books Your World Let's Visit a Ship - Billy N. Pope and Ramona Ware Emmons, Taylor Publishing Co.
2. List kinds of boats and ships	2. Have the children list the different types of boats and ships.	I Want to Be a Ship Captain by Carla Greene Children's Press, Inc. Chicago
3. Small group activity	3. Children can work in small groups, assigning each group one of the ships or boats mentioned. Each group can be responsible to tell the history of the particular topic and who earns a living. Some in the group could illustrate or cut out pictures. This material will go into a booklet. One child can report the material to the class.	Film: "Ferryboat" 9 min. color Bailey Film Inc. 6509 DeLongpre Abe., Hollywood, Calif. 90028 "Boats and Ships EBE" - 11 min. color Songs: "Michael Row the Boat Ashore" Page 81, Making Music Your Own - Silver Burdett
4. Write stories	4. Children can write stories comparing life on an ocean liner today with life on one of Christopher Columbus' ships.	"Down the River", Expressing Music American Book Co. Page 64
5. List safety signals and precautions	5. List safety signals and precautions for ships.	"The River Lea" - Expressing Music American Book Company

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Sing	6. Sing - Michael, Row Your Boat Ashore The River Lea Down the River	The True Book of Travel By Water John Hornby
7. Discuss Mark Twain	7. Discuss Mark Twain and his job as a pilot on the Mississippi steam boat.	About the Captain of a Ship Chace - Melmont About Cargo Ships Uhl - Melmont

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to list four workers employed at an airport and explain at least one responsibility of each.

SUGGESTED SUBJECT AREA Science or Soc. Studies

SUGGESTED GRADE LEVEL Third

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Sharing time	1. Have a sharing time when children can bring inpictures of airplanes or bring in models.	Come to Work With us in an Airport Jean and Ned Wilkinson Your World Let's Take an Airplane Trip by Billy N. Pope (Good illustrations) I Want to Be a Pilot by Carla Greene
2. Discuss history	2. Discuss the history of airplanes. a. Who invented it. b. When invented c. Where invented d. Advantage of this means of travel e. Workers involved in the airplane making.	Song: "Supersonic Jet" Music for Young Americans, pages 124-125
3. Discuss occupations Compose a cartoon of an airplane worker.	3. Discuss the occupations at the airport. The book Come to Work With Us in an Airport would be helpful. Have children compose a cartoon doing one of these jobs at the airport.	Film: Airport, 11 min shows activities at a busy airport, including movement of a DC-6 from hangar to take off. Encyclopaedia Britannica Films, Inc. 425 N. Michigan Ave. Chicago, IL 60611 Fred and Billy Take an Airplane Trip 11 min, Coronet Instructional Films 65 East South Water Street, Chicago, Ill 60601
4. Discuss science principle	4. Correlate with Science discussing the principle that runs an airplane. (Continued)	Airport in Jet Age, Color 11 min Encyclopaedia Britannica Films, Inc.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Runs by the same principle as a balloon filled with air; exhaust goes one way, airplane goes the opposite.	Film: An Airplane Trip by Jet Color, 11 min Encyclopaedia Britannica Films, Inc.
5. Sing	5. Teach the supersonic Jet Song	Filmstrips: Airport Workers Series, Airport Service, I.F.C. 141-5
6. Field trip	6. If possible visit an airport	Gr. 3 Science Textbook - Harper Row
7. Make a mural of airport	7. Make a mural of an airport on a large sheet of wrapping paper. Lay out in chalk general arrangements of the airport. Children may draw various parts of the mural.	Wright Brothers - Time for True Tales Arbuthonot Anthology
		Film - Jet Pilot EBE
8. Write Thank you letters	8. Write thank you letters to the airport after a tour.	Books: At the Airport Lillian Colonius and Glenn W. Schroeder
		Let's Go to the Airport Laura Sootin
9. Fly to different places.	9. Use a U. S. map. Cut out little airplanes. Have students fly to different places and stick airplane on state when they land. (Can be in a learning center.)	The True Books of Airports and Airplanes John Lewellen Children's Press, Chicago
		Poster - The Airplane Pilot Community Helpers - Instructor
		The True Book of Flight Edmund Blandford Children's Press
		What Does an Airline Crew Do? E. Roy Ray Dodd, Mead Co.
		I Know An Airline Pilot Muriel Stanek Putnam Co
		I Want to Be an Airline Hostess Carla Greene - Children's Press Co
		Filmstrip - 141-5 Airport Workers Imperial Film Co.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to draw a picture of a train and orally explain four specific cars in the train and the work people do in each of the four cars.

SUGGESTED SUBJECT AREA Social Studies

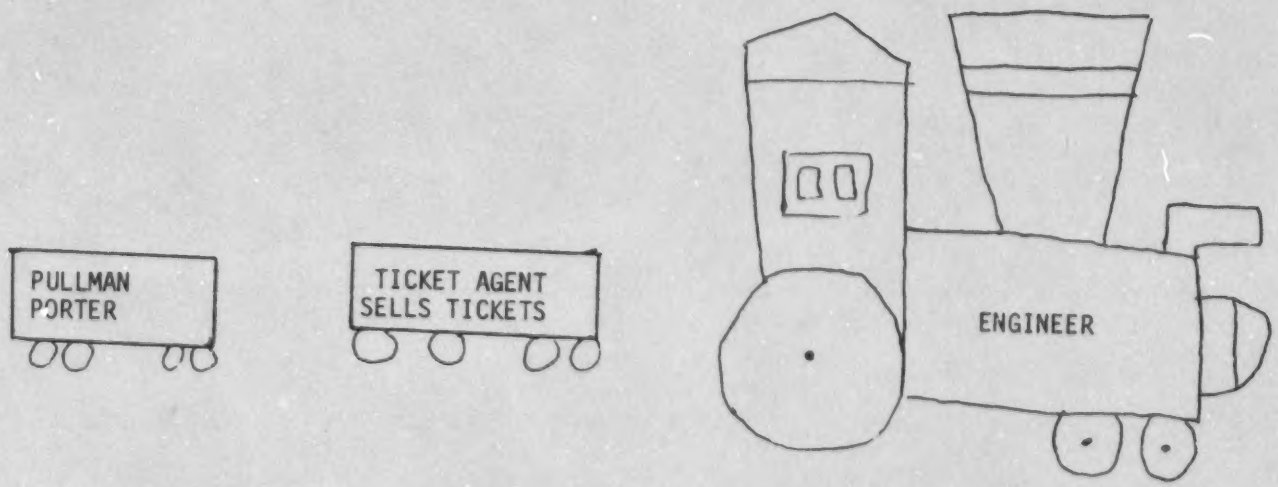
SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discussion of history of railroad 2. Sketch railroads on a map. 3. Picture Collection for bulletin board. (Child may bring toy train) 4. Drawing 5. Use a time table 6. Music	1. Discuss the history of the railroad. where it originated when it originated how it made a growth in our country list different trains 2. Duplicate a map of the U.S. for each child. Sketch the railroads route. 3. Have children bring in pictures of trains and locations that you can reach by train. 4. Draw the engine of a train, add cars to the train as children name and tell what jobs the workers employed by the railroad do. 5. Secure time tables of the arrivals and departure times. Practice reading them. 6. Sing "I've Been Working on the Railroad"	Books At the Railroad Station by Alma Kehoe Reck and Helen Hall Fichter, Melmont Publishers, Inc., Chicago, Ill. Your World Let's Visit the Railroad - By Billy N. Pope and Ramona Ware Emmons Taylor Publishing Co. Films: "Passenger Train," 11 min., detail duties of workers. Encyclopedia Britannica Films 425 N. Michigan Ave., Chicago, Ill 60611 "Freight Train" EBE, color, 11 min. "Railroad Station," 11 min., Tompkins Films Box 46611, Los Angeles, Calif. 90046 Songs: "I've Been Working on the Railroad" Making Music-Your Own Music, Page 86-87 Silver Burdett Resource person

SUGGESTED CORRELATION FOR THIS ACTIVITY: Music and Art
Math - selling tickets and reading time tables.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
7. Firld trip	7. Visit the local train depot. If possible go into train and see various workers.	Filmstrips and Cassettes C 223-1 "Tracks, Yards, and Signals" IFC C 223-4 "Railroads are People, Too" IFC C 223-3 "From Engine to Caboose" IFC C 223-2 "The Work Trains Do" Imperial Film Co.
8. Write letters	8. Write thank you letters to train depot guides after trip.	
9. Bulletin Board	9. See illustration suggestion following.	



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to write a short story, pretending they are an astronaut.

SUGGESTED SUBJECT AREA Social Studies & Science

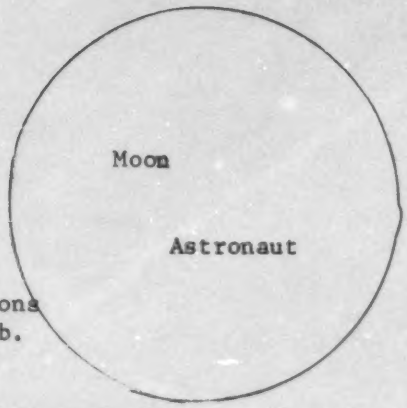
SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read	1. If available read orally to the class Your World Let's Visit a Spaceship.	Your World, Let's Visit a Spaceship by Billy N. Pope and Ramona Ware Emmons - Taylor Publishing Come to Work with Us in Aerospace by Jean and Ned Wilkinson What Does an Astronaut Do? Robert Wells Dodd, Mead and Co.
2. Discuss how a space ship works	2. Discuss how a space ship works.	
3. Naming occupations	3. Duplicate for each child or put on tagboard for a class project a picture of a space ship. Above the point provide lines so the children can name the occupations involved in a space flight. The astronaut could be written in a circle representing the moon. A few lines coming down could be provided for the return trip	Song -"A Trip in a Rocket Ship" Expressing Music, pages 40-41 American Book Co. Bulletin Board idea for students to construct - Attached
4. Sing Songs	4. Sing - A trip in a Rocket Ship	I Want to Be A Space Pilot Carla Green
5. Write a story	5. Have children write a story about a pretend trip to the moon. They should include an imaginary space trip and what their functions are during the trip. They may also want to let their imaginations run and describe the place they landed.	The True Book of Space Podendorf Into Space With The Astronauts Scharff - Grosset and Dunlap Co. Space, Tellander. Follet Let's Go to a Rocket Base, Chester. Putnam
6. Trace the development of our space travels so far plus Russia's. Discuss further exploration in space, etc.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

BULLETIN BOARD IDEA

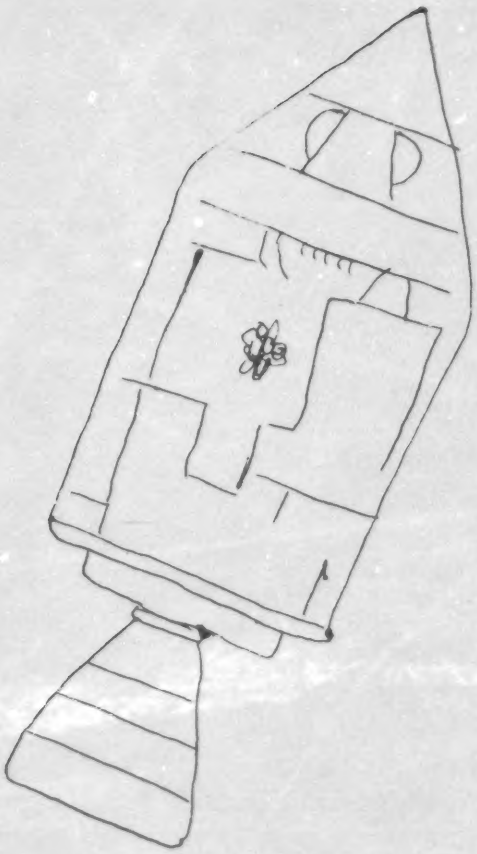
Blast off by listing those workers needed for a space flight.



Come to work with us in Aerospace provides many occupations plus duties of each job.

Mission Control
Technician
Engine Assembler
Cable Assembler
Polisher
Furnace Operator
Tester
Measurer
Chemical engineer
Chemist
Physicist
Engineer
Safety Director
Security Guard

Helicopter pilot
rescue team post
flight technician
project manager



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: The children should be able to name 2 ways to extinguish a fire.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Fireman visits classroom or field trip to fire department.	1. Fireman visits the third grade classroom designating them as junior fire marshals. Fireman wears his uniform.	Resource person
2. Read and discuss	2. Hand out and discuss Junior fire material provided by the fireman. Included will be a routine check of	Booklets provided by Fire Dept.
3. Hand	3. Hand out fire hats to the children.	Hats usually provided by Fire Dept.
4. Cassette	4. Provided with the cassette is a brief summary of the recording - questions to be discussed before and after recording.	Cassette: "Fire Safety", Segment 2, Living With Others-Citizenship II H. Wilson Corp.
5. Read and discuss	5. Read and discuss fire extinguishers. Firemen will demonstrate the different extinguishers if contacted.	
6. Draw a poster	6. Draw a fire prevention poster.	Book: About Firemen, Hefflefinger. Melmont Film: #1754 "In Case of Fire" EBE

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Bulletin Board suggestion: 		Books: Let's Find Out About Firemen Shapp, Franklin Watts, Inc. I Know A Fireman Barbara Williams G. P. Putnam's Sons Your World, Let's Visit the Fire Station - Billy N. Pope, Ed. D Taylor Publ. The True Book of Policemen and Firemen Miner - Children's Press

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of selected activities each child will be able to write a paragraph stating why people need to be aware of good dental health and list 3 good dental health rules.

SUGGESTED SUBJECT AREA Health (dental health)

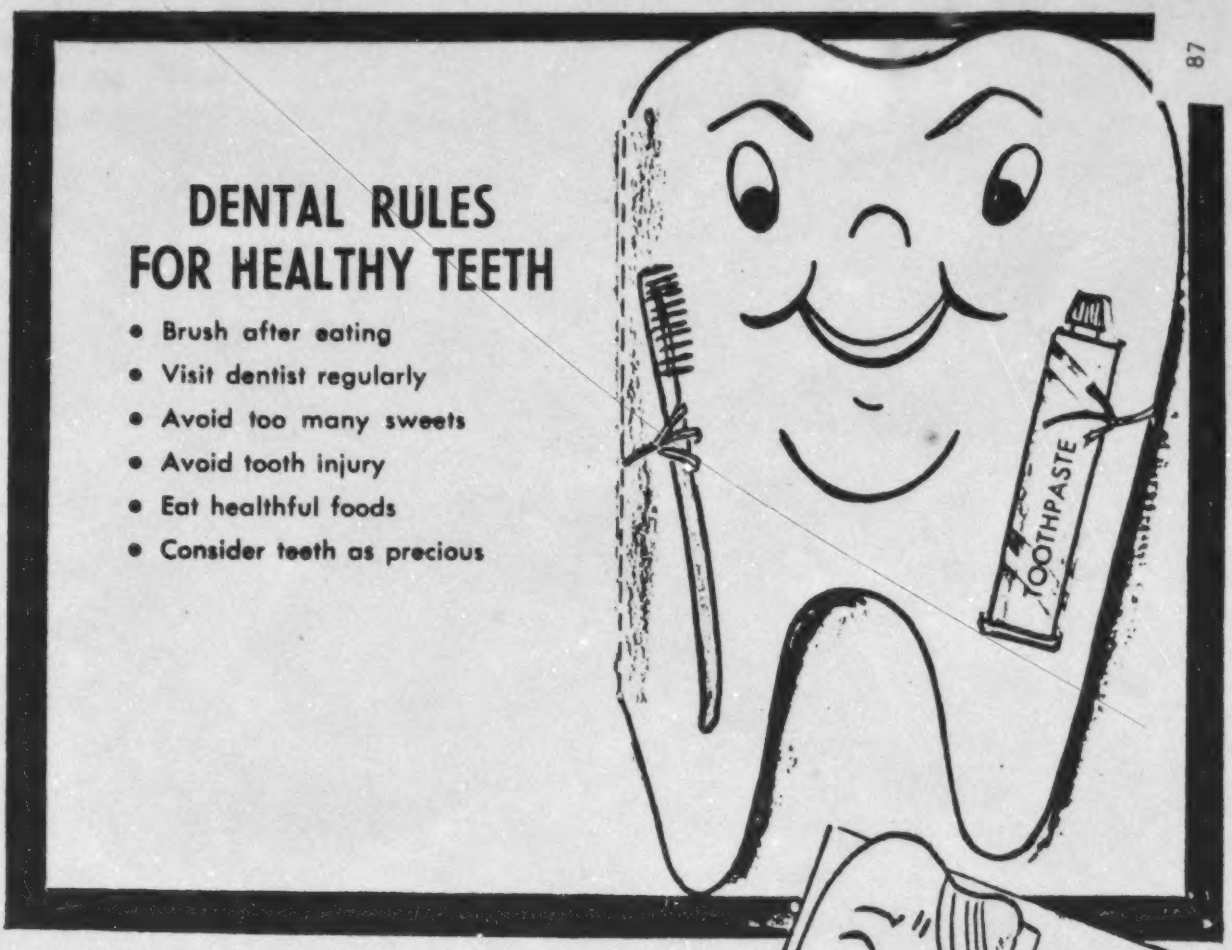
SUGGESTED GRADE LEVEL 3

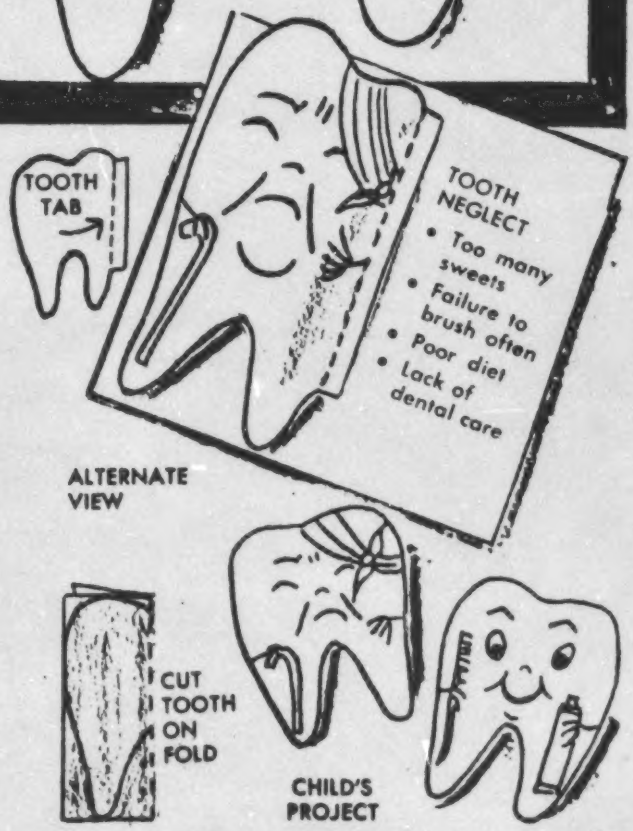
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Books	1. Read and discuss library books.	Books: Let's Go to A Dentist, Buchheimer. Putnam I Want to Be A Dentist, Greene. Childrens Press So You Want to Be a Dentist, Greenberg. Baker & Taylor
2. Posters	2. Discuss dental area of posters. (Discussion questions suggested on back of posters)	Posters: Community Helpers Series, Instructor
3. Filmstrips	3. View filmstrips and discuss points of interest	Filmstrips: "The Dentist" Long Filmslide "My Mother Is a Dental Assistant" Eye Gate "Good Health is Up To You" Jam Handy "Your Teeth and Their Care" Jam Handy "Strong Teeth" Jam Handy "Health and Teeth" Eye Gate "Winning 'First' With Teeth" SVE Booklet: "How We Take Care of Our Teeth" National Dairy Council (15¢)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
4. Resource person or field trip	4. If possible, visit a dentist's office or have a resource person come in. Often dental care kits are available for distribution to each child.	Resource Person Dentist Dental Assistant Dental Hygienist etc.
5. Art project and bulletin board	5. Children can make pictures of dentist's work or some other person's work connected with teeth. Children may also draw a face on a large cut out tooth - Healthy Teeth-Happy Faces.	
6. Sing Song	6. Learn song, "The Dentist"	Song: "The Dentist", Music for Young Americans, Book 1 pg. 29 American Bk. Co.
7. Montage	7. Make montage of smiling faces showing teeth. Add appropriate captions developed by the class.	





3-DIMENSION DENTAL CHART

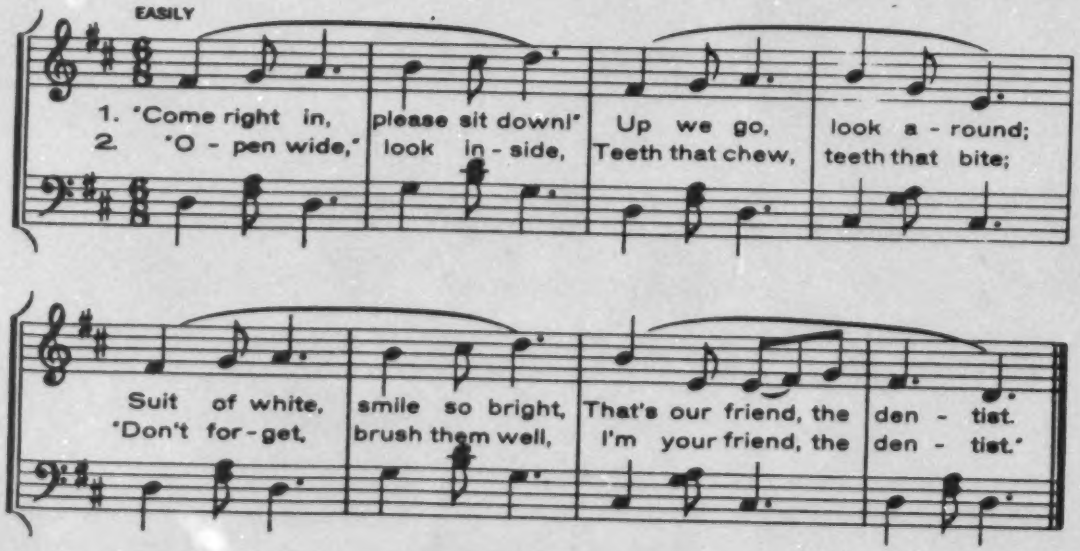
Good teeth need good care. Remind the class that teeth are living parts of the human body. They need proper nourishment and care. Well-chosen meals, adequate milk, regular visits to the dentist—all help maintain healthy teeth. The bulletin board features a huge folder (attached with a flap) so that it may show two views of a tooth. One side shows proper dental rules and a happy tooth—the alternate side shows poor dental habits and a sick tooth. Use heavyweight white tagboard to make the chart and staple it to a blue background. Each child might make a tooth shape and draw a happy tooth on one side and a sick tooth on the back side.

Taken from:
Music For Young Americans, Book 1.
pg. 29 American Book Co.

100

The Dentist

Words and Music by Robert Pace



Experiences that children fear can be made easier by talking about them, singing about them, or acting them out.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information on the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Children should be able to name the four basic foods and list three occupations that involve food.

SUGGESTED SUBJECT AREA Health Physical Education

SUGGESTED GRADE LEVEL Third

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discussion	1. Talk about the four basic foods and their importance in the developing of a healthy body. Athletes are idols of the children at this age. This would be the ideal time to discuss how important it is for an athlete to eat nutritional meals and develop good eating habits.	Available free from the Wheat Commission Pamphlet - Follow the Foodway Book: Basketballs for Breakfast, Sankey. A. Whitman Pub.
2. Locate pictures	2. Children could find pictures of foods and cut them from magazines. An activity for the children could be to categorize them into one of the 4 basic food groups.	Charts: B21 "Every Day - Eat the 1-2-3-4 Way" P515 "Every Day - Eat the 1-2-3-4 Way" National Dairy Council
3. Song	3. Sing Song	Song: "Drink Plenty of Milk" Instructor - May 1963

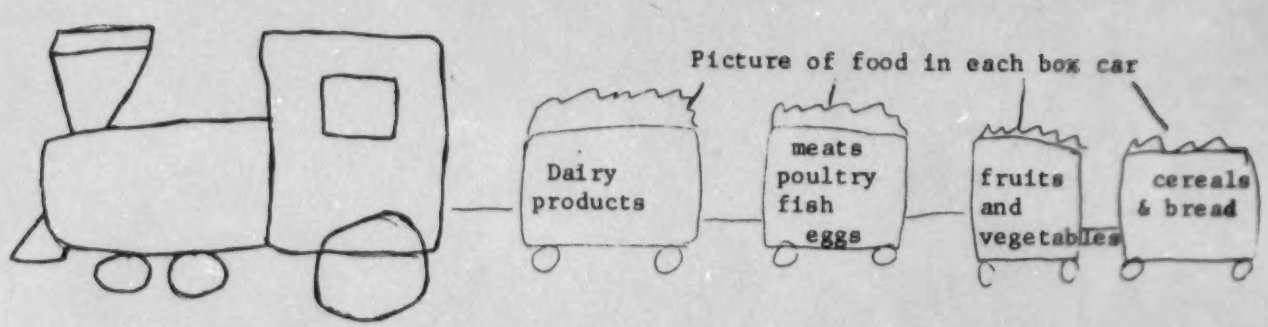
SUGGESTED CORRELATION FOR THIS ACTIVITY:

ACTIVITY

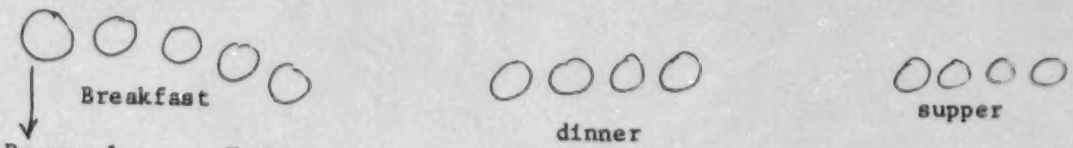
Bulletin Board

These pictures could be used in a bulletin board display

sample title - ALL ABOARD FOR GOOD MEALS!



Children arrange pictures on bulletin board



Paper plates - Children arrange pictures of food for a well balanced meal.

Make a poster

Variation: Children could design a poster - either draw it or use appropriate magazine pictures.

Keep a record or chart

Children could keep a record of the foods they eat covering a several day period.

List

Have children list as many people as they can that work with foods. Example: dietician, food chemist, chef, mother, home economist, nutritionist, waiter, waitress, food sales, etc.

continued

102

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Resource Person	Have a resource person speak to the class about value of nutrition - county nurse, Home Ec. teacher, nurse, dietician, etc.	Resource person
Game	Yummy Rummy	Available from: American School Food Service Association $1.25 per game 4101 East Lliff - Denver, Colorado 80222
Activity booklet	Activity Fun 1970 Lots of games, puzzles, etc, concerning nutrition	American School Food Service Assoc. 20¢ per bookler
Record and filmstrip	Alexander's Breakfast Secret	Filmstrips: "Alexander's Breakfast Secret" Cereal Institue Inc. "Foods We Eat" SVE "Right Foods Help Health" Eye Gate "Why Be Healthy" Eye Gate "Food For Health" Jam Handy "You and Your Food" Jam Handy Poster: "A Guide to Good Eating" 25¢ National Dairy Council
Tasting Session	Bring in unfamiliar fruits and vegetables so the children can taste them. Encourage them to talk about its texture and flavor when they taste it.	
Keep a chart	Keep a chart of the new foods children have tried, letting a child check when he has tasted a food.	

DRINK PLENTY OF MILK

1. Do you want strong teeth? YES, SIR! Strong health - y teeth?
2. Do you want strong bones? YES, SIR! Strong health - y bones?

YES, SIR! If you want strong teeth, strong health-y teeth, Then here's what you have to do.
YES, SIR! If you want strong bones, strong health-y bones, Then here's what you have to do.

Taken from:
Instructor
May 1963

Chorus

Drink plen-ty of milk, drink plen-ty of milk, Drink plen-ty of milk each day,— Be phys-i-c'ly fit, don't drink just a bit, Drink plen-ty of milk to - day.——

♩ = one clap

3. Would you grow up tall? YES, SIR!
Up straight and tall? YES, SIR!
Would you grow up tall, up straight and tall,
Then here's what you have to do.

4. Would you win that game? YES, SIR!
That playground game? YES, SIR!
Would you win that game, that playground game,
Then here's what you have to do.

HOW TO SCORE YOUR DIET

This score sheet is a device by which you can score your diet quickly. Its system has been simplified to avoid awkward decimals, as explained on the inside back cover. Suggestion for using it is to place a check (√) beside each food you have eaten during one day. After you have done this, add the values of these foods on each double page. When all of the pages are in place you may then add up the figures for meat, vegetables, cereals, and so forth, to obtain your total score. Finally, compare these with the recommended daily allowances on the last page. You may then discover what foods you need to add to improve your diet.

The blank pages in the back may be used in planning the pattern of meals in the total day's diet.

The number of foods which could be included in this booklet is necessarily limited. With some foods you will need to figure what is in the food. For example, vegetable stew:

Beef 1 portion
Carrots 1 portion
Potatoes 1 portion
Tomatoes ½ portion
Gravy 1 portion

BREADS AND CEREAL FOODS											
Enriched white or whole grain											
Bread	1 slice	1	65	20	2	4	..	..	6	4	5
		2	130	40	4	8	..	..	12	8	10
		3	195	60	6	12	..	..	18	12	15
Muffin, plain	1 av.		120	32	3	7	190	..	8	10	6
Roll, plain, pan	1 med.		80	21	2	5	75	..	7	6	5
Pancake	1 (4" × 4")		60	18	4	4	50	..	5	6	3
Waffle	1 (5" × 5" × ½")		216	70	14	14	270	..	14	20	10
Cereal, cooked											
Oatmeal or rolled oats	½ cup		75	25	1	8	..	..	11	3	2
Wheat	½ cup		70	28	1	7	..	..	9	5	7
Cereal, ready-to-eat, flakes	1 cup		115	27	1	9	..	..	12	4	14
puffed	1 cup		49	12	..	4	..	..	7	2	11
sugar-coated	1 cup		110	12	3	5	..	..	13	2	10
Crackers, graham	1 cracker		30	5	..	1	..	..	2	1	1
soda	1 cracker		30	7	..	1	..	..	1	1	..
Egg noodles, enriched, cooked	1 cup		107	35	1	8	60	..	22	10	17
Macaroni, rice, spaghetti unenriched, cooked	1 cup		209	62	2	7	..	..	3	2	7
FATS											
Bacon	1 strip, crisp		50	18	..	2	..	..	4	2	3
Butter or fortified margarine	1 teaspoon		35	..	..	..	165	..	..	..	..
Cream, light (coffee)	2 T. (⅛ cup)		60	8	2	..	250	..	..	2	..
Cream, heavy (whipping)	2 T. (⅛ cup)		100	6	2	..	440	..	..	4	..
Shortenings (Add these values to any fried food not given a listing as fried.)											
Beef suet, rendered	1 T.		120	2	..	..	70	..	..	..	..
Homogenized vegetable	1 T.		110	..	..	..	..	..	..	..	..
Lard	1 T		125	..	..	..	..	..	..	..	..
Foods with high fat content											
Gravy (with milk)	¼ cup		100	25	7	2	225	..	4	11	2
Mayonnaise	1 T.		90	2	..	1	35	..	..	..	..
Salad dressing (French)	1 T.		60	1	..	..	..	..	..	..	..
White sauce (medium)	2 T.		50	13	4	1	165	..	1	5	1
SWEETS											
Chocolate-coated candy bar	2 oz.		270	52	5	14	..	..	3	9	3
Honey, strained	1 T.		60	1	..	2	..	..	..	1	..
Jam, jelly, syrup	1 T.		55	..	..	..	..	..	..	..	..
Molasses, medium dark	1 T.		45	..	6	12	..	..	..	..	..
Sorghum	1 T.		50	..	3	24	..	..	2	3	6
Sugar, granulated	1 T.		50	..	..	..	..	..	..	..	..
brown, dark	1 T.		50	..	1	4	..	..	..	..	..
BEVERAGES											
Chocolate malted milk shake	1 serving (8 oz. milk)		500	130	42	13	900	4	19	65	5
Cocoa or chocolate	1 cup (6 oz. milk)		180	70	22	9	300	2	8	33	3
Grape juice, sweetened	3 oz.		70	4	1	3	..	..	4	5	2
Soft drinks	1 bottle (6 oz.)		80	..	..	..	..	..	..	..	..

TOTAL CEREALS, FATS, SWEETS, BEVERAGES

Food	Size of Serving	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
			UNITS (For conversion to grams or milligrams, see inside back cover.)							
PROTEINS										
Milk										
Whole	1 cup (8 oz.) 1	165	85	28	2	390	3	10	40	3
	2	330	170	56	4	789	6	20	80	6
	3	495	255	84	6	1,170	9	30	120	9
	4	660	340	112	8	1,560	12	40	160	12
[illegible]p., vitamin D enriched	½ cup + ½ cup water	175	88	30	2	500	2	6	45	3
Skim, and nonfat buttermilk	1 cup (8 oz.)	85	85	30	2	10	3	9	45	3
Vitamin D enriched	1 cup (8 oz.)	165	85	28	2	385	2	10	40	2
Meats and Fowl (For all fried meats and fowl, add 100 calories per serving.)										
Bacon, crisp	(See Fats)									
Beef, lamb, mutton, veal (roasted or broiled)	1 serving (¼ lb.)	240	190	1	25	..	..	6	15	40
Frankfurter, cooked	1 average	125	70	..	6	..	..	8	9	12
Hamburger, lean, cooked	1 large patty (¼ lb.)	300	182	1	27	..	..	6	14	37
Liver, cooked	1 serving (¼ lb.)	140	200	6	70	44,000	30	26	330	140
Liverwurst, braunsweiger	1 slice (15 per lb.)	80	50	..	16	1,750	..	5	34	14
Other luncheon meats	2 slices	85	60	1	10	..	..	5	5	5
Pork or ham (roasted)	1 serving (¼ lb.)	300	165	1	25	..	..	80	19	43
Pork chops, cooked	1 loin chop	300	165	1	25	..	..	80	19	43
Pork sausage, cooked	2-in. patty	185	65	..	10	..	..	20	10	13
Broiler	½ medium (½ lb. meat, no bone)	334	440	3	30	..	..	17	35	220
Fowl, roasted or stewed	1 serving (¼ lb.)	200	200	2	20	..	..	8	15	100
Fish and Shellfish (For all fried fish, add 100 calories per serving.)										
Cod, haddock (cooked)	1 serving (¼ lb.)	170	180	1	5	..	..	5	9	20
Halibut (cooked)	1 serving (¼ lb.)	200	210	2	8	500	..	6	6	20
Lobster meat, cooked	⅔ cup	90	185	7	8	..	..	3	7	20
Oysters, raw	5–8 medium	85	100	9	56	320	..	15	20	12
stew	4 oysters + 1 cup milk	320	150	35	38	1,060	3	19	55	11
Salmon, canned with bones	1 serving (⅔ cup)	140	205	19	8	70	..	3	18	80
fresh, boneless	1 serving (¼ lb.)	290	210	2	6	400	..	12	25	80
Sardines, canned	1 sardine	100	90	19	20	15	..	5	15	37
Shrimp, canned or cooked	4–6 medium	65	135	6	16	30	..	1	2	10
Tuna, canned	½ cup	200	290	1	14	80	..	5	12	150
Eggs (For fried egg, add 100 calories.)										
boiled or poached	1 medium	80	60	3	15	550	..	5	14	..
omelet or scrambled	1 egg + 2T. milk	106	68	5	13	640	..	5	17	..
Cheese										
American cheddar	1-in. cube (1 oz.)	115	71	20	3	400	..	1	12	..
Cheese spread	1 oz.	105	60	2	..	..	..	..	..	..
Cottage cheese, dry	½ cup	95	195	10	3	20	..	2	30	1
creamed	½ cup	155	205	12	5	270	..	..	34	1
Processed cheese	1 oz.	90	50	17	..	..	..	..	..	..
Nuts										
Almonds	12–15	90	28	4	7	..	..	4	10	7
Peanuts	12–15	85	40	1	3	..	..	5	2	24
[illegible]n or walnut halves	12–15	100	20	1	4	7	..	8	2	2
Peanut Butter	1 T.	90	40	1	.3	..	..	2	2	24

[illegible] MEAT FISH EGGS CHEESE, NUTS

VEGETABLES

Asparagus, cooked	⅔ cup	20	24	2	10	1,010	23	13	17	12
canned green	6 medium stalks	20	24	2	19	800	18	6	8	10
Beans, green, cooked	½ cup	15	9	3	4	315	5	4	6	3
canned	½ cup	20	12	4	15	500	5	4	5	4
lima, green, frozen, cooked	½ cup	110	65	5	19	220	20	10	7	8
Beets, cooked	½ cup	35	8	2	6	15	5	2	4	2
Broccoli, cooked	⅔ cup	30	33	13	13	3,500	75	7	15	8
Brussels sprouts, cooked	½ cup	30	30	2	9	280	33	3	8	4
Cabbage, raw	½ cup	15	7	2	3	50	25	3	3	2
cooked	½ cup	20	12	4	4	75	25	4	4	3
Sauerkraut	⅔ cup	25	14	4	5	40	15	3	6	1
Carrots, raw	1 large	40	12	2	8	12,000	3	6	6	5
cooked	⅔ cup	20	5	2	5	9,400	3	4	4	3
Cauliflower, cooked	½ cup	15	15	1	7	50	17	4	5	3
Corn, cooked	1 ear 5" long	85	27	1	6	400	8	11	10	14
canned	½ cup	90	39	3	7	260	7	4	7	12
Dried navy beans, peas, cooked	½ cup	115	70	5	25	..	..	6	6	10
Leafy greens										
Beet tops, spinach, cooked	⅔ cup	30	25	.	25	10,000	33	8	20	6
Lettuce	⅓ head									
Celery	2 pieces	10	5	2	2	100	4	2	3	2
Cucumber	8 slices									
Onions, egg plant, cooked	½ cup	40	10	3	6	80	8	3	4	3
Peas, green, cooked	½ cup	60	38	2	15	600	12	20	11	20
canned	½ cup	70	36	3	17	550	8	10	5	8
Potatoes										
Sweet, baked	1 medium	180	26	4	11	12,000	30	12	8	9
Sweet, canned	½ cup	100	20	3	8	9,000	15	5	4	5
White, boiled, peeled	1 medium	85	20	1	7	20	15	9	3	10
baked, without skin	1 medium	100	24	1	8	20	17	11	5	14
French fried, shoestring	10 pieces	200	27	2	10	25	15	9	6	17
hashed brown	½ cup	240	33	2	12	30	7	8	6	17
Pickles, sweet cucumber	1 medium	10	1	1	1	10	..	..	..	..
Dill	1 large	15	9	4	2	420	8	..	8	..
Rutabagas, cooked	½ cup	25	6	4	3	270	16	4	6	5
Squash, winter, baked	½ cup	50	19	2	8	6,000	7	5	15	6
Tomatoes, canned	½ cup	25	12	1	7	1,250	20	7	4	8
juice, canned	½ cup	20	10	1	4	1,050	16	5	3	8
raw	1 medium	30	15	2	9	1,650	35	9	6	8
Turnips, cooked	⅔ cup	25	8	4	5	..	18	4	6	4
For [illegible]ed vegetables, add per serving:		50	..	...	..	200	..	..	..	..
If fried, add 100 calories per serving.										
TOTAL VEGETABLES										

FRUITS (For sweetened canned or frozen fruit, add 50 calories per serving. For sweetened fresh fruit, add 20 calories per tsp. sugar used.)

Apple, raw	1 medium	75	4	1	4	120	6	5	4	2
Applesauce, sweetened	½ cup	90	3	1	5	40	1	3	2	[illegible]
Apricots	2-3 medium	50	10	2	5	2,800	7	3	5	8
Banana	1 medium	130	18	1	9	650	15	6	8	10
Cantaloupe	½ (4¼" diam.)	30	9	3	6	5,000	50	8	6	7
Cherries, sweet, raw,	15 large	60	11	2	4	620	8	5	6	4
sour, canned, unsweetened	½ cup	50	8	1	3	720	6	3	2	6
Citrus — orange, grapefruit, lemon	1 orange or lemon or ½ grapefruit or ½ cup juice	50	9	3	4	180	50	8	3	3
Cranberry sauce	2 T.	40	..	..	..	6	4	..	..	..
Dried dates, figs, raisins	¼ cup	80	5	3	9	15	..	4	3	6
Fruit cocktail, canned	½ cup	90	5	1	5	205	3	2	2	5
Grapes	1 bunch (22 to 24)	70	14	2	6	80	4	6	4	2
Peach, raw	1 medium	50	5	1	6	880	8	2	5	9
Pear, raw	1 medium	60	1	2	3	20	4	2	4	1
Pineapple, canned, sweetened	½ cup	100	5	4	8	100	12	10	2	2
fresh, unsweetened	½ cup	50	4	2	3	130	24	8	2	2
Plums, raw	2 medium	50	7	2	5	350	5	6	4	5
Prunes, cooked, unsweetened	4 medium	85	7	2	13	550	..	2	5	4
Raspberries, blackberries	¾ cup	60	10	4	9	200	25	2	7	3
Rhubarb, cooked, sweetened	½ cup	140	3	..	2	16	2	..	..	..
Strawberries	10 large	40	8	3	8	60	60	3	7	3
Watermelon	6" diam. × 1½"	170	3	4	12	3,540	35	30	30	12

DESSERTS

Cakes										
Angel	1/10th of 10" cake	150	35	..	1	..	..	..	6	1
Chocolate, white icing	1/12th of 9" cake	300	30	2	5	260	..	2	7	1
Fruit	3" × 3" × ½"	140	20	4	10	150	..	6	8	4
Plain, white icing	3" × 2" × 1¾"	300	38	8	3	450	..	2	5	2
Cookies, plain, sugar	2 (3" diam.)	130	20	1	4	50	..	6	6	4
Chocolate brownie	2" × 2" × ¾"	140	18	1	5	290	..	4	4	2
Fruit nut (rich)	2 (3" diam.)	250	15	1	5	20	5	3	3	..
Custard, baked	½ cup	200	90	16	10	600	..	8	30	1
Doughnuts, cake type	1 medium	140	20	1	6	40	..	7	6	5
raised	1 medium	120	20	2	4	70	..	7	5	5
Gelatin dessert, plain	½ cup	70	16	..	..	..	..	..	..	..
Ice cream, vanilla	½ cup (1/6 qt.)	150	28	9	1	370	1	3	13	1
Pies										
Blueberry	⅙ of 9" pie	370	40	1	7	170	5	3	3	4
Cream filling, with meringue	⅙ of 9" pie	350	75	5	8	300	..	7	24	2
Fruit (apple, peach, cherry)	⅙ of 9" pie	380	40	2	6	500	2	5	4	6
Pumpkin	⅙ of 9" pie	330	65	10	20	2,300	..	6	16	5
Pudding, cream style	½ cup	150	45	15	1	200	..	4	20	1

● **TOTAL FRUITS and DESSERTS**

RECOMMENDED DAILY ALLOWANCES EXPRESSED IN UNITS

Adapted with practical modifications from the Recommended Dietary Allowances of the National Research Council, 1963.
Refer to inside back cover for explanation of units.

	Age (years)	Weight (lbs.)	Height (in.)	Vitamin D Units	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
						UNITS							
Infants up to 1 year		18		400	Kg x 115 ±15	Kg x 2.5 ±0.5	70	Kg x 1.0	1,500	30	40	60	60
CHILDREN	1–3	29	34	400	1,300	320	80	80	2,000	40	50	80	90
	3–6	40	42	400	1,600	400	80	100	2,500	50	60	100	110
	6–9	53	49	400	2,100	520	80	120	3,500	60	80	130	140
BOYS	9–12	72	55	400	2,400	600	110	150	4,500	70	100	140	160
	12–15	98	61	400	3,000	750	140	150	5,000	80	120	180	200
	15–18	134	68	400	3,400	850	140	150	5,000	80	140	200	220
GIRLS	9–12	72	55	400	2,200	550	110	150	4,500	80	90	130	150
	12–15	103	62	400	2,500	620	130	150	5,000	80	100	150	170
	15–18	117	64	400	2,300	580	130	150	5,000	70	90	130	150
MEN	18–35	154	69		2,900	700	80	100	5,000	70	120	170	190
	35–55	154	69		2,600	700	80	100	5,000	70	100	160	170
	55–75	154	69		2,200	700	80	100	5,000	70	90	130	150
WOMEN	18–35	128	64		2,100	580	80	150	5,000	70	80	130	140
	35–55	128	64		1,900	580	80	150	5,000	70	80	120	130
	55–75	128	64		1,600	580	80	100	5,000	70	80	120	130
Pregnant (3rd trimester)				400	+ 200	+200	+50	+50	+1,000	+30	+20	+30	+30
Lactating				400	+1,000	+400	+50	+50	+3,000	+30	+40	+60	+70

	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
● TOTAL DAY'S INTAKE									

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Children list and explain in a written paragraph, at least two talents or abilities that would be necessary to become a professional athlete.

SUGGESTED SUBJECT AREA Reading, Physical Ed Health

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Children list favorite athletes in the different sports and then write a story about one of them. Athletes may be professional or amateur.	1. A good time to do this activity is during the world series and the start of professional and high school football. Children of this age are beginning to be very interested in athletics. Discuss the various athletes the children wrote about. Discuss the difference between professional and amateur athletes. Discuss some of the advantages and disadvantages of being a professional athlete. Explain to the children that most professional athletes are also trained in another area. (Ex. Gary Quasso, Minnesota Vikings quarterback is also a dentist) Discuss the success and failure of athletes and how they must cope with them. (Ex: 370 hitter going into a batting slump.)	Books: Basketballs for Breakfast Babe Ruth Johnny Unitas *"Stretch" p. 147-152 from I Build, Belong and Believe American Book Company Triple I Series Pro Footbal Heroes, Gelman Baseball Life of Willy Mays, Greene Pro Basketball Champions, Vecsey (paperbacks)
Speaker	An Amateur could speak to the class about careers in sports.	Resource person-an amateur athlete such as a high school athlete.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Developing positive self concepts.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activity 2,3,4 children will demonstrate a healthy attitude toward play by listing three rules of fair play.

SUGGESTED SUBJECT AREA Reading, Physical Ed, Health

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
2. Children share baseball and football cards with class or clippings from the local newspaper telling about the local athletes	2. This is a good fifteen minute reading or language class. Children enjoy reading facts about their favorite players. Good time to discuss the importance of schooling in developing their interests.	
3. Listen to a World Series game.	3. Children could be drawing pictures or writing stories about various players while listening.	Radio
4. Teach the class the school song of the local high school or schools.	4. This enables the children to take an active part in the local games when their parents take them.	Copies of local high school pep song. 179 Getting Angry BFA 10 min. - color 616 Telling the Truth BFA 10 minutes - color 615 Playing Fair 10 minutes - color 280 Getting Along With Others BFA - 10 min. Color

112

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activities 5, 6, 7 and 8 students will demonstrate an understanding that people work for various rewards and satisfactions and each student will be able to state at least two reasons why people work.

SUGGESTED SUBJECT AREA Reading, Physical Ed. Health

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Children research the history of the olympics and recent heroes of the Olympics games. Ex: Jim Thorpe Wilma Rudolph Paul Anderson	5. Children research the purpose for the establishment of the Olympic Games. They should be made aware of the fact that these athletes train very hard for a satisfaction and reward other than monetary and that they must be able to be either a gracious winner or loser.	Encyclopaedias Tape Recorder
6. Children record reports	6. For an evaluation children record their own research reports. They can be played back for Language or Reading class.	Gunny sacks, relay baton, ties, ribbons taped to lollipops
7. Lollipop Olympics	7. In the spring you may want the class to have their own Olympics. They might participate in such events as a 75 yard dash, three legged race, sack race, relays and soft ball throw. Prizes may be blue, red and yellow ribbons taped to corresponding color lollipops.	I Build, Belong, and Believe "It Pays" pg. 214-219 ABC I Can, Complete and Care ABC "My Names Jackie, Too!" pg. 12-18 "Who Gets the Ball?" pg. 51-57 "Willy" pg. 206-212 I Do, Dare and Dream ABC "The Trainer" Pg. 51 "Stan Musial" pg. 60 "A Team or a One Man Show" pg. 265-272 I Earn, Explore and Excel ABC "The Chief Diver" pg. 48 "The Basket Ball Twins" pg. 205-213
8. Resource person	8. Invite an athlete to visit classroom.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to explain in a paragraph how locality affects work availability.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	1. People move to certain areas because of work availability and because of locality.	1-2 Parents
2. Interview parents on change	2. Find out which parents have changed jobs, why and how many times. Be very general on reasons. Could use fictitious situations also if you see potential problems in this.	
3. Graph results of change Make graphs after going to other classes to poll for information.	3. After interviews, graph the results into a simple graph. Do as a class project.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list two things we can do with money we have earned and state the advantage of doing each thing chosen.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study of money - This activity can be correlated into math when you work with values of the different pieces of money.	1. Show pictures of children doing jobs, such as mowing the grass, raking, babysitting, running errands, paper boy, etc. 2. Ask the class if they have ever done a job and received money for it. 3. Ask the class what are some of the things we could do with the money we earned. 4. When someone mentions saving money, ask where we save money. 5. Talk about what happens to the money if we save it in the bank. Why do people save money in a bank? 6. Talk about spending money, how to get the most for our money. 7. Have children bring in advertisements from the paper. 8. Have one child take the role of a storekeeper - One child the customer. The customer will use one or more of the advertisements and hand money to the storekeeper who must make the correct amount of change.	Banker visit the class or class visit a bank. Film: It's All mine, Color, 20 min. Available free from Dakota National Bank Bismarck, ND *What Can Money Do? Jean Barr Albert Whitman and Co. *At the Bank, Elinor Rees Melmont Publishers, Inc. *I Want to Be A Sales Clerk Eugene Baker, Children's Press - 1969

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

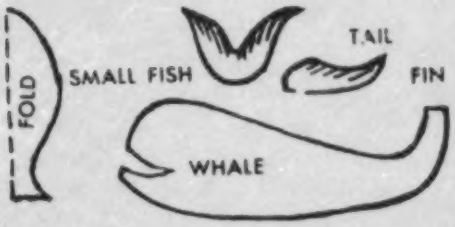
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Resource person	9. Discuss the banker and other bank employees. Invite those available to come.	
Order from a catalog	10. Bring in several catalogs and allow the children to choose several items from the catalog and add up the cost.	Catalogs
Order from a real or original menu.	11. Have children choose a meal from a menu - (each item separately) and total up the cost of their meal.	Menu - from a cafe or teacher prepared original menu

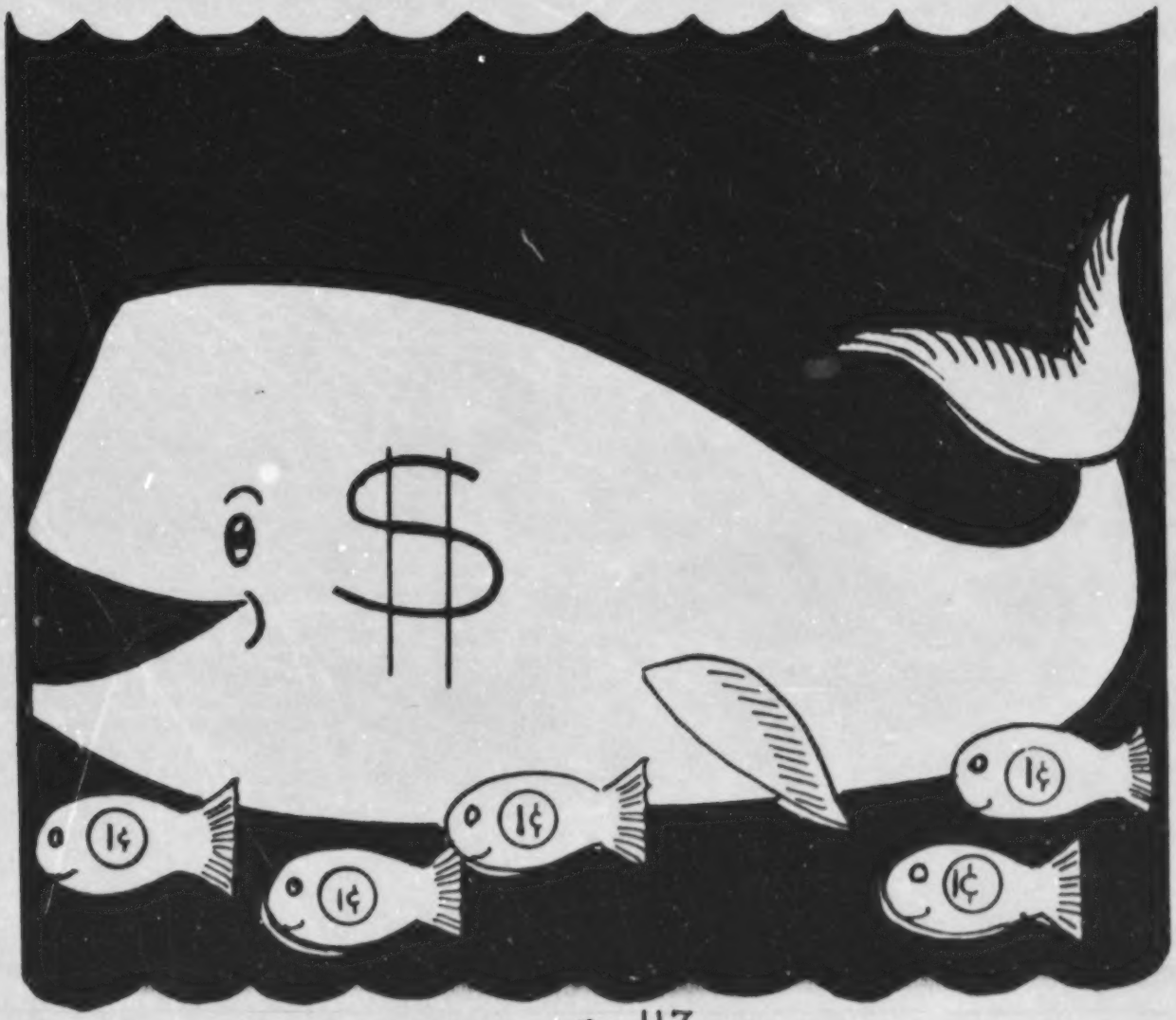
A SCHOOL SAVINGS PROJECT

School savings begin at HOME. Encourage thrift by having each child cover a coffee can with blue construction paper. Paste little paper fish shapes all over, each one having a dollar sign printed on it. Slits may be punched in the cover, if desired. The bulletin board encourages the class to bring the money saved in these banks and deposit it in the school savings plan. A huge black whale (with a dollar sign as shown) is stapled to a blue water-effect background. Water wave scallops are made at the top and bottom. Add yellow fish, each having a penny glued to its side.

CHILD'S COFFEE CAN BANK

BULLETIN BOARD





CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will be able to list three workers involved in either the music, theater or art industry and will be able to display their talents by participating in the class plays, art shows musical and talent shows.

SUGGESTED SUBJECT AREA fine arts

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Children make lists of workers involved in the music industry, theater and art.	1. Teacher breaks class down into small groups and asks each group to "brainstorm" on the people involved in the music industry. Children make lists in small groups and then share with whole class. Teacher can encourage discovery of other jobs; example - composers, lyricists, instrumentalists, performers, managers, sheet music and record manufacturers and the industries involved such as coal, paper, etc. Teacher may use this same process at various times in the year for the theater and art units.	1. Song "The Orchestra", P. 108-109 Expressing Music ABC 81-93 p. 104-107 p. 119-121 The Cat In the Hat Song Book Dr. Seuss, Random House Books & Stories "Ernesto" p. 215-222, I Can, Compete and Care, American Book Co. "Trini Lopez" p. 156-158 "Danny Kaye" p. 220-221 from I Do, Dare and Dream, American Book Co. "The Music Maker" p. 140-153 "Philadelphia Girl" p. 230-240 I Find, Follow and Finish, Am. Bk. Co.
2. Children bring favorite records to play in school.	2. Teacher may set up times during a week, perhaps during art, when the children's records can be played and discussed as to type of music, artist etc. Good records for teachers to share are records by the Carpenters and Partridge Family.	2. Records brought from home.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
3. Class Talent Shows	3. Have at least two talent shows a year. Children choose their own talent, and practice at home to present in class. Other classes or parents might be invited.	3. "Lucky Luke" p. 12-18 I Build, Belong and Believe American Book Co.
4. Present a class musical	4. This is a good project for parents day to be presented the Friday before Mother's Day. Children audition for the parts they desire. Committees are established for costumes, program invitations, ushers, corsages, etc. Floral industry can be studied at this time.	4. "Cinderella" Music For Young Americans American Book Company "Try Out and See" p. 98-104 I Build, Belong and Believe American Book Company
5. Introduce the world of art.	5. For the first art classes of the year, have the children research famous old masters. They can also list industries connected with art, such as paper, paint, plaster rock, etc.	5. "The Little Boy", p. 30-31, I Build, Belong and Believe, Am. Book Co. "Tony's Wall", p. 31-40 I Can, Compete and Care, American Bk. Co "No Cages for Me" p. 25-31 I Do, Dare and Dream, Am. Bk. Co "The Picture" p. 284-292, I Earn, Explore and Excel, Am. Bk. Co "The Eye of the Camera" p. 155-163 I Find, Follow and Finish, Am. Bk.Co Song -"Exploring Color", p. 103 Expressing Music ABC

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Have children learn different art techniques.	6. Children study mosaics, sculpturing, collages, paper techniques and different paint techniques. Have children submit work from either art class or independent work for art shows.	
7. Set up art show for every other month.	7. Have art shows (can be displayed in the hall) every other month.	7. Children's art
8. Introduce the world of the theater. Work on plays for the month.	8. Discuss the theater, acting, make-up, directing, etc. Divide children into groups. Have each group choose a play which is pertinent to the month. They set up their own committees on costumes, make-up parts, etc.	8. "My Story" p. 3-9 "My Kid Sister" p. 31-36 "Hard Work" p. 245-251 from I Can, Compete, and Care, American Bk. "Leading Man" p. 209-211 I Find, Follow, and Finish, American Book Co. Chp. 6 Playacting Stories pp. 139-157 Our Language Today American Book Co.

120

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (letter for this purpose attached) Form xx

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. Have the resource person ask students, "What do you think I do?", before he begins his actual presentation.

8. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Form xx

Dear _____

My students are studying _____
We would like to have some first hand knowledge about this area. We are very interested in the work that you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job
2. Duties
3. Training or preparation required.
4. Approximate starting salary - salary after ten years (average).
5. Have you been doing this same type of work all of your working life.
6. Demand for such a job.
7. Supply of workers for this occupation.
8. Physical characteristics needed.
9. Social characteristics needed.
10. Do you work alone or with others.
11. Do you need to get along and cooperate with other workers.
12. What school courses helped a great deal in preparing you for this work?
13. How do you feel after a days work? Why?
14. Why do you work?
15. Do you like this job?
16. What are the good and bad points about it?
17. How and where training can be obtained.
18. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____
Number of students _____
Description of facilities and equipment available _____

_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

FOLLOW-UP

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and definite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil/Teacher Preparation

Watch for:
1. Working conditions
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

THIRD GRADE FIELD TRIP GUIDELINE SUGGESTIONS

Job Specifics:

Please spend more time telling the children more specifics about titles of workers, education or training needed, and uniforms or special materials needed. It would relate better to our trips purpose. A general tour is not really teaching the children about the world of work. Also, a mention of social attitudes and habits which are essential - getting along with others, accepting responsibilities, punctuality, initiative, etc. will impress upon the children that these must also be developed at an early age to be successful in a job later.

Guides:

If each business would designate a certain person to be the tour guide throughout the whole schedule it would be more uniform in information disseminated. An alternate guide should be ready to substitute. He could be oriented in the same areas as the regular guide.

A periodic stop in certain areas to observe certain jobs and workers are more meaningful.

Before the tour starts it would help if the guide could talk to the group in a more quiet area and tell the children what to be looking for, safety hazards, and set up a few ground rules while visiting.

The children do not like to be "talked down" to, but rather in a language which they can understand. (clear, but not too technical)

Materials Handed Out:

Uniformity of materials taken home eliminates jealousy between students upon return.

Groupings of Children:

The children should be split into small enough groups so that all children will benefit from the field trip. Many places are too small to accomodate comfortably the whole group at one time. This will also help the children to hear the guide and thus become less restless.

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

F. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House, Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Dansville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

Chronicle Guidance Publications,
Moravia,
New York, 13118

ACCESSION NUMBER: VT101987

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FOUR CLASSROOM ACTIVITIES.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; VOCATIONAL DEVELOPMENT; *CAREER AWARENESS; *CLASS ACTIVITIES; SELF CONCEPT; OCCUPATIONAL INFORMATION; TEACHING GUIDES; RESOURCE MATERIALS; *GRADE 4; JOB SKILLS; OCCUPATIONAL CLUSTERS

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 154P.; SEE RELATED DOCUMENTS VT 101 983 THRU VT 101 986 AND VT 101 988 AND VT 101 989 IN THIS ISSUE.

ABSTRACT: THE NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION WAS DEVELOPED AND FIELD-TESTED IN THE BISMARCK DISTRICT AND IN OTHER SCHOOLS THAT BECAME INVOLVED DURING 1970-1973. MATERIALS WERE COMPILED FOR TEACHERS' USE IN INTEGRATING CAREER EDUCATION INTO THE EXISTING CURRICULUM, ADAPTED TO LOCAL SCHOOL NEEDS. INCLUDED ARE CAREER EDUCATION PHILOSOPHY (K-6), OBJECTIVES, AND DEVELOPMENT CONCEPTS. TWELVE BROAD OBJECTIVES ARE LISTED FOR GRADES 4-6, EXPANDING THE OBJECTIVES FOR THE PRIMARY GRADES. MATERIALS ON ACTIVITIES FOR VARIOUS ELEMENTS OF CAREER EDUCATION SUITABLE TO GRADE 4 ARE PRESENTED UNDER SELF-AWARENESS, CAREER AWARENESS, APPRECIATIONS AND ATTITUDES, ECONOMIC AWARENESS, DECISION-MAKING SKILLS, SKILL AWARENESS, EMPLOYABILITY SKILLS, AND EDUCATIONAL SKILLS. SUGGESTED SUBJECT AREAS ARE LANGUAGE ARTS, SCIENCE AND HEALTH, SOCIAL STUDIES, MATH, PHYSICAL EDUCATION, MUSIC, ART, AND GENERAL. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 987

GRADE 4

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

VT 101 987

VT 101987

GRADE FOUR CLASSROOM ACTIVITIES

of the

North Dakota Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

TABLE OF CONTENTS

FOR GRADE 4

I. Introduction

Preface v
Acknowledgements vi
Purpose of Guideline vii
Career Education Philosophy viii
Summary of Career Education Objectives ix
Concepts to Develop K-6 x
Intermediate Grades 4-6 Objectives xi

II. Elements of Career Education To Be Achieved K-12

Activities that address themselves to the various elements are found on the following pages:

A. Self-Awareness
Feelings 1
Self-Appraisal 26
Similarities and Differences 28

B. Career Awareness
"It" Came 3
Job Families 8
Writing Business Letters 36
Geographical Location 46, 50-52
North Dakota Industries 48, 56
Public Utility Workers 59
Family Tree 67
Meteorology 76
Electrical Workers 80
Oceanography 81
Health Professions 83
Recreational Occupations 112, 114
Occupational Information 117
Insurance Business 118
Transportation 120

C. Appreciations and Attitudes
Open-Ended Stories 24
Likes and Dislikes 25
Leisure-Time Activity 107

D. Economic Awareness
Money Usage 71, 73
Businesses 75
Unemployment 122

E. Decision-Making Skills
Goals and Aspirations 35, 103
Goals and Aspirations Biographies 42
Interests and Abilities 55

F. Skill Awareness
Oral Expression 34
Value of Writing Ability 39
Money Usage 71, 73
Drawing 93, 95
Sculpturing 96
Dancing 101
YMCA 102
Psycho-motor 104, 121, 124
Hand-Eye Coordination 106

G. Employability Skills
Individual Competencies 4
Behavior 6
Responsibilities (Interview) 30, 33
Role-Playing Store Manager 40
Cooperation 45
Dependability 61
Job Attendance 64
Healthy Body 84, 85, 91, 108
Responsibilities in Home 94
Job Application 97
Families Occupation 109
Competitive Games 111
Rhythm 113
Securing A Job 115
Job Roles 116

H. Educational Awareness
Construction Workers 58

III. Contents According To Suggested Subject Area

Language Arts
Pages: 24-26, 28, 30, 33-36, 39, 40, 42

Science and Health
Pages: 51, 76, 77, 80, 81, 83-85, 91

Social Studies
Pages: 45, 46, 48-50, 52, 55, 56, 58-60

Math
Pages: 61, 64, 67, 71, 73, 75

Physical Education
Pages: 101-10 , 106-125

Music
Pages: 2, 37, 38, 43, 47, 54, 63, 65, 66

Art
Pages: 4, 93-96,

General
Pages: 1, 3, 6, 8, 97

IV. Appendices

Resource People Guide 127-129
Field Trip Guide 131-132
Addresses of Suppliers of Resource Materials 134-137
(These are not free)
Interviewing Guideline 139-141

6

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

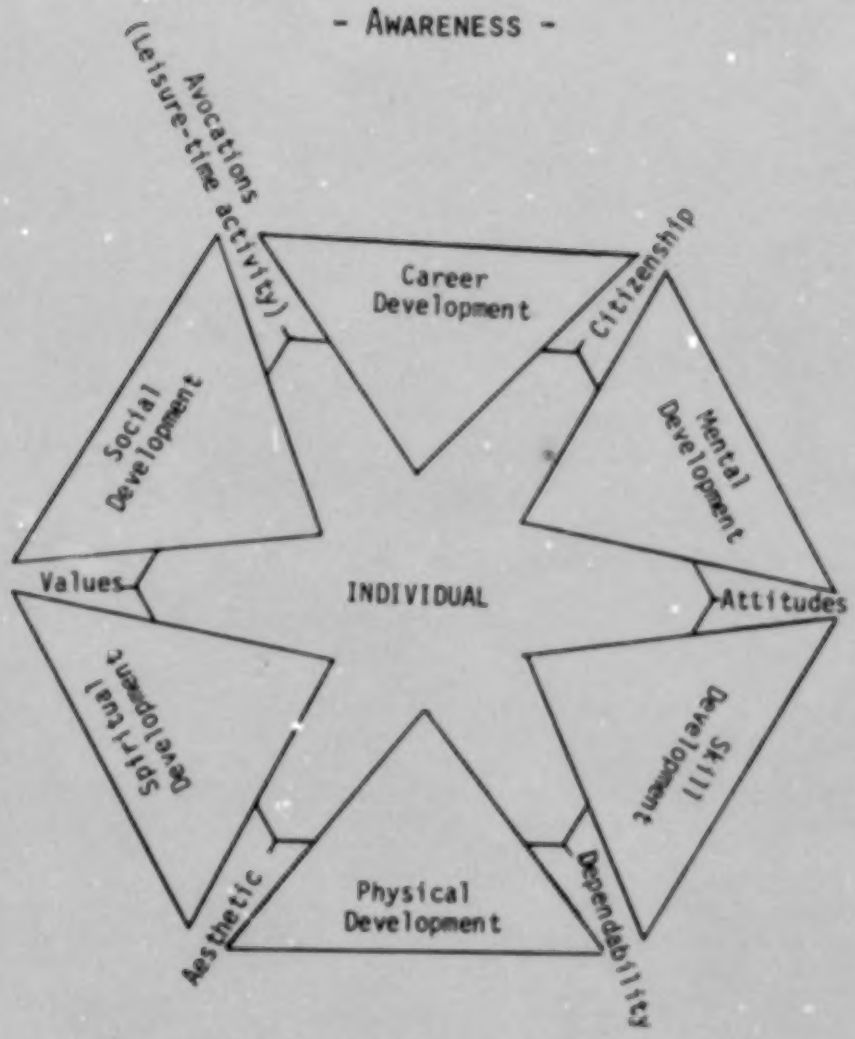
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INVOLVEMENT OF HOME, COMMUNITY, AND SCHOOL

INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life-long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B. Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

INTERMEDIATE (GRADES 4-6) BROAD OBJECTIVES

I. To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

A. To help students:

1. To respect and accept self and others
2. To be dependable
3. To be responsible
4. To be cooperative
5. To enjoy work and play
6. To make wise decisions and choices.

II. To develop a wide and varied interest that will open up an expanded basis for vocational choice.

III. To give students an opportunity to express goals and aspirations.

IV. To develop a positive attitude toward work and preparation for work.

V. To present appropriate occupational information using a broad introduction of occupations throughout the world.

VI. To provide more specific observational experience about the world of work.

VII. To make school subjects more meaningful.

VIII. To develop and foster a positive attitude toward the value of fine art.

IX. To impress upon student that a healthy body and mind is essential to a productive worker.

X. To develop skills basic to living a full and meaningful life.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will be able to share experiences about peer relationships.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 4

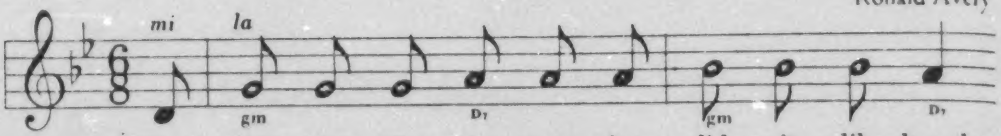
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View the filmstrip from the series: How Do You Feel? How Do You Fell About Other Children? Write a paragraph "How I Can Make My Classmates Like Me" Discuss and write about themselves or their best friend.	View the filmstrip and discuss 1. How do you feel about being with older children? 2. How do you feel about being with younger children? 3. How do you feel about being with your best friends? 4. How do you feel about someone new in the classroom? 5. Evaluation of interests, values, abilities, and attitudes.	How Do You Feel About Other Children? IFC 130-5 Series: How Do You Feel? Song: "Grumbling Joe", P. 34 Singing Everyday, (attached) Values: "Understanding Others" BFA 709 (9 min. color) School Problems "Getting Along With Others" (10½ min. color) BFA 614

SUGGESTED CORRELATION FOR THIS ACTIVITY:

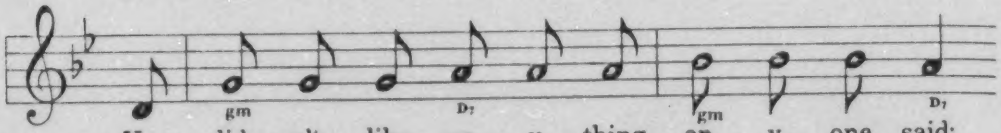
Grumbling Joe (p. 250)

Traditional

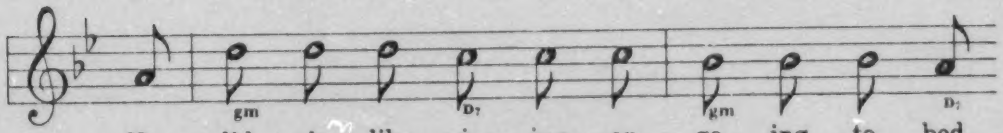
Ronald Avery



1. He did - n't like mut - ton, he did - n't like bread,
2. He did - n't like les - sons, he did - n't like play,
3. His grum - bling at length did be - come such a bore



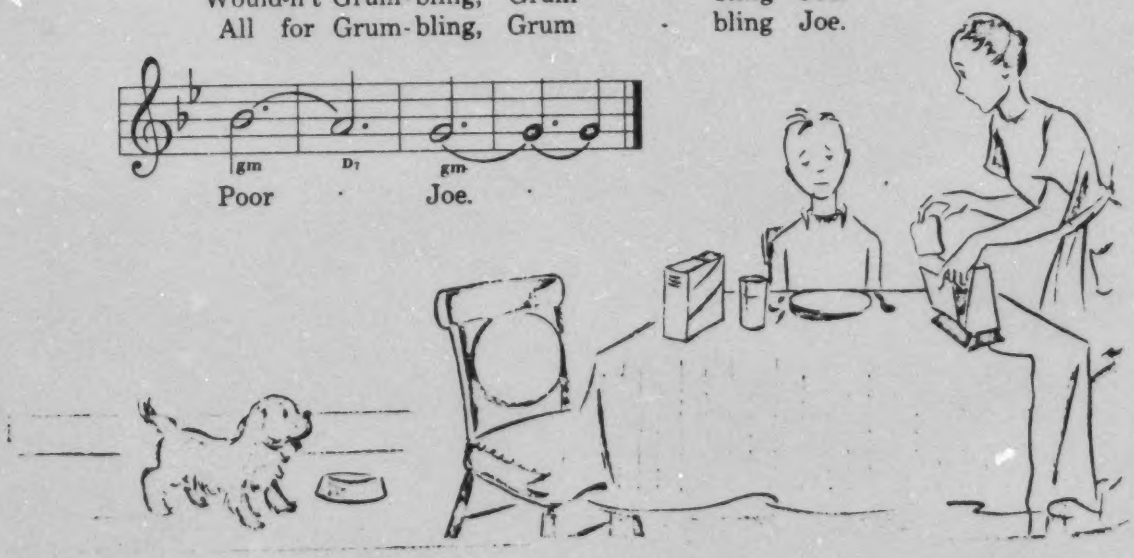
He did - n't like an - y - thing an - y - one said;
He did - n't like danc - ing, he nev - er was gay;
His fa - ther de - clared he should grum - ble no more,



He did - n't like ris - ing or go - ing to bed,
He did - n't like or - ders, he'd nev - er o - bey,
So bor - rowed a switch from his neigh - bor next door,

Did - n't Grum - bling, Grum - bling Joe.
Would-n't Grum - bling, Grum - bling Joe.
All for Grum - bling, Grum - bling Joe.

Poor Joe.



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

CONCEPT: Reading helps people in their careers.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to respond with a guess once during the course of the job interest game.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Game: "It" gives clues about a job he might like to do when he grows up. Others guess what the job might be. Clues: 1. What I wear? (uniform or others) 2. Where I work (inside or out) 3. Man or Woman 4. College or special training. 5. Takes strong person (or not) etc. Alternate Game: whats your trade, lemonade? Show us some if you're not afraid (pantomime)	Reference materials would be used to gather information on types of employment. Enough knowledge about the job would be necessary to answer questions from class.	Books: I Want to Be . . . by Carla Green, Childrens Press (or other books more on 4th grade level) What Job For Me? series. McGraw-Hill Co. (14 booklets) Encyclopaedias

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

Concept: Individuals differ in abilities, interests, attitudes and values

SPECIFIC BEHAVIORAL OBJECTIVE: Each student is able to identify at least one competency of each student in the room by completing a checklist.

SUGGESTED SUBJECT AREA General & Art

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Show the filmstrip. Discussion: Competencies needed to complete a task. Have students suggest who could perform the particular task best. (Should be done later in school year when students know one another quite well.) Have the children select duties that they think a child is capable of doing.	Have the children vote for the child they think could do one of the following: (When a child has been selected eliminate his name so others will be chosen as being able to perform the task. More than one can be named for some. 1. Sing a song 2. Sew on a button 3. Spell a word 4. Be a captain 5. Ride a horse 6. Fix something 7. Babysit 8. Draw a picture 9. Clean the room 10. Speak a foreign language 11. Write a story 12. Take care of a pet 13. Be on television. 14. Do a math problem 15. Paint a chair 16. Lift something heavy. Child can draw a picture of himself doing the activity.	"Who Are You?" S. V. E. What Job For Me? 14 book series McGraw Hill Book Co., New York, NY Understanding Ourselves (9 min) film B. F. A. 699 Job competency checklist attached

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Correlate with art by drawing pictures.

STUDENT'S NAME	JOBS
1. _____	_____A. Sing a Song
2. _____	_____B. Sew a Button
3. _____	_____C. Spell a word
4. _____	_____D. Be a Captain
5. _____	_____E. Ride a horse
6. _____	_____F. Fix something
7. _____	_____G. Babysit
8. _____	_____H. Draw a picture
9. _____	_____I. Clean the room
10. _____	_____J. Speak a foreign language
11. _____	_____K. Write a story
12. _____	_____L. Take care of a pet
13. _____	_____M. Be on television
14. _____	_____N. Do a math problem
15. _____	_____O. Paint a chair
16. _____	____P. Lift something heavy
17. _____	(Teacher may choose jobs to fit her particular group.)
18. _____	
19. _____	
20. _____	
21. _____	
22. _____	
23. _____	
24. _____	
25. _____	
26. _____	
27. _____	
28. _____	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive self-concept that will lead to future self-fulfillment in a vocation.

CONCEPT: Self understanding is important in making career choices.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the year-long award activity, each child is able to state orally two ways that he has changed his behavior.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. An improvement award given each week. Post name of student on the bulletin board who has earned the award. Individual child may also receive a card showing this. (See attached sheet) 2. Goofus and Gallart page of Highlights for Children used for pantomime or puppet work. (Should be done later in the school year)	Discussion of characteristics children have that others will notice and appreciate; how individual can improve these.	Improvement Award Kit Highlights for Children, Inc. Self Awareness Kit, S. R. A Stage II Responding

SUGGESTED CORRELATION FOR THIS ACTIVITY:

FOR OUTSTANDING
IMPROVEMENT
IN THE AREA
CHECKED AT RIGHT

_____
Date

_____
Teacher

_____
Presented to

___ Being Dependable

___ Being Cheerful

___ Sharing

___ Listening While Others Speak

___ Trying Hard to Learn

___ Neatness in Written Work

___ Being Thoughtful of Others

___ Being Friendly

___ Cleanliness of Hands and Face

___ Showing Good Manners

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work

CONCEPT: Understanding of math helps people in their work. (2) An understanding of science helps people in their work. (3) People need to communicate effectively.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will list three occupations related to math, science and English.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Introduce children to the concept of job families and interest-area families by making a booklet.	1. Reproduce the diagrams using their own design instead of circles. 2-3 children can work together. 2. Put the diagrams into a booklet. 3. Include in the booklet pictures, cut from magazines, that relate to the occupations in each subject area.	Magazines Diagrams for Exploring Occupations related to school subjects. colorful posters depicting "Diagrams for Exploring Occupations Related to School Subjects."

SUGGESTED CORRELATION FOR THIS ACTIVITY:

DIAGRAMS FOR EXPLORING OCCUPATIONS RELATED TO SCHOOL SUBJECTS

The diagrams on the following pages are designed to assist students who are undecided about a specific occupation, but have interest in one of the major subject areas. Each occupation has been coded according to the Dictionary of Occupational Titles for easy reference. Students who desire to obtain additional information about a certain occupation can refer to the professional file by the Dictionary of Occupational Titles code number.

The Dictionary of Occupational Titles is a United States Department of Labor publication, and consists of five points:

(1) The occupational title,

(2) the industry designation or work activity with which the occupation is identified,

(3) classification by code number,

(4) alternate titles, and

(5) a brief description of the duties of the occupation.

The D. O. T. is available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D, C, 20402.

The above refers to eh D.O.T. (Dictionary of Occupational Titles) 1965 Third Edition, Volumns I & II.

Suggestion: The diagrams can be used on bulletin boards or for class discussions. (We would be interested to know how your school uses this information, particularly if the methods are different from those listed above.)

Mail Order Form to: D.O.T. ORDER FORM (All orders are prepaid)
Superintendent of Documents, Government Printing Office, Washington D. C. 20402

Enclosed find $_____ (check or money order)

Please send me _____ Volume I - Definitions of Titles - at $5.00 each

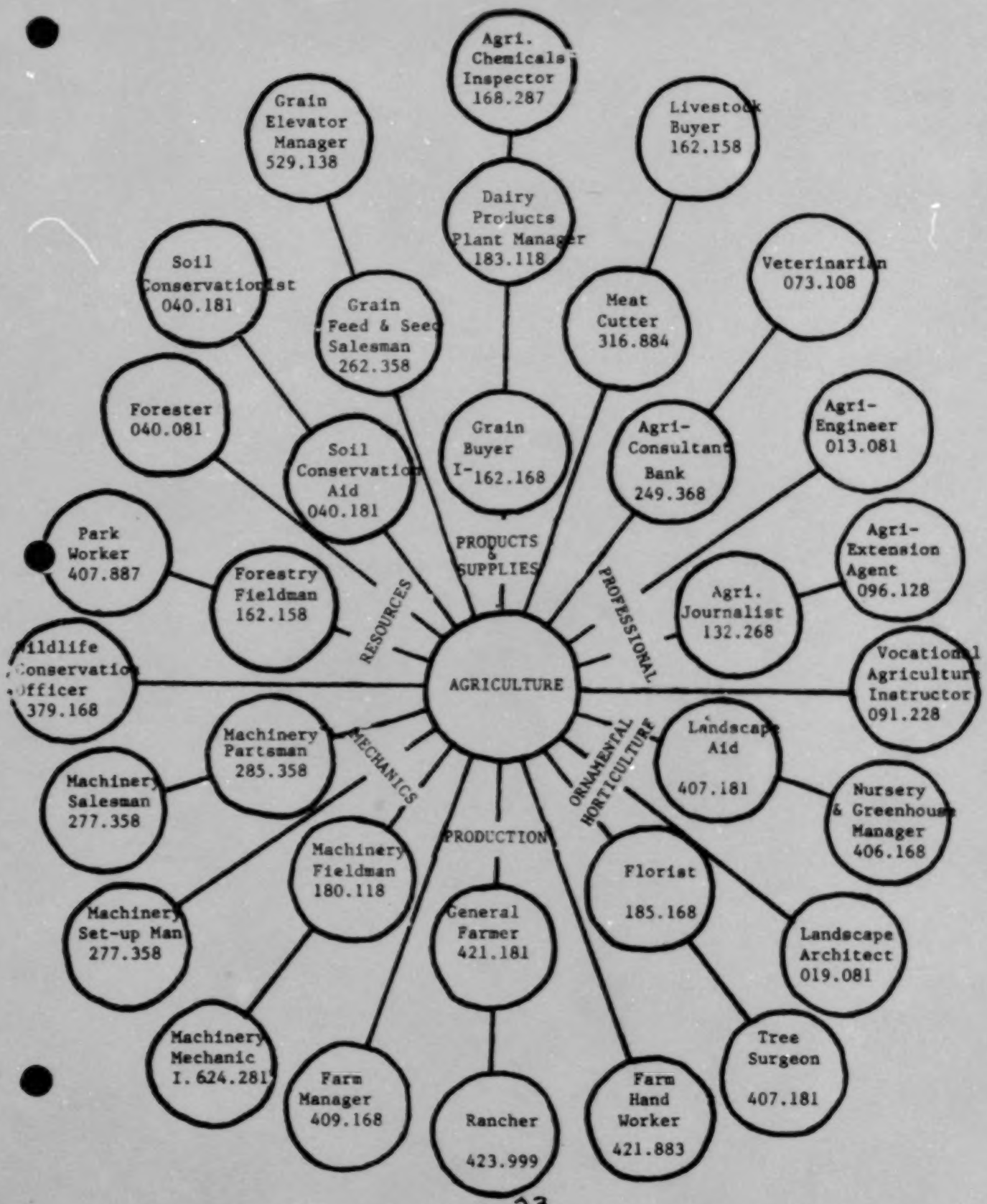
Please send me _____ Volume II - Occupational Classification - at $4.25 each

Name_____ School_____

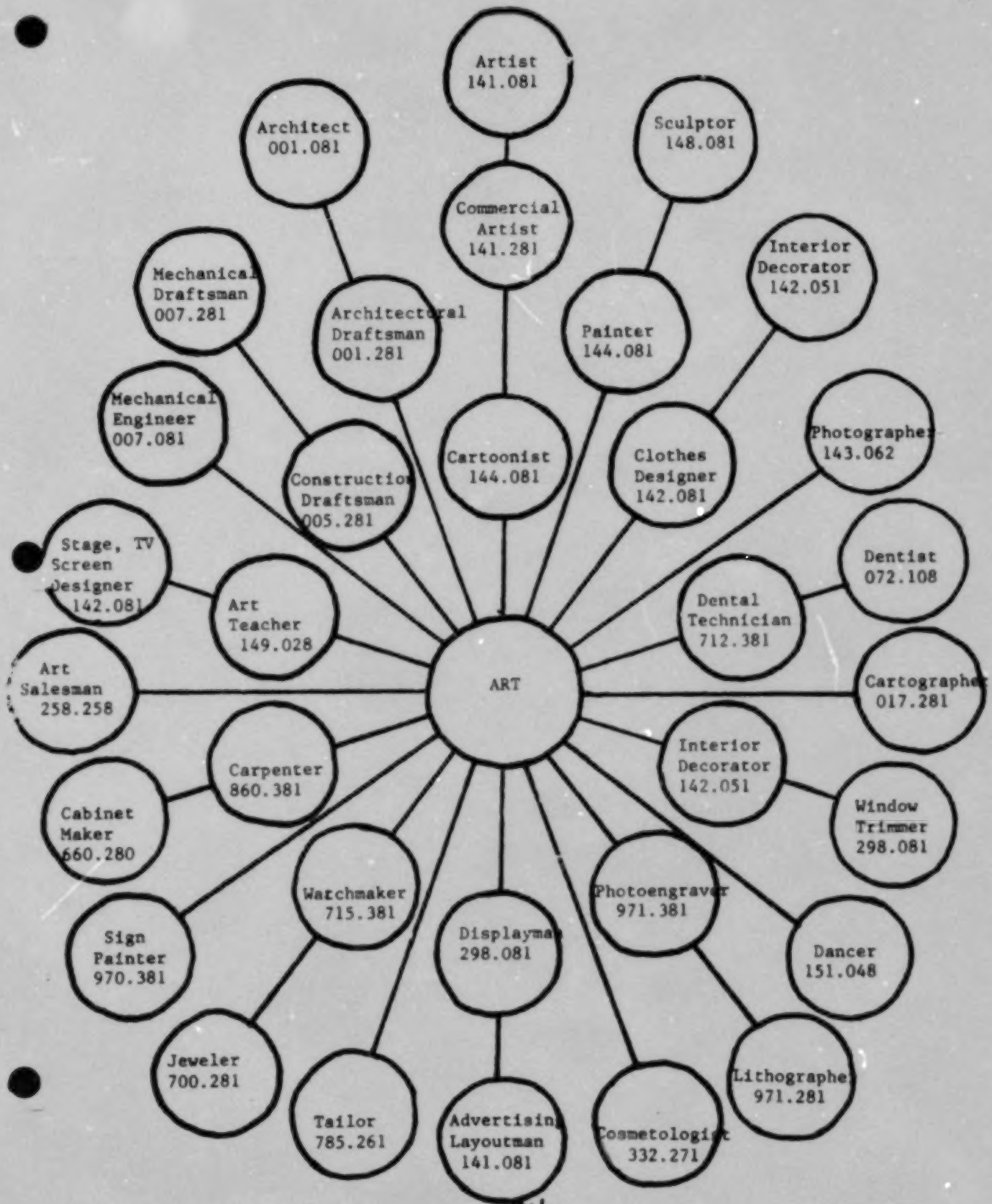
Street Address_____

City, State and ZIP Code_____

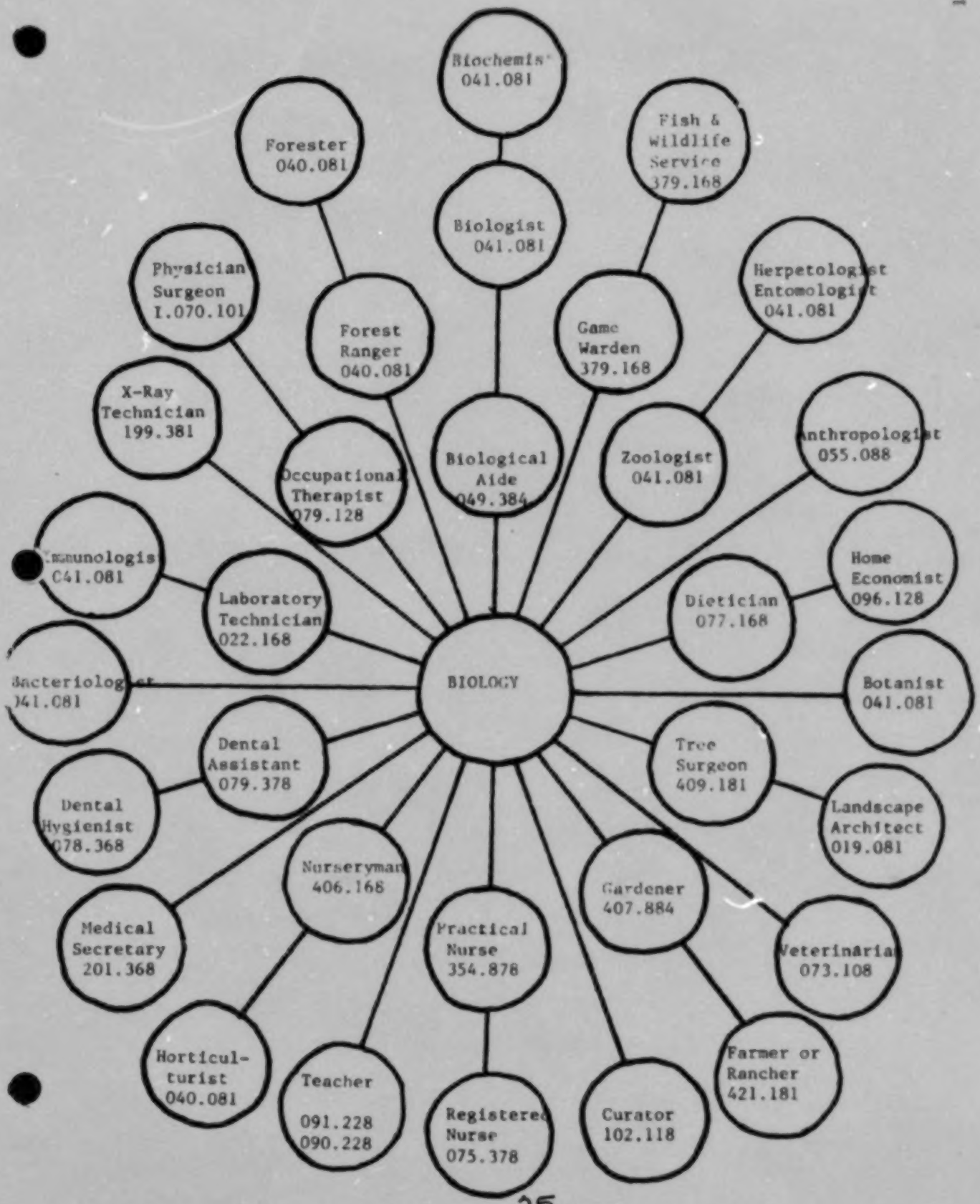
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN AGRICULTURE



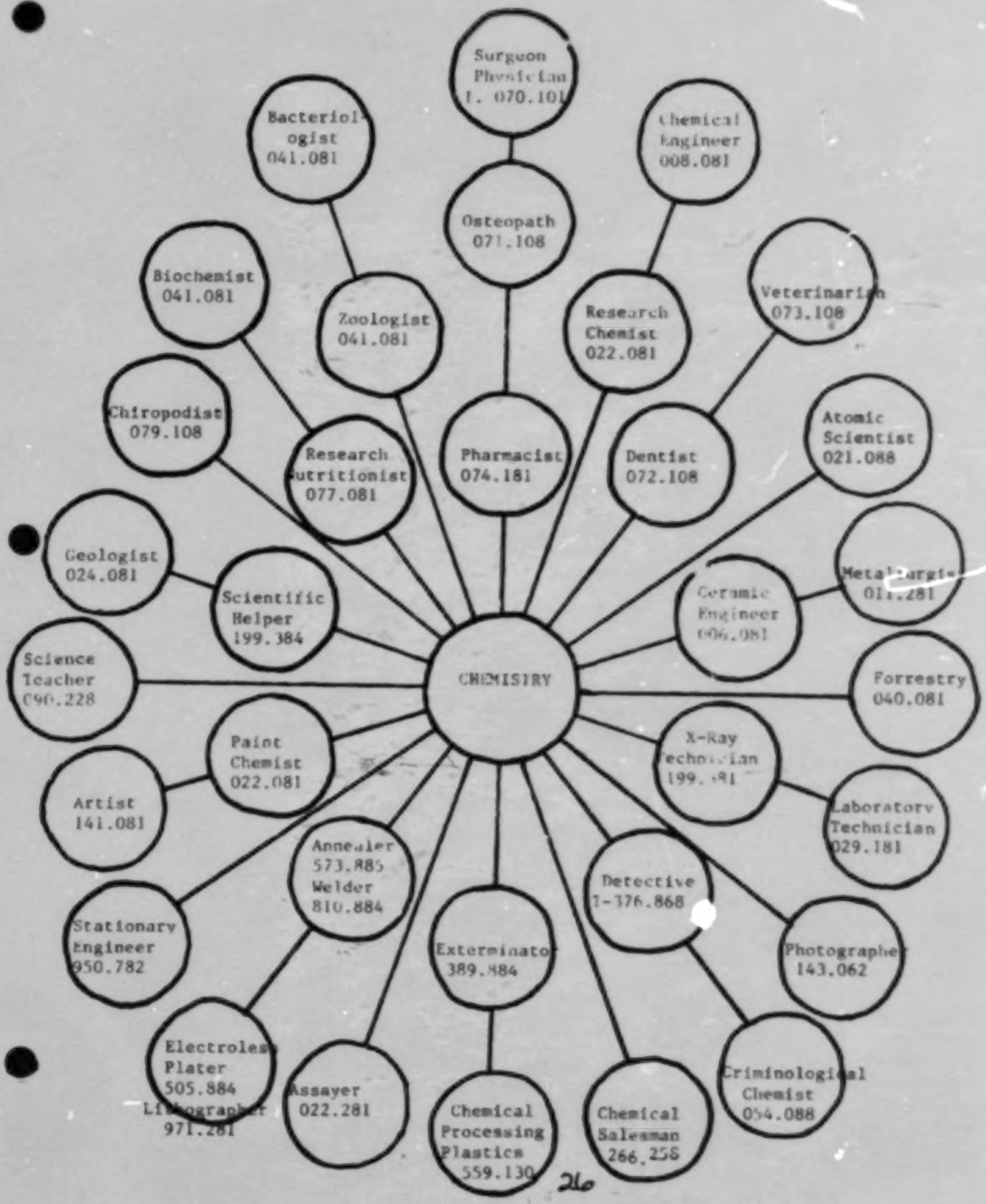
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN ART



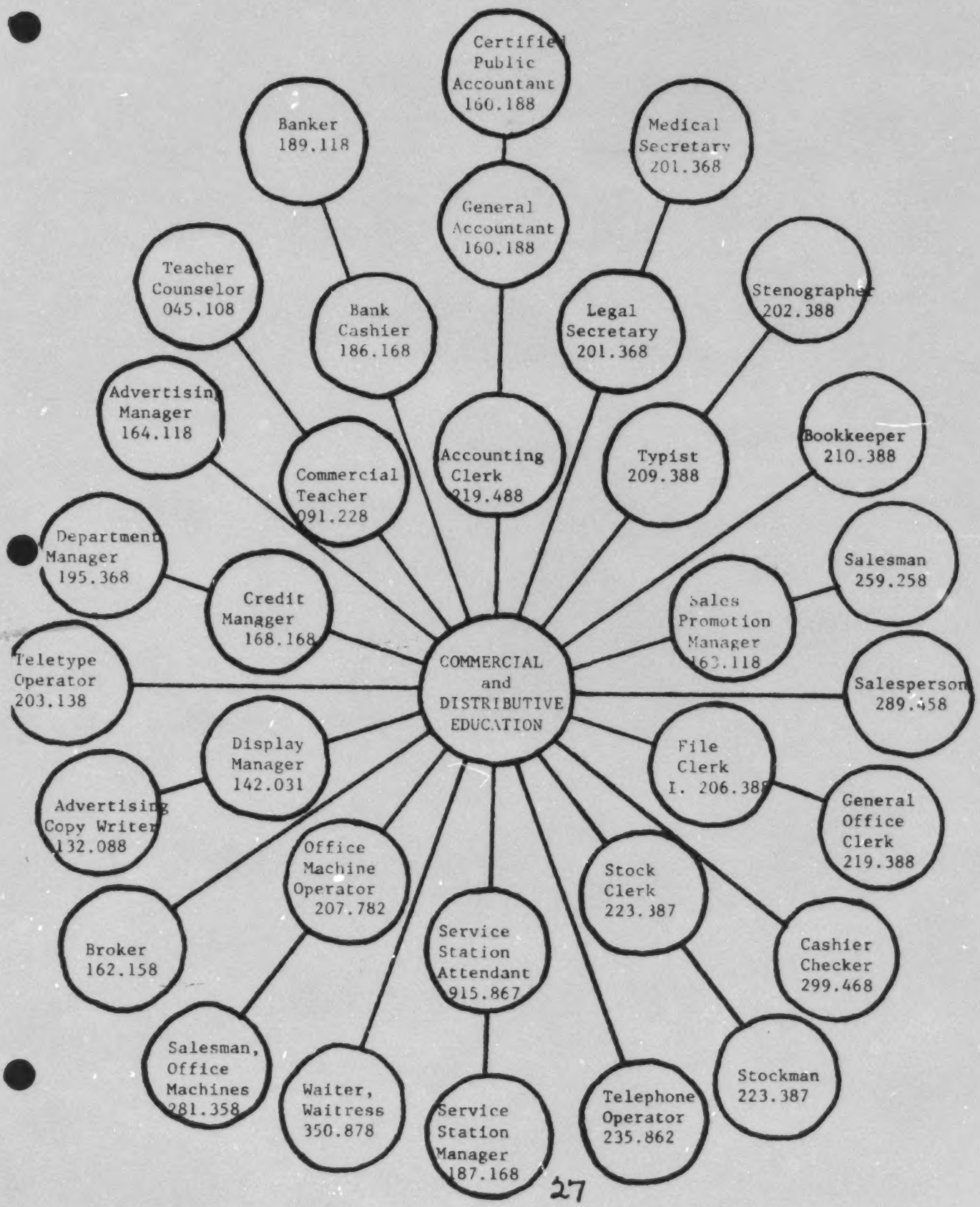
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN BIOLOGY



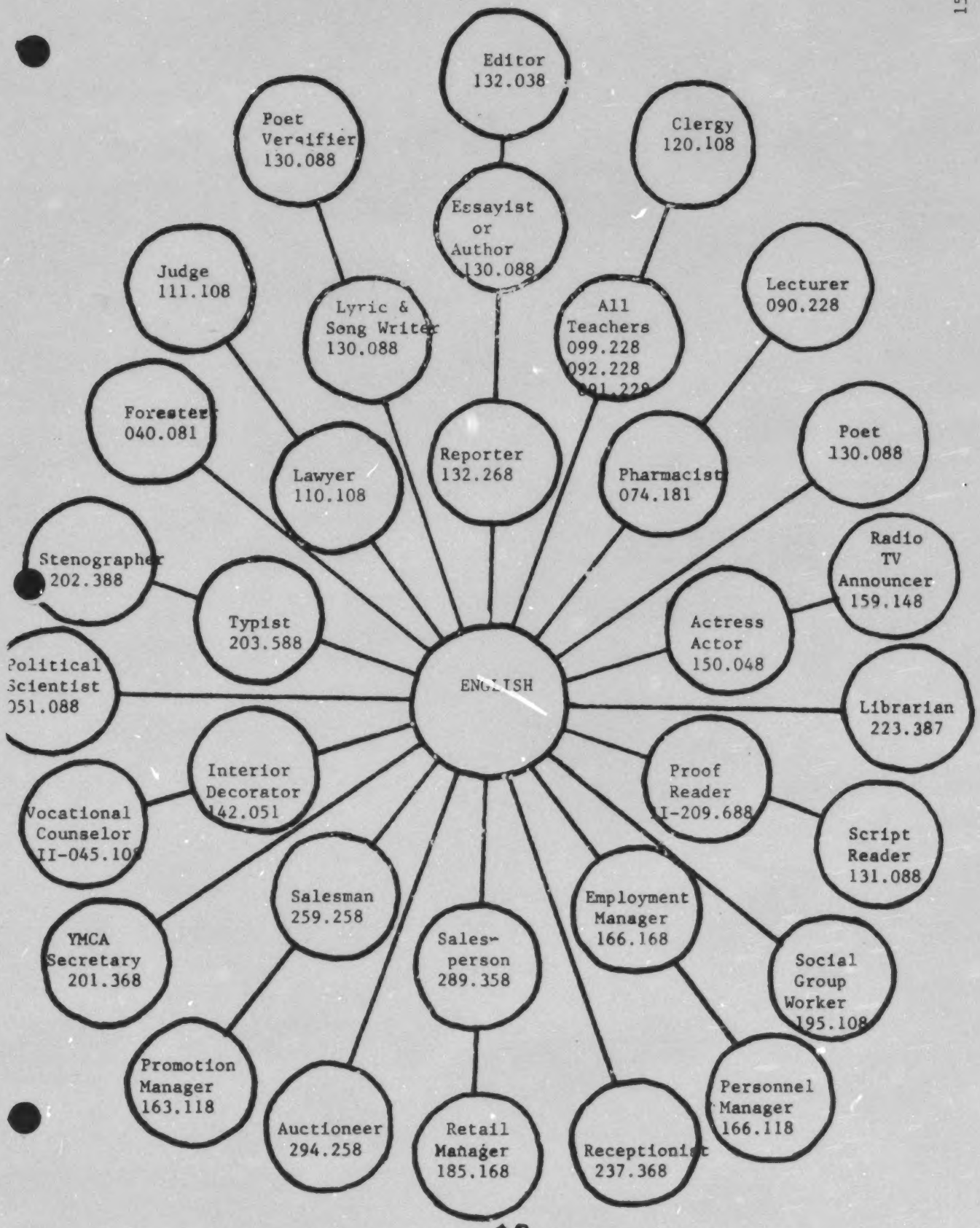
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN CHEMISTRY



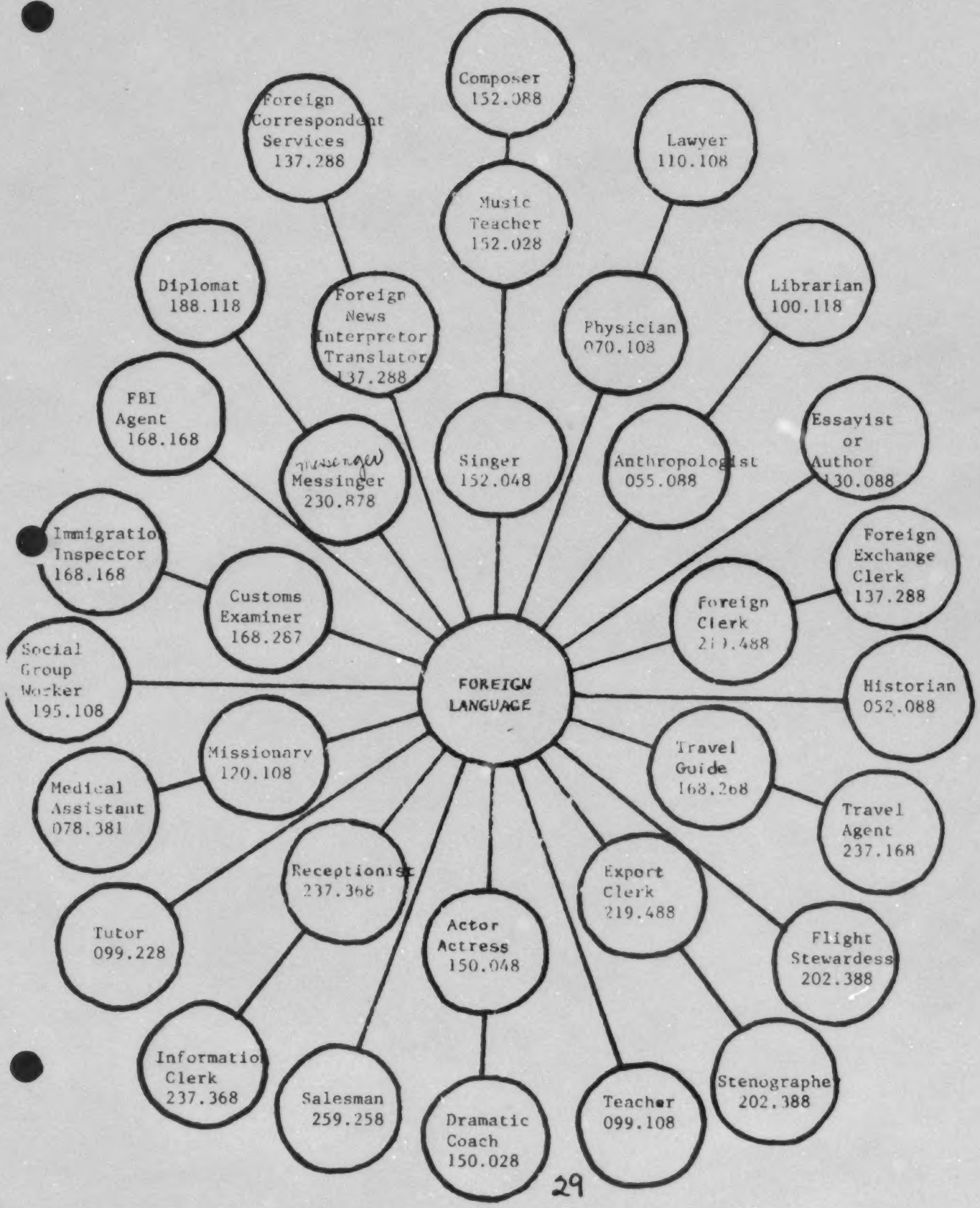
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN BUSINESS TRAINING AND DISTRIBUTIVE EDUCATION



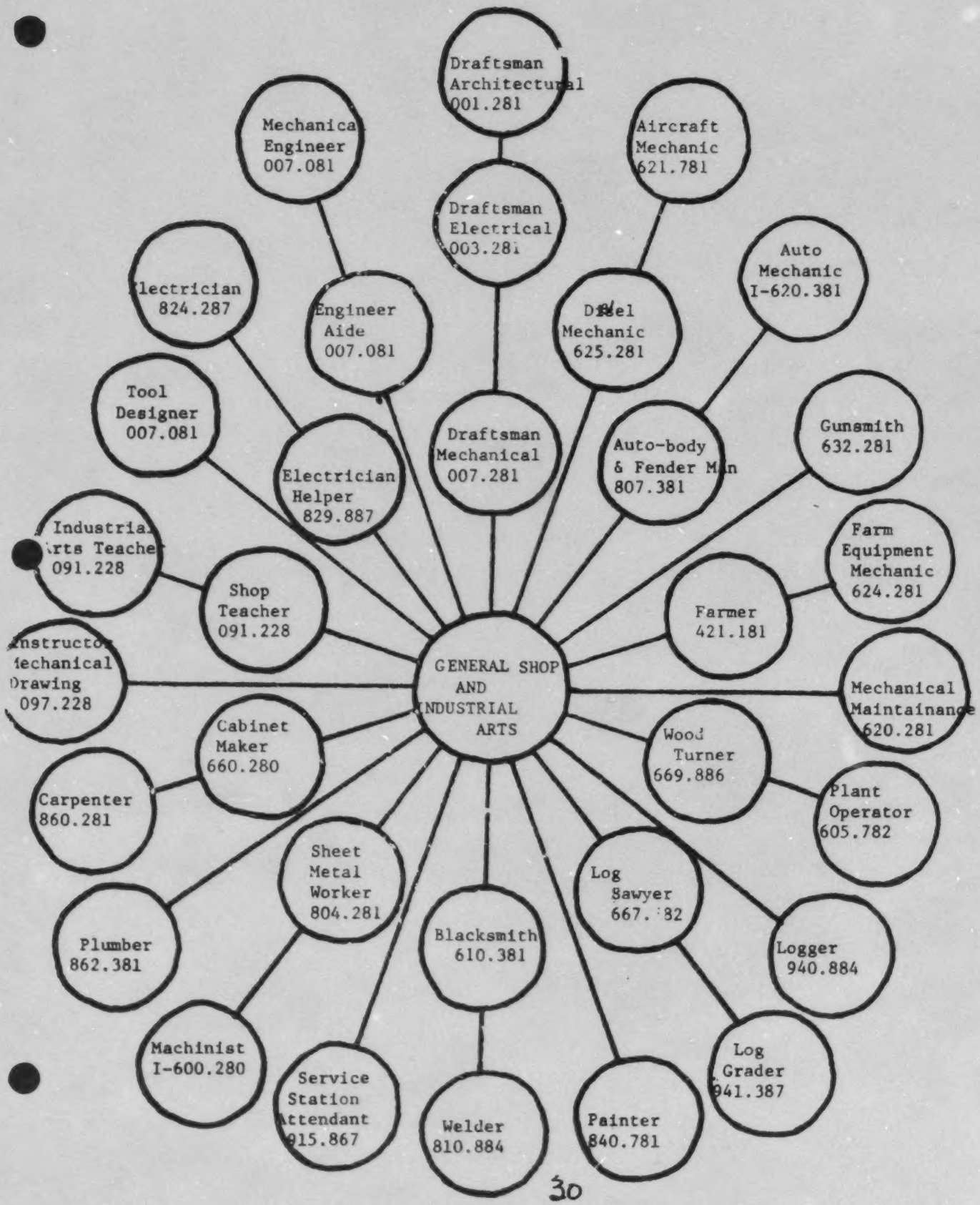
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN ENGLISH



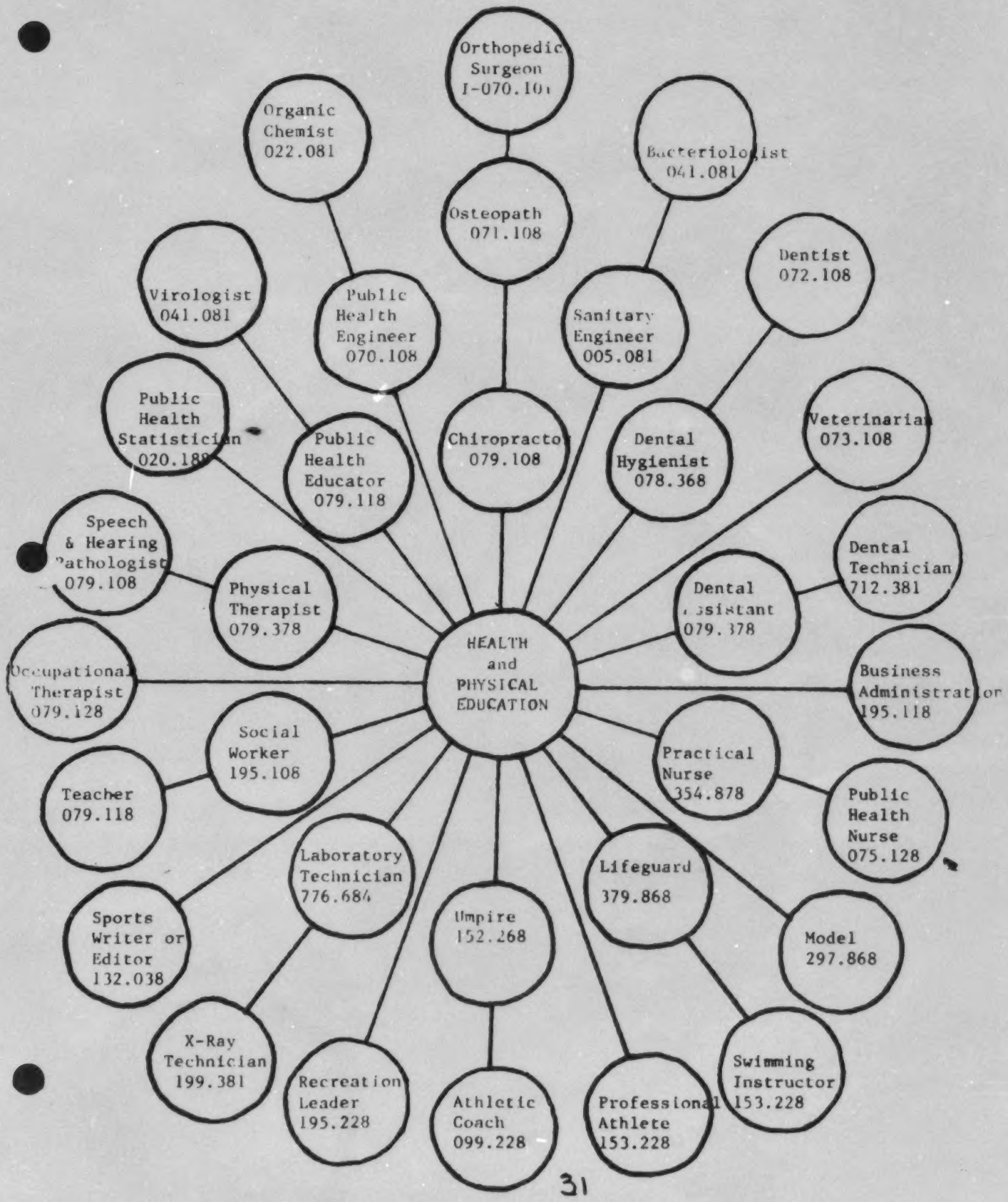
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN FOREIGN LANGUAGE



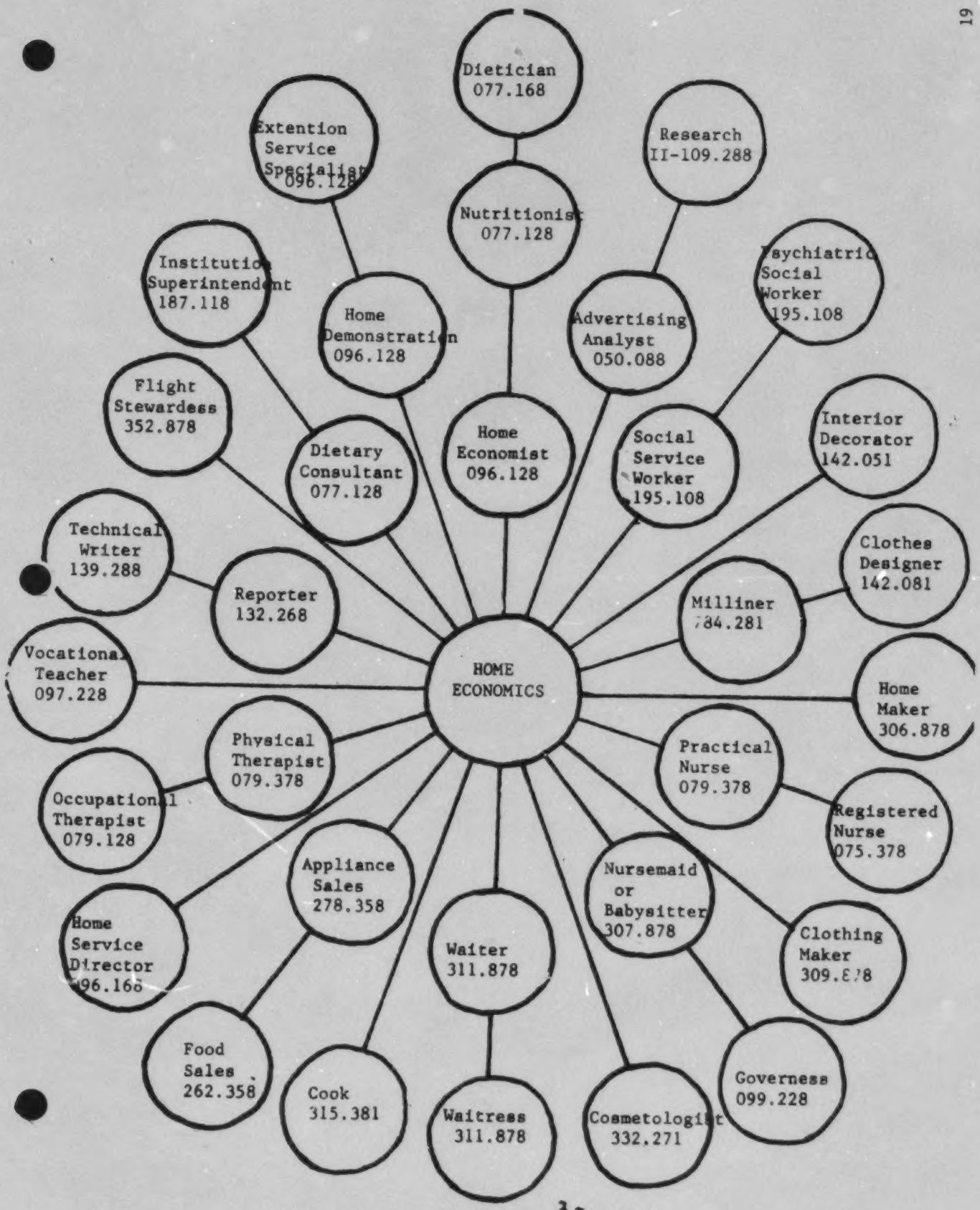
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN GENERAL SHOP AND INDUSTRIAL ARTS



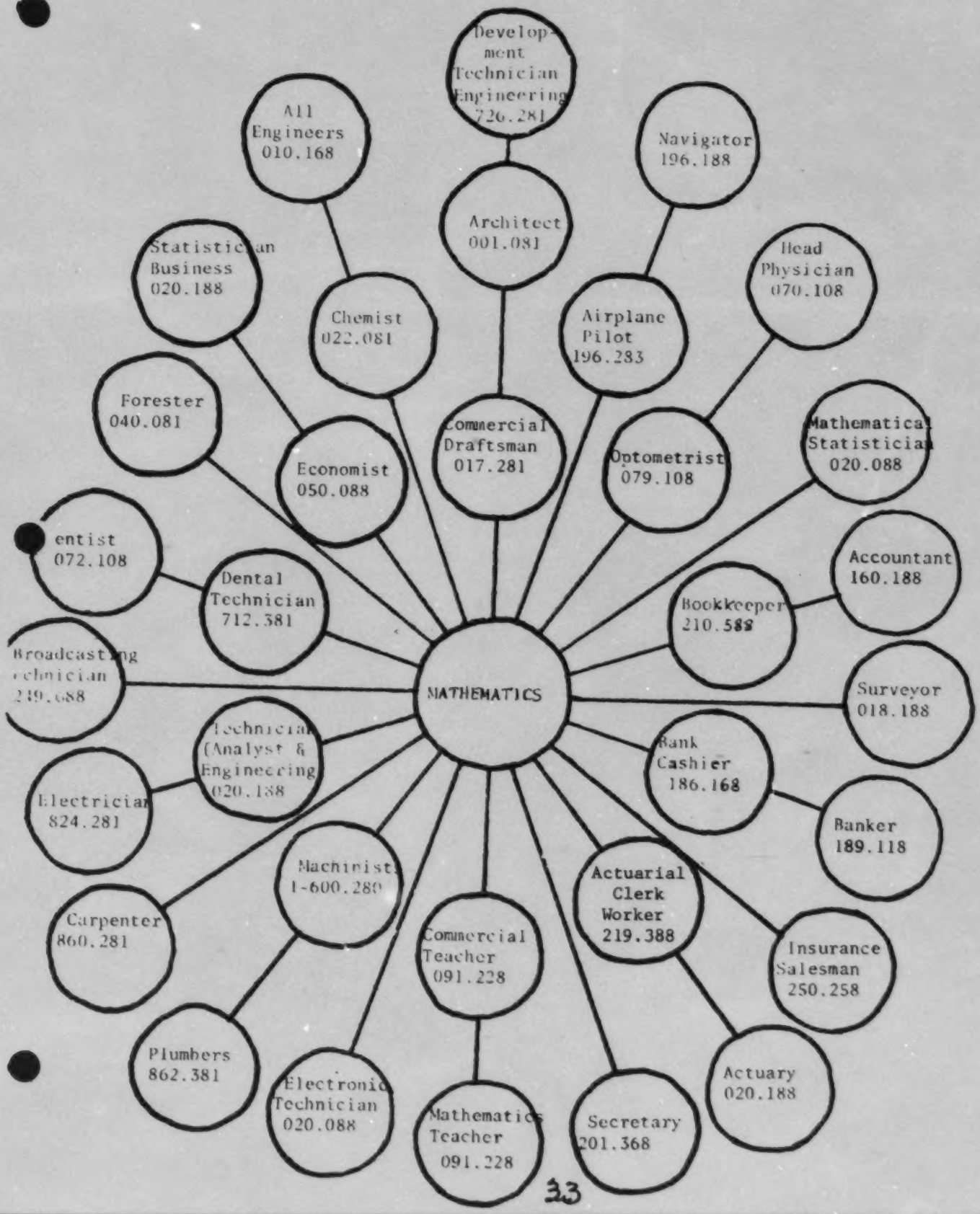
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN HEALTH AND PHYSICAL EDUCATION



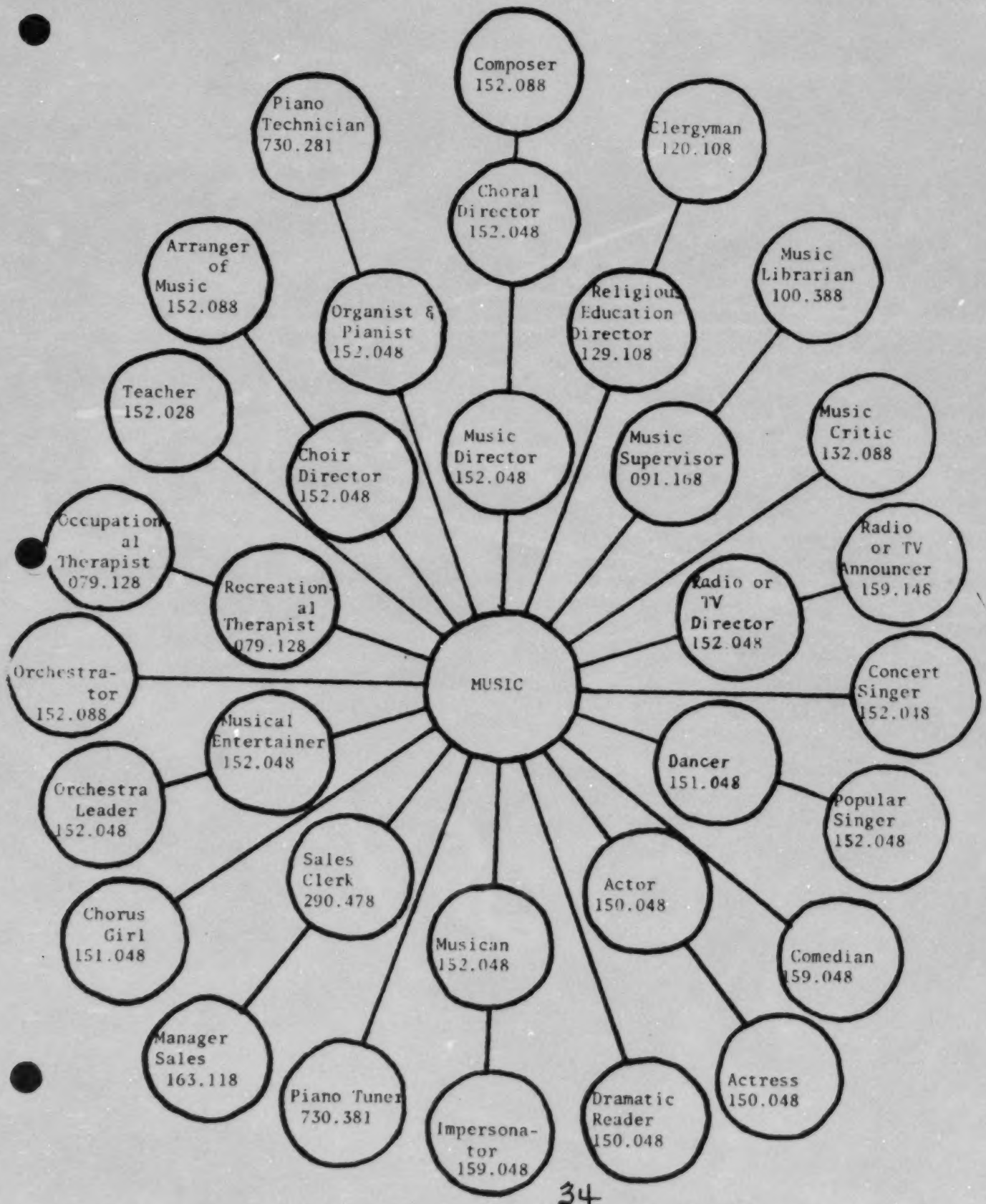
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN HOME ECONOMICS



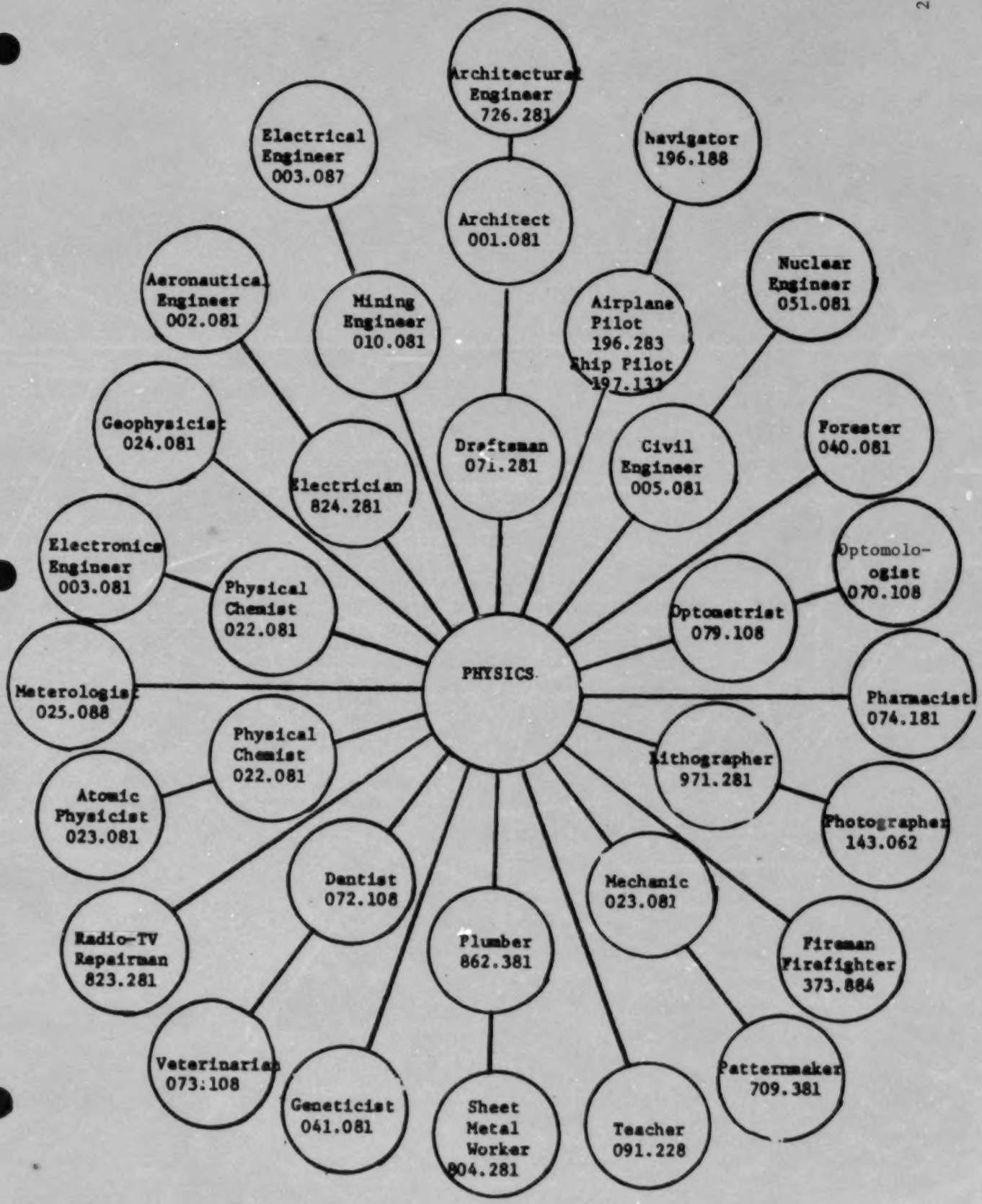
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN MATHEMATICS



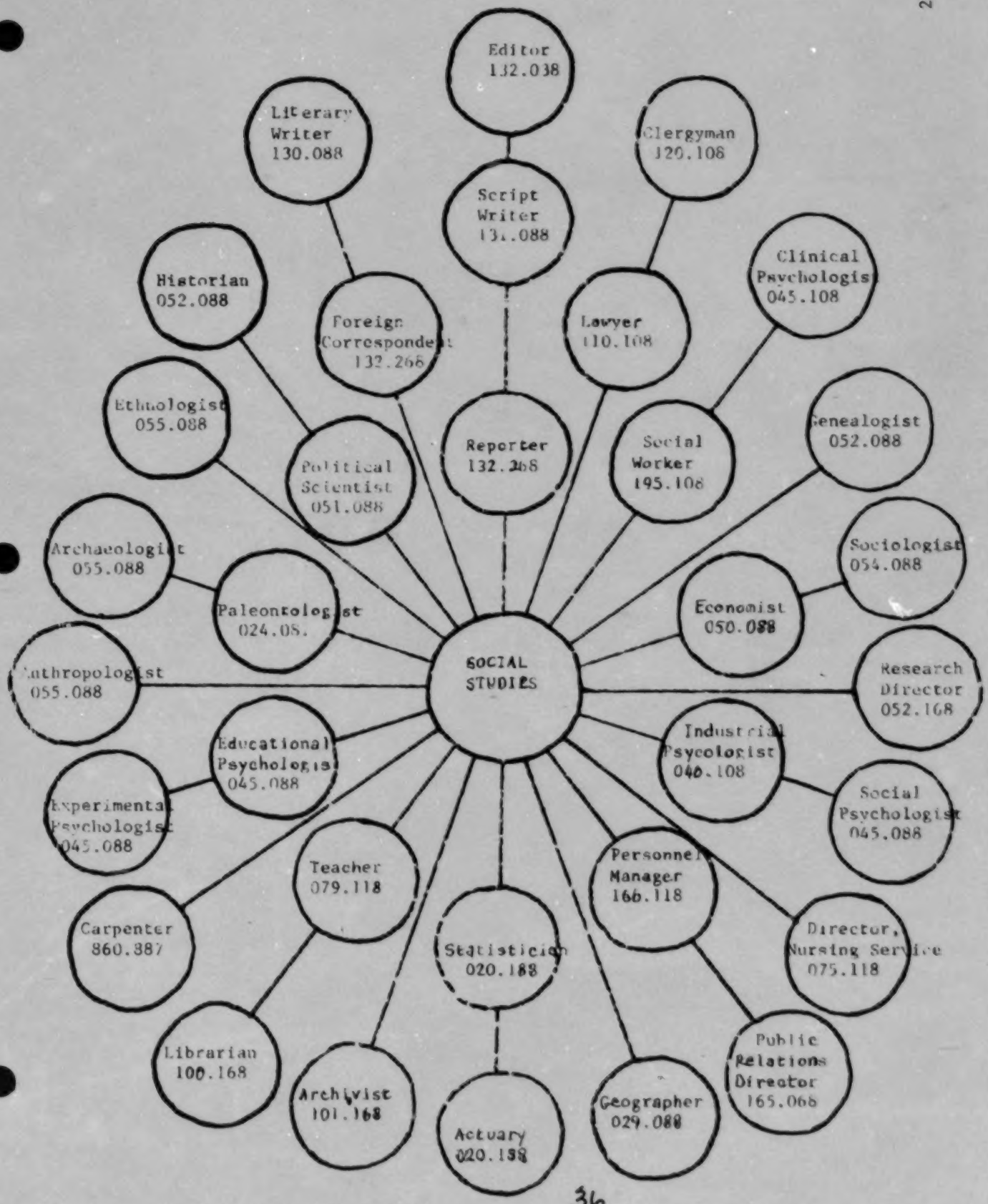
SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN MUSIC



SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN PHYSICS



SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN SOCIAL STUDIES



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept, that will lead to future self-fulfillment in a vocation.

CONCEPT: Individuals differ in abilities, interests, attitudes and values.

SPECIFIC BEHAVIORAL OBJECTIVE: The student will write or tell their own endings to the stories and check to see what kind of attitude they portray.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View the filmstrip and listen to the cassette from the series, Open-Ended Stories.	(1) After viewing the filmstrip the children can discuss what should be done. (2) Suggest they write an ending of their own for the story. Children become strong thinkers or creative persons when they are allowed to practice being creative. They must be encouraged to impose problems upon themselves which do not have "right" or "wrong" answers. They come to grips with problems and situations based upon individual judgement. In this way children prove to themselves that they are "thinkers".	No. 134-4 Title: The Purse Series: Open-Ended Stories IFC No. 134-1 Title: The Painting Series: Open-Ended Stories IFC Cassette: Living with Others - Wilson Corp. Citizenship II Part 2 Values: The Right Thing to Do BFA 775 (9 min) color film

SUGGESTED CORRELATION FOR THIS ACTIVITY:

37

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to identify five likes and five dislikes related to his past experience.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Show filmstrip. Discuss students likes and dislikes, individual characteristic's and hobbies. 2. Scrap books or bulletin board displays of adults and children with different physical characteristics doing different things. 3. Continue with self appraisal inventory as a follow-up.	Discuss the qualities and characteristics that make people different from each other. Discuss what self appraisal means. Clarify by discussion what an inventory is.	SVE Filmstrip - Who Are You Film: Career and Costume Circus Communico What Good is School? SVE Occupational Information in Elem. Schools P. 54 SRA

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept stressing respect and acceptance of self and others that will lead to future self-fulfillment in a vocation

SPECIFIC BEHAVIORAL OBJECTIVE: Student will take a self-appraisal inventory and complete at least 90% of it.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL 4

CONCEPT: Individuals differ in abilities, interests, attitudes, and values.

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Group planning in a self-appraisal inventory or one prepared by teacher ahead of time. (see attached sheet) Displays and discussions of students hobbies or crafts they are interested in. Use the questions on the self-appraisal sheet as starter sentences for creative writing. Inventory will again be given, at a later date, to determine changes in attitudes.	1. What are ways to determine what our likes and dislikes are? 2. What does aptitude mean? (use dictionary) 3. How will this influence the kind of work we decide to do? 4. Take survey - What Do I Know About Me? 5. Discuss completed survey: a. What types of things does it tell us? b. Can this information be useful? c. How can a hobby become an occupation? d. What things would you look at in an occupation before you choose it? e. Will your likes and dislikes have anything to do with the job you choose?	Self-Appraisal Sheet (attached) Book: Fun With Stamp Collecting, Reinfeld. Doubleday

SUGGESTED CORRELATION FOR THIS ACTIVITY:

WHAT DO I KNOW ABOUT ME?

1. What I like to do
2. The hobbies I have or would like to have
3. The clubs I belong to
4. Some clubs or things that I have done that I did not enjoy
5. What I most often do in my spare time
6. Contests or competitions I have entered
7. What subjects I like best in school
8. The subjects I do not enjoy in school
9. What sports or games I like best
10. What kind of person I like best to be with
11. Do I like to read in my spare time
12. What kind of jobs do I like to do best now
13. What kind of work would I like to do in the future
14. Do I spend most of my free time indoors or outdoors

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self concept that will lend to future self-fulfillment in a vocation.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list any three ways that he is different from the person next to him and any three ways that they are the same.

SUGGESTED SUBJECT AREA Language (Dictionary)

SUGGESTED GRADE LEVEL 4

CONCEPT: A. Individuals differ in abilities, interests, attitudes, and values
B. Self-understanding is important in making career decisions

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View filmstrip and listen to tape recording to show the child the process of self-evaluation, and how he can start to change things about himself that he doesn't like. Write a paragraph "How I Can Improve Me".	Before Viewing: Today we are going to view a filmstrip entitled "Me, Myself, and I." As you view this try to notice the parts in it that help you better understand yourself. Study vocabulary: Attached Transparency Follow-up: Discussion of filmstrip. 1. What is self-evaluation 2. How do we inherit traits 3. How do we acquire traits	Filmstrip: Me, Myself, and I Eye Gate House, Inc. Jamaica, New York 11435 Self Awareness Kit, S.R.A. Stage II Responding

41

SUGGESTED CORRELATION FOR THIS ACTIVITY:

VOCABULARY

ABILITIES	PERSONALITY
ACQUIRE	PSYCHOLOGY
BASIC	RACES
CHARACTERISTIC	RELAX
EXERCISE	SPECIAL
INDEPENDENT	TRAITS
INHERITED	UNIQUE
LEARNED	WANT

NATIONALITY

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and preparation for work.

CONCEPT: Individuals differ in abilities, interest, attitudes and values.

SPECIFIC BEHAVIORAL OBJECTIVE: Child will list the responsibilities in their parents everyday work.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Field trips or reports from children who have visited with their parents. Bulletin board display featuring Mothers and Fathers jobs.	Complete the questionnaire. Discuss: There are not really good and bad jobs but all work is "good"	Questionnaire (attached) Filmstrips/records: 201 What Else Do Fathers Do? 202 Just What Do Mothers Do? from World of Work series by Edu-Craft Filmstrip: "What Good Is School?" SVE Filmstrips: Fathers Work (6 fs) Mothers Work, Too (6 fs) Imperial Film Co.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

QUESTIONNAIRE

Person Interviewed _____

Person Interviewing _____

Date _____

I. Name of Occupation

General _____

Specific Name _____

II. Information about a Job

1. What are the different types of workers found in your plant?

2. What kind of work do the majority of employees do?

3. Is the work outdoors or indoors?

4. What are your job duties?

5. What are the educational and experience requirements for your job?

6. What are the physical requirements?

7. What are the future opportunities?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop wide and varied interests that will open up an expanded basis for vocational choice.

CONCEPT: Individuals differ in abilities, interests, attitudes and values.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will gain insight regarding parents occupation by use of parent interview questionnaire.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. A practice interview with parents. 1. What is your job 2. What do you do at you job? 3. What do you need to know to do this type of work? 4. Do you work indoors or out? 5. Must you be strong to do this type of work? 6. Is special training required? 7. Are there opportunities for advancement? 8. Are you happy in your work? 2. Using the questionnaire interview a friend or neighbor about his work.	Use the questionnaire on pg. 31, 32 about the employment of a neighbor or a friend.	Filmstrip/record: 208 A Matter of Business! from World of Work series by Edu-Craft Book: I Do, Dare, and Dream pg. 274-283 "Jobs, Jobs, Jobs" American Book Co.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

46

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: People need to be able to speak well in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list five jobs where speaking well is important.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Play acting (role playing) that of radio announcer, teacher, comedian, actor, etc. Children could write their own scripts as a creative writing activity.	A list could be made of jobs where people need to speak well. Discuss the idea that some jobs require very little speaking but that all people need to speak to communicate with others and to get along with others. Creative writing helps children see themselves as creative people and being creative is something to be proud of. Talk about people who have achieved through individual efforts in spite of hardships and ridicule. Getting children involved in writing stories is to let them know that you get a "big kick" out of their ideas and that you respect their thinking.	Our Language Today American Book Co. Schuon, Karl The First Book of Acting New York, N Y Franklin Watts Inc. 1965, Gr. 4-6 DOT 150 I-1

SUGGESTED CORRELATION FOR THIS ACTIVITY:

BROAD OBJECTIVE: To give students opportunities to describe goals and aspirations. (this activity should follow study of variety of occupations)

CONCEPT: Individuals differ in abilities, interests, attitudes and values.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will share at least one goal or aspiration.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discuss with student the idea that there are a lot of occupations from which to choose. Have students write a short paragraph with the title "What I Want to Be" Have students do research on the occupations that they have chosen and report to the class. Write 2 by 2, Cinquain, or Haiku poetry. Written assignment: "When I Grow Up I'd Like to be a. . . ." Each child chooses an occupation and writes his story. "What would happen if there were no electricians, plumbers or doctors?"	Poetry using descriptive words in 2 by 2 form, a non-rhyming form that states the subject in the first line and describes it in as many lines as necessary using only two words in each line. Example: A Nurse Soft hands, Soft voice- Walks swishy, Helps people. Creative writing	Books: Read About the Busman, Slobodkin. Watts First Book of Firemen, Brewster. Watts Americas Silent Investigators, Dennison. Dodd, Mead Night People, Colby. Coward, McCann How Man Provides, Boucher. Parents Our Language Today, American Book Co. P. 40

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: People need to be able to write in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each child will obtain information about a career and will share three ideas about the career with the class.

SUGGESTED SUBJECT AREA Language

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
When studying "Writing Business Letters," the children will write to several companies to obtain information about careers.	Write business letters to receive information about careers.	Elementary Guide to Free Curriculum Materials, Educators Progress Service Randolph, Wisconsin pp. 59-66
Report to class when materials arrive.		Song: "The Letter E Song" P. 152 Growing with Spelling
Write thank you letters	Children write thank you letters to the places of business visited on the field trips.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

The Letter "E" Song

WORDS BY YVONNE CARR
FRENCH FOLK TUNE

Record 7, Side A
Home tone: G
Starting note: G (*do*, 1)

PERFORMANCE The students might isolate various melodic and rhythmic patterns to use in an instrumental accompaniment. For example, the tones in meas. 2, 4 and 12 might be played on bells either as the class sings or as an introduction and coda. The uneven rhythm pattern in meas. 6 might be played on sticks or tambourines while a steady quarter note pattern is played on drums. Encourage the students to make up other accompanying patterns.

MUSICAL LEARNING

- This song is in the key of G major (see p. 102) and might be sung with syllables, letter names, or numbers.
- The melodic movement is by steps, skips, and repeated notes. The students will have no difficulty finding examples of steps and repeated notes. With the exception of meas. 8, 9 and 11, movement by skips occurs across bar lines and is more difficult to see. The students will enjoy hunting out these places.

Taken from: Growing With Spelling

Can you think of other words in which an "e" makes a difference? The "e" need not come at the end of the word. For example, **bat** and **beat**.

Vigorously

G D7 G

1. Take the "e" from "ate" and I'm left with "at,"
2. Add an "e" to "mat" and I have a "mate,"

G D7 G

Take the "e" from "rate" and I'm left with "rat," And if the "e" is gone from
Add an "e" to "pat" and I have a "pate," But if I add an "e" to

D7 G

"fate," don't you see I would be left with on - ly "fat," you'll a-gree.
"be," you will see, I'll have a bus - y lit - tle "bee," you'll a-gree.

Oh my, what a change, Oh my, what a change, How

C D7 D7 G

dif - f'rent it can be, Oh my, what a change, Oh my, what a change To spell with - out an "e"!
add an - oth - er "e."

11 12

Can you make up other verses
using different animals?

Moderately

C F

1. Al - li - ga - tor, hedge - hog, ant - eat - er, bear,
2. Bull - frog, ___ wood - chuck, wol - ver - ine, ___ goose,

G7 C

rat - tle - snake, buf - fa - lo, an - a - con - da, hare.
whip - poor - will, chip - munk, jack - al, ___ moose.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: People need to be able to write in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list three duties of school librarians.

SUGGESTED SUBJECT AREA Language arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discussion of history of books Reports on Franklin, Gutenberg	Discuss:	Resource person: Librarian
Comparing rules of conduct in library and classroom.	What are the functions of a library	Library Handbook
Trip to the library.	Rules of conduct	
Writing stories; what I like best in the library, etc.	Function of the card file	
Vote for class librarian. (When there is a library in the classroom.)	Regulations on book renewals, etc.	
Discuss the duties of the librarian.	Workers in the library	
Make posters on the care of books.		
Review sheet on rules and regulations, card file, etc.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: A manager organizes his display of goods.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to organize items identified by teacher in a role playing activity.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
As the manager of a gift store, show where each of these things can be found. (attached sheet)	As a manager of a gift store, show where each of these things can be found. May wish to do this in groups.	Film: People Who Work in Stores 11 min. color Resource person

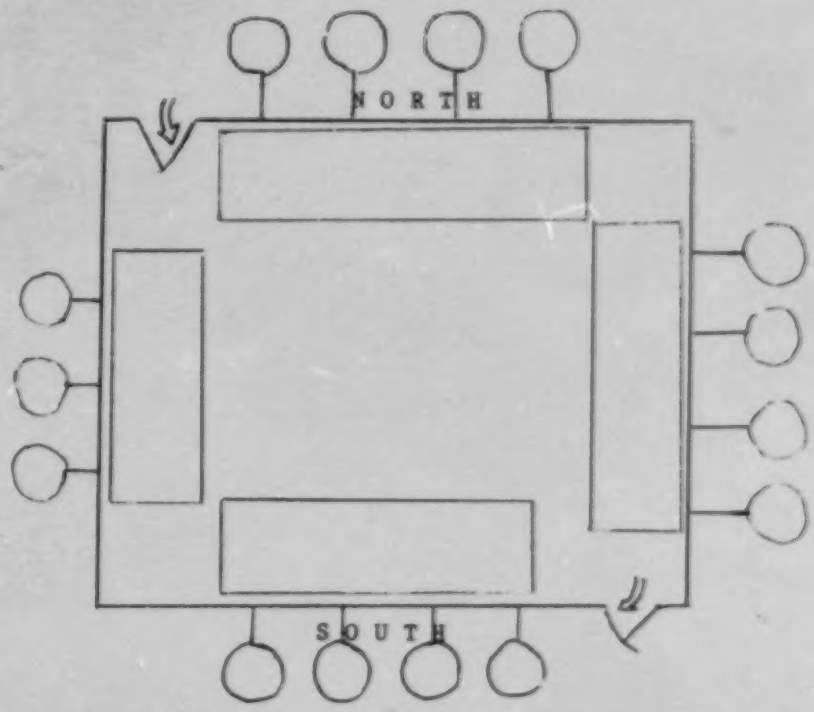
SUGGESTED CORRELATION FOR THIS ACTIVITY:

AS MANAGER OF A GIFT STORE

As the manager of a gift store, show where each of these things can be found

Write its number on one of the stands on each counter. You may draw in anything that you think will improve your sales.

1. Toys and games
2. notebooks
3. jewelry
4. tablets
5. dishes
6. candy and gum
7. gift paper and ribbon
8. first-aid supplies
9. garden supplies
10. records
11. greeting cards
12. lamps
13. artificial flowers
14. birds and cages
15. toothpaste and cosmetics



List the items that you placed on the:

Counters on the east

_____

_____

_____

_____

Counters on the south

_____

_____

_____

_____

Counters on the west

_____

_____

_____

_____

Counters on the north

_____

_____

_____

_____

Look carefully at your lists. Did you display things that seem to go together? Take turns explaining the location of your items.

Name _____

Date _____

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations.

CONCEPT: A. Individuals differ in abilities, interests, attitudes and values. Leisure time activities affect career choice. B. Society needs both a producer of goods and producer of services.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will read about and write a written report on two men and list three reasons for their success in their occupational field.

SUGGESTED SUBJECT AREA Language Arts
Reading - Biography

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Introduce biography books on hand and how others may be found in library. 2. Share ideas obtained from reading with other pupils. a. book jackets b. dioramas c. reports d. dramatize e. role playing. 3. Use attached sheet as example of other activities connected with the biography books. Write report on two men. Construct a chart of four famous Americans and how their contributions have affected our lives. Role play Debate Group discussion	Teacher mentions books and ask students to keep these things in mind as they read the books: 1. Individuals early years a. home b. school c. hobbies d. his goals in life e. early employment 2. Problems he had faced. 3. How he coped with these problems. 4. How individual attained greatness in his area. 5. Character qualities of individuals. Write your auto-biography projecting it into the future.	Books - Biographies, encyclopedias Song - Knowledge and Wisdom (round) Paperbacks: The Man Who Won the West Helen Keller Florence Nightingale Sam Houston Young Ike Ben Franklin Thomas Edison John F. Kennedy Book: Great Names in American History, Eibling. Ladlaw 1968 Filmstrips: "Leisure" Part I & II. Educational Resources, Inc.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Taken from:
This Is Music For Today,
Grade 6. Allyn & Bacon

56

Knowledge and Wisdom *(Round)*

Rapidly

Music and Words by Henry Purcell (1659-1695)

I

Bub-bling and splash-ing and foam-ing and dash - ing,

With noise and with bus - tle, the brook rush-es by;

II

But si - lent and slow does the deep riv- er flow,

On the smooth, glass-y sur-face re - flect - ing the sky.

III

Thus shal-low pre - tence bab - bles on with-out sense,

While true knowl-edge and wis - dom sit qui - et - ly by.

SEVERAL EXAMPLES OF HOW A CHART LIKE THIS MIGHT WORK.

	NAME	CONTRIBUTION	HOW THEY AFFECT OUR LIVES TODAY
GOVERNMENT	Thomas Jefferson Abraham Lincoln George Washington	Declaration of Independence Emancipation Proclamation Led victory over British	Democratic form of government Civil Rights established British are now our Allies
EXPANSION	Christopher Columbus Lewis and Clark	America Discovered Opened up new territory	Still looking for new frontiers see similarity and importance of expanding frontiers (space and oceans, etc.)
TECHNOLOGY	Henry Ford	Mass Production (Assembly line work)	Most families have 1 or more cars problem of pollution result of technological progress
SCIENCE & HEALTH	Clara Barton	Founded American Red Cross	Expanded areas Red Cross gives help in.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept, stressing cooperation, that will lead to future fulfillment.

CONCEPT: Specialization leads to interdependency.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will show that they understand that cooperation is necessary by listing three reasons why a cooperative effort is necessary in assembly line work.

SUGGESTED SUBJECT AREA Social Studies - History

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Use assembly line technique to produce "Earth Week" buttons (or any chosen product). Group 1. Draw circles 2" in diameter Group 2. Cut circles Group 3. Color circles Group 4. Print captions Have one group produce materials on individual basis.	1. Let the children decide which activity they would like to perform. 2. Divide the children into groups according to the activity they have chosen. 3. Stress the importance of working fast but accurately. Each group is reminded to keep up their part of the assembly line. 4. Two methods of production can be tried: mass and individual. What method was most productive? What problems were encountered in each.	Eibling, Harold, Great Names in American History, Laidlaw, 1968. A Car Is Born, color, 28 min. Film Library Ford Marketing Corp. The American Road Dearborn, Mich. 48120

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide appropriate occupational information about the world of work

CONCEPT: Geographical location determines kinds of work found therein

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list three examples of workers that work in a region they are studying in geography.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Teacher take one item and ask a student where they think it came from. How can we find out? When the origination has been established begin listing the workers involved in the transportation of this item to this destination. Have each student take an item and do the same thing on a sheet of paper. Students try to find a product that originated in the region that they are now studying. Find out what workers in that region are involved in the development of the product. Make a drawing on board with a product on the top with lines going from it to small squares in which names of workers involved in product development are listed.	Bring an item into the classroom and have students see if they can find where it originated and discuss how it got to us and the workers involved in the transportation of it from its origination to its destination. Discuss whether they think it traveled by air, land or water or combination of these.	Product Encyclopedia Books: by Lent, Putnam Publishing Co. Men At Work in New England Men At Work in the Great Lakes Men At Work in the South Men At work on the West Coast Song: "Fashions in Living" "Go Down to the Market", Pg. 117 Music for Young Americans, Bk. 4 Filmstrips/Cassettes: 684-1 Where Do We Get Our Lumber? 684-2 Where Do We Get Our Milk? 684-3 Where Do We Get Our Paper? 684-4 Where Do We Get Our Bread? Imperial Film Co.

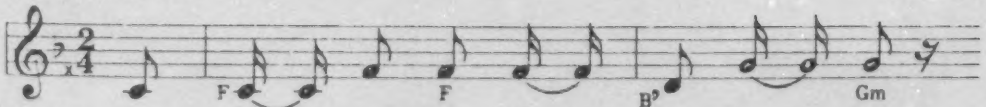
SUGGESTED CORRELATION FOR THIS ACTIVITY:

Taken from: Music Through the Years, Grade 3. Follett Pub.

This is a "Round-the-World" game. "If you will tell us what you wear, or what you eat, or what your home is like, we will tell you where you live." Guess the answers to each of the spoken lines. Add others of your own.

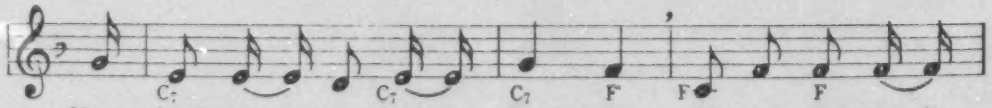
Fashions in Living

B. P. K. and M. F. B. P. K

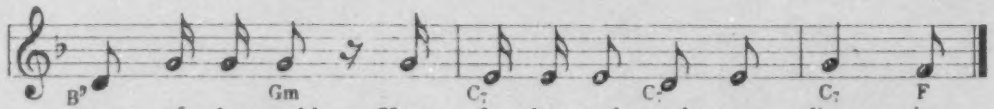


1. The but - tons and bows that you wear on your clothes,

REFRAIN *(after spoken stanzas 2,3,4)* What ___ we wear from ___ foot to ___ head,



Your food, and the home you ___ live in, All de - pend on the
Our food, our ___ homes, and the wea - ther, All de - pend on ___



part of the world Your fa - ther and moth - er live in.
where in the world Our fam - i - lies live to - geth - er.

(Spoken)

2. A mantilla of lace,
A veil o'er my face,
A cap of wool or leather,
A fez on my head,
A sombrero instead,
A parka to keep out the weather.

(Spoken)

3. Tortillas and beans,
Pineapple and poi,
Spaghetti or macaroni,
Fish cakes and rice,
Strawberry ice,
Sauerkraut, spices, and honey.

(Spoken)

4. In sunshine bright,
In rain and mist,
On mountain, plain, in a valley,
In an igloo round,
A desert tent,
A penthouse, boat, or a chalet.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide information about the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to either list and locate on a map two industries in North Dakota and be able to discuss in writing the responsibilities of three factory workers or draw a picture to show an understanding of assembly line work.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Class Discussion	1. Ask pupils to relate what they already know about mining and manufacturing. Brainstorm to find out what they would like to know.	
2. Research	2. Let children research various types of resources for manufacturing. Report findings to class.	2. Regions & Social Needs, Laidlaw
3. Discussion	3. Discuss various jobs and responsibilities of each worker in factories.	
4. Concentration on manufacturing done in North Dakota - Mural drawing.	4. Discuss concept "industry". Briefly relate to North Dakota. Locate areas. Have class make mural showing North Dakota oil and coal regions.	4. North Dakota Maps - Parent consultation
5. Interviewing, Research Comparison	5. Compare N. D. industries with other states - also compare jobs and responsibilities of workers in the industries.	5. Encyclopedias - Listed Library Books Resource people in neighborhood and family for interviewing.
6. Game	6. Play game of "What's My Line?" (continued)	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Each chooses a particular worker in an area discussed for the "Line" to be guessed.	Books: 1. Your World-Let's Visit a Silver Company, by Pope & Emmons, Taylor Pul 1969 2. Your World-Let's Visit a Clothing Factory, Pope & Emmons, Taylor Publ. 1968 3. Come to Work With us in a Toy Facto Jean & Ned Wilkinson, Sextant System Inc. 4. I Want to Be a Coal Miner - Carla Greene Children's Press 5. Let's Go to a Paper Mill - Perkins Putnam's Sons - 1969 6. Your World-Let's Visit a Paper Mil Pope & Emmons - Taylor Publ. Co 1969 7. The Cabinet Makers, Leonard Fisher Franklin Watts, Inc. 1966 8. Your World-Let's Visit an Oil Co. Pope & Emmons - Taylor Publ. Co 1968 9. Your World-Let's Visit a Mining Co. Pope & Emmons - Taylor Publ. Co 1968 10. Your World-Let's Visit a Furnitur Factory, Pope & Emmons - Taylor Pub 1969 11. Let's Go to A Steel Mill Erma Green - Putnam's Sons 1961
7. Creative Writing.	7. Write a creative story in first person pretending to be a worker discussed. Have him tell about his day from the time he gets up until he gets back home.	
8. Art project or class work project.	8. Put an assembly line into action either with an art project that has several steps or do a class project e.g. sanding and refinishing a table or chair.	

62

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work

CONCEPT: Individuals live in a particular geographical location due to the nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student shows that he knows that geographical location determines the occupations found therein by listing one industry, the location, and how these affect the work in each country.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Art-Students draw childrens faces (in costume); put in windows of large bus on bulletin board. Border with rest of pictures with one or two sentences beneath each picture telling how each child helps. Suggested titles for display "World Friendship Tour", "Children Work Around the World" or "Children Work Around Our Country" The Weekly Reader Game - Scoop reporter "Where In the World" could be used effectively here with children writing their own assignments for Scoop on countries or states studies.	A review unit of Geography and countries studied. Make list on board of countries visited followed by discussions of the main industries (due to geographical location) and occupations; how children help with some parents work; how children help with work in the home, go to school, etc. much as we do.	"Our Big World" James F. Silver "Where in the World" Weekly Reader World News Game 1970 American Publ. Middletown, CT

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the world of work.

CONCEPT: Individuals live in a particular geographical location due to nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student shows that he understands that man and nature's resources change by listing three ways that occupations have changed in North Dakota due to change in natural resources available.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Pictures drawn of desert scenes in Africa and U. S. showing the past and present.	Comparison of how desert life is changing and has changed.	
2. Have students compare changes due to natural resources in North Dakota and other parts of the world or our country.	Ex. 1. Oil in Asia and U. S. 2. Mining as it used to be in the Mojave, what people do on this desert for fun and how they earn a living now. 3. Ecological problems arising from disappearance of predators, lowering of water table, etc. 4. People move to an area and leave when the resources are exhausted or no longer needed. 5. How irrigation changes the land and its productivity leading to more jobs.	Film: Richness in the Desert 15 min. Radim Film 220 West 42nd Street New York, NY 10036

SUGGESTED CORRELATION FOR THIS ACTIVITY:

64

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop wide and varied interests that will open up an expanded basis for a vocational choice.

CONCEPT: Individuals live in a particular geographical location due to the nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list 5 occupations found in other communities of which he was previously unaware.

SUGGESTED SUBJECT AREA Social Studies (North Dakota)

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have students compare North Dakota with other communities of the world. Sample outline attached.	Discuss the community or state that we live in. How is it similar or different from other communities of the world -- Discuss how this similarity and difference affect occupations found here compared to those found in other areas. Discuss jobs found in other areas that would be of interest to various students.	Books: by Lent, Putnam Men At Work in New England Men At Work in the Great Lakes Men At Work in the South Men At Work in the West Coast Song: You Oughta Go to North Dakota (attached)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

MY STATE COMPARED WITH OTHER COMMUNITIES OF THE WORLD

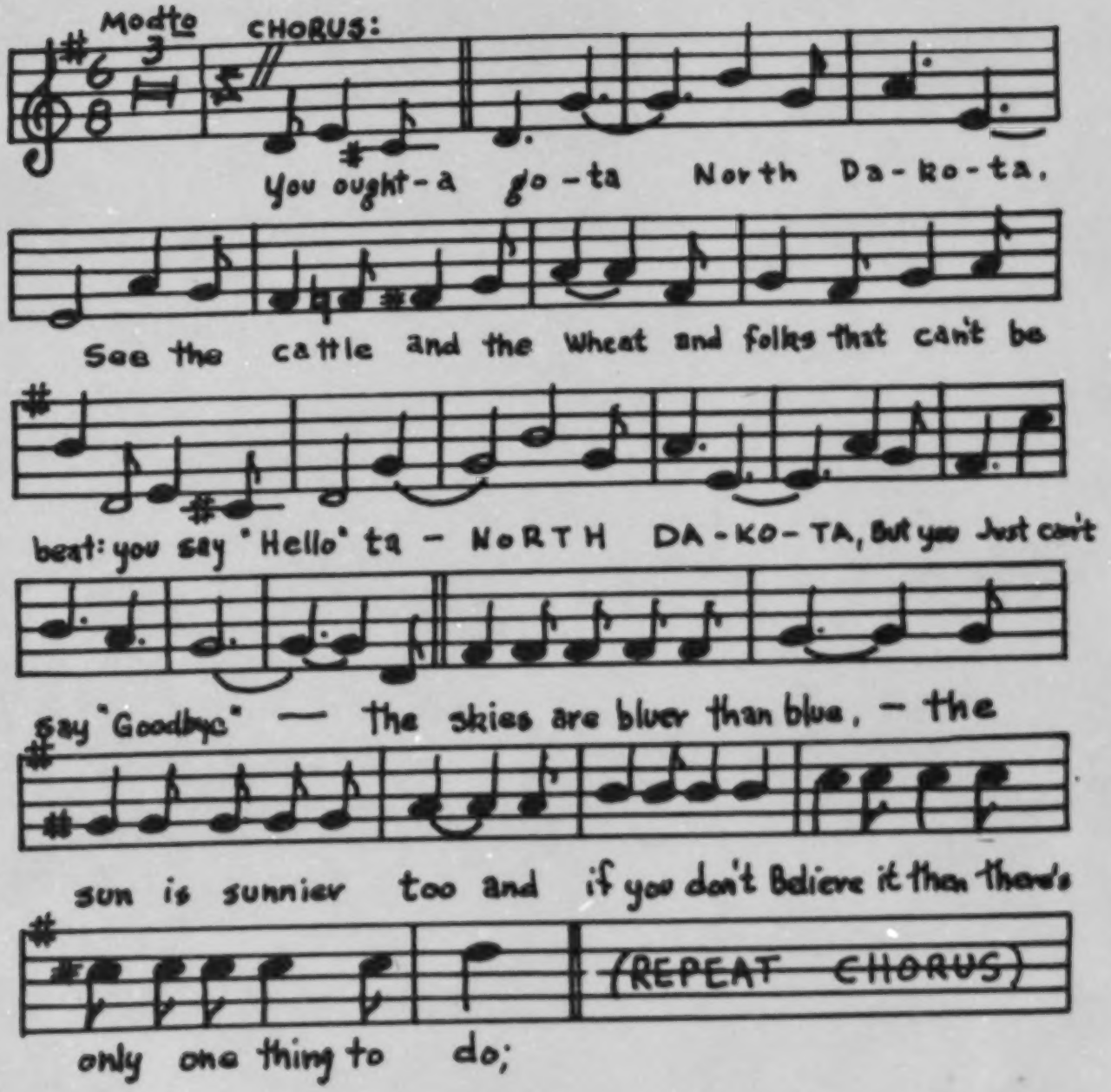
A. NORTH DAKOTA CITIES AND WHY THEY ARE IMPORTANT

1. Bismarck - state government
2. Grand Forks - state mill and elevator
3. Fargo - Union Stockyard
4. Dickinson - briquettes
5. Hebron - bricks
6. Mandan - oil refinery
7. Pembina - buses

B. NORTH DAKOTA INDUSTRY AND WORKERS

1. Agriculture
   a. grain farming
   b. cattle raising
   c. sheep raising
   d. hog raising
   e. poultry raising
   f. truck gardening
2. Mining
   a. oil
   b. natural gas
   c. lignite
   d. limestone
   e. others - manganese, phosphate, Fuller's earth, field stone, cement rock, sodium sulphate, bentonite, clay, uranium
3. Building
   a. home and office equipment
   b. road construction
   c. dam and water projects
4. Food Processing
   a. flour milling
   b. meat packing
   c. cold storage plants
   d. cheese plants
5. Manufacturing
   a. iron foundries
   b. pottery
   c. bricks
   d. briquettes
   e. jewel bearings
   f. food products
6. Recreation
   a. fishing
   b. boating
   c. hunting

the NORTH DAKOTA Song



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop wide and varied interests that will open up an expanded basis for vocational choice.

CONCEPT: Individuals differ in abilities, interests, attitudes, and values.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will identify three areas of future occupational interest.

SUGGESTED SUBJECT AREA Social Studies (N. D.)

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View the film to learn: Jobs have nicknames Jobs have an address Jobs near water Jobs in cold lands Jobs in hot lands Jobs in dry lands Jobs needed everywhere Loner jobs Teammate jobs "People" jobs Thing jobs Idea jobs	1. Answer the questions as you view the film. (The film has pauses for discussion) 2. Make a more complete list of the different types of jobs. 3. Discussion of parent's jobs. 4. Interview a friend or neighbor about his job. Questionnaire pg. 31, 32	Filmstrip, S.V.E. What is a Job? A778-3 Song Fashions in Living, P. 158-159 Music Through the Year Bk. 3 Office Occupations: A Matter of Business color, Edu-craft People Who Work in Offices, Coronet, color, 11min.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Music - Language

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide appropriate occupational information about the world of work.

CONCEPT: Geographical location determines kinds of work found therein

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list three industries in North Dakota and two workers in each industry.

SUGGESTED SUBJECT AREA Social Studies (N. D.)

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Study local industries of North Dakota a. Oil b. Electricity production c. Agriculture d. Manufacturing Discuss workers involved in these.	Discuss how their state compares with other communities of the world in: climate terrain natural resources Discuss how these things influence the way of life of the area.	North Dakota Business and Industrial Development Department, David Torkelson 1971-1972. Also Bruce Bartch from N. D. Bus. Industrial Development Directory of North Dakota Manufacturing N. D. Business and Industrial Developmen
2. Have students study more intensively an industry in the immediate area: a. Retail stores b. Telephone Company c. Public utilities d. Any others found in immediate community. Have students list workers involved in these industries.		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

QUESTIONS TO ASK ABOUT INDUSTRY

1. WHAT IS THE NAME OF THE INDUSTRY?
2. WHERE IS IT LOCATED?
3. WHAT PRODUCTS COME FROM THIS INDUSTRY?
4. WHAT ARE SOME OF THE RAW MATERIALS USED AND WHERE DO THEY COME FROM?
5. WHERE ARE THE PRODUCTS SENT?
6. HOW MANY WORKERS ARE IN THE PLANT?
7. WHAT ARE SOME OF THEIR JOB TITLES?
8. WHAT IS THE DAY OF ONE OF THESE WORKERS LIKE?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: Geographical location determines kinds of work found therein.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will list three ways that the Garrison Dam has and will influence the workers in North Dakota.

SUGGESTED SUBJECT AREA Social Studies (N. D.)

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Construction of mock dam with clay or paper mache. Irrigation could also be either pictured or modeled.	Research (1) the building of the Garrison Dam (Number of workers, towns, built, etc.) What happened to these workers? (2) The present pumping station being erected. (3) Irrigation and the changes it will bring. (4) Resorts and recreation already realized and projected to come.	Brochures from: Bureau of Reclamation Missouri-Souris Projects Office Box 1017 Bismarck, ND 58501 North Dakota text and Project ND kit Dept. of Public Instruction Capitol Bldg. Bismarck, ND 58501
Field trip	Field trip to Garrison dam if feasible	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide general observational experiences of the World of Work

SPECIFIC BEHAVIORAL OBJECTIVE: At the end of study, the students will be able to list three public utility workers and clearly state, in writing, why these people are necessary to the community in performing their particular task.

SUGGESTED SUBJECT AREA Social studies

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss how our city is provided with light and heat.	1. Let the children research hydro-electric power, dams, etc. discuss the generator plant and workers at the plant in your town or city. You could do a science unit on electricity.	1. Encyclopedias
2. Talk on the power plant in your town.	2. Have a resource person from the power plant come to your class and explain the workings of generating power.	2. Resource person
3. Tour power plant	3. If there is a power plant available tour it. An even better tour would be a tour of a dam such as Garrison Dam.	3. Field trips - MDU, Garrison Dam Stanton Power Plant.
4. Have an electrician speak to the class.	4. Have an electrician speak to the class on how he hooks on to a power line and how it is distributed in the house.	4. Resource person
5. Discuss terms such as purification, pumping station, etc.	5. Pass out list of vocabulary words used in the study of water. Childrend should find definitions.	5. Prepared vocabulary sheet

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
6. Take a trip to the city water purification plant and pumping station.	6. Have a resource person come to the class, before taking the trip, to explain the workings of the purification plant.	Books: Your World, Let's Visit an Electric Company by Pope and Emmons, Taylor Publishing Co. About Men at Work, The Line Man p. 20-23 by Ruth Radlauer, Melmont Publ. 1958
7. Class discussion on various workers involved in public utilities.	7. Discuss the people who lay the pipes, the meterman, the plumber and the workers in the city Department of Public Works.	Community Helper Series, Clean Street Clean Water, Clean Air; by Chapin Whitman Co, Chicago 1970 Working Together, Follett Publishing
8. Draw a class mural	8. Have the children plan and draw and color a utilities mural which shows how electricity, gas and water get to their homes. The mural can show the various building lines and pipes connecting the homes with the various plants.	Films: Advertising film from M.D.U. on workers needed to provide you with power. Visit to the Waterworks, Encylopaedia Britannica Films, Color 11 min. Sanitation & Sanitation Workers, Eye-Gate films Co #140-G
9. Bulletin Board	9. Construct a bulletin board showing public utilities workers.	Filmstrips: "*Gas & Oil Servicers" Edu-craft Inc. ECF-105 "Electrical Servicers", Edu-craft Inc. ECF-104 9. "Natural Gas Serves our Community Cut out kit - MDU - (free)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive self-concept stressing dependability and responsibility that will lead to future self -fulfillment in a vocation

SPECIFIC BEHAVIORAL OBJECTIVE: Student shows he understands that absence and tardiness on the job costs the company money by figuring his contribution to the company's loss.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 4

CONCEPT: Individuals differ in abilities, interests, attitudes, and values.

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Compute student's absenteeism and tardiness to show what it would cost the company if he were working.	Discuss: 1. Why do you think attendance and promptness is stressed in our schools? 2. How many of you have been tardy for no real reason? 3. How many of you have been absent when you really wouldn't have had to have been gone? 4. Do you realize that one of the first things many employers look at is your school attendance record when you apply for a job? 5. Ask students to complete the problem on the attached sheet. 6. Discuss their findings.	Math Textbook Work sheets on multiplication of dollar and cents times whole number. Song: Mental Arithmetic, p. 134, American Singer Bk. 5

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ABSENCE ON THE JOB

1. How many days have you been absent this semester?

_____

2. What were your reasons for absence? _____

_____

_____

3. If you earned $1.60 an hour, and were absent for an 8-hour day, how much would you:

   a. Lose in a day? _____

   b. Have lost for the semester so far? _____

4. If you were an employer, how would you feel about people who were absent from work very often? _____

_____

_____

_____

5. Could your attendance record be improved? _____

Signature _____

Mental Arithmetic

J. W. Beattie — ROTE — J. Wolverton

Moderately

1. One and one One and two
2. Mul - ti - ply Then di - vide

1. Make two, Make three,
2. By two, By six,

Eas - y add - ing, we can see;
Put a - side a - rith - me - tics;

All a - gree;
What a fix!

Four and sev'n Plus a four,
Add a ten, Then a nine,

Make e-lev'n, Then a one;
Come a-gain! Here is mine!

Do you have the an - swer done?
What's the an - swer? Come, no tricks!

Yes, we have the an - swer done: Twen - ty - one!
Here's the an - swer with - out tricks: Twen - ty - six!
(Spoken)

Taken from: American Singer, Book 5

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and preparation

CONCEPT: Understanding of mathematics help people in their work

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will list 5 reasons for good attendance on the job.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Use imaginary wage scale to determine students loss of hours at school. (Ex. at $1.25 an hour how much would be lost in a day, week, etc) (Ex. If five minutes late you were docked an hours wages how much less would you receive that day?)	Discussion of how attitudes affect quality and appreciation of work, what happens when a worker is absent, late for work, continually absent, or late for work. What happens when a worker wastes his time at work - doesn't do his portion of work. What happens at school? How does your liking of a subject determine how well you do in that subject?	Contact business places for information on how they handle continual absences and being late for work. Song: "Inch Worm" Growing with Music Bk. 6

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Taken from: Growing With Music, Book 6

The Inch Worm

WORDS AND MUSIC
BY FRANK LOESSER

Record 4, Side A
Starting note: D

This song is in A-B form. How has the composer unified the two sections? "The Inch Worm" is from a movie based on the life of Hans Christian Andersen.

The songs of Frank Loesser have a freshness and charm which make them classics in the vast repertory of popular songs.

MUSICAL LEARNING

- Before teaching the song in parts, ask the students to observe how the composer has unified sections A and B. Although the actual pitches are different, the general contour of the melody in the verse is very similar to that of the descant in the refrain.
- Ask the students to name the large intervals which occur throughout the melody of the refrain (sixths). For practice in singing intervals, refer to p. 88.

SINGING IN PARTS Play the recording for the class and have the students pay particular attention to the way the parts fit together. For techniques in singing part songs, see p. x.

Slowly

p

Two and two are four,

four and four are eight, That's all you have on your bus'-ness-like mind.

Two and two are four, four and four are eight, How can you be so blind? _____

© 1951 by Frank Loesser. All rights throughout the world controlled by Frank Music Corp.
All rights reserved. International copyright secured. Used by permission.

Refrain
Descant

pp Two and two *are* four, four and four *are* eight, Eight and eight *are* six - teen,

mp Inch - worm, inch - worm, mea - sur - ing the ma - ri - golds You and your a - rith - me - tic, you'll

1.

six - teen and six - teen *are* thir - ty - two, Eight and eight *are* six - teen, six - teen and six - teen *are* thir - ty - two.

2.

prob - a - bly go far. Seems to me you'd stop and see how beau - ti - ful they are.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work.

CONCEPT: Music, Art, and Drama give people pleasure

SPECIFIC BEHAVIORAL OBJECTIVE: Student will draw a family tree and include at least five (5) occupations represented in his immediate family.

SUGGESTED SUBJECT AREA Fine arts, Math

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Riddles (attached)	1. Teacher asks some riddles and the children can think of some to ask the class.	Riddles taken from dittoed sheet.
2. Game - What's My Line	2. Have students draw family tree of occupations.	Drawing
3. Drawing the family tree.	3. Think of your family. What occupations do Mother, Father, brother, sister, Aunts, Uncles, grandparents have.	Pictures of important people in world affairs.
4. Graph results of how many of each workers - Math - Activity	4. Make a Class graph showing the occupations. Use the family tree picture.	Filmstrip: "A Graph Tells A Story" Filmstrip of the Month What's my Line Game (Explanation attached)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

WHAT'S MY LINE

I have pictures of people who are famous in world affairs today. I shall hold them up and have you ask one question that I can answer with a yes or no. When you think you know the person and his occupation you may tell us the name when it is your turn.

Variation: Pictures may be placed on a bulletin board and blank sheets of paper beneath them. When a child thinks he knows the occupation of the person he may write it on the paper under the picture.

Correlation: Pictures of places and historical events may be used. Science pictures showing work of machines, work of the sun, etc. can be used, explorers and what they accomplished. This could be correlated with any subject area.

I work with numbers
I fill out income tax forms
I went to four years of college
I passed a test which certifies
me as a top level accountant
What is my title?

He hollers alot but it is part of his job. This man makes you work from 4:00 - 6:30 after school from Monday through Friday.
Discipline, desire, and a will to win are the prime requirements for his job. He is glad when he wins and sad when he loses. What does he do?

I like to dig and I like to write
Sometimes I dig for a year and then write for a year. I use hand shovels to dig with but I also use tractors and brushes. Sometimes I live in an apartment and sometimes I live in a tent. What do I do?

I work in an office part time and I work outside part time. I stake dams and tell farmers what crops they should plant and on which fields. I help plan the planting of shelter belts.
Who am I?

I've heard him introduce many a pop hit. He gives the weather report, tells the time, gives an advertisement and might even sing along a little bit.
(Disc jockey)

He works on the railroad and sees a lot of the country. When he blows the whistle, you better stop. Who is he?

I help a doctor find out what's wrong with you. I take pictures of the inside of your body. Who am I? (Ex-Ray Tech.)

Your parents use my services often. I take care of a valuable resource for them. Perhaps you use me too. I send out a financial statement each month to my customers.
Who am I? (banker)

Attending activities as football, baseball and golf gives me the highlights for my stories. Who am I? (sportswriter)

I work with flowers of all kinds. I arrange these flowers for weddings, for parties and many other occasions.
Who am I?

My job is exceedingly important to musicians. I come running when the sound is flat or sharp. My major tools are a good ear and a tuning fork. I work on large and small pianos and organs usually before a recital. What do I do?

He is the head of the executive branch of our government. He makes many speeches. He lives in the White House. What is his job?

Mr. Jones works at the airport. He knows about weather and also the sky. His information is very important to all who fly. Who is he?

My work deals with helping with legal matters. I ususally have an office down town and sometimes appear in court on behalf of my clients.

I explore the ocean floors. I find all sorts of things. Sometimes I discover new species of plants and animals. At other times I go looking for sunken treasure. Who am I? (deep sea diver)

I use many sizes of ladders in my work. I usually wear a white cap and have pockets on my overalls. I sometimes look quite spotted at the end of a day. (painter)

Dr. _____ went to school many years to learn his job. He is still learning. His job is to find out new things. He helped us send men to the moon. Who is he? (scientist)

She meets us when we come in.
Our learning here we just begin
We learn to speak, print, and sing.
She is paid to do this: it's her thing.

I work all day and become very wary.
To get the papers typed I must not tarry.
I am a _____

Making passengers on an airplane comfortable is part of my job. I try to make their flight as pleasant as possible and may sometimes serve them food and beverages.

I know that you would like your dad to come visit me. I sell a certain type of machinery. I also sell parts for the repair of these machines. My machines are usually used in the winter except for a few nutty people who try to run them on the grass. Who am I?

I am employed in the_____. I am concerned with our nations safety and serve millions of Americans every day in many capacities. I am not addressed as Mr. but as lieutenant, captain, major, or general. One of my services has been land combat overseas in defense of our country. (soldier)

There is a job whose duty is to see that your glass is full of beer and whiskey.

It stands on the lone prarie. Its arms go round and round. Herds of cattle look forward to going there on hot days. What am I?

I wear beautiful clothes every day, and I must show them off to others. I work for big name designers to sell their latest fashions.

I do something that helps almost everyone. My tools are very large machines. Without my final product your new cars and trucks would be almost useless. Most of my work is done during warm weather. Who am I? (heavy equipment operator)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: Money is the cheif form of barter in our country.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to do a check register.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Children will keep a check register. (attached sheet)	Each child starts with a $1,000 in his bank account. He subtracts the amount of the checks written and records the balance.	Sextant Systems Come to Work with Us in the Bank
Discuss ways to use money wisely. (1) Buying out of season gifts and merchandise. (2) Pay cash as much as possible. (3) Reduce length of loan time. (4) Avoid impulse buying.		A field trip to the bank. Film: "Its All Mine" Miss Carol DeForest North Dakota Bankers Assoc. Dakota Nat'l Bank Bldg. Bismarck, ND 58501
Catalog shopping	Bring in catalogs and shop from them.	Catalogs

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CHECK REGISTER

Check Number	Date	Check Issued to	Amount of Check	Balance	
				$1,000	00

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: Money is the chief form of barter in our country.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to explain four uses and values of money.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discussions of the true value of money. Why value of money changes (Supply and Demand) how it is changing today. How do children value money? Why is a penny important? Bulletin board display of pictures tracing the history of things used as money. Ideas for reports on money. 1. Where does money come from? 2. Where does old money go? 3. Early American money. 4. Unusual terms applied to money. 5. Why U. S. has the largest gold reserve in the world. Comparison of wages of various occupations. Making up problems of how much money is earned a month, year, lifetime.	Money of itself has no meaning. (You can't eat it nor will it clothe or shelter you. It's value is only as a medium of exchange.) Money has contributed greatly to the welfare of the human race. People skilled in some areas could trade with people skilled in other areas which in turn led to commerce and trade between countries as well. Many things have been used as money throughout the ages. Money is also used as payment for services rendered. The amount of wage earned in occupations varies with the degree of skill and education for that particular occupation. The monetary unit of U. S. Money is $1.00(This has proved easy to use as it is faster to calculate in terms of ten)	World Book Encyclopedia Weekly Reader, Vol 52, Issue 14, Jan. 13, Filmstrip: "Story of Money" McGraw-Hill Sextant Systems Books Come to Work with Us in A Bank

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Weekly Reader
Issue 14 · January 13, 1971

"[illegible]

Matty likes canned spaghetti. But her mother won't buy it anymore.

"I'm sorry, dear," said Matty's mother. "But the price has gone up from 28¢ to 36¢. We just can't afford all these higher priced foods."

Across the U.S., food prices are soaring skyhigh.

WHAT'S UP

Bought a box of cookies lately? Was the price higher than before? Government reports show that during 1969 and 1970, most food prices rose rapidly - anywhere from a penny to 10¢ an item.

The average price of a pound of franks rose about 5¢. A 6-ounce can of tuna fish cost about 6¢ more in 1970 than it did the year before. Ice cream went up about 8¢ a gallon.

WHY ARE PRICES UP?

There is no one simple answer that will explain why food prices are on the rise. But one reason is that grocers' costs are also going up. For instance, since 1960 one large chain of supermarkets has had the following cost hikes:

Meat cutters' pay is 2/3 higher	Rail transportation is 1/5 higher
Grocery bags cost 1/5 more	Rents are up 7/10

Experts see no sign of a slowdown in the rise of food prices. So Matty will have to go without canned spaghetti for a while.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

CONCEPT: Competition exists in the business world.

SPECIFIC BEHAVIORAL OBJECTIVE: Child should make one original sign and offering of a special.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Different groups set up a similar business.	The teacher begins by displaying a sign to the class. Example: MISS MUELLER'S CANDY SHOP. Each group competes for a more original store name. Then the teacher presents a sign in her window. 5 chocolates for 25¢ Each group tries to make a better deal. She may continue by offering other specials such as: CHOCOLATES DIPPED IN COCONUT 5 for 25¢ Game continues as long as interest is high.	Newspaper flyers, catalogs, and grocery advertisements.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: The meteorologist makes accurate measurements in the study of weather.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to identify correctly at least three things the meteorologist measures.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study and discuss meteorology: the science of the atmosphere. 1. weather - forecastor 2. research meteorologist Method of observing the atmosphere 1. Tiros satellites (used to transmit TV pictures of weather phenomena) 2. Radar and radar probes. 3. High altitude balloons. 4. Research rockets. People affected by weather forecasting: 1. Electric, gas, and oil industries (routing energy sources) 2. Aviation (safe flying) 3. Contractors (planning jobs) 4. Agriculture (protecting crops) 5. Cities and towns 6. Shippers 7. Merchants 8. General public (planning)	Keep daily weather records in the classroom. Make graphs on temperature changes over a period of time and compare with wind chill temperature during winter months. Make clouds with faces from white construction paper, outline with black magic marker. Glue cotton material on back (Use on a small flannel board with a thermometer the children have made) Use reference materials for defining jobs related to study of the weather. Test on Weather Instruments (evaluation) Make up riddles or poem about people or things affected by the weather. Example : Baseball players, ships, fishing, etc.	U. S. Weather Map #270, available from any weather station. Today's Basic Science, Navarra, Zaffaroni, Unite 2 pp. 23-43 Filmstrips: "How a Thermometer Works" Filmstrip House "Why Do We Have Warm and Cold Days" Filmstrip House "Wind" Filmstrip House "Moisture and the Atmosphere" Filmstrip House "Predicting Weather" Filmstrip of the Month Books: Real Science Riddles, Wyler. Hastings Why? A Book of Reasons, Adler. John Day

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

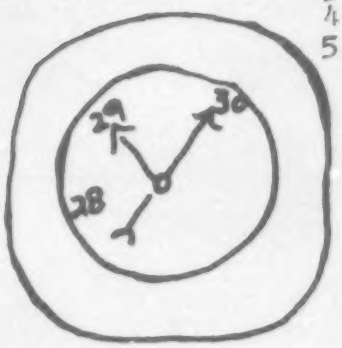
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
8. continued coast Guard, Red Cross 9. peoples emotional stability. Job Opportunities 1. Statisticians 2. Radiometrists 3. Hydrologists 4. Astrophysicists 5. Geographers 6. Physicists 7. Chemists 8. Engineers 9. Writers 10. Educators 11. Consultants		

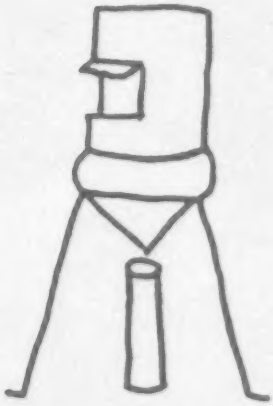
90

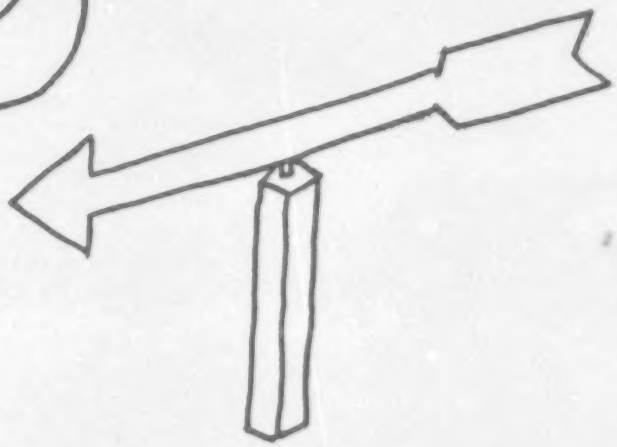
WEATHER INSTRUMENTS

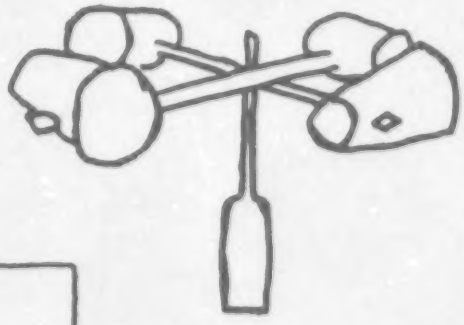
1. ANEMOMETER
2. RAIN GUAGE
3. THERMOMETER
4. ANEROID BAROMETER
5. WEATHER VANE

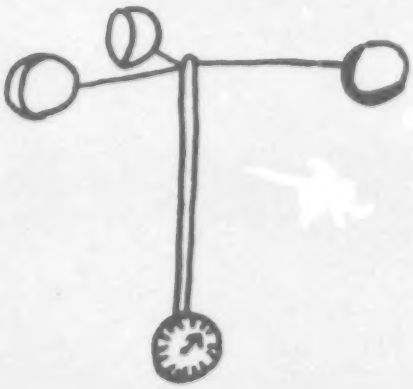
Under each drawing put the correct number of the instruments as listed above.

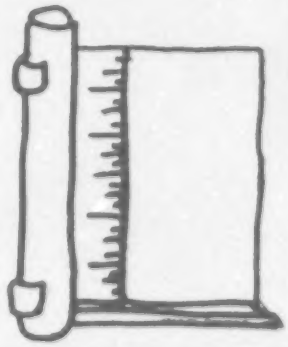












List the five things these instruments measure.

1. _____ 2. _____

3. _____ 4. _____

5. _____

WIND CHILL

HOW TO FIGURE THE WIND CHILL

To use this chart, proceed across the top line of figures to find the correct temperature. Then select the wind speed from the column on the left and read across until the two figures meet. This will give you the equivalent temperature based on the wind chill factor, or will tell you how cold it "feels".

WIND SPEED

DRY BULB THERMOMETER °F

°F / mph	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
0	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	33	27	21	16	12	7	1	-6	-11	-15	-20	-26	-31	-35	-41	-47	-54
10	21	16	9	2	-2	-9	-15	-22	-27	-31	-38	-45	-52	-58	-64	-70	-77
15	18	11	1	-6	-11	-18	-25	-33	-40	-45	-51	-60	-65	-70	-78	-85	-90
20	12	3	-4	-9	-17	-24	-32	-40	-46	-52	-60	-68	-76	-81	-89	-96	-103
25	7	0	-7	-15	-22	-29	-37	-45	-52	-58	-67	-75	-83	-88	-96	-104	-112
30	5	-2	-11	-18	-26	-33	-41	-49	-56	-63	-70	-78	-87	-94	-101	-109	-117
35	3	-4	-13	-20	-27	-35	-43	-52	-60	-67	-72	-83	-90	-98	-105	-113	-123
40	1	-4	-15	-22	-29	-36	-45	-54	-62	-69	-76	-87	-94	-101	-107	-116	-128

Winds over 40 mph have little additional chilling effect

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop wide and varied interests that will open up an expanded basis for vocational choice.

CONCEPT: Advances in science have altered the occupations that produce goods and occupations that produce services.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will select one of the workers shown on the More Power to You film and write a report about the workers listing two responsibilities.

SUGGESTED SUBJECT AREA Science - North Dakota

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View a film. Discuss people and machinery in the film.	View the film which shows the many jobs in the field of making electricity available to us. Discuss the machinery and people involved in this activity.	Film from Montana Dakota Utilities More Power to You, 20 min., color (film was made in North Dakota)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Advances in science change work.

SPECIFIC BEHAVIORAL OBJECTIVE: Being able to identify three animals of the seashore that we use for food or medicine.

SUGGESTED SUBJECT AREA 4

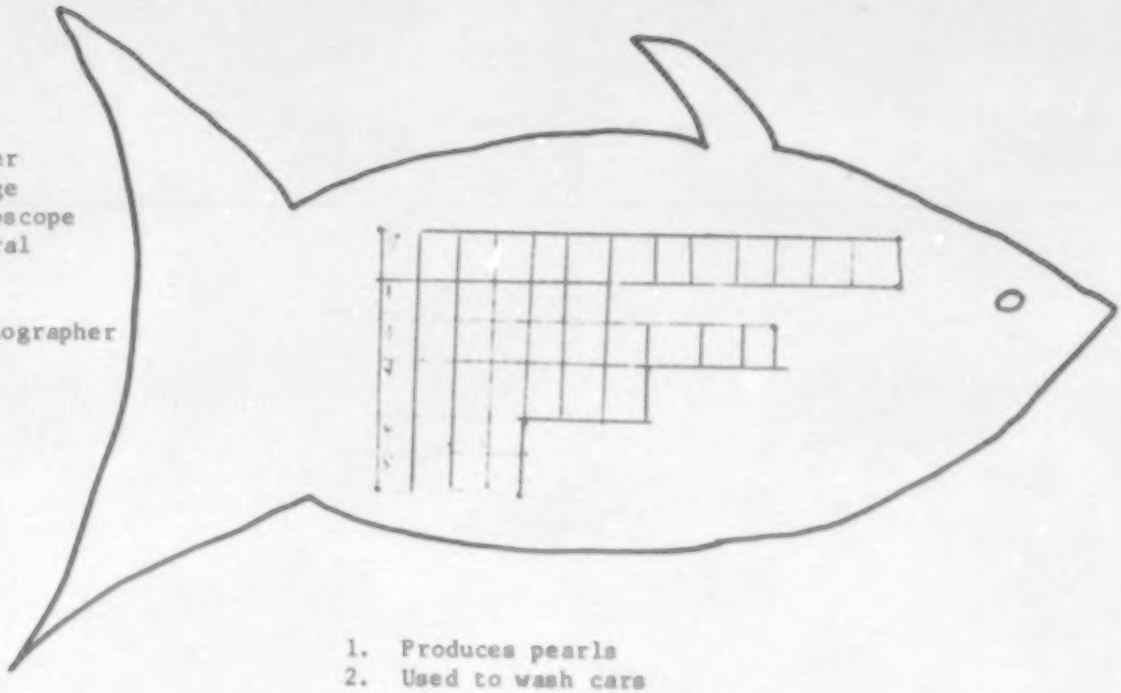
SUGGESTED GRADE LEVEL Science

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Crossword puzzle	Reference work using encyclopedias and science books.	Encyclopedia
2. Ocean News - Can you find out what other products from the seas are being used in food and medicine?		Navarra, Zafforoni, Today's Basic Science
3. Sketches of animals		
4. Bulletin board display		
5. Display of shells and identifying each.		
6. Food chain		

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ANSWERS

1. oyster
2. sponge
3. microscope
4. mineral
5. kelp
6. salt
7. oceanographer



1. Produces pearls
2. Used to wash cars
3. It enlarges tiny things so you can see them.
4. Not animal or vegetable
5. A plant from which we get iodine
6. A mineral in cooking
7. An explorer of the ocean bottom

OCEAN NEWS

"Bakers in South Africa are now making bread from fish flour. The flour is odorless and tasteless. It's a light brown color."

"Fish with white, not red, blood have been found in the Antarctic."

"Under water cables that carry telephone and telegraph lines from land to land sometimes get into trouble with whales. The whales might be swimming after food with their mouths open, or they mistake the cable as a possible dinner"

Science Section - Weekly Reader 1958

Can you find out what other products from the seas are being used in food and medicine?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Some people work to help us stay healthy.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list 5 workers that work to keep us healthy.

SUGGESTED SUBJECT AREA Health

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Show the filmstrip "Helping the Healing Hands".	After watching the filmstrip the children discuss what they observed. They will discuss the duties and years of training it takes for jobs in the medical profession.	"Helping the Healing Hands" (Edu Craft ECF-213 Resource person - nurse

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

CONCEPT: Some people are trained to aid when accidents occur.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list three people who aid in case of accidents.

SUGGESTED SUBJECT AREA Health

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. View filmstrips and discuss. 2. Discuss kinds of workers and qualifications 3. Children make posters on accident procedures. 4. Assigned to write: "I Was There!" I am an ambulance driver (or choose another worker). Proceed to describe an accident and what they did to help.	1. View the filmstrip. 2. Large sheets of construction paper for the poster. 3. Creative writing activity.	Eyegate Filmstrip and Cassette series: X-228 "First Aid as It Happens" X-1431 "Procedure at the Scene of an Accident" X1432 "Bleeding, Wounds, and Special Emergencies" X1433 "Artificial Respiration" X1434 "Poisoning, Burns, and Injuries to Bones" X1435 "Bandaging" X1436 "Transportation of an Injured Person" Resource Person to demonstrate mouth to mouth resuscitation Red Cross office.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: A healthy body is essential to a productive worker.

CONCEPT: Most foods provide calories that produce warmth and energy.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to plan a day's menu which will not exceed the calorie intake suggested for their age group.

SUGGESTED SUBJECT AREA Health (Math)

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discussion of food as a fuel. Is food a fuel?	Small bits of dried food can be held over a flame to show that foods burn. It should be noted that this burning is more rapid than that which takes place in the body and that some foods burn more easily than others. (Fats burn longest raising questions as to the value of fatty foods.)	Calorie charts (attached) "Choose Your Calories Wisely" Dept. of Home Economics Services Battle Creek, Michigan 49016 "Food Through the Ages" Mfg. Chemist Assoc. State Health Nutrition Dept.
Adding amounts of calories of foods consumed per meal and day.	"Problem Solving" Page 57	Exploring Mathematics Holt, Rinehart, and Winston c 1970

SUGGESTED CORRELATION FOR THIS ACTIVITY: Science

HOW TO SCORE YOUR DIET

This score sheet is a device by which you can score your diet quickly. Its system has been simplified to avoid awkward decimals, as explained on the inside back cover. Suggestion for using it is to place a check (√) beside each food you have eaten during one day. After you have done this, add the values of these foods on each double page. When all of the pages are in place you may then add up the figures for meat, vegetables, cereals, and so forth, to obtain your total score. Finally, compare these with the recommended daily allowances on the last page. You may then discover what foods you need to add to improve your diet.

The blank pages in the back may be used in planning the pattern of meals in the total day's diet.

The number of foods which could be included in this booklet is necessarily limited. With some foods you will need to figure what is in the food. For example, vegetable stew:

Beef 1 portion **Potatoes 1 portion**
Carrots 1 portion **Tomatoes ½ portion**
Gravy 1 portion

Food	Size of Serving		Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
			UNITS (for conversion to grams [illegible])						[illegible]		
PROTEINS											
Milk											
Whole	1 cup (8 oz.)	1	165	85	28	2	390	3	10	40	3
		2	330	170	56	4	789	6	20	80	6
		3	495	255	84	6	1,170	9	30	120	9
		4	660	340	112	8	1,560	12	40	160	[illegible]
Evap., vitamin D enriched	½ cup + ½ cup water		175	88	30	2	500	2	6	45	[illegible]
Skim. and nonfat buttermilk	1 cup (8 oz.)		85	85	30	2	10	3	9	45	[illegible]
Vitamin D enriched	1 cup (8 oz.)		165	85	28	2	385	2	10	40	[illegible]
Meats and Fowl (For all fried meats and fowl, add 100 calories per serving.)											
Bacon, crisp	(See Fats)										
Beef, lamb, mutton, veal (roasted or broiled)	1 serving (¼ lb.)		240	190	1	25	..	..	6	15	40
Frankfurter, cooked	1 average		125	70	..	6	..	..	8	9	12
Hamburger, lean, cooked	1 large patty (¼ lb.)		300	182	1	27	..	..	6	14	37
Liver, cooked	1 serving (¼ lb.)		140	200	6	70	44,000	30	26	330	140
Liverwurst, braunsweiger	1 slice (15 per lb.)		80	50	..	16	1,730	..	5	34	14
Other luncheon meats	2 slices		85	60	1	10	..	..	5	5	5
Pork or ham (roasted)	1 serving (¼ lb.)		300	165	1	25	..	..	80	19	43
Pork chops, cooked	1 loin chop		300	165	1	25	..	..	80	19	43
Pork sausage, cooked	2-in. patty		185	65	..	10	..	..	20	10	13
Broiler	½ medium (½ lb. meat, no bone)		334	440	3	30	..	..	17	35	220
Fowl, roasted or stewed	1 serving (¼ lb.)		200	200	2	20	..	..	8	15	100
Fish and Shellfish (For all fried fish, add 100 calories per serving.)											
[illegible], haddock (cooked)	1 serving (¼ lb.)		170	180	1	5	..	..	5	9	20
Halibut (cooked)	1 serving (¼ lb.)		200	210	2	8	500	..	6	6	90
Lobster meat, cooked	⅔ cup		90	185	7	8	..	..	3	7	20
Oysters, raw	5 – 8 medium		85	100	9	56	320	..	15	20	12
stew	4 oysters + 1 cup milk		320	150	35	38	1,060	3	19	55	11

VEGETABLES

Asparagus, cooked	¾ cup	20	21	2	10	1,040	23	13	17	12
canned green	6 medium stalks	20	21	2	19	800	18	6	8	10
Beans, green, cooked	½ cup	15	9	3	4	515	5	4	6	3
canned	½ cup	20	12	4	15	500	5	4	5	4
lima, green, frozen, cooked	½ cup	110	65	5	19	220	20	10	7	8
Beets, cooked	½ cup	35	8	2	6	15	5	2	4	2
Broccoli, cooked	⅜ cup	30	35	13	13	3,500	75	7	15	8
Brussels sprouts, cooked	½ cup	30	30	2	9	290	33	3	8	4
Cabbage, raw	½ cup	15	7	2	3	50	25	3	3	2
cooked	½ cup	20	12	4	4	75	25	4	4	3
Sauerkraut	⅜ cup	25	14	4	5	40	15	3	6	1
Carrots, raw	1 large	40	12	2	8	12,000	3	6	6	5
cooked	⅜ cup	20	5	2	5	9,400	3	4	4	3
Cauliflower, cooked	½ cup	15	15	1	7	50	17	4	5	3
Corn, cooked	1 ear 5" long	85	27	1	6	400	8	11	10	14
canned	½ cup	90	39	3	7	260	7	4	7	12
Dried navy beans, peas, cooked	½ cup	115	70	5	25			6	6	10
Leafy greens										
Beet tops, spinach, cooked	¾ cup	30	25		25	10,000	33	8	20	6

RECOMMENDED DAILY ALLOWANCES EXPRESSED IN UNITS

Adapted with practical modifications from the Recommended Dietary Allowances of the National Research Council, 1963.

Refer to inside back cover for explanation of units.

	Age (years)	Weight (lbs.)	Height (in.)	Vitamin D Units	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
						UNITS							
Infants up to 1 year		18		400	Kg x 115 ±15	Kg x 2.5 ±0.5	70	Kg x 1.0	1,500	30	40	60	60
CHILDREN	1-3	29	34	400	1,300	320	80	80	2,000	40	50	80	90
	3-6	40	42	400	1,600	400	80	100	2,500	50	60	100	110
	6-9	53	49	400	2,100	520	80	120	3,500	60	80	130	140
BOYS	9-12	72	55	400	2,400	600	110	150	4,500	70	100	140	160
	12-15	98	61	400	3,000	750	140	150	5,000	80	120	180	200
	15-18	134	68	400	3,400	850	140	150	5,000	80	140	200	220
GIRLS	9-12	72	55	400	2,200	550	110	150	4,500	80	90	130	150
	12-15	103	62	400	2,500	620	130	150	5,000	80	100	150	170
	15-18	117	64	400	2,300	580	130	150	5,000	70	90	130	150
MEN	18-35	154	69		2,900	700	80	100	5,000	70	120	170	190
	35-55	154	69		2,600	700	80	100	5,000	70	100	160	170
	55-75	154	69		2,200	700	80	100	5,000	70	90	130	150
WOMEN	18-35	128	64		2,100	580	80	150	5,000	70	80	130	140
	35-55	128	64		1,900	580	80	150	5,000	70	80	120	130
	55-75	128	64		1,600	580	80	100	5,000	70	80	120	130
Pregnant (3rd trimester)				400	+ 200	+ 200	+ 50	+ 50	+ 1,000	+ 30	+ 20	+ 30	+ 30
Lactating				400	+ 1,000	+ 400	+ 50	+ 50	+ 5,000	+ 30	+ 40	+ 60	+ 70

	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
TOTAL DAY'S INTAKE		100							

BREADS AND CEREAL FOODS											
Enriched white or whole grain											
Bread	1 slice	1	65	20	2	4	..	..	6	4	5
		2	130	40	4	8	..	..	12	8	10
		3	195	60	6	12	..	..	18	12	15
Muffin, plain	1 av.		120	32	3	7	190	..	8	10	6
Roll, plain, pan	1 med.		80	21	2	5	75	..	7	6	5
Pancake	1 (4" × 4")		60	18	1	4	50	..	5	6	3
[illegible]le	1 (5" × 5" × ½")		216	70	14	14	270	..	14	20	10
Cereal, cooked											
Oatmeal or rolled oats	½ cup		75	25	1	8	..	..	11	3	2
Wheat	½ cup		70	28	1	7	..	..	9	5	7
Cereal, ready-to-eat, flakes	1 cup		115	27	1	9	..	..	12	4	14
puffed	1 cup		49	12	..	4	..	..	7	2	11
sugar-coated	1 cup		110	12	3	5	..	..	13	2	10
Crackers, graham	1 cracker		30	5	..	1	..	..	2	1	1
soda	1 cracker		30	7	..	1	..	..	1	1	..
Egg noodles, enriched, cooked	1 cup		107	35	1	8	60	..	22	10	17
Macaroni, rice, spaghetti unenriched, cooked	1 cup		209	62	2	7	..	..	3	2	7
FATS											
Bacon	1 strip, crisp		50	18	..	2	..	..	4	2	3
Butter or fortified margarine	1 teaspoon		35	..	..	..	165	..	..	..	..
Cream, light (coffee)	2 T. (⅛ cup)		60	8	2	..	250	..	..	2	..
heavy (whipping)	2 T. (⅛ cup)		100	6	2	..	440	..	..	4	..
Shortenings (Add these values to any fried food not given a listing as fried.)											
Beef suet, rendered	1 T.		120	2	..	..	70	..	..	..	..
Homogenized vegetable	1 T.		110	..	..	..	..	..	..	..	..
Lard	1 T.		125	..	..	..	..	..	..	..	..
Foo[illegible]ith high fat content											
Gravy (with milk)	¼ cup		100	25	7	2	225	..	4	11	2
Mayonnaise	1 T.		90	2	..	1	35	..	..	..	..
Salad dressing (French)	1 T.		60	1	..	..	..	..	..	..	..
White sauce (medium)	2 T.		50	13	4	1	165	..	1	5	1
WEETS											
Chocolate-coated candy bar	2 oz.		270	52	5	14	..	..	3	9	3
Honey, strained	1 T.		60	1	..	2	..	..	..	1	..
Jam, jelly, syrup	1 T.		55	..	..	..	..	..	..	..	..
Molasses, medium dark	1 T.		45	..	6	12	..	..	..	..	..
Sorghum	1 T.		50	..	3	24	..	..	2	3	6
Sugar, granulated	1 T.		50	..	..	..	..	..	..	..	..
brown, dark	1 T.		50	..	1	4	..	..	..	..	..
EVERAGES											
Chocolate malted milk shake	1 serving (8 oz. milk)		500	150	42	13	900	4	19	65	5
Cocoa or chocolate	1 cup (6 oz. milk)		180	70	22	9	300	2	8	33	3
Grape juice, swe[illegible]ened	3 oz.		70	4	1	3	..	..	4	5	2
Soft drinks	1 bottle (6 oz.)		80	..	..	..	..	..	..	..	..
TOTAL CEREALS, FATS, SWEETS, BEVERAGES			____	____	____	____	____	____	____	____	____

Celery	4 pieces	10	5	4	4	100	9	4	3	4
Cucumber	8 slices									
Onions, egg plant, cooked	½ cup	40	10	3	6	80	8	3	4	3
Peas, green, cooked	½ cup	60	38	2	15	600	12	20	11	20
canned	½ cup	70	36	3	17	550	8	10	5	8
Potatoes										
Sweet, baked	1 medium	180	26	4	11	12,000	30	12	8	9
Sweet, canned	½ cup	100	20	3	8	9,000	15	5	4	5
White, boiled, peeled	1 medium	85	20	1	7	20	15	9	3	10
baked, without skin	1 medium	100	24	1	8	20	17	11	5	14
French fried, shoestring	10 pieces	200	27	2	10	25	15	9	6	17
hashed brown	½ cup	240	33	2	12	30	7	8	6	17
Pickles, sweet cucumber	1 medium	10	1	1	1	10	..	..	..	..
Dill	1 large	15	9	4	2	420	8	..	8	..
Rutabagas, cooked	½ cup	25	6	4	3	270	16	4	6	5
Squash, winter, baked	½ cup	50	19	2	8	6,000	7	5	15	6
Tomatoes, canned	½ cup	25	12	1	7	1,250	20	7	4	8
juice, canned	½ cup	20	10	1	4	1,050	16	5	3	8
raw	1 medium	30	15	2	9	1,650	35	9	6	8
Turnips, cooked	½ cup	25	8	4	5	..	18	4	6	4
For buttered vegetables, add per serving:		50	..	...	..	200	..	..	..	.
If fried, add 100 calories per serving.										

FRUITS (For sweetened canned or frozen fruit, add 50 calories per serving. For sweetened fresh fruit, add 20 calories per tsp. sugar used.)

Apple, raw	1 medium	75	4	1	4	120	6	5	4	2
Applesauce, sweetened	½ cup	90	3	1	5	40	1	3	2	1
Apricots	2-3 medium	50	10	2	5	2,800	7	3	5	8
Banana	1 medium	130	18	1	9	650	15	6	8	10
Cantaloupe	½ (4½" diam.)	30	9	3	6	5,000	50	8	6	7
Cherries, sweet, raw,	15 large	60	11	2	4	620	8	5	6	4
sour, canned, unsweetened	½ cup	50	8	1	3	720	6	3	2	6
Citrus – orange, grapefruit, lemon	1 orange or lemon or ½ grapefruit or ½ cup juice	50	9	3	4	180	50	8	3	3
Cranberry sauce	2 T.	40				6	4	..		
Dried dates, figs, raisins	¼ cup	80	5	3	9	15	..	4	3	6
Fruit cocktail, canned	½ cup	90	5	1	5	205	3	2	2	5
Grapes	1 bunch (22 to 24)	70	14	2	6	80	4	6	4	2
Peach, raw	1 medium	50	5	1	6	880	8	2	5	9
Pear, raw	1 medium	60	1	2	3	20	4	2	4	1
Pineapple, canned, sweetened	½ cup	100	5	4	8	100	12	10	2	2
fresh, unsweetened	½ cup	50	4	2	3	130	24	8	2	2
Plums, raw	2 medium	50	7	2	5	350	5	6	4	3
Prunes, cooked, unsweetened	4 medium	85	7	2	13	550	..	2	5	4
Raspberries, blackberries	¾ cup	60	10	4	9	200	25	2	7	3
Rhubarb, cooked, sweetened	½ cup	140	3	..	2	16	2	..	..	..
Strawberries	10 large	40	8	3	8	60	60	3	7	3
Watermelon	6" diam. × 1½"	170	3	4	12	3,540	35	30	30	12
fresh, boneless	1 serving (¼ lb.)	290	210	2	6	460	..	12	25	80
Sardines, canned	1 sardine	100	90	19	20	15		5	15	37
Shrimp, canned or cooked	4 – 6 medium	65	135	6	16	30	..	1	2	10
Tuna, canned	½ cup	200	290	1	14	80	..	5	12	130
Eggs (For fried egg, add 100 calories.)										
boiled or poached	1 medium	80	60	3	15	550	..	5	14	..
omelet or scrambled	1 egg + 2T. milk	106	68	5	13	640	..	5	17	..
Cheese										
American cheddar	1 in. cube (1 oz.)	115	71	20	3	400		1	12	
Cheese spread	1 oz.	105	60	2						
Cottage cheese, dry	½ cup	95	195	10	3	20	..	2	30	1
creamed	½ cup	155	205	12	5	270			34	1
Processed cheese	1 oz.	90	50	17						
Nuts										
Almonds	12 – 15	90	25	4	7	..	..	4	10	7
Peanuts	12 – 15	85	40	1	3		..	5	2	24
Pecan or walnut halves	12 – 15	100	20	1	4	7	..	8	2	2
Peanut Butter	1 T.	90	40	1	3			2	2	24

DESSERTS

Cakes										
Angel	1/10th of 10" cake	150	35	..	1	..	..	..	6	1
Chocolate, white icing	1/12th of 9" cake	360	30	2	5	260	..	2	7	1
Fruit	3" × 3" × ½"	140	20	4	10	150	..	6	6	4
Plain, white icing	3" × 2" × 1¼"	300	38	8	3	450	..	2	5	2
Cookies, plain, sugar	2 (3" diam.)	130	20	1	4	50	..	6	6	4
Chocolate brownie	2" × 2" × ¾"	140	18	1	5	230	..	4	4	2
Fruit nut (rich)	2 (3" diam.)	230	15	1	5	20	5	3	3	..
Custard, baked	½ cup	200	90	16	10	600	..	8	30	1
Doughnuts, cake type	1 medium	140	20	1	6	40	..	7	6	5
raised	1 medium	120	20	2	4	70	..	7	5	5
Gelatin dessert, plain	½ cup	70	16	..	..	..	..	..	..	..
Ice cream, vanilla	½ cup (¼ qt.)	150	28	9	1	370	1	3	13	1
Pies										
Blueberry	⅙ of 9" pie	370	10	1	7	170	5	3	3	4
Cream filling, with meringue	⅙ of 9" pie	350	75	5	8	300	..	7	24	2
Fruit (apple, peach, cherry)	⅙ of 9" pie	380	40	2	6	500	2	5	4	6
Pumpkin	⅙ of 9" pie	330	65	10	20	2,300	..	6	16	5
Pudding, cream style	½ cup	150	45	15	1	200	..	4	20	1

● **TOTAL FRUITS and DESSERTS**

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

CONCEPT: Some people specialize in their work to keep us healthy.

SPECIFIC BEHAVIORAL OBJECTIVE: Be able to place foods in the basic four food groups.

SUGGESTED SUBJECT AREA Health

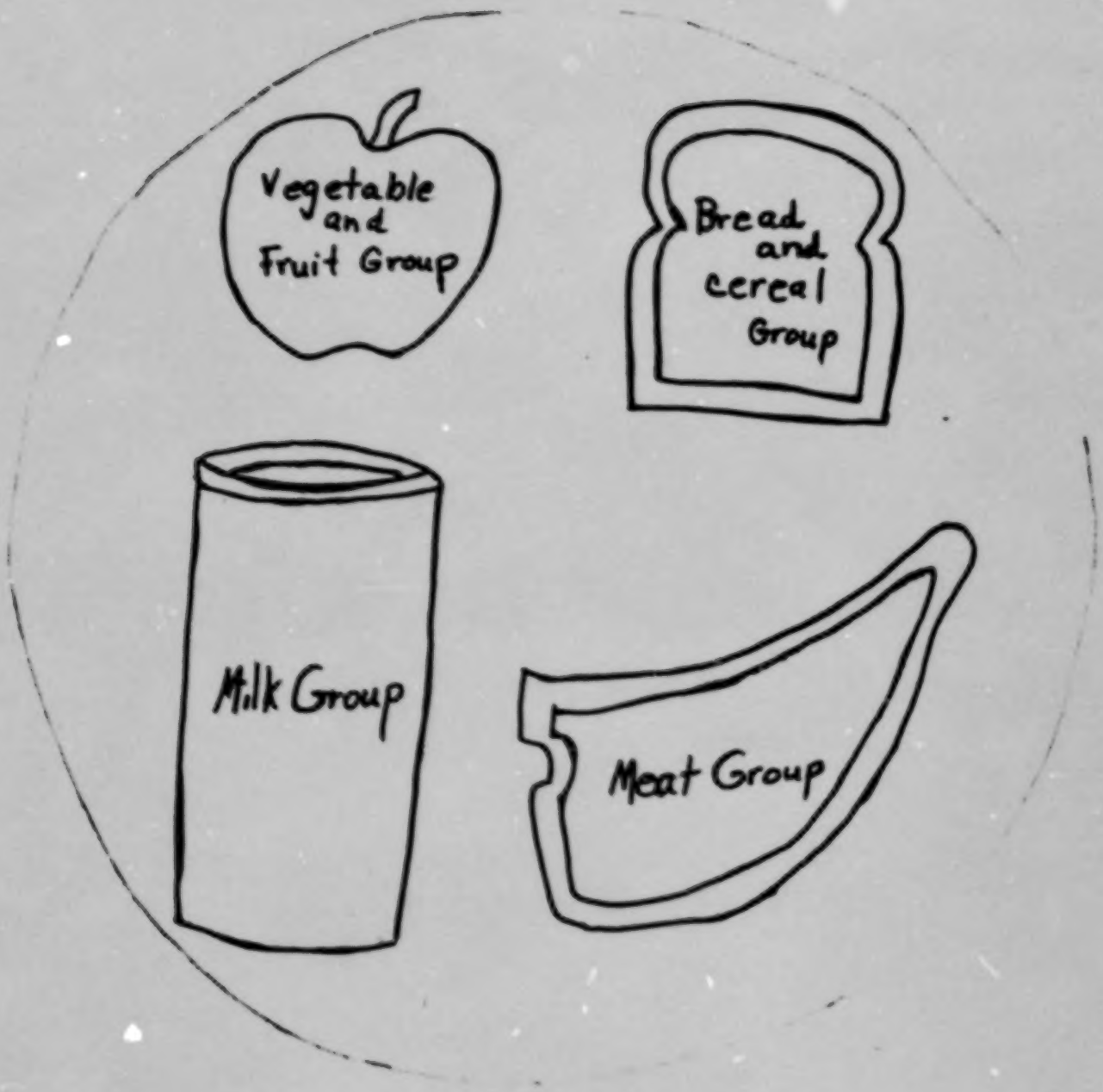
SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study and discussion of four Food Groups. Four Food Groups quiz. (Basic Four Chart attached) List people who work in Food Services. 1. Dietician 2. Nutritionist 3. School Lunch Supervisor 4. School Lunch Cooks 5. Menu Maker 6. Chef or cook 7. Bus Boy or Girl 8. Home Ec teacher	1. Arrange a tray with a variety of foods from the four food groups. (Do not place foods from each group together. Mix them up) Examples of finger foods that can be used are: Bread & Cereal Group Small crackers Dru cereal Milk Group Cheese bits Fruit & Vegetable Group Raisings Carrot sticks Fruit drink (vitamin C) Meat Group Nuts or peanuts Bits of sandwich meat Peanut butter 2. Instruct each person to select an assortment of foods and place in the proper food group on the place mat. Include one item from each food group. 3. The food may be eaten when the teacher approves the correct placement of the foods.	Something You Didn't Eat (15 min, color What's Good to Eat (17½ min, color) Big Dinner Table (11 min. Color) Films from: N. D. State Dept. of Health Division of Health Education Bismarck, ND Poster: Foodway to Follow N. D. State Wheat Commission P. O. Box 956 Bismarck, ND "Foods" game from Scholastic

SUGGESTED CORRELATION FOR THIS ACTIVITY:

104

Basic Four Chart



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of true art

CONCEPT: Music, Art, and Drama give people pleasure.

SPECIFIC BEHAVIORAL OBJECTIVE: All students will be able to draw a picture resembling a worker and thereby revealing their perception of the worker.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have students draw a picture of the way they picture certain workers. Students may choose to draw workers of their choice.	Discuss with students their image of workers they have seen.	Books and magazines Filmstrips from Eye Gate: X98 "Learning to Make Pictures" X98A "Figure Drawing" X98B "Feature Placement"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

106

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitude toward work and preparation for work.

CONCEPT: Individuals differ in abilities, interests, attitudes and values

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will illustrate at least one responsibility at home or school.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Draw pictures: How I Help at Home, How I Help in School, How Else Can I Help at Home? How Else Can I Help at School? 2. Children could plan chart listing areas of work in classroom with rotating duties. 3. Children compare jobs they have at home.	How do children help at home and at school. How this in turn helps parents and teachers.	Pictures from magazines showing helpers at home and school.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine art.

CONCEPT: Some people have occupations in fine arts to give us enjoyment.

SPECIFIC BEHAVIORAL OBJECTIVE: To acquire sufficient technique in art activities to produce a picture.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
View the filmstrip and listen to the cassette as an introduction to animal drawing, perspective, design, or painting.	Children will make pictures that correspond to what is learned on the filmstrip. Animal drawings - pets Perspective - fruit, vases Design - material, book covers Painting - scenes Listen to music and sketch a scene as you listen.	Eye Gate X98 Learning to make Pictures X98c Animal Drawing X98D Perspective X98E Design X98F Painting Resource person

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

CONCEPT: Some people have occupations in fine arts to give us enjoyment.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will locate and describe two mammoth scultures of the present and one or two of the past.

SUGGESTED SUBJECT AREA Fine Arts

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Sculpturing of paper mache, clay or wood of any object children would like to do. ...The figure of the men carved into the side of Stone Mountain in Georgia are a memorial to the men who fought in the War Between the States. These men are Jefferson Davis, Generals Robert E. Lee and Thomas J. (Stonewall) Jackson. The carving is the world's largest sculpture in granite. The entire sculpture covers an area about the size of a football field. The carving is so large that a man could stand inside the mouth of Traveler, General Lee's famous horse. Traveler measures 132 feet from nose to tail. Soap Carving Sawdust Sculpturing (mix dust with glue - form object.)	Discussion and research on sculptures of the past (pyramids, etc.) and the present (Mt. Rushmore) How do all people benefit by these monuments? How will the people of the future view our monuments of today? What training is necessary to become a sculptor?	Weekly Reader, Stone Mountain Ga. April 14, 1971 (other articles on sculpture work, etc. have been given.) Songbook: Discovering Music Together, bk 4 Follett Co., c. 1970

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: All students will be able to fill out job application form at completion of activity and write a short paragraph about a career.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 4 (and up)

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Check with employment agency as to what jobs are in demand and which are not. Get actual application forms from businesses.	Discuss with students different jobs available and how the demand for workers in some areas change.	See attached material

110

Tying Careers Into the Curriculum

By James W. Crayton, Staff Writer, *My Weekly Reader*

All intermediate and upper elementary teachers have some influence on the career development of their students. But teachers who emphasize a career education program can bring even more occupational flavor into their classrooms. Below are some suggestions for helping teachers use such flavor to arouse curiosity about the occupations that children see around them.

SOCIAL STUDIES

- Have pupils conduct surveys of local workers about their jobs. They could use a questionnaire that includes such questions as: What tasks do you perform on your job? What kind of training is needed for the work that you do? What are some of the things you like and dislike about your job? Students could use the responses to make profiles of various jobs.
- Plan field trips with students to places of work such as the local newspaper, telephone company, or radio or TV station. Have students illustrate the jobs that interest them by making posters or drawings and putting them on bulletin boards or in scrapbooks.

(continued column 3)

LANGUAGE ARTS

- Invite resource people from various occupations within the community to visit your class. They could share inside information about the rewards and tasks of and the skills needed for their jobs.
- Use role-playing to help students become aware of some of the different kinds of occupations. Students could act out the duties and skills involved in jobs that interest them.

MATHEMATICS

- Emphasize the importance of each student's need for skill in mathematics. Point out the need for the use of this skill in such activities as building projects, baking cookies, or performing other jobs.

MUSIC

- Let pupils bring some of their favorite records to class. After playing the records, they could discuss how different occupations provide the services and products that make listening to a record possible.

Changes Bring Smiles

Sharon King, secretary, works for a food company. Mostly she types letters, answers the phone, and does some filing. On Fridays she stays home. Her company used to be open five days a week. Now it is open four days with longer hours. "It's worth it, when Fridays are free!" exclaims Ms. King. Another change: she can dress any way she wants. That means skirts, pants, shorts, and dresses are all allowed.

Shorter work weeks and more relaxed dress rules are popular changes on some jobs.

MY WEEKLY READER NEWS PARADE EDITION 4 Copyright © 1972 Xerox Corporation

SUGGESTED CORRELATION FOR THIS ACTIVITY:

A Form to Fill

Need a job? The first step is to apply. You might have to fill out a form like the one below. It may ask for facts such as:

- who you are
- what you can do
- what you want to do
- why you want the job.

An employer, (the company or person who hires) may need this information.

Fill out this Explor-form. It's just for practice. Perhaps a parent or teacher could help. Talk to your classmates too.

Name: _____ Age: _____

Home Address: _____

Kind of work you want: _____

Full time ☐ Part-time ☐ Evenings only ☐

What salary per week do you want? _____

School: _____

List hobbies and school activities: _____

_____

Other jobs you have held: _____

_____

What experience have you had that might help you in the job you have chosen? _____

_____

Do you enjoy working with other people? _____

_____ alone? _____

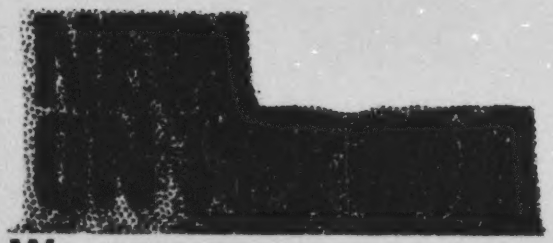
Would you like to work in an office? _____

_____ or out of doors? _____

Why do you want this job? _____

_____

Signature: _____

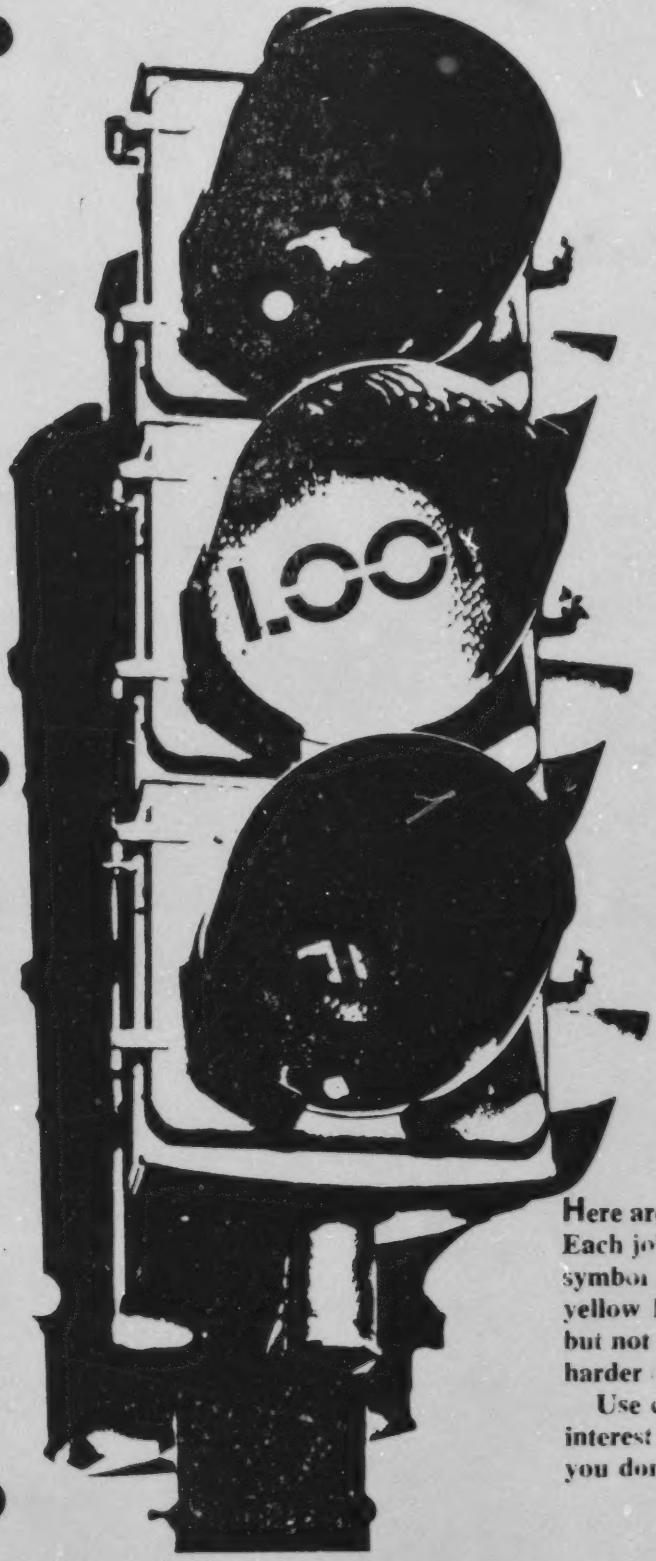


When will you be looking for a job? Perhaps in the 1980's. Will jobs be the same then as they are now? Some may be. Others will have changed. Some jobs will no longer be needed. Others will be new. Jobs are changing all the time. Here are five jobs on *Explorer's* bulletin board. In each, important changes have been made. Make a list of these changes. Which ones do you favor? Are any of these changes happening in the jobs you underlined on page one? How can you find out? Perhaps your class could tack up more job facts on a school bulletin board.

JOB CHECKERS

"Knock. Knock." Someone is at the door of a business. Who? The job inspector. This job was started by the government. Now more and more inspectors are being hired. By next year, 500 inspectors will be knocking on doors all over the U.S. So far, job inspectors are all men except one woman. Each inspector takes a "walkaround" of a workplace. Is it safe? Is it a healthy place to work? If not, the employer must correct the problem. The inspector makes a report of all findings to the government.

Where will the job inspector knock next?



Athlete ○
Building Worker ⊗
Butcher ⊗
Bus Driver ⊗
Barber ⊗
Business Executive ○
Bookkeeper ⊗
Bank Officer ○
Auto Salesman ⊘
Assembly Line Worker ⊘
Appliance Serviceman ○
Cook ⊗
Carpenter ○
Computer Operator ○
Dental Assistant ○
Dentist ○
Doctor ○
Dancer, Singer, Actor and Actress, Musician ⊗
Engineer ○
Lawyer ○
Meteorologist ○
Nurse ○
Oceanographer ○

Police Officer ○
Plumber ○
Pharmacist ⊘
Programmer ○
Service Station Attendant ⊘
Secretary ○
Stewardess ○
Shoe Repairman ⊗
Social Worker ⊘
School Counselor ○
Truck Driver ⊘
Teacher—Elementary ⊗
Telephone Operator ○
Economist ○
Firefighter ⊘
Farm Equipment Mechanic ⊗
Forester ⊗
Geologist ○
Jeweler ⊗
Trainman ⊗
Veterinarian ○
Waiter; Waitress ⊘

Here are stop-and-go lights. They tell about jobs in the 1970's. Each job in the list has a "light" symbol by it. The green light symbol is ○. It means it is easy to find jobs of this kind. The yellow light symbol is ⊘. There are some jobs of this kind, but not many. The red light symbol is ⊗. Jobs of this kind are harder to find.

Use crayons to color in the job lights. Do any of these jobs interest you? Underline the ones that do. Look up any job titles you don't know. Then turn the page—and go to work!

Facts in a Small Factory

"When friends say, take a break, I say wait – I want to finish this piece." These are the words of a factory worker. At a work table, she builds power tools from start to finish.

Once all these tools were built on an assembly line. A worker added one piece over and over. Some complained. The job was dull. So, owners and workers talked. The results: Now a worker chooses to work at a table or on an assembly line. Those on the line can control how fast it moves. They decide when to take a break. Often, they trade places on the line. Some small factories have made changes like these. Others may soon follow.

"We've made the job fit the worker," says the owner of this factory.

UPI photo

Is a product made well? What fabrics last and are easy to sew? This executive wants to know.

Business News

A businessman sews. Seem strange? Not really. This man works for a large clothes company. He is an executive. Most of the time he works in an office. He must decide about fashions, and buying and selling clothes. Behind the scene, his job is changing too. One change: He is taking a class in simple sewing. He is learning skills and terms. He thinks this class will help him know more about the items he sells. Another change: He has joined a group of fellow business people. They meet in a small room. They talk openly about how to understand the people they work with. They hope this sharing back-and-forth will help them get along with people on-the-job.

New Teachers

Most teachers in elementary school are women. Still true, but changing. More and more schools are hiring men. Over 175,000 men now teach in U.S. elementary schools. Why are men taking a new interest? Here are some reasons:

- The pay has been getting better. Now a teacher can support a family with his wages.
- Teaching methods are changing in elementary classrooms. These changes interest many men teachers.
- Some parents want male teachers for their children. They say, "Students should have women *and* men in class."
- "I can be creative and open with elementary students," says one teacher. More and more men feel the same way. They like this kind of challenge.

Syd Shacknow/Mount

This man likes to teach because, "The students are so excited and interested in everything."

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show that he understands the value of fine arts to the world of work by listing one way that dancing helps the individual.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Rhythms: 1. Farmer in the Wheat 2. Farmer Grey 3. Shoemaker's Dance 4. Grapevine Mixer 5. Speed the Plow 6. Dive for the Oyster 7. Cotton Pickin Polka 8. Haymaker Jig	Tell how each specific dance relates to the world of work.	1. Victor 2168 or 45-5066 Folkraft 1182 2. Epic LN 3607 3. Victor 45-6171 or 20450 4. Osborne 5. Folkraft F1087B 6. Folkraft 1018 "Old Joe Clark" 7. Victor 45-8951 8. Folk Dancer MN10504 Dance A While, Harris, Pittman Walker 1968 Burgess Pub. Co. Minn. MN

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student involved will be able to state the purpose of the YMCA and its value throughout the country.

SUGGESTED SUBJECT AREA Physical Educa

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Intramural YMCA field trip with a swimming party after a tour of the facility.	Arrange field trip through school and YMCA administration. Arrange transportation. Have tour of facilities as basis of field trip with tour leader knowledgeable in relating the occupations of Y workers, both paid and volunteer, to the students. Also the leader should make aware how the Y is one of the best avenues to adult leisure time activities. After tour a swimming party could be the treat given to the children.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

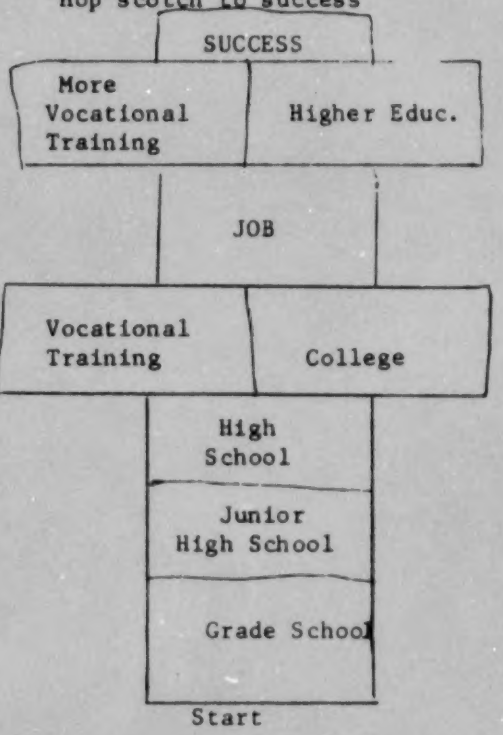
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activity student will be able to state what he thinks his goal in life will be at this time.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Hop scotch to success  	a. An explanation of the hopscoth should be given explaining the ladder of education on the chalkboard at the beginning of class. b. The child chooses either of the double blocks to simulate one type of training with equal opportunity to accomplish either. c. Teams are arranged with three people on each hopscotch. d. Each student chooses a rock. e. The general rules of hopscotch were followed the child threw a rock to the 1st blook hops over it and continues on with 1 foot on each block until a line is stepped on or a throw to a block is missed. When this occurs the rock stays on the block where it was when the error was committed, the player goes to the end of the line and the next player takes his turn not being able to step on a block with a rock on it. The child to 1st pass success is the winner.	Dynamic Physical Education for Elementary School Children, Victor P. Dauer Burgess Publishing Co. Minneapolis, MN page 505

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will realize which psycho-motor skill he is the most adapt at and tell one worker to whom this skill is very important.

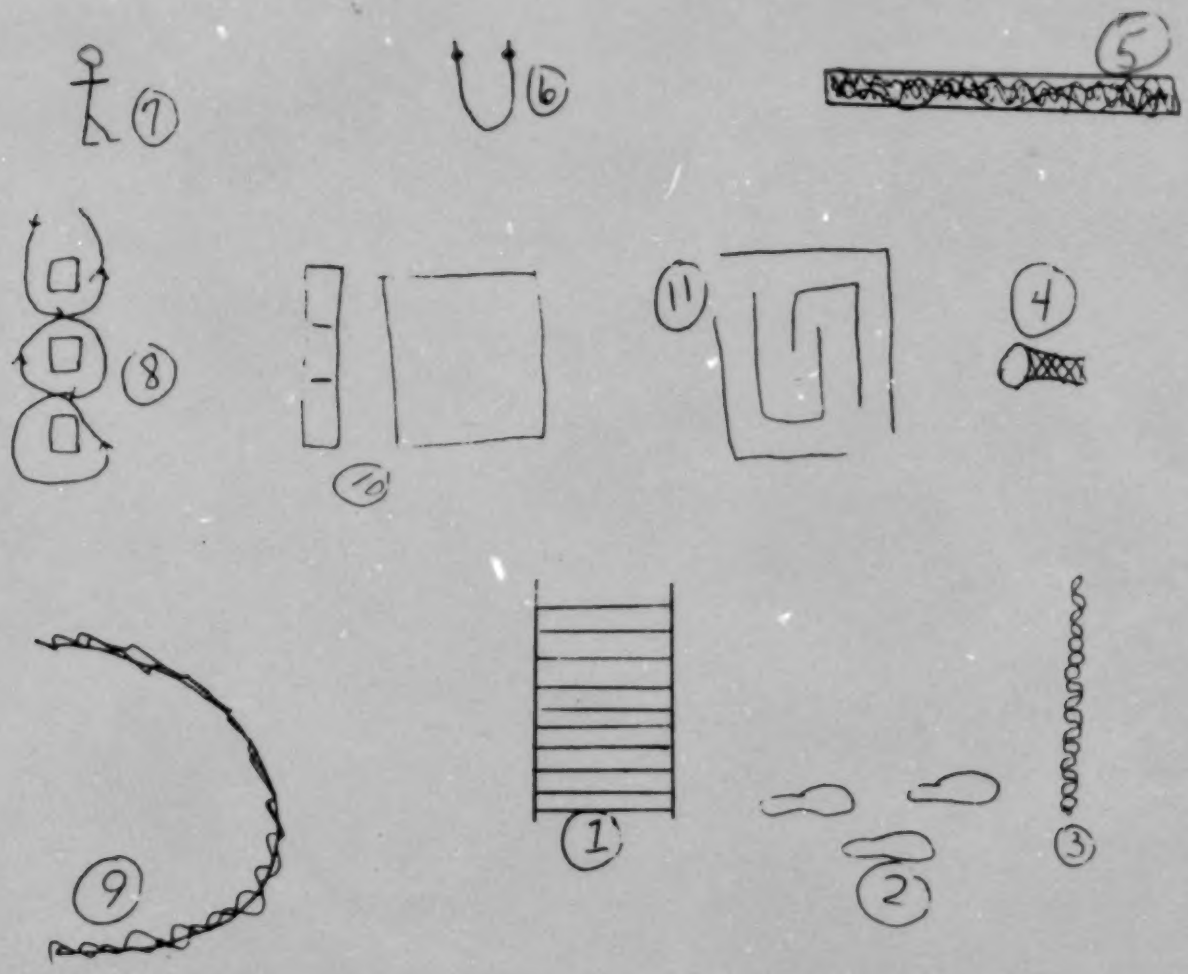
SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Obstacle course An obstacle course where different skills are assigned to different occupations. A record is kept by students to show which jobs he accomplished on the course.	A. Each obstacle is labeled for a certain job relating physical activity with a skill the job would demand. B. The children are numerically assigned to start at different stations. C. A cue given by teacher would mean change to the next higher numbered station. D. Score or evaluation will be determined by the child having a diagram of the course and checking off the obstacles completed. E. The basic obstacle course should be altered to the availability of equipment. F. The president's physical fitness obstacle course could also be used as a activity by stessing?	Horizontal ladder two climbing ropes basketall hoop and basketball Balance Beam Jump ropes three chairs vaulting horse 6 folding mats. Diagram of obstacle course on attached sheet.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

OBSTACLE COURSE



1.	Horizontal Ladder (up and down twice)	Painter
2.	Gym Walk Around (3 times)	Mailman
3.	Climb the Rope to the tope of the gym	Telephone Repairman
4.	Make a Basket (once)	Basketball coach
5.	Walk a Balance Beam with hands behind back	Carpenter
6.	50 double rope jumps with no miss	Professional Boxer
7.	15 - sixcount burpees	Housewife
8.	3 chair agihity? drill	Dancer
9.	Tarzan Rope Swing	Movie stunt man
10.	Jump & Roll from vaulting horse	Parachutte Jumper
11.	Mat Maze	Adaptability of any occupation

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation, a. discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. b. tying square knot c. threading needle d. arrange bowling pins e. balance two dowels Any number of activities of hand-eye coordination could be developed by creative thinking of instructor.	A. Divide class into equal squads and place them at one end of gym. B. Try each activity before each relay. 1. demonstrate tying square knot 2. threading a needle 3. arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor C. Have student run to end of gym - complete stunt - run back and sit at end of squad. D. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad).

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Dance is a vigorous activity which used as a leisure activity will mentally and socially prepare a worker for work. Folk dance often tells of the work of countries and gives ideas of their life style.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
RHYTHMS: 1. Farmer in the Wheat 2. Farmer Grey 3. Shoemaker's Dance 4. Grapevine Mixer 5. Speed the Plow 6. Dive for the Oyster 7. Cotton Pickin Polka 8. Haymaker Jig 9. Tinickling	Tell how each specific dance relates to the world of work	1. Victor 2168 or 45-5066 2. Folkraft 1182 3. Victor 45-6171 or 20450 4. Osborne 5. Folkraft F1087B 6. Folkraft 1018 "Old Joe Clark" 7. Victor 45-8951 8. Folk Dancer MH1504 9. Let's Dance, Pittman

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: The body should be used in the best position for work efficiency.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warmup or exercise part of class period. 1. basic standing 2. basic walking 3. sitting properly 4. bending properly 5. lifting efficiently 6. reaching properly	Explain the proper methods and why the body functions better using the proper methods. Discuss: Body grows to the posture you normally take.	Human Movement (book) Place pictures of correct and incorrect posture on bulletin board.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Exploring work movement by using child's knowledge and creativity of family or friend's work to a conscious level through suggestion.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Exploration of work by exploring father's, mother's, or an acquaintance's occupation. Answers to instructors questions are physically acted out by student.	Instructor has child go to their own special area in gym. Instructor asks children to choose the work of father, mother or someone they know. Instructor then asks the children to physically act out the answers to the question he will ask in any way they wish with each student staying in his own area. Question Suggestions: 1. What type of big physical movement does the occupation involve? 2. Can you think of a movement he makes without moving his feet? 3. By what means of transportation does the worker get to work? 4. If the worker runs a machine, show how. 5. Can you show five (5) things the worker does at work in one day? 6. What is your emotion to the job; boring, exciting, pleasureful, rewarding, etc.?	Exploration of Movement, Hackett N. Dak. Elementary Course of Study Creative thinking by the instructor

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	7. What leisure time activity (after work) would you most like to participate in after working on this job all day?	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests that will open up expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for block of wood which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Parachute Play Occupations of Physical Education The resource poster book should be used with pictures and explanation of the different physical education opportunities. The parachute is used to make a mushroom and each group competes for the job by capturing the block of wood.	a. discuss jobs in big group. b. number off students into six different groups. c. each group chooses an occupation and gives it to teacher. d. all students go around opened chute in mixed number . e. a mushroom is formed. f. at signal an occupation is called. g. the children of a group run for block. h. winners become that occupation and are asked to bring a picture or drawing of the job to be placed on bulletin board with name of student.	Elementary Physical Education Course of Study, page 200 Careers in Physical Education (posters) J. Weston Walch, Portland, Maine 04104 Parachute Object to grab such as block of wood with "Hired" written on it.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

124

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should be made aware through a field trip of the occupation of operating a bowling alley.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Teaching the skill of bowling. Relate this activity to the world of work by taking a field trip to a bowling alley.	A. Running a three to four week unit in bowling cover bowling technique and scoring. B. Arrange a time and date for field trip with school and bowling alley manager. C. The trip would involve a line of bowling and a presentation by alley manager and a behind the scene look of the bowling machines. D. Activity could be a carryover to discussion of operation of other recreational facilities eg. golf course, curling club, swimming pool, ski resort, archery range.	Commercial gymnasium bowling equipment Homemade equipment such as milk cartons and softballs. Score sheets Transportation to bowling alley Follow-up material for carryover discussion on managing other recreational facilities

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocation choice and to develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should relate the basic rythmic activities with the many occupations involved in dance. The need for group cooperation would also be an objective accomplished if the activity was to be successful.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Professional Dancers in Action (video taped) A modern gymnastic unit in which a routine of balls, hoops, wands or combination is learned by girls and done to music. The performance is video taped	1. Discuss dance being a complete field in itself and all the available occupations leading off from it. 2. Involve class in modern gymnastics using available equipment. 3. Learn basic movements and stunts and then formulate a routine to music. 4. After performance is somewhat polished and memorized, video tape it and then show it to students. 5. A student through very basic instruction could focus on and photograph the group with the constant aid of instructor to insert the occupation of photography.	Gymnastics for Women, Blanche Drury, National Press, Palto Alto, Calif. 1964 Pg. 200 Loops, wands, balls Record player Rythmic records (can be pop tunes) Video tape equipment

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: To involve the selected students more in the actual working of the class.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Continuing career exploration activities to be carried on as a yearly activity.		
Umpires or referees	Teacher could choose or class members could choose.	
Equipment managers	This could be arranged as a yearly schedule and the pupil could be excused early from classroom to help with duties and sent back a little late to classroom.	
Professional athlete (boy and girl for each unit)	This could be chosen by students but could be a professional athlete no more than once. A yearly schedule and a list on blackboard or bulletin board. A written award of achievement could be awarded.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests toward physical education opportunities.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for eraser which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Parachuting Game		Elementary Physical Education Course of Study Page 200
a. Discuss occupations	a. Steal the back	
b. Group chooses six occupations.	b.	Careers in Physical Education posters address:
c. Number off group around parachute	c.	Parachute
d. Make mushroom	d.	Object to grab
e. Place block of wood	e. Block of wood with words "You're Hired" on it.	Block of wood

SUGGESTED CORRELATION FOR THIS ACTIVITY:

128

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of job role student will be able to perform five duties of particular worker.

SUGGESTED SUBJECT AREA physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Continuing Career Exploration Activities. These activities are to be carried on in the yearly program. a- student officials, umpires or referees. b- Equipment managers c- professional athlete	A. The teacher could choose these officials by student volunteering. Trying to give all students a chance to participate, given the students a chance to understand the duties and stresses of an official. B. A yearly schedule with two students working for a two week period. Their job would consist of putting up and taking down equipment. The students will need extra time beside the physical education class period to do their listed duties. C. For each specific unit a boy and girl will be awarded a professional athlete award by the teacher or a student vote. No student will win the award more than twice.	A. Official Pinnies whistles B. Blackboard or bulletin board. C. Paper written award or a ribbon award

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: During the activity each student will have an opportunity to share information about an occupation with other students.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Jump rope of occupation A jumpdown with the missing jump coorelating with the last occupation listed.	A. A simply jump down with the teacher or chosen student reading the list of occupations. When a child misses a jump the last occupation heard is the child's occupation for that moment. B. Since there was two lists of occupations only half the class was active at a time. Although there is a boys and girls list, the groups were not divided sexually C. After one jump down was completed the children could discuss their occupation while the second group was jumping. D. Different types of jumpdowns can be used to vary the activity. E. The last child to miss should be given the opportunity to tell about the occupation they missed on and if they would like that type of work or not.	Occupational Dictionary jump ropes.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

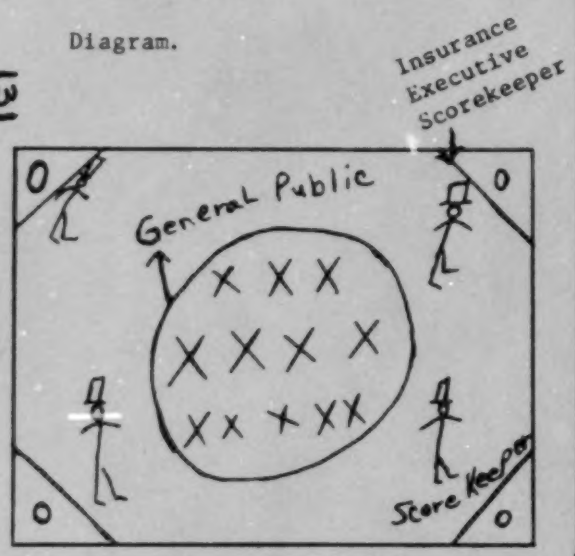
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity student will be able to list three workers that are involved in the insurance business.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Insurance Companies A game of dodgeball involving insurance terms. Diagram.  	A. Discussion of what an insurance policy is. B. Four salesmen and four insurance executives are chosen each to represent a company. If there are less than thirty children involved use two companies. The rest of the class is the general public. C. A game of dodge ball is played with the salesman trying to hit a public. Each public has a card with a policy amount on it which only that individual public knows. It maybe very big or small. When the individual is thrown out he gives his policy to the executive. D. When the player is hit he becomes the salesman and the past salesman becomes a retriever for his company E. After the last person is out all the scores for each company are totaled. The company with the highest total of the amount of policies is the winner which might be the company with fewer policy holders. The principle of commission should be brought up at this time. (continued)	A. An example of insurance policy B. 2 or 4 10" playground balls C. Insurance policy amounts on cards. D. Scorekeeper scoresheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	F. This game could easily be adapted to an outdoor field by making it a tag game instead of a throwing game.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list four occupations in the railroad industry.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Socio-drama to "I've Been Working on the Railroad" The children are given a chance to act out creative dance, or rhythm to the song"I've been Working on the Railroad."	A. An introduction to this activity should be a short discussion of the different jobs available in the industry of railroads and the vastness and importance of the industry. B. The class is divided into groups of five or six and given the assignment to act out the first verse of the tune using movement and sounds but no direct verbalizing. C. The teacher should introduce some probable movements and then let the children create giving a certain time limit. D. The performances will be watched by the part of class not performing. E. This creative activity could be used with other songs stressing the work factor.	Other songs: "Farmer in the Dell" "Wabash Cannonball" "Row-Row Your Boat" "15 mules on the Erie Canal" "16 tons and What do You Get"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to demonstrate the proper way to perform each of the six functions listed below.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warm up of basic skills in work use as part of exercise class or warmup. 1. Basic standing 2. Basic walking 3. Sitting properly 4. Bending properly 5. Lifting efficiently 6. Reaching properly	Discuss proper methods of 1-6 and why the body functions better using the proper methods. Body grows to the posture you normally take.	Movement Fundamentals Janet A. Wessel Prentice-Hall Englewood Cliffs, N.Y. Place pictures of correct and incorrect posture on bulletin board

SUGGESTED CORRELATION FOR THIS ACTIVITY:

134

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list advantage and disadvantage of working for a salary and same for receiving a handout check.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Welfare Alley This is an adaption of the game of prisoners base. The terms have been changed, but the game is played exactly the same. 	During calisthenics discuss working for a salary and receiving handouts - advantages and disadvantages of each. A. Should use out of doors playing field because of the running in the game. B. The basic rule of the game is that any player may be only by an opponent who has left his goal area after the player who is tagged. Each player trip to tag an opponent to make him a welfare receiver. C. If caught the player must go to unemployment alley and stay until he is rescued by another team mate. If there is more than one welfare recipient they form a chain from welfare alley. D. To win the game, a team must have one of its players enter the opponent's goal area without being tagged, or, one team must have a certain amount of opponents unemployed. E. This activity should also bring out reasons for unemployment and instill fact that some people cannot work. There should be no shame or arrogance promoted in this activity.	Field workers for side lines, goals and welfare alley.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will be able to relate at least one occupation that has been acted out entails.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Work charades A game of acting out occupation to a specific time limit.	A. Divide the class into 5 equal groups. B. Have each child choose a job card and keep that job a secret. C. At the sound of a whistle a specified child in each group has thirty seconds to act out the occupation. D. If the group guesses the occupation in the time limit a point is given. E. The group with the greatest amount of points is the winner. F. The occupation should be easily acted out physically but difficult enough to make the game challenging. G. This activity could be used in conjunction with jump rope of occupations. A jump down instead of job cards would be a way of assigning occupations to be acted out in the charade.	Job cards Stop watch Score sheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

136

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 4

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation	A. *Discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. Tying square knots Threading needle arrange bowling pins balance two dowels B. Divide class into equal squads and place them at one end of a gym. C. Try each activity before each relay. 1. Demonstrate tying knot 2. Thread a needle 3. Arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor D. Have student run to end of gym - complete stunt - run back and sit at end of squad. E. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad.) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Any number of activities of hand-eye coordination could be developed by creative thinking of instructor. * Relays involving skills which take high hand eye coordinations.	

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (Letter for this purpose attached.) Form xx

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Form xx

Dear _____

My students are studying _____.
We would like to have some first hand knowledge about this area. We are very interested in the work that you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job.
2. Duties.
3. Training or preparation required.
4. Approximate starting salary - salary after ten years (average).
5. Have you been doing this same type of work all of your working life?
6. Demand for such a job.
7. Supply of workers for this occupation.
8. Physical characteristics needed.
9. Social characteristics needed.
10. Do you work alone or with others?
11. Do you need to get along and cooperate with other workers?
12. What school courses helped a great deal in preparing you for this work?
13. How do you feel after a days work? Why?
14. Why do you work?
15. Do you like this job?
16. What are the good and bad points about it?
17. How and where training can be obtained.
18. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____
Number of students _____
Description of facilities and equipment available _____
_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

Follow-Up

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and definite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil/Teacher Preparation

Watch for:
1. Working conditions
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

GRADES 4 - 5 - 6

Ideas for Employers Regarding Things to Cover During Occupational Field Trip

1. Title of occupations at your plant

2. Duties of the workers

3. Training or preparation needed

4. Salaries (optional) beginning and ten year average

5. Physical and social characteristics needed.

6. What school work was most helpful for your job

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

E. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House, Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Dansville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

Chronicle Guidance Publications
Moravia,
New York 13118

APPENDIX D

INTERVIEWING GUIDELINE

Intermediate Grades

PURPOSE

We see the purpose of an interview to be an accurate personal way to obtain information. A famous social scientist, Gordon Allport, once said, "If we want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do - why not ask them."

Interviewing can be used as an effective way for students to gain insight into a wide variety of jobs and workers.

METHOD AND TECHNIQUES

The following rules, which also apply to professional interviewers, generally should be followed by children.

1. The purpose of the interview, or some orientation to the interview, should be given at the start.

2. The interviewer should be friendly. He should seek to elicit and maintain the cooperation of the respondent.

3. The questions should be asked exactly as stated, and usually in the order given.

4. The responses should be reported as given. The interviewer should not show that he either agrees or disagrees with the answers. (It might be a good idea to have interview teams of two for each interview - one person to ask the questions and probe for the answers, the other to record what is being said.)

5. The interviewer should prompt or probe for some answers. This should be done especially when the answer is not clear, when it is very brief, or when the respondent is reluctant to answer. This is especially important.

PREPARATION FOR INTERVIEWING

1. Students should be aware of the purpose of the interview and also what the information will be used for.

2. Students should know who they will interview and contact that person for permission before the actual interview.

3. Role-playing should be used in the classroom as practice sessions.

4. Survey possibilities for interview in your community through the yellow pages.

5. Teachers should be aware and make students aware that misinformation may result from an interview. The worker may misunderstand the question, or he may not have enough detailed information that the student is seeking.

QUESTIONAIRE

Person Interviewed _____

Person Interviewing _____

Date _____

I. Name of Occupation

General _____

Specific Name _____

II. Information About A Job

1. What are the different types of workers found in your plant?

2. What kind of work do the majority of employees do?

3. Is the work outdoors or indoors?

4. What are your job duties?

5. What are the educational and experience requirements for your job?

6. What are the physical requirements?

7. What is possible weekly or monthly earnings? (Don't force this if they don't want to tell you.)

8. What are the future opportunities?

ACCESSION NUMBER: VT101988

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE FIVE CLASSROOM ACTIVITIES.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; VOCATIONAL DEVELOPMENT; *CAREER AWARENESS; *CLASS ACTIVITIES; SELF CONCEPT; OCCUPATIONAL INFORMATION; TEACHING GUIDES; RESOURCE MATERIALS; *GRADE 5; JOB SKILLS; OCCUPATIONAL CLUSTERS; SKILL DEVELOPMENT

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 178P.; SEE RELATED DOCUMENTS VT 101 983 THRU VT 101 987 AND VT 101 989 IN THIS ISSUE.

ABSTRACT: THE NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION WAS DEVELOPED AND FIELD-TESTED IN THE BISMARCK DISTRICT AND IN OTHER SCHOOLS THAT BECAME INVOLVED DURING 1970-1973. MATERIALS WERE COMPILED FOR TEACHERS' USE IN INTEGRATING CAREER EDUCATION ACTIVITIES INTO THE EXISTING CURRICULUM, ADAPTED TO LOCAL SCHOOL NEEDS. INCLUDED ARE CAREER EDUCATION PHILOSOPHY (K-6), OBJECTIVES, AND DEVELOPMENT CONCEPTS. TEN BROAD OBJECTIVES ARE LISTED FOR GRADES 4-6, EXPANDING THE OBJECTIVES FOR THE PRIMARY GRADES. MATERIALS ON ACTIVITIES FOR VARIOUS ELEMENTS OF CAREER EDUCATION SUITABLE TO GRADE 5 ARE PRESENTED UNDER SELF-AWARENESS, CAREER AWARENESS, SKILL AWARENESS, EMPLOYABILITY SKILLS, DECISION-MAKING SKILLS, APPRECIATIONS AND ATTITUDES, AND ECONOMIC AWARENESS. SUGGESTED SUBJECT AREAS ARE MATH, SCIENCE, SOCIAL STUDIES, PHYSICAL EDUCATION, LANGUAGE ARTS, AND MUSIC. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 988

GRADE 5

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

VT 101988
VT 101988

GRADE FIVE CLASSROOM ACTIVITIES

of the

North Dakota Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

TABLE OF CONTENTS

FOR GRADE 5

I. Introduction

Preface iv
Acknowledgements. v
Purpose of Guideline. vi
Career Education Philosophy vii
Summary of Career Education Objectives. viii
Concepts to Develop K-6 ix
Intermediate Grades 4-6 Objectives. x

II. Elements of Career Education to be Achieved K-12

Activities that address themselves to the various elements are found on the following pages:

A. Self-Awareness
Parents Love and Appreciation 1

B. Career Awareness
Employment. 3
Recreational Occupations. 137
Pantomime Job 8
Job Clusters 16
Government Workers. 28, 29
Day-On-Job. 43
Agricultural. 48
Regional Occupations. 49
South America Comparisons 61
Science Related Careers 86, 87
Transportation Careers. 88
Electrical Careers. 113
Occupational Information. 142
Insurance Business. 143
Transportation. 145

C. Skill Awareness
Usefulness of Reading 14
Usefulness of Math. 67
Numbers in Communicating. 68
Math and Sports (leisure time activity) 71
Psycho Motor. 129, 146, 149
Hand-eye Coordination 131
Dancing 101
YMCA. 127

D. Employability Skills
Ordering. 23
Chemical Elements 109
Nutrition 120
Healthy Body. 133

Family's Occupation 134
Competitive Games 136
Rhythm. 138
Securing a Job. 140
Job Roles 141

E. Decision-Making Skills
Goals and Aspirations 128

F. Appreciations and Attitudes
Leisure Time Activities 2, 132
Ecology 5
Biographies of Great Men. 24

G. Economic Awareness
Geographical Effect 32, 35, 38, 39, 41, 44, 45, 47, 64
Salaries. 37
Cost of Food. 65, 69
Technology. 97
Unemployment. 147

III. Contents According to Suggested Subject Area

Math
Pages: 37, 65, 67, 69

Science
Pages: 86, 87, 88, 97, 109, 113, 120

Social Studies
Pages: 28, 29, 32, 35, 38, 39, 43, 44, 45, 47, 48, 61, 64

Physical Education
Pages: 126-150

Language Arts
Pages: 1, 2, 3, 5, 14, 16

Music
Pages: 4, 7, 26, 27, 36, 40, 41

IV. Appendices

Resource People Guide 151
Field Trip Guide. 155
Addresses of Suppliers of Resource Materials. 158
(These are not free)
Interviewing Guideline. 164

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

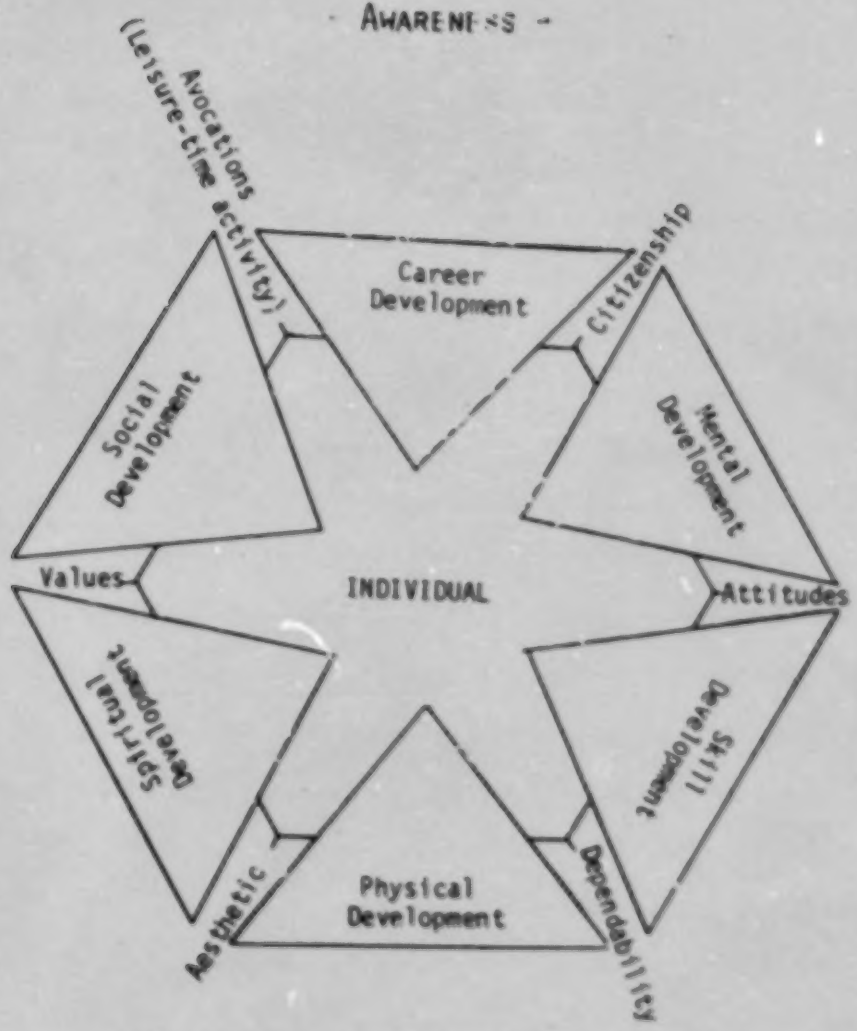
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INVOLVEMENT OF HOME, COMMUNITY, AND SCHOOL

INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life-long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

INTERMEDIATE (GRADES 4-6) BROAD OBJECTIVES

I. To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

A. To help students:

1. To respect and accept self and others
2. To be dependable
3. To be responsible
4. To be cooperative
5. To enjoy work and play
6. To make wise decisions and choices.

II. To develop a wide and varied interest that will open up an expanded basis for vocational choice.

III. To give students an opportunity to express goals and aspirations.

IV. To develop a positive attitude toward work and preparation for work.

V. To present appropriate occupational information using a broad introduction of occupations throughout the world.

VI. To provide more specific observational experience about the world of work.

VII. To make school subjects more meaningful.

VIII. To develop and foster a positive attitude toward the value of fine art.

IX. To impress upon student that a healthy body and mind is essential to a productive worker.

X. To develop skills basic to living a full and meaningful life.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop positive attitudes toward the world of work

CONCEPT: The ability to communicate effectively helps a person work well with other people.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student can list four ways children show parents that they love and appreciate them.

SUGGESTED SUBJECT AREA Language arts

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Use filmstrip Working Together in the Family and accompanying record. Before starting the record show frame that gives purpose of this filmstrip - teacher or one of the students could read it aloud from the screen. 2. Show frame that lists things to look for - someone also could read this. 3. Use the discussion questions that are recorded in bands at the end of the 33 1/3 r.p.m. narration to stimulate group discussion and participation. 4. Discuss ways in which cooperative working helps the family have leisure time.	Discuss what parents do for them. Ask students if they show love and appreciation for what their parents do for them.	Filmstrip: Working Together in the Family and accompanying record. Songs: "True Grit" "Home Sweet Home" "Oh My Pa Pa" "I Want a Girl" "When Your Smiling" "A Little Song of Life" Mastering Music, ABC, 19[illegible] "Someday" Making Music Your Own, Silver Burdett, 1971 p 224-225 Films: 2995 "Late for Dinner: Was Dawn Fight" 2966 "Lemonade Stand" 14 min. 592 "Rules and Laws" 15 min. 695 "Don't Get Angry" 12min. Encyclopaedia Brittanica

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop wide and varied interests that will open up an expanded basis for vocational choice

CONCEPT: A. Specialization Leads to Interdependency B. Recreational Activities Expand Interests

SPECIFIC BEHAVIORAL OBJECTIVE: Each student is able to tell about or show one or more hobbies that he has now or would like to pursue.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Children that have hobbies tell how and why they got interested in a particular hobby. 2. Students bring hobbies to school. 3. Students and teacher do research on hobbies that turned into careers. 4. Have some adult come to school and explain their hobby.	1. Discuss: Why we have hobbies? 2. Is there a reason for having hobbies? 3. Can hobbies turn into an occupation? How? Examples. 4. Can any of you see that your hobby may turn into a career?	Filmstrip: What Do You Like to Do? SVE, 1345 Diversey Parkway Chicago, Ill 60614 Songs: "Canoe Round" Making Music Your Own Silver Burdett p. 103 "Take Me Out to the Ball Game." "Hiking" Music For Young Americans ABC Bk. 6 Biking Songs "Chattanooga Shoe Shine Boy" "Jazz Man" Mastering Music ABC p.206

SUGGESTED CORRELATION FOR THIS ACTIVITY: Science - Rock collecting could lead to making jewelry.
Social Studies - deals with occupations.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: People Need to Be Able to Write in Their Work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will write a story or poem about the southern states including criteria about employment in those states in their writing.

SUGGESTED SUBJECT AREA Language Arts

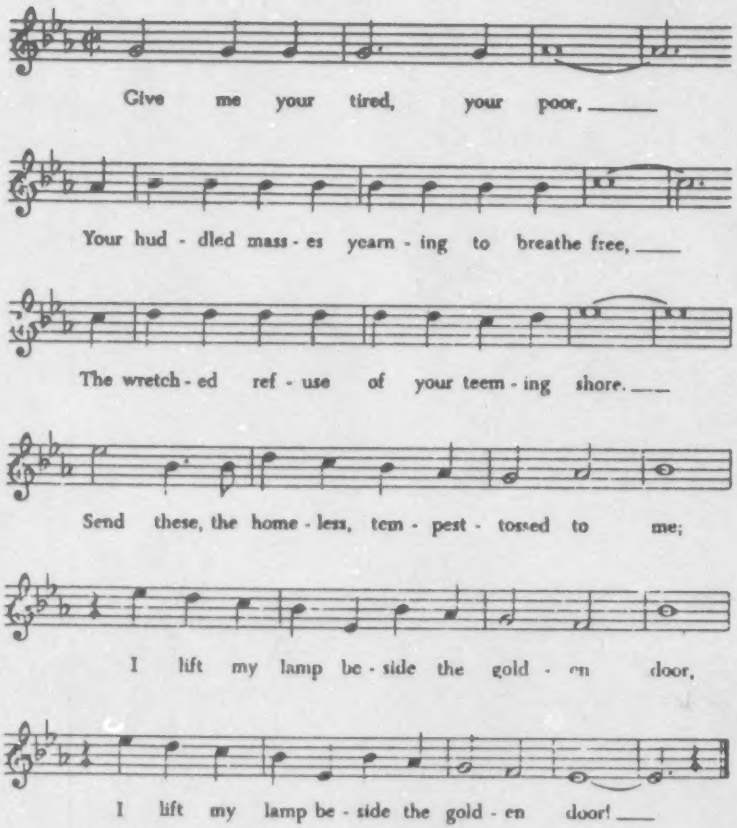
SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Creative and informational writing.	1. Write letters to the southern states to get information concerning that section of our country (write to Chambers of Commerce, State Capitals, State Employment Agencies, etc.) 2. Write stories or poems about the southern states. This activity should enhance anticipation for the incoming material listed in technique number one. 3. Make booklet about the southern states and share with others.	Books: Men at Work in the South, Lent. Putnam, New York. 1957 Filmstrips: Old South (Then and Now), EBE Then and Now in the Cotton Belt, EBE Then and Now Along the Lower Mississippi EBE Then and Now in Florida, EBE Gulf Coast, McGraw-Hill Southeast, McGraw-Hill Southwest, McGraw-Hill Then and Now in Texas, EBE Films: Southeastern States (11 min.) EBE Planter of Colonial Virginia, EBE People Along the Mississippi, EBE Our Shrinking World-Jet Pilot, EBE Songs: Oh Susannah, Davy Crocket, Battle of New Orleans, Shennandoah, Deep in the Heart of Texas, Way Down Yonder in New Orleans

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Give Me Your Tired, Your Poor

Music by Irving Berlin
Words from the poem "The New Colossus"
by Emma Lazarus



Copyright 1949 by Irving Berlin. Used by permission of Irving Berlin Music Corporation

Record 1 Side A Band 7. VOICE: soprano.
ACCOMPANIMENT: string quartet, harp.
FORM: Introduction, *4 meas.*; Vocal; Coda, *3 meas.*

Key: E♭ Starting Tone: G (3)
Meter: ¢ $\left(\frac{2}{\flat}\right)$
Piano accompaniment on page 220

Give Me Your Tired, Your Poor

• **ABOUT THE SONG:** The words of this song are found on the Statue of Liberty in New York Harbor. Review with the class information about the statue, its source, purpose, and meaning, or assign this as a research topic for report and discussion. Study the entire poem and ask the class to discuss its meaning. Memorize it for choral speaking or for individual recitation.

The New Colossus

by Emma Lazarus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon-hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tossed to me,
I lift my lamp beside the golden door!"

• **RHYTHM:** Discuss with the class the symbol $\mathbf{C}$ for common time or $\frac{4}{4}$ meter and the symbol ¢ for cut time. When the cut-time symbol appears, the rhythm is sung or played with two beats to the measure, the half note receiving one beat. Help the class discover that in this song two quarter notes sound with one beat, and the whole note sounds with two beats. Ask the class to tap the rhythm of the melody as you tap the steady two beats per measure.

MELODY: Point out the ascending scale from G to E♭ in the first three phrases of the song. Notice the feeling of urgency derived from the ascending tones as they build toward the climax (phrase four). Listen to the recording and notice the expressive way the climax phrase is sung.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: People need to be able to write in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate understanding of conservation each student will develop an ecology project.

SUGGESTED SUBJECT AREA Language Arts

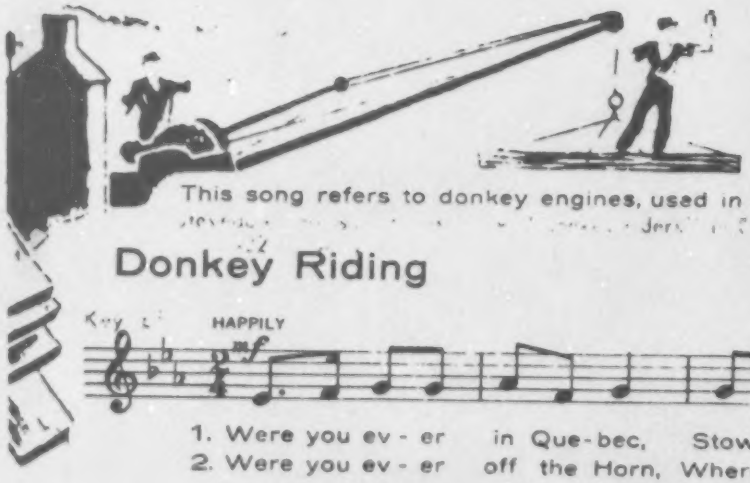
SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Bulletin Board	1. Have children collect and arrange on the bulletin board some pictures on certain industries found in the West.	Books: Men at Work on the West Coast Henry B Lent, G. P. Putnam's Sons New York: 1959
Ecology project	2. Each child will initiate his own ecology project such as: posters and research on different types of pollution. Local clean-up projects (either individual or groups)	Any social studies text or other reference material.
Research topics	3. Do research on various crops or industries such as peanuts, cranberries, cotton, oyster industry, dairying, raisins, etc. Report to the class or make a display of the findings.	Filmstrips: Story of West Coast Lumber, SVE Rocky Mountains & Plateaus, SVE Pacific Northwest, McGraw-Hill Rocky Mountains Area, McGraw-Hill Then and Now in Pacific Northwest, EBE Paper in the Making, SVE Then and Now in Rocky Mountains, EBE Then and Now in California, EBE Gold Rush - California, SVE Then & Now Between Western Mountains, EBE (continued)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Films: The Interior West - The Land Nobody Wanted (20 min) EBE Copper - Mining and Smelting (11 min) EBE Chicano - From the Southwest (15 min) EBE Making the Desert Green (16 min) EBE The Pacific West (24 Min) EBE Our Changing Way of Life - The Lumberr (15 min) EBE Songs: This Land is your Land - El Camino Real Seattle- I Left My Heart in San Francisc Sweet Betsy From Pike - Cool Water Colorado Trail- Casey Jones Donkey Riding - San Franciso (attached) Roll On Columbia - Experiencing Music Bk 5. A. B. C. 1970 p. 118



This song refers to donkey engines, used in loading boats with lumber.

Donkey Riding

Canadian Sea Chantey

Taken from:
This is Music For Today,
Grade 5.
Allyn & Bacon

HAPPILY

1. Were you ev - er in Que-bec, Stow - ing tim-ber on the deck,
2. Were you ev - er off the Horn, Where it's al-ways fine and warm,

Where there's a king— with a gold-en crown Rid-ing on a don-key?
See - ing the li - on and the u - ni - corn Rid-ing on a don-key?

Refrain

Hey hol A - way we go, Don-key rid - ing, don-key rid-ing!

Hey— hol A - way we go, Rid - ing on a don - key!

3. Have you sailed to Cardiff Bay,
Where the folks all shout, "Hooray!
Here comes John with six months' pay,
Riding on a donkey"?

4. Queen, she ups and names the day
King, he gives me six months' pay
Old Sam Salt will sail away
Riding on a donkey

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will pantomime an occupation and write a job description of same.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Skit 2. Pantomime 3. Creative writing	1. Discuss various types of occupations. 2. Show selected filmstrips listed in resource materials. 3. Thermofax accompanying occupational list and distribute to youngsters. Motivate student interest in the list by presenting the pantomime game as described in technique No. 4. 4. Have each child in class select an occupation and express this occupation through pantomime. They can bring occupational tools, etc. to assist themselves in the pantomime. The class should be divided into three equal groups with a student supervisor who knows the answers to each pantomime. As soon as a student thinks he knows the answer to a pantomime, he will write the occupation and show it to the student supervisor. If the answer is correct, the supervisor will notify the teacher who will time the activity. Each student will have a maximum of	Occupational Outloook Handbook Labor Department Magazines Newspaper Encyclopedias Occupational filmstrips with records by Edu-Craft: 201 What Else Do Fathers Do? 202 Just What Do Mothers Do? 203 It's in Your Hands 204 The Electrical Workers 205 The Gas and Oil Workers 206 The Telephone Workers 207 Getting the Goods to Users 208 A Matter of Business! 209 It's the Growing Things 210 At Your Service 211 Raw Steel to Rolling Wheels 212 Food---Shelter---Clothing 213 Helping the Healing Hands

SUGGESTED CORRELATION FOR THIS ACTIVITY: Spelling - learning to spell the names of occupations.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	one minute to give the pantomime. Rotate pantomime presentation by groups. Suggested point system for pantomime game: 0-15 sec. - 4 pts. 16-30 sec. - 3 pts., 31-45 sec. - 2 pts., 46-60 sec. - 1 pt. Group yI — Group yIIz — Group yIII Note: *Group giving pantomime is not eligible to express answers. x represents student present pantomime y student group supervisor z little Johnny in Group II has correctly <u>written</u> occupation of x's pantomime. y notifies teacher who notes time elapsed as 14 seconds. Both Group II and III have earned four points. (Points are awarded to both the pantomimer's group and the group guessing correctly.) 5. Each student will select an occupation favorable to himself. He will express why he chose that occupation and what he hopes to achieve in that field.	

WHAT'S MY JOB?

How close can you come to describing the job that these workers perform? The answers are on the following pages.

abrasive grader
acid filler
aerospace engineer
agronomist
air-hammer operator
anthropologist
automotive engineer
bag machine operator
barker operator
biochemist
buyer
cartographer
cinderman
civil engineer
conservation officer
dispatcher
draftsman
economist
electronic technician
forester aid
foundry worker
gang sawyer
geologist
glazier
hammersmith
hand assembler
horticulturist
hygienist
keypunch operator
landscape architect
lather
linguist
longshoreman
machinist
metallurgist
meteorologist
millwright
oceanographer
pipefitter
sheetmetal worker
tannery gummer
tool and die maker

There are over 30,000 different kinds of workers in the United States.

You will probably be one of them someday.

ANSWERS TO "WHAT'S MY JOB?"

An abrasive grader operates a mill to grind emery, rouge, and other abrasives.

An acid filler fills storage battery cells with sulfuric acid solutions to prepare them for charging.

An aerospace engineer does research and develops flight equipment for use in air and outer-space.

An agronomist experiments for new and better ways to grow crops.

An air-hammer operator breaks concrete, stone, or other pavement with an air-hammer.

An anthropoligist studies the evolution and races of men and their cultures.

An automotive engineer designs and oversees construction of automobiles, trucks, and other automotive equipment.

A bag machine operator runs a machine that cuts, folds, and seals paper and plastic bags.

A barker operator runs a machine to remove the bark from a tree before it is processed in a saw mill or paper making plant.

A biochemist studies the chemical reactions in living things (plants and animals.)

A buyer purchases merchandise to be used or re-sold by large companies.

A cartographer draws maps of cities, counties, states, and other areas showing many of their features.

A cinderman removes cinders from furnaces in some large factories and iron melting plants.

A civil engineer plans, designs, and oversees construction of structures such as roads, airports, dams, and bridges.

A conservation officer patrols an area to prevent game law violations and to help preserve property and wildlife.

A dispatcher receives radio messages and sends instructions for airplanes to land, police cars to report to a crime scene, repairmen to go to a site of trouble, and many other things.

A draftsman makes detailed drawings of items to be manufactured or of structures to be constructed.

An economist aids in the solution of money problems by studying costs and making reports.

An electronic technician draws and assembles models for making items to be run by electricity.

A forester aid works alone or with a crew to protect and wisely use forest land.

A foundry worker works with melting metal, pouring it into molds, and otherwise preparing it for use.

A gang sawyer operates a gang saw to cut such items as lumber or large blocks of stone.

A geologist studies the earth's crust and the ocean bottom and prepares reports on what he finds.

A glazier installs glass windows in stores, glass doors in buildings, mirrors on walls, and glass in table tops.

A hammersmith repairs defects in such silver objects as trays, teapots, and bowls.

A hand assembler fastens together parts of an item as they pass by on an assembly line.

A horticulturist experiments with plants and plant products to find better means of production, storing, processing, and shipping.

A hygienist studies our environment and makes reports on what is harmful to our health and suggests ways to correct harmful things.

A keypunch operator uses a machine similar to a typewriter to punch information on cards to be used in computers.

A landscape architect plans land for use in parks, airports, highways, and sometimes even homes.

A lather fastens wood or metal lathes to walls or ceilings to provide support for plaster.

A linguist is a person skilled in translating foreign languages.

A longshoreman operates equipment to move cargo about on docks and on and off ships.

A machinist operates equipment to make or repair metal objects such as tools, machines, and other things with metal parts.

A metallurgist studies metals and reports various things about them.

A meteorologist studies our atmosphere and reports and forecasts weather.

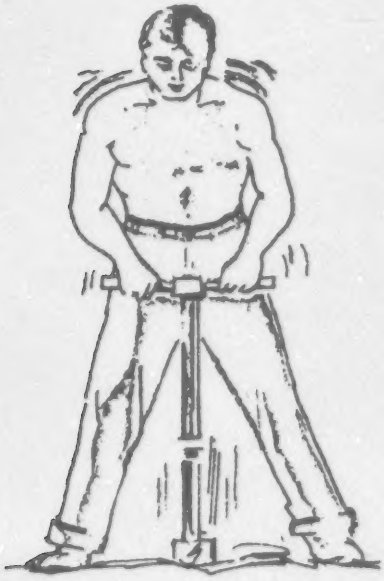
A millwright uses hand and power tools to install machinery and equipment in industrial plants.

An oceanographer studies the physical aspects of the ocean and the movement of the sea.

A pipefitter installs and maintains pipe systems for such purposes as heating and cooling metal.

A tannery gummer spreads a solution on leather to finish or waterproof it.

A tool and die maker runs machines to fit and assemble parts for metal equipment.



Air-Hammer Operator

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: Reading helps people in their careers.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list three ways that reading is useful to him now and three ways that it will be useful in later life.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have students question parents or other adult on how they use reading at work and at home.	Discuss: 1. How do you as a student use reading in your everyday life? 2. How do you think you will use reading later in life? 3. How do you think we could find out how adults use reading at home and at work? 4. Do you think that people on television need to read in their work? 5. Is there a place for "fun reading" in our lives? 6. Could we drive without using reading? 7. Have you had to read instructions at any time? When?	1. Parents who will come to school 2. Slides or filmstrips that have captio 3. Newspapers 4. Instructions for assembling something Films: Library Story (15 min) 578 EBE Newspaper Story (17 min) 451 B/W EBE

SUGGESTED CORRELATION FOR THIS ACTIVITY: Social Studies - reading maps
Math - cooking
Language - giving and following directions.

26

Compliments of Lyle Evenson's collection
Department of Public Instruction

SIGN PAINTER'S CUP

1. Use a sheet of light cardboard about 5" by 7" or larger.

2. Fold the sheet into three equal parts vertically and then open it out again.

3. Fold the sheet into three equal parts horizontally and then open it out again.

4. Hold the sheet along its long left edge at the upper horizontal fold and with the right hand grasp the left vertical fold along the top edge of the sheet.

5. Bring the horizontal fold grasped by the left hand up and around so that it lies on top of the upper third of the left vertical fold. This will create a diagonal fold in the upper left section of the sheet; this fold must go through the intersection of the upper horizontal fold and the left vertical fold. Open the sheet out again.

5. Repeat #4 and #5 on the right side of the sheet; hold the paper with the right hand grasping the right edge of the sheet at the upper horizontal fold, and grasp with the left hand the upper end of the right vertical fold. Again, the diagonal fold created must go through the intersection of the upper horizontal fold and the right vertical fold. Open the sheet out again.

7. Now reverse the sheet top to bottom and repeat #4, #5, and #6.

8. Hold the sheet at each end of the upper horizontal fold, and bend each side up from the center section. At the same time, make the upper horizontal section begin to fold upward. The upper left and right corners of the sheet will tend to fold back behind the upper center section. You will notice that part of the sheet extends above the other. Bend this extension back and down tightly. This will "lock" the sheet into its new shape. Do NOT unfold.

9. Again reverse the sheet top to bottom and repeat #8.

10. You should now have a rectangular-shaped cup which will provide opportunity to contain a delightful liquid refreshment you desire to imbibe.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experience about the world of work and to make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: To make the student aware of three occupations he would be suited for.

SUGGESTED SUBJECT AREA (All areas) Language Arts

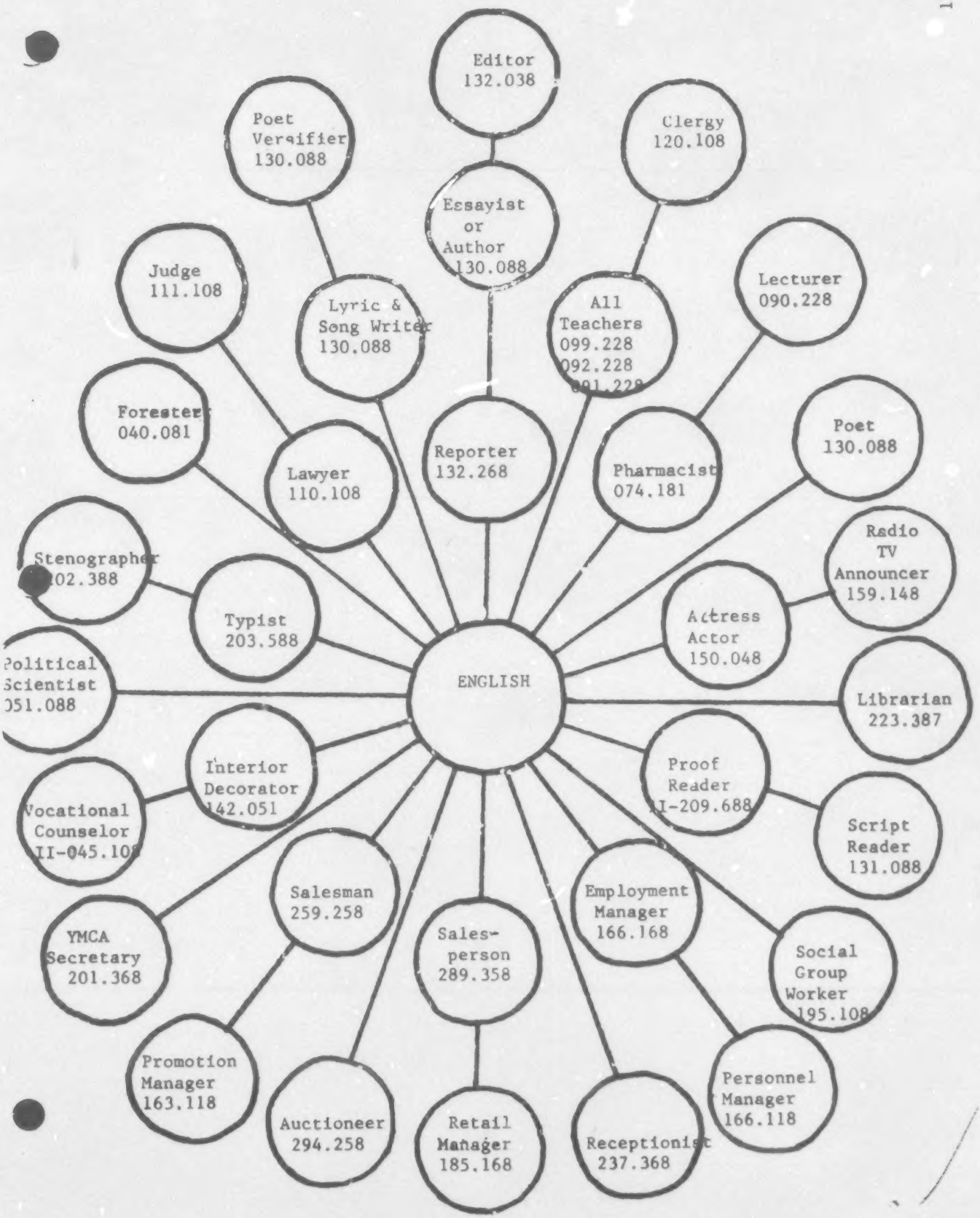
SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Activities listed on first page of booklet.	1. Teachers thermofax and compile the attached sheets to be given to each student. 2. Teachers use own discretion on time allocated and amount of work to be completed in the booklet. Note* - Spelling list allows four different levels of ability * - Cluster page, "Occupations Related to Interest and Ability in English." should be mimeographed on construction paper for cover.	1. Magazine pictures 2. Filmstrips: a) What Good Is School? SVE b) What Is a Job? A-778-3 SVE

SUGGESTED CORRELATION FOR THIS ACTIVITY:

28

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN ENGLISH



WORLD OF WORK - LANGUAGE UNIT

NAME _____

1. Questionnaire - What do I know about me?
2. Oral sharing of hobby - hobbies often lead to lifetime jobs.
3. Interview your parents about their job.
4. Write a short report on the work of a famous person.
5. Fishbowl discussion. Be prepared to discuss why education is important to you in your future job and what type of work you are interested in.
6. Job listings - Being able to communicate effectively helps people work well with others. Speaking, writing, listening and reading are important for many jobs. List at least 5 for each one.
7. Summary - Write a short summary of a biography book you have read. List the title, author, and the type of work the person did.
8. Write clues - Write 5 clues about an occupation to use in playing "What's My Line?" Suggested ideas for clues:
   (a) Do you work inside or outside?
   (b) Do you wear a uniform?
   (c) Do you need any special training? Or special equipment?
   (d) Is it a man's or woman's job?
   (e) Where do you work?
   (f) Do you need a college education?
9. Complete a job application form.
10. Pantomine a worker or do a group skit on occupations.
11. Write several paragraphs telling what you want to be when you grow up? What type of training will be necessary? Why do you want to do this?
12. Bring magazine pictures and mount on colored paper or illustrate one of the jobs that correlate with language. These will be used on our bulletin board.

WHAT DO I KNOW ABOUT ME?

1. What I like to do:

_____

2. The hobbies I have or would like to have:

_____

3. The clubs I belong to:

_____

4. Some clubs or things that I have done that I did not enjoy:

_____

5. What I most often do in my spare time:

_____

6. Contests or competitions I have entered:

_____

7. What subjects I like best in school:

_____

8. The subjects I do not enjoy in school:

_____

9. What sports or games I like best:

_____

10. What kind of person I like best to be with:

_____

11. Do I like to read in my spare time? _____

12. What kind of jobs do I like to do best now?

_____

13. What kind of work would I like to do in the future?

_____

14. Do I spend most of my free time indoors or outdoors?

_____

QUESTIONNAIRE

TO

INTERVIEW PARENTS ABOUT THEIR WORK

1. What is your job?

_____

2. What do you do at your job?

_____

3. What do you need to know to do this type of work?

_____

4. Do you work indoors or out?

_____

5. Must you be strong to do this type of work?

_____

6. Is there special training required?

_____

7. Are there opportunities for advancement?

_____

8. Are you happy in your work?

_____

9. Would you like to have your son or daughter do this type of work?

_____

10. How is reading, writing, speaking, or listening important to your job?

_____

_____

_____

_____

EMPLOYMENT FORMS

These are very important. You must write legibly and give all the information that is needed. There will be many times in your life when you will fill out forms--

(a) when you go to college

(b) when you get a driver's license

(c) when you get married

(d) when you are applying for a job.

Pretend that you are applying for a job and fill in the following application. Remember to use your best handwriting. No one would hire you if they couldn't read the information you are giving them.

_____

Name _____

Address _____

Parents _____

Parent's address _____

Age _____ Birthdate _____

Male or female _____ Phone _____

Education (list schools attended and dates)

_____

_____

_____

List former employers, address, and phone

_____ _____ _____

_____ _____ _____

_____ _____ _____

List three personal references, address, and phone

_____ _____ _____

_____ _____ _____

_____ _____ _____

SPELLING
WHAT DO YOU WANT TO BE?
VOCATIONS (WORLD OF WORK)

A	B	C	D
1. barber	1. explorer	1. accountant	1. veterinarian
2. soldier	2. carpenter	2. surgeon	2. pharmacist
3. artist	3. detective	3. lumbermen	3. beautician
4. pilot	4. librarian	4. dietician	4. executive
5. dentist	5. florist	5. aquanaut	5. photographer
6. doctor	6. lawyer	6. custodian	6. psychiatrist
7. dancer	7. minister	7. geologist	7. dermatologist
8. typist	8. waitress	8. entertainer	8. oceanographer
9. teacher	9. secretary	9. musician	9. zoologist
10. editor	10. comedian	10. author	10. cosmetologist
11. farmer	11. manager	11. stenographer	11. politician
12. butcher	12. salesman	12. biologist	12. botanist
13. nurse	13. pianist	13. instructor	13. columnist
14. janitor	14. lineman	14. contractor	14 novelist
15. policeman	15. speaker	15. physician	15. mortician
16. judge	16. reporter	16. engineer	16. cyclist
17. cowboy	17. fisherman	17. violinist	17. pediatrician
18. postman	18. actor	18. chemist	18. administrator
19. inventor	19. actress	19. professor	19. linguist
20. patrolman	20. scientist	20. druggist	20. cartoonist

CAREER DEVELOPMEN ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: After activity has been completed, students will be able to compile list of mail order workers and be able to complete an order.

SUGGESTED SUBJECT AREA Lang. Arts & Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Order items by mail using order blanks and catalogs to provide students with skills necessary in a job requiring that skill or for personal use.	Discuss ordering as a means of acquiring goods. First Day: Order anything to learn procedure for ordering. Second Day: Allot certain amounts of money (example: $50.00) to cover cost of goods including sales tax and postage. Discuss workers involved in mail order business, what attributes and skills are needed by these people.	Catalogs brought from home Order blanks reproduced Sales tax chart

SUGGESTED CORRELATION FOR THIS ACTIVITY:
Social Studies - taxation
Science - Make-up of goods ordered
Reading - Discuss whether reading is necessary for mail order workers and what type of reading do they need to do most often.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations

CONCEPTS: A. Individuals differ in abilities, interest, attitudes and values. Leisure time activities affect career choice. B. A Society needs both a producer of goods and producer of services.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will read about and write a written report on five men and list six reasons for their success in their occupational field.

SUGGESTED SUBJECT AREA Language Arts Reading - Biography

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Introduce biography books on hand and how others may be found in library. 2. Share ideas obtained from reading with other pupils. a. book jackets b. dioramas c. reports d. dramatize c. role playing 3. Use attached sheet as example of other activities connected with the biography books.	Teacher mentions books and ask students to keep these things in mind as they read the books: 1. Individuals early years a. home b. school c. hobbies d. his goals in life e. early employment 2. Problems he had faced. 3. How he coped with these problems. 4. How individual attained greatness in his area. 5. Character qualities of individuals. Write your auto-biography projecting it into the future.	Books - Biographies Song - Knowledge and Wisdom (round)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

36

■ TEN football heroes are discussed, and photographs are included. Some background information about their lives is given, as well as the records they attained. All were or are players except Vince Lombardi, who was a coach.

QUESTIONS

1. What, in your opinion, are the main requirements for being a success in professional football?
2. What do you think is the main difference between amateur and professional football?
3. Can you name the pro football heroes described on the back cover of the book?
4. Which one of these men do you admire most? Why? What team do you follow during the season? Would you like to play professional football when you finish school?

APPRECIATIONS

1. What do you think made Vince Lombardi a great coach? Why do you suppose he was included in this book even though he didn't play professionally?
2. The language used in writing about sports is as colorful as the people in sports. One kind of description is a *simile*. What *simile* is used to describe the power of Chuck Bednarik when he tackled an opponent? (19) What simile is used to describe how the runner moved behind Bronko Nagurski's blocks? (46)
3. Did you catch the humor of Coach Spears' remark about Bronko on page 44?
4. What knowledge would you need if you wanted to be a sportscaster? Read aloud, as a sportscaster would, some of the description on page 11, starting with "The Colts kicked off . . ."

1 Make a cartoon using the simile on page 35. Bednarik would be the alley cat and his opponent would be the mouse. You'll have to put football uniforms on the cat and mouse. Show your cartoon to the class and explain what it means. You may want to write the simile under the cartoon. You might like to make cartoons showing the other two similes, one on page 19 and the other on page 46. Perhaps some friends might also want to draw cartoons.

2 Compare the uniforms worn by Jim Thorpe (106) and Johnny Unitas (4). There are two major changes in the helmet design—the material from which it is made, and the addition of the face guard. Draw the two helmets on paper or on the board and explain to the class why these changes were made.

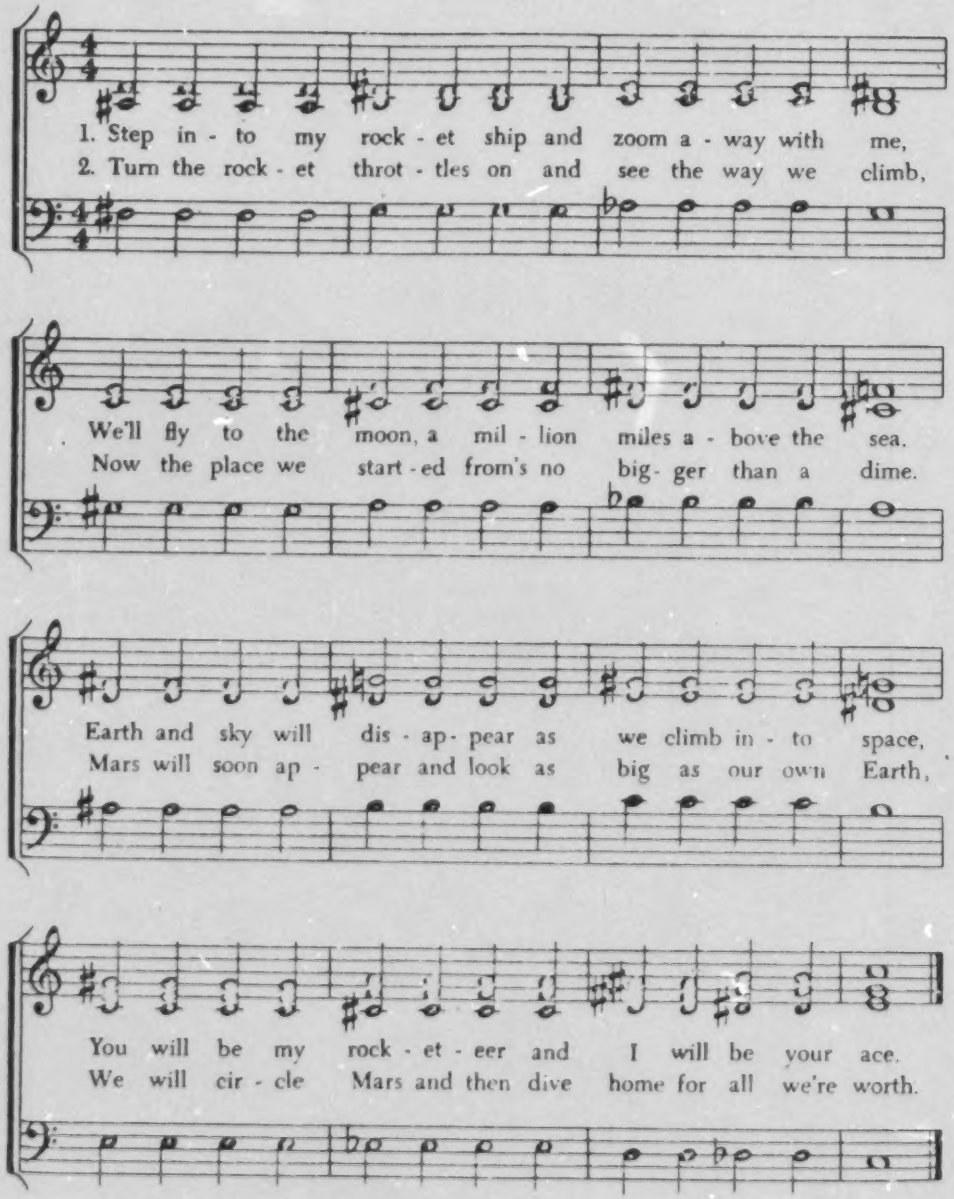
3 If there is a particular team that you follow during the season, you might like to tell the class about some of the men on the team. You can write to the team's office for additional information and for pictures.

4 The title chapters for each of these pro football heroes describe some characteristic or quality or nickname given them, such as Red Grange being called the "Galloping Ghost" or Chuck Bednarik being called "Modern Iron Man." Perhaps you have some favorite football players that you could describe in a similar way. Make a collection in the form of a booklet or write down short descriptions about some well-known football players and see if some interested friends can guess the players.

As the melody is sung, take turns playing this easy piano accompaniment. Note that each phrase moves up—steadily.

Rocket Ship

WORDS AND MUSIC BY HOAGY CARMICHAEL



Taken from:
Music for Young Americans, Book 5
American Book Co.

38

Taken from:
This Is Music For Today
Grade 6, Allyn & Bacon

39

Knowledge and Wisdom *(Round)*

Rapidly

Music and Words by Henry Purcell (1659-1695)

I

Bub-bling and splash-ing and foam-ing and dash - ing,

With noise and with bus - tle, the brook rush-es by;

II

But si - lent and slow does the deep riv- er flow,

On the smooth, glass-y sur-face re - flect - ing the sky.

III

Thus shal-low pre - tence bab - bles on with-out sense,

While true knowl-edge and wis - dom sit qui - et - ly by.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information about the world of work

CONCEPT: People in the United States Must Live and Work Together

SPECIFIC BEHAVIORAL OBJECTIVE: Students show that they are able to understand why we need government workers by listing three reasons why we need them.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have students list jobs that they know are related to government. 2. Visit local government offices. 3. Visit state legislature in session or committee hearings. 4. Have students interview government worker to see what their job entails. 5. Have a government worker come into the classroom and talk about his work.	1. Discuss what we mean by the word government; discuss different levels of government - local, county, state, federal. 2. Discuss why we need various levels of government.	Books: All About Courts and the Law Ruth Brindze, Randon House Inc. 1964 About the People Who Run Your City Shirlee and Sherman D. Newman. Melmont Publ. Inc. 1963 Let's Go to the Supreme Court, Bernard Rosenfield. G. P. Putnam's Sons. 1960 What Does a Congressman Do? David Lavine Dodd-Mead 1965 Read About the Postman, L. Slobodkin Franklin Watts, 1966 Films: Our Post Office (11 min) 2321 ENE Songs: "Marines Hymn" Field "Artillery Song" "Air Force Song" "My Name is Liberty", "America the Beautiful" "Star Spangled Banner" "Four Faces of Mt. Rushmore", "Abraham, Martin & John" "Ballad of the Green Beret" "These Things Shall Be" Mastering Music, ABC 3k 6 p. 2 1970

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: Have each student write a short essay explaining why primary elections are important forerunners to the National Political Convention.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
A study of U. S. elections will familiarize students with different states of the United States and allow them to become more familiar with our government's political structure. In addition, children will become more aware of the role and importance of high-ranking politicians.	A. Place names of states on small squares of paper for lottery purposes or use state flash cards for same. Let each student draw one or two states. Children may be paired off to work together. They will be "delegates" of the states they draw. B. Students can write to the Chamber of Commerce in each state's capital to procure information regarding industries, occupations, and political information. (request delegate and House of Representative strength) As this activity progresses, children will become aware of famous politicians that originated from the state of their study. C. Arrange classroom desks in semicircle rows to simulate the seating arrangement in Congress. Let youngsters make posters of their respective states. Mount the posters on sticks which they will attach to their desks. The poster should include an outline map of the represented state and large	1. Encyclopedias 2. Materials from Chamber of Commerce fr capital cities 3. Students can request information from Congressmen or Senators Books: What Does a Congressman Do? David Lavine Dodd, Mead and Co. 1965 What Does a Senator Do? David Lavine, Dodd, Mead and Co. 1967

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	numbers indicating the correct amount of delegate votes from each state. Colorful slogans or illustrations depicting the states leading occupations, industries, products, tourist attractions, nicknames, etc. Can be mounted or drawn on the poster.	
	D. Review "paths" that lead to the presidency. Include citizenship, age, occupational background, etc.	
	E. Discuss the structure of our government and democracy. Topics could include: (1) check and balance of the three branches of government (2) electoral college (3) opposing philosophies of Hamilton and Jefferson	
	F. Hold a "mock election" in your room. Cast delegate votes according to state population. Students should learn campaign techniques and the importance of primary elections prior to upcoming national political conventions.	

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	G. Split the classroom into two groups. One group can act as the "senate" while the other group acts as the "house". Set a 10 or 15 minute time period for youngsters to write proposed bills. Break the "house" and "senate" into small groups to act as committees. Assign each committee a bill or bills on which to take action. When the committee work has been completed they will bring the bills forward for legislative action. A discussion period to pass or fail each bill should be provided prior to voting. When the voting is completed and if the bill passes both houses, presidential action (approval or veto) is in order. If the students pass an undesirable bill the teacher can act as the Supreme Court and rule it unconstitutional.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Geographical location determines kinds of work found therein.

SPFCIFIC BEHAVIORAL OBJECTIVE: After the completion of the United States Unit, students will indicate interest in the geographical area of the U. S. by completing one project of his choice related to geographical area of the U.S.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. The following activities make up a unit in which the student becomes acquainted with the fundamental geographic understandings. He realizes that the favorable geographic situation and the abundant natural resources of the United States have had much to do with its development. Within its vast expanse of territory he discovers what adaptations man has had to make to every sort of climate and natural environment in order to provide for basic human needs. An outline for study of How the People of the United States Live and Work Together is given on the next page. The following outline is a number of suggested activities and the suggested subject matter it may be integrated with.	1. Discuss how the people of the United States must work together in order to live together harmoniously. 2. Discuss how people have adapted their ways of living (work and play) to the environments in the five geographical sections: a. New England States b. Middle Atlantic States c. Central States d. Southern States e. Western States	Books: Men at Work in the Great Lakes States Men at Work in New England Men at Work on the West Coast Men at Work in the South Men at Work in the Mid-Atlantic States Lent, Putnam "How Do the People of The United States Live and Work Together?" (attached) Taken from: Occupational Information in the Elementary School, Norris. Science Research Assoc. Pg. 121-125

SUGGESTED CORRELATION FOR THIS ACTIVITY:

44

Unit II. *Problem: How Do the People of The United States Live and Work Together?*

I. Significance of the topic

In this unit the child becomes acquainted with the fundamental geographical understandings. He realizes that the favorable geographic situation and the abundant natural resources of the United States have had much to do with its development. Within its vast expanse of territory he discovers what adaptations man has made to every sort of climate and natural environment in order to provide for basic human needs.

The unit tells how people have adapted their ways of living to the environments in five geographical sections: New England, Middle Atlantic, Central, Southern, and Western states.

II. Outline of the topic

A. The United States as a whole
   1. What are the different physical features found in our country?
   2. How does the climate affect what happens in different parts of our country?
   3. What are our most important natural resources?

B. The New England states
   1. How is New England different from the Middle West?
   2. How do the people of New England make a living?
   3. Why is New England important to our country?

C. The Middle Atlantic states
   1. Why are the Middle Atlantic states of such importance to our country?
   2. How is this area similar to the industrial area of the Middle West?

D. The Southern states
   1. How do the people of the Southern states make use of their resources?
   2. Why is the South important to the rest of the nation?
   3. What is the future for the New South?

E. The Central states
   1. Why are the Central states called the "heart of our country"?
   2. What are the main contributions of this area to the rest of the nation?

F. The Western states
   1. Why is the West called the "land of great variety"?
   2. How does farming in the West differ from farming in other parts of the country? Why?
   3. What makes the West of such importance to the rest of the United States?

G. Transportation
   1. How has transportation changed since the beginning of our country?
   2. What made these changes possible?
   3. Why is transportation so important to us?

H. Communication
   1. What improvements have been made in communication since the beginning of our country?
   2. How has improved communication made our life better?

I. Our government
   1. How can you help improve our government?
   2. Why do we have so many different kinds of government in our country? How are they all alike?

J. Our schools and churches
   1. How are the schools you attend different from those of early America?
   2. Why are public schools so important to our nation?
   3. How have churches helped our country's growth?
   4. How do Americans play?

III. Possible outcomes

A. To give the class a knowledge of the interdependence of people.

B. To appreciate the importance of our natural resources.

C. To understand how different kinds of climates and soils make it possible to produce different kinds of crops.

D. To understand that the growth of a city is often influenced chiefly by its location.

E. An understanding of why industrial centers have developed in places that have an abundance of raw materials, labor, water power, and transportation facilities.

F. To appreciate the fact that the American way of life includes self-government.

G. To prepare children for more effective citizenship, for understanding and enjoying the American way of life, and for earning a living.

H. An appreciation for the various kinds of recreation found in our country.

I. To appreciate that the privileges of securing an education, having religious freedom, and enjoying some leisure time are important parts of the American way of life.

IV. Possible activities

A. Write letters to get information about certain sections of our country. (Write to chambers of commerce, state capitols, etc.

B. Listen to travel talks given by children, teachers, and people from the community.

C. Make relief maps of the United States from clay, papier-mâché, or a flour-and-salt mixture.

D. Do research and report information to the class about such places as the Great Lakes, one of our great rivers, or one of our mountain ranges.

E. Make temperature charts for various parts of the country.

F. Collect and show pictures of state and national parks.

G. Divide class into two teams. See which side can earn the most points locating on the map places which were studied in the unit.

H. Write stories or poems about various places in the United States.

I. Make a collection of poems written about various places in the United States.

J. Have children collect and arrange on the bulletin board some pictures on certain industries found in certain areas.

K. Do research on various crops or industries such as peanuts, cranberries, cotton, oyster industry, dairying, etc. Report to the class or make a display of the findings.

L. Visit coal dealer and see various kinds of coal. Have dealer explain advantages and disadvantages of each.

M. Prepare a list of products made from steel. Star the products used in their homes.

N. Visit one of the kinds of factories discussed in the unit.

O. Plan an imaginary trip across our country. Guides may be chosen to give information about the places that are "visited."

P. Some children may enjoy pretending that they are pilots of riverboats on the Mississippi or a cross-country bus driver. Have them write a diary about their imaginary experiences.

Q. Prepare an exhibit of different kinds of cotton textiles, such as gingham, percale, muslin, and broadcloth.

R. Interview an adult whose occupation or hobby may have been studied in one of the units.

S. Children may write a letter pretending they are spending a vacation in Florida or some other part of the country.

T. Do research to learn about dams in parts of the United States.

U. Make a product map of the United States.

V. Some children may wish to pretend that they are artists and are visiting a national park to paint pictures of it. Arrange an exhibit of these pictures.

W. Make miniature floats for various states depicting some industry or other important thing for which that state is important. Children may arrange programs centering around these floats.

X. Watch the newspapers and magazines for pictures, and advertisements about various states in the region studied. Arrange them on a bulletin board under the caption "News from the Southeast," etc.

Y. By writing to the National Park Service, Department of Interior, Washington 25, D.C., you can secure booklets on various national parks.

Z. Make a map or chart to show the length of the growing season in various parts of the country.

A'. Imagine that you are an article manufactured in a certain part of the country. Write a story of your life from raw materials to finished product.

B'. On an outline map of the United States print the name of each state. Locate the capital and other important cities. Show big rivers.

C'. Make an alphabet story for the unit. Begin with A and try to use every letter of the alphabet in an important statement. Example: A is for Akron, where tires are made.

D'. Make a mineral map of each region at the conclusion of the study of all the regions. Make a composite map of the United States.

V. Evaluation suggestions

A. Have they become more interested in learning about the United States?

B. Are they developing a greater appreciation of our country?

C. Are they developing an understanding of what conservation means?

D. Are they more cooperative in taking care of school property and the property of other members of the class?

E. Do they have a clearer understanding of our country's size and shape?

F. Have they improved their ability to interpret map keys?

G. To learn how well pupils are mastering important skills, note their ability to—

1. Locate important information.
2. Summarize.
3. Make comparisons.
4. Read and interpret maps.
5. Discuss and interpret pictures and other visual aids.
6. Present interesting and worthwhile reports.

H. Are the children developing more appreciation of efforts of such workers as coal miners, farmers, and factory workers?

I. Are they taking more responsibility for solving their own problems?

J. Are they learning to appreciate the contributions of people in other sections of the United States?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Math concepts are necessary in communicating.

SPECIFIC BEHAVIORAL OBJECTIVE: After completing a study of a particular region each student will demonstrate his topographical knowledge by drawing a map of that area.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
A) Have students draw or teacher distribute dittoed outline maps of the United States. Students will then darken New England and Central States for size and location purposes. B) Have the students prepare a large outline map of this region. From the magazines or catalogs, have them cut out pictures of products which are manufactured in the New England States and paste them on the map at or near the places where they are manufactured.	A) Discuss how location will influence the following: a. Occupations b. Recreational activities c. Culturrl heritage B) Draw a series of pictures showing how maple syrup is made. C) Prepare a special report on the fishing industry along the coast of New England. Compare modern methods of commercial fishing with those of earlier years. D) Have the students locate the agricultural regions of the North Central States on a map.	Books: Any basic text or other reference books. Men At Work in New England, Lent G. P. Putnam's Sons. New York 1967 Filmstrips: "Southern New England Region" McGraw-Hill "Then and Now in New England" EBE "Living in New England" SVE Films: Early Settlers in New England 11 Min b/w 139 EBE Northeastern States (11 min) 855 EBE The Industrial Worker (17 min) 2852 EBE Songs: "Daniel Boone" The City Blues - Experiencing Music Bk. 5 ABC 1970 p. 6 Leaving On a Jet Plane - This is My Coun Blow The Man Down

SUGGESTED CORRELATION FOR THIS ACTIVITY: Science - canning
Math - cooking

Taken from: Growing With Music, Book 5. Prentice-Hall

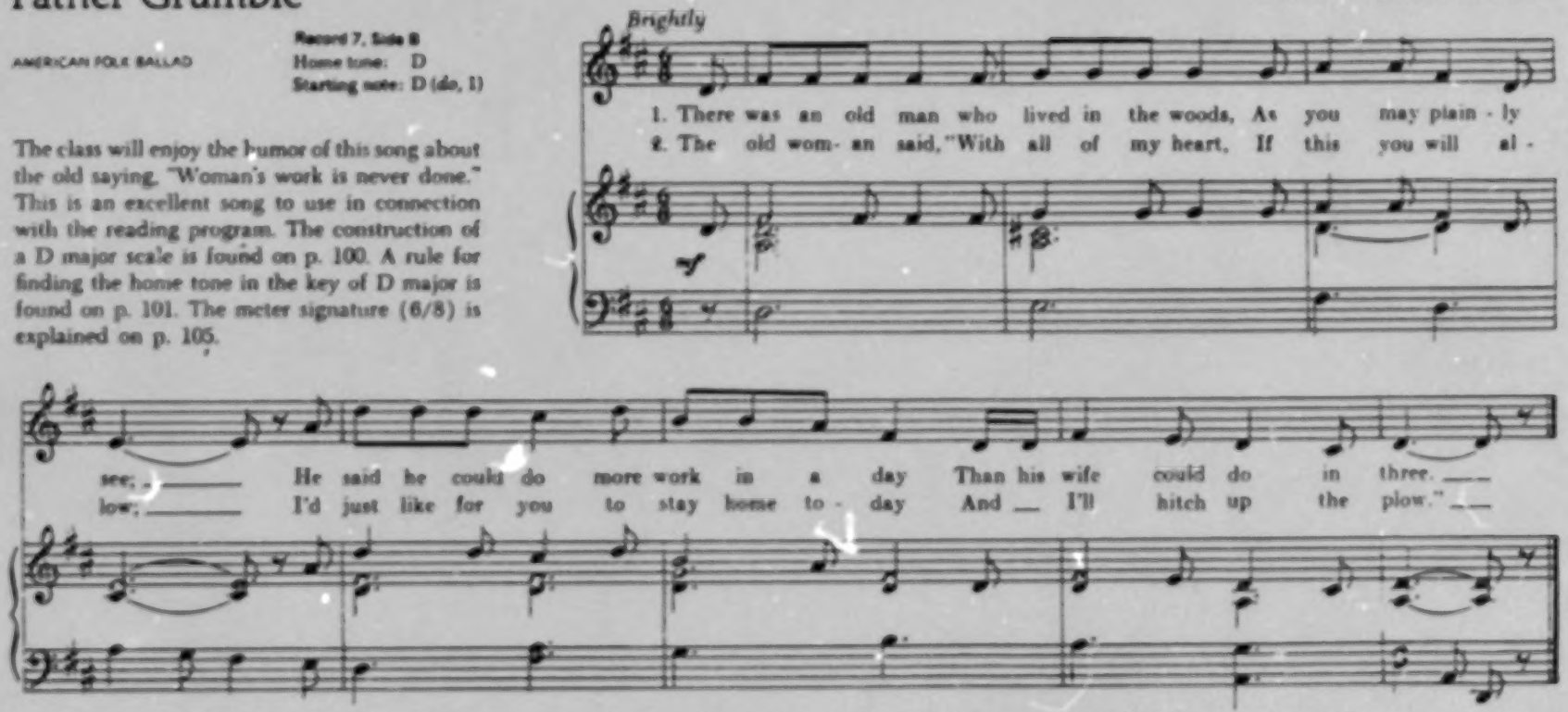
Father Grumble

AMERICAN FOLK BALLAD

Record 7, Side B
Home tone: D
Starting note: D (*do*, 1)

The class will enjoy the humor of this song about the old saying, "Woman's work is never done." This is an excellent song to use in connection with the reading program. The construction of a D major scale is found on p. 100. A rule for finding the home tone in the key of D major is found on p. 101. The meter signature (6/8) is explained on p. 105.

You will enjoy acting out the events described in this song. Which measures outline the notes of the I chord?



3. "But then you must milk
Old Tiny the cow,
For fear she will go dry,
And then you must feed
the little brown pig
That stands in yonder sty."

4. "And then you must watch
the old speckled hen
For fear she'll run a-way.
And then you must wind
the big hank of yarn
That I spun yesterday."

5. The old woman took the staff
in her hand
And went to hitch the plow;
The old man then took
the pail in his hand
And went to milk the cow.

6. Old Tiny she winked,
Old Tiny she blinked,
And then turned up her tail,
And gave the old man
a kick on his head,
And the milk ran from his pail.

7. He then went to watch
the old speckled hen
For fear she ran astray,
But then he forgot the big
hank of yarn
His wife spun yesterday.

8. He swore by the sun, the moon,
and the stars,
The green leaves on the tree,
That if his dear wife ne'er
worked in her life,
She'd never be blamed by me.

48

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate information about the world of work

CONCEPT: Math concepts are necessary in communicating

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to list the Math related occupation that pays the highest salary and the one that pays the lowest of those graphed.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Make graph showing weekly, hourly, or monthly wages of various kinds of workers. Types of graphs: pictograph, line, bar	1. Discuss various uses of graphs using actual samples of each. 2. Review reading of the three types of graphs. 3. Discuss most appropriate graph for any given data. 4. Direct students to sources of given data.	Samples of graphs Encyclopedias and other reference books Math text Occupational Outlook Handbook U. S. Department of Labor Employment Security Bureau 1. Resource person visit class 2. Committee visit bureau 3. Write to bureau for information Film: What are Decimals? (12 min) B/W 981 EBE Filmstrip: "A Graph Tells a Story" Filmstrip of the Month" "Measurement" McGraw-Hill "Scale Drawing" McGraw-Hill

SUGGESTED CORRELATION FOR THIS ACTIVITY: Science - Earthquake graphs (death toll)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Geographical location determines kinds of work found therein.

SPECIFIC BEHAVIORAL OBJECTIVE: To enable the student to show his knowledge of work in the middle Atlantic States, each student will list at least two occupations found there.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Individual or group work researching various occupations of the Middle Atlantic States. Make a products map. or Make overlay maps to show relationship between climate and location to types of jobs.	1. Divide the room into several small groups. Each group will attempt to identify the greatest number of occupations found in the Middle Atlantic States. Points will be awarded for both listing and defining the occupation. 2. Prepare a list of products made from steel. Star the products used in their home. 3. Students may do a writing activity such as "What Might My Family Do If We Lived Here?" 4. Optional related learning activities could include student reports on: Benjamin Franklin, inventor and publisher; the Erie Canal; the Statue of Liberty; Coal Mining in Pennsylvania; Thomas Edison's inventions; etc.	Books: Any basic text or other reference source. Men at Work in the Mid Atlantic States, Lent. Putnam Filmstrips: "Middle Atlantic Seaboard" McGraw-Hill "Appalachian Mountains" EBE "Then and Now Along the Main Street of the East" EBE Films: 2501 The Northeast-Gateway for a Nation (11 min.) EBE 2854 Industrial City (16 min.) EBE 2975 Linda and Billy Ray from Appalachia (15 min.) EBE Songs: "The City Blues", and "Drill Ye Tarriers Drill" Experiencing Music Bk. 5, American Book Co. 1970 "Erie Canal", "John Henry", "16 Ton", "East Side, West Side"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: The ability to communicate effectively helps a person work well with other people.

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate knowledge about the central states each student will list four occupations found in these states during simulated bus trip.

SUGGESTED SUBJECT AREA Social studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Bus route through Central States or any portion of the U. S. Growing season map with colored legend.	1. Each student simulates the head guide of a bus tour through the Central States. The student must plan the route and points of interest on the tour, types of workers found there. 2. Discuss the meaning of a map legend and its relationship to different lengths of growing seasons. Illustrate the varying growing seasons on a map of the Central States. 3. Prepare an exhibit of different kinds of grain products such as flour, cereal, and medicine. (These materials could later be boxed and exchanged with other states - specify 'education' on box for cheaper postage.)	Books: Any basic social studies text or other reference material. Filmstrips: Midwest Dairy Lands, EBE Then and Now on the Great Lakes Waterway, EBE Great Lakes Area-Men, Minerals, Machines, McGraw-Hill Central Farming Region, McGraw-Hill Corn Belt, (Then and Now) EBE Films: The Great Lakes, EBE Our Changing Way of Life-The Dairy Farmer, EBE The Middle West, EBE The Great Plains-Land of Risk, EBE Meat from Range to Market, EBE Songs: Colorado Trail, Red River Valley, Home on the Range, Deep in the Heart of Texas, North Dakota, Riverboat, El Paso, America The Beautiful, Paul Bunyan, Streets of Laredo, Galveston

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Shuckin' of the Corn

Key: D Starting Tone: D (1)
Autoharp Key: C Starting Tone: C (1)
Autoharp chords not in Pupil's Book
Meter: $\frac{2}{4}\left(\frac{2}{\text{♩}}\right)$
Piano accompaniment on page 282

RHYTHM: Scan the rhythmic notation. Notice that the rhythm usually sounds with the beat or with two tones to a beat. Look at the third measure. HOW WILL THE RHYTHM OF THIS MEASURE SOUND? Help children recall that it will be **syncopated** because the pattern is made up of a short tone followed by a long tone. The accent therefore falls on the part of the beat which is ordinarily unaccented.

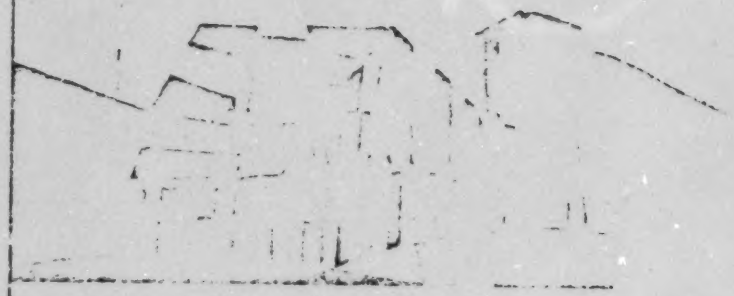
When children know the melody, add the rhythmic accompaniment as suggested in their books.

* MELODY: As children study the melodic notation, guide them to notice repeated patterns and patterns that are similar. Compare phrase one and phrase two. Notice that the contours of the melodies are similar. Notice that the last two phrases of the verse and the last two phrases of the refrain are almost identical. The difference lies in the rhythm. Notice that the first and second phrases in the verse are similar to the second phrase of the refrain.

When children have examined the song carefully, establish tonality and encourage them to sing the melody on "loo." Listen to the recording and correct the children's singing errors.

* HARMONY: When children know the melody well, ask one child to add an accompaniment on the autoharp. Use this opportunity to teach the class how to transpose chords and to give them practice in determining the I, IV, and V7 chords of a song. Discuss with the children the fact that the song must be **transposed** in order to sing it with the autoharp. The song is written in the pupil's book in D. Because the chords for the key of D cannot be played on the autoharp, it must now be sung in C.

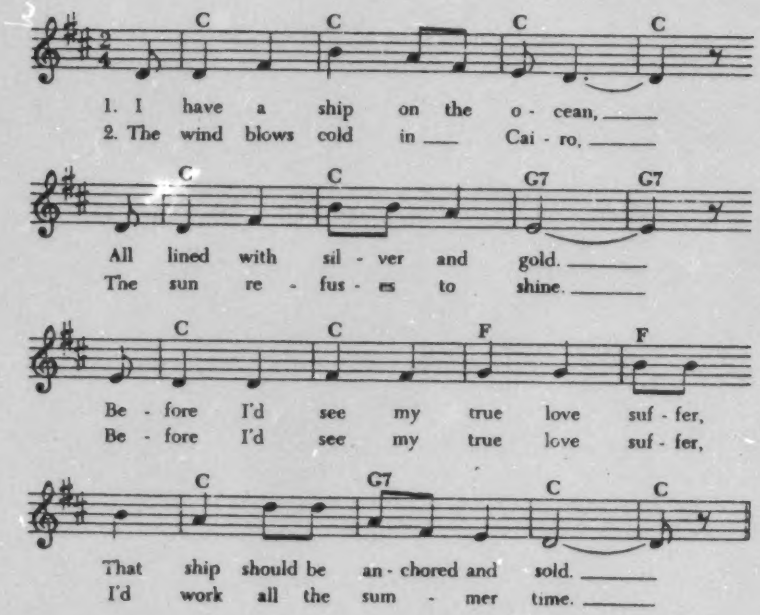
Help the children write the sequence of chords for this song in the key of D. Write the chord number in roman numerals below each letter. Then, following the roman numerals, write the letter names for the chords in the key of C. Help the children realize that they have now



Shuckin' of the Corn

American Folk Song

The early settlers in the Middle West knew the value of good neighbors. If someone needed help at a barn-raising, the wheat harvest, or at corn-picking time, his neighbors would come to help. When the work was finished, everyone would celebrate.



Record 4 Side B Band 5. VOICES: soprano, baritone.
ACCOMPANIMENT: accordion, banjo, double bass, percussion.
FORM: Introduction, *8 meas.;* Vocal, *v. 1;* Instrumental; Vocal, *v. 2;* Vocal (refrain).

Taken from: Singing in Harmony, Book 6. Ginn & Co.

52

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: Advances in science have altered the occupations that produce goods and occupations that produce services.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the unit on the United States, each student will demonstrate his knowledge of occupations throughout the country by listing at least one different major occupation in five states.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Mapwork. Showing location of states, cities and occupations found there. Occupations may be illustrated by use of clay or plastic models, drawings, etc.	On an outline map of the United States print the name of each state. Locate the capital and other important cities. Show the major rivers. On an outline map of the world, locate Alaska and Hawaii. Label the important cities and other points of interest. Make comparisons between Alaska and Hawaii concerning size, climate and industries. In each state have student label major occupations found there.	Books: Any available reference materials. Most school libraries have books on Alaska and Hawaii Filmstrips: Alaska, SVE Alaska, McGraw-Hill Hawaii, American Island State, McGraw-Hill Hawaiian Islands, Eye Gate Films: Alaska-The 49th State (16 min.) EBE Hawaii-The 50th State (17 min.) EBE Songs: Blue Hawaii North to Alaska Hawaiian Love Song

SUGGESTED CORRELATION FOR THIS ACTIVITY: Science - Study of climate
Study of Oceanography - future uses
Language Arts - spelling of cities and states.

QUESTIONS TO ASK ABOUT INDUSTRY

1. WHAT IS THE NAME OF THE INDUSTRY?

2. WHERE IS IT LOCATED?

3. WHAT PRODUCTS COME FROM THIS INDUSTRY?

4. WHAT ARE SOME OF THE RAW MATERIALS USED AND WHERE DO THEY COME FROM?

5. WHERE ARE THE PRODUCTS SENT?

6. HOW MANY WORKERS ARE IN THE PLANT?

7. WHAT ARE SOME OF THEIR JOB TITLES?

8. WHAT IS THE DAY OF ONE OF THESE WORKERS LIKE?

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the world of work

CONCEPT: A. A society needs both a producer of goods and services B. Individuals differ in their abilities, interests, attitudes and values.

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to relate what an adult does at a job by listing three things that the student has learned about the job.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Child spends a period of time with an adult on his job.	1. Discuss with students such things as: a. What to look for b. Safety c. Courtesy d. Questions to ask of the worker. 2. Follow-up activities a. Report to class (1) Oral or written b. Make comparisons (1) Similarities of jobs (2) Differences of jobs (3) Working conditions (4) Preparation for job (a) Related to school subjects (5) Clothing worn (6) Tools or special equipment	Brochures from parent's business Form: Employee & employer agree to have child as observer for specified period of time.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

55

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONDEPT: Individuals live in a particular geographical location due to the nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: After construction of a state float, each student will list 6 to 12 occupations unique to that respective state.

SUGGESTED SUBJECT AREA Geography (social stu

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Class makes floats for each state in the union primarily to show different kinds of work done in that state. (This could possibly best be used as a culminating activity for study of U. S.) 2. The float project should contain examples of at least: a. two products b. two occupations c. a state motto d. encourage creativity that reflects geographical integration of each state	1. Discuss thoroughly with class types of work done in state. 2. Make list (student does this) of types of work for state chosen. 3. Explain how basic platform can be constructed. (shoeboxes, cardboard sheets, etc.) 4. Student does research to determine types of work done in that state.	1. Any U. S. reference book. 2. Your basic geography or social studies textbooks 3. Encyclopedias 4. Shoe boxes 5. Pieces of cloth, styrofoam, etc. 6. Books or filmstrips used in previous U. S. geographical activities.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Art - Design
Math - Geometry
Language Arts - Research

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: Individuals live in a particular geographical location due to the nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student shows that he understands that geographical location determines kinds of work found there by lising two (2) workers in each of the U. S. industries studies.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Go over these industries in the various regions of the United States and have students make a booklet showing the workers involved in each industry. This may be done on an individual basis, by a small group or entire class concentrating on the same industry. Regions and their industries listed on next page. The kind of information that can be obtained about workers is indicated by the questions youngsters can ask in the area about an industry.	This activity could take place during the study of the United States or as a culmination. Discuss how the work that we do is affected by the place we live. Ask the students if they know of some other areas of the U.S. where we would find different workers than we would in our area.	Books: Men at Work in the Mid-Atlantic States 1967 Men at Work in New England 1956 Men at Work in the South 1957 Men at Work in the Great Lake States 19 Men at Work on the West Coast 1959 Henry Roller Lent Songs: The City Blues - p. 6 Experiencing Music A B C 1970 Film on careers in national parks produced by N. W. Bell Telephone Co. "Yellowstone and Beyond"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

REGIONS OF THE UNITED STATES AND THEIR INDUSTRIES

A. New England States

1. textile
2. metal
3. fishing
4. quarrying

B. Middle Atlantic States

1. coal mining
2. manufacturing
   a. electrical wares
   b. iron and steel
   c. photographic equipment
3. canning
4. shipbuilding

C. South Atlantic States

1. tobacco
2. cotton

D. South Central States

1. petroleum
2. cattle raising
3. farming
   a. rice
   b. sugarcane

E. North Central States

1. automobile
2. meat packing
3. farming
   a. dairy
   b. corn

F. West Central States

1. flour milling
2. sheep raising
3. wheat

G. Mountain States

1. mining
   a. gold
   b. silver
   c. copper
2. smelting
3. vegetable growing

H. Pacific States

1. fruit growing
2. lumbering
3. airplane manufacturing

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: A. Geographical location determines kinds of work found therein.
B. Individuals live in a particular geographic location due to the nature of their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Given any country studied, student is able to compare worker classification of that area with those in his own area and list two similarities and two differences.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have students compare jobs of similar latitudes. 2. Have students compare standards of living and values of other countries and areas with their own. 3. Compare various products in other regions or countries with their own and how these affect the workers of that region. Suggested types of products are a. Agricultural 1. Workers involved b. Mining, drilling, and quarrying c. Forest d. Water e. Manufacturing 4. Compare accessability to various forms of transportation in other regions: water, land, air. 5. Compare customs in other regions with your own and their effect on workers of the region.	At any time during the year when the opportunity arises the teacher should discuss with the students how the workers of the area studied compare (are they similar or different) with students own area and reasons for being different or similar.	Geography text Maps

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the world of work

CONCEPT: Geographical location determines kinds of work found therein

SPECIFIC BEHAVIORAL OBJECTIVE: To demonstrate this knowledge of one phase of the U. S. cattle industry each student will list at least five jobs connected with a sales ring.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Field trip to livestock auction ring. 2. Lunch of hamburgers and milk in the dining room. 3. Walking on the catwalk to see various breeds of cattle. 4. Auctioneer coming to classroom. a. Account his life's work training qualifications, ups and downs. b. Auctioneer selling some item in the classroom.	Discuss the cattle industry in middle states of the U. S. Talk about the relationship in the grass-fed cattle and cattle fed in the corn belt. Experience stories can be written. Pictures from farm magazines can be cut out to illustrate the stories. Make list of meats and animals they come from (example: mutton - sheep)	Sales ring Auctioneer Song: Get Along Little Doggie Chisolm Trail Farm or agricultural magazines

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list one occupation in the six regions studied.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Teacher uses own discretion on how and when to use the booklet.	1. Make a booklet of the following materials for each student. Use these materials of studying the United States over an extended period of time. Only parts of this booklet should be filled in as areas of the United States are studied. Booklets should be collected when not in use to maintain longevity of material.	1. Encyclopedias 2. Textbooks 3. Filmstrips on specific areas of the United States 4. Library resources 5. All from Encyclopaedia Brit. Films: The Wheat Farmer 1441 Cattleman - Ranchers's Story 2219 The Dairy Farmer - Our Changing Way o Life 2235 The Interior West: Land Nobody Wante 2409 The Industrial City 2854 The Industrial Worker 2852 The Lumberman - Our Changing Way of Life 2257 Meat - From Range to Market 932 Midwest - Heartland of the Nation 276 The Northeast: Gateway for a Nation 2501 Northeastern States 855 The Pacific West 2764 People Along the Mississippi 562 Southeastern States 895

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ALABAMA			
ALASKA			
ARIZONA			
ARKANSAS			
CALIFORNIA			
COLORADIO			
CONNECTICUT			
DELAWARE			
FLORIDA			
GEORGIA			
IDAHO			
ILLINOIS			
INDIANA			
IOWA			
KANSAS			
KENTUCKY			
LOUISIANA			

MAINE			
MARYLAND			
MASSACHUSETTS			
MICHIGAN			
MINNESOTA			
MISSISSIPPI			
MISSOURI			
MONTANA			
NEBRASKA			
NEVADA			
NEW HAMPSHIRE			
NEW JERSEY			
NEW MEXICO			
NEW YORK			
NORTH CAROLINA			
NORTH DAKOTA			
OHIO			

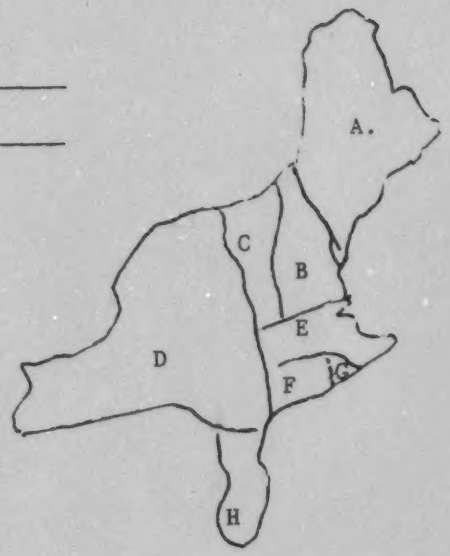
OKLAHOMA			52
OREGON			
PENNSYLVANIA			
RHODE ISLAND			
SOUTH CAROLINA			
SOUTH DAKOTA			
TENNESSEE			
TEXAS			
UTAH			
VERMONT			
VIRGINIA			
WASHINGTON			
WEST VIRGINIA			
WISCONSIN			
WYOMING			
HAWAII			

NAME EACH STATE

A. _____ B. _____ C. _____

D. _____ E. _____ F. _____

G. _____ H. _____



65

Listed below are some of the industries of the Eastern coast. Can you name at least one job that would need workers as a result of this specific industry? Refer to job definitions on page

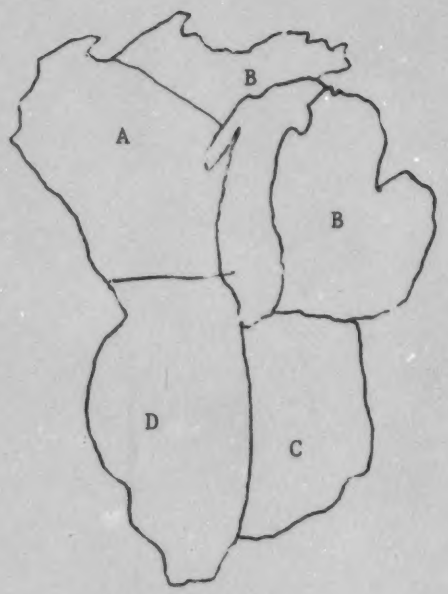
Example: Citrus fruits fruit pickers

1. Dairies _____
2. Shipping _____
3. Precision tool factories _____
4. Airplane construction _____
5. Ship building _____
6. Jewelry making _____
7. Building stone quarries _____
8. Manufacture of electrical Equipment _____
9. Paper products plants _____
10. Lumber industries _____
11. Cotton growing _____
12. Manufacture of leather goods and shoes _____

NAME EACH STATE

A. _____ B. _____ C. _____

D. _____ E. _____



Identify each of the five states by their industrial character. Write in the appropriate state after each description.

1. Minerals, cotton, sorghum, rice, cattle, sheep, citrus fruits, textiles, petroleum

   _____

2. Dairies, breweries, cheese factories, shipping, paper mills

   _____

3. Fresh water fisheries, breakfast food plants, auto factories, furniture

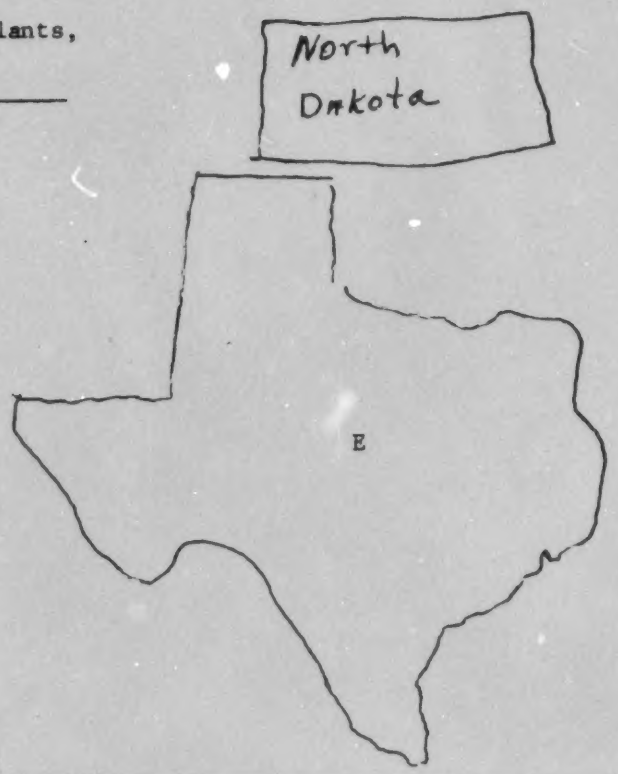
   _____

4. Soybeans, meat packing, printing, grain steel, coal

   _____

5. Grain, fruit, coal, farm machinery products, auto and airplane parts manufacturing, limestone

   _____



Discuss how the jobs available in these states differ from the jobs available in North Dakota.

1. The dairy industry is important in A. Wisconsin B. Illinois C. Indiana D. Texas.

2. List three occupations related to the dairy industry.

   _____

   _____

   _____

3. The automobile industry is important in A. Wisconsin B. Indiana C. Michigan D. North Dakota.

4. List five occupations related to the automobile industry.

   _____

   _____

   _____

   _____

   _____

5. Meat packing is especially important in A. Illinois B. Wisconsin C. North Dakota D. Indiana.

6. Cotton growers would be found mainly in A. Wisconsin B. Texas C. North Dakota D. Indiana.

1. The state providing the most jobs for people in the cotton industry is A. Nebraska B. Missouri C. Alabama D. Florida.

2. Name one occupation of the cotton industry related to the three different fields in parenthesis.

   _____ (Producer)

   _____ (Manufacturer)

   _____ (Retailer)

3. Which state would need workers to handle citrus fruits?
   A. Nebraska B. Missouri C. Alabama D. Florida

4. List five different occupations related to the tourist industry?

   _____

   _____

   _____

   _____

   _____

Name each state

A. _____

B. _____

C. _____

D. _____

E. _____

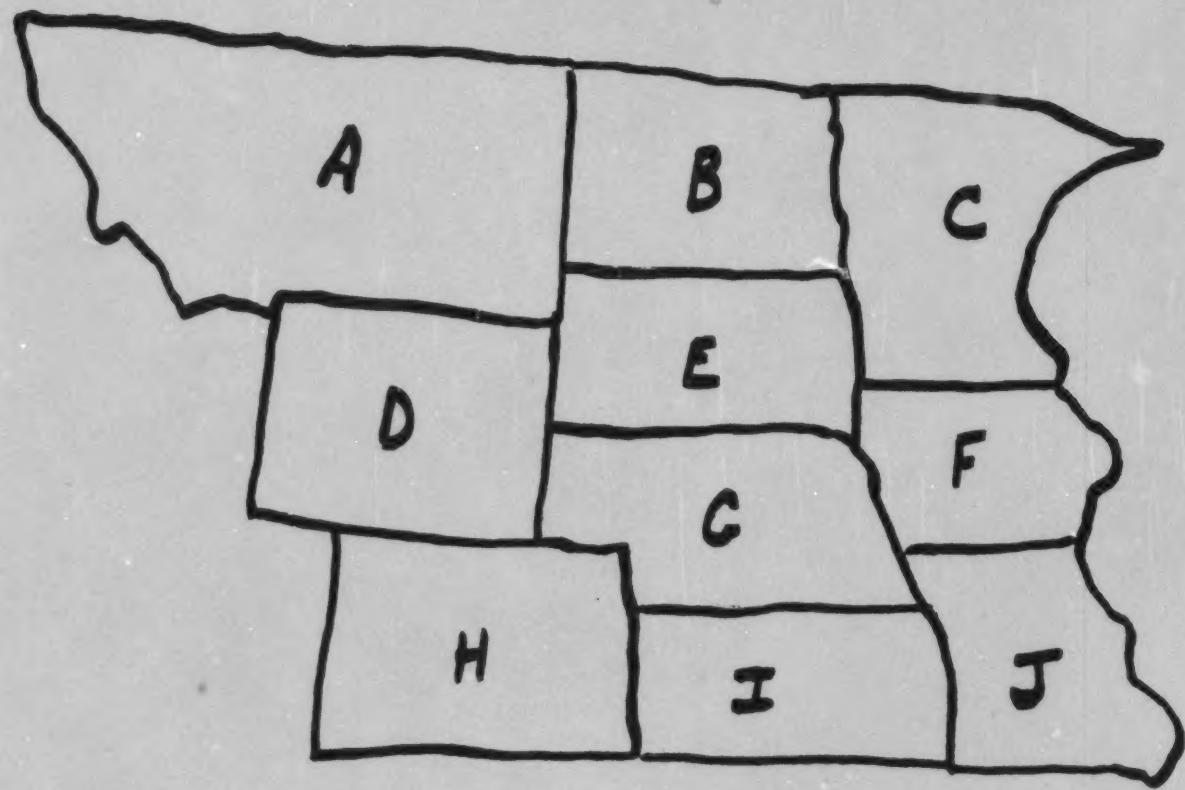
F. _____

G. _____

H. _____

I. _____

J. _____



Which five of the following workers would be most apt to find work in these states? Underline your answer.

auto mechanic	farm worker
lumberjack	meatpacker
miner	oil driller
tobacco grower	salmon fisherman
peanut harvester	ship builder

Which of these ten states might hire workers for growing cotton? _____

Which of these ten states would be most apt to hire people to work in orchards? _____

Which state would need more workers for factories making popcorn and breakfast cereal? _____

1. A leading occupation in North Dakota would probably be a/an A. steel worker B. farming C. aeronautical engineer D. textile manufacturer.

2. The state known for sheep raising is A. Iowa B. North Dakota C. Minnesota D. Montana.

3. Many pork meat cutters would probably be needed in A. Iowa B. North Dakota C. Wyoming D. Montana.

4. The capital of Colorado is A. Bismarck B. Pierre C. Denver D. Cheyenne.

5. List five different occupations found in this area.

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

1. ____ Potato farming is very important in A. Idaho B. Washington C. Colorado.

2. ____ Fishing and fruit picking are important in Washington. (true or false)

3. ____ Truck farming is a major industry in A. North Dakota B. Idaho C. Washington D. Colorado.

4. List five occupations found in this area.

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

_____ 1. What state would employ many longshoremen?

_____ 2. What state is the most dependent upon tourism?

_____ 3. What state would probably employ more nuclear physicists?

_____ 4. List five different occupations found in this area.

_____

_____

_____

_____

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to name three countries and two different occupations of South America.

SUGGESTED SUBJECT AREA Social Studies

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
This South America mapwork project will enable students to become more familiar with the geography resources, industries, and occupations of this continent. In addition, students can work at their own speed or work in small teams. They may obtain their information from textbooks, atlases, encyclopedias, or any other reliable source.	Divide students into small groups of twos and threes. Have each group draw a ship bearing the name of a South American country. Each group will be given half a sheet of construction paper. On this paper they will draw a small outline map of the country and at least two illustrations indicating the leading occupations, industries, or products. The teacher may then collect the completed projects and place them on a bulletin board as a resource for the following map activity. Pass out a dittoed outline map of South America to each student. Include the following directions: A. Label each country in all CAPITAL LETTERS. B. Label each country's largest city in red. C. Label and underline (in black) each country's capital. (If it is already labeled in red, simply underline in black.) D. Label and illustrate at least one	Geography textbooks, atlases, encyclopedi resource books, and student bulletin board. (See suggested technique)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	important resource or occupation in each country. Allow the student three days in which to complete this project. The group work should be completed at the end of the first day.	

74

SOUTH AMERICA

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will complete one of the five projects provided in the activity section.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Students will be assigned to complete at least one of the following projects: (1) A physical map of the West. (2) A drawing showing some historic event such as the driving of the golden spike, the pony express, the Mormons arriving in Utah, etc. (3) A contemporary poster illustrating examples of farm products grown in California. (4) A map showing the series of dams on the Colombia River, national parks in the West, etc. (5) A map illustrating various occupations in the West.	A. This activity should be employed after a certain area of the United States has been studied. B. The following rules may be helpful in administering the activity: 1. All work will be completed on a 9 x 12" piece of white or manila drawing paper. 2. All projects will contain some coloring (crayons, colored pencils or markers, water colors, etc.). 3. Students should bring all needed materials: glue, ruler, pencils, crayons, etc. 4. All projects must be completed by end of the period. 5. All projects must have a title or slogan. C. If the teacher wishes to evaluate the projects the following techniques may be used: 1. Appropriateness of subject 2. Neatness and design 3. Research shown 4. Thoroughness (detail)	Geography texts, atlases, encyclopedias, maps, library books Films: 2409 The Interior West: Land Nobody Wanted EBE 2764 The Pacific West EBE Books: Men at Work on the West Coast Lent, Putnam

SUGGESTED CORRELATION FOR THIS ACTIVITY: Social Studies

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the world of work

CONCEPT: The value of most goods is based on a monetary system

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show that he is aware of the cost of food, by comparing weekly grocery cost with weekly salary.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Plan a weeks menu 2. Use a newspaper ad and make a shopping list, include cost of all foods. 3. Graph your grocery costs comparing them with your weekly salary. (circle graph) 4. Play store - add up grocery order, make proper change. 5. Have a group of students research the cost of food in their lunch (hot or cold) for one day.	Discuss: 1. What should be included in each meal? Discuss basic foods needed each day. 2. What is the total amount for week's grocery purchase. 3. What part of ($100 per week) salary would you spend on groceries. 4. Have students apply for various jobs in grocery store and role play customer and grocery store situation. 5. Students could do this by going to store, hot lunch room or any other necessary place. Other Discussion Questions: 1. What quantities of certain basic foods are needed for your families for one week? Such as (cont)	Filmstrips: Percentage and Using Money, McGraw-Hill Story of Money, McGraw-Hill Films: 2792 Man's Basic Need: Natural Resources, EBE 2015 Money and Its Uses (11 min.) EBE Songs: "Coffee", Making Music Your Own. Silver Burdett p. 8 "Baked Potato", Making Music Your Own. Silver Burdett p 174-175 Billy Bowy Tea for Two Lemon Tree Sipping Cider Through a Straw

SUGGESTED CORRELATION FOR THIS ACTIVITY:

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Compare price, size, and weight of several name brand items in different grocery stores. Keep a record of same.	a. milk b. bread c. fruit 2. Is it cheaper to buy canned food by the case? How could you find out? 3. Are pre-packaged and ready-to-eat foods more expensive?	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: Understanding of mathematics helps people in their work

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to cite at least five examples of how math is used in everyday living.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Interview parents to find out if and how they use math on or off the job.	1. Class discussion relating to present knowledge of how math is used by their parents on or off the job. 2. Ask students how we can find out more about how their parents use math.	Parents Friends Relatives Books Recipe books Calorie counters Check book Time sheets Budget Magazines Films: 780 Weights and Measures (14 min.) EBE 980 What Are Fractions (12 min.) EBE

SUGGESTED CORRELATION FOR THIS ACTIVITY: Language Arts - Interviewing, reporting

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPTS: Math concepts are necessary in communicating

SPECIFIC BEHAVIORAL OBJECTIVE: Students will list three reasons why number concepts are necessary in communication.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Student marks out each mathematics related word or phrase in an article in a newspaper. 2. Students read article omitting math concepts.	1. Discuss different uses for mathematics in our daily lives. 2. Discuss meaning of communication and different forms of communication. 3. Ask students if they think math concepts are needed in communicating.	Newspapers Felt pencils Film: Numerals Everywhere (9 min) 2774 EBE

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: Given $25 each student will be able to pick groceries from the sales ads that will provide a balanced diet of the basic foods.

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Review the different denominations in money. Example: a. cents e. one dollar bills b. nickels f. five dollar bills c. dimes g. ten dollar bills d. quarters 2. Practice making change. 3. Discuss the various items a normal family needs during the week. 4. Make up a weekly budget together as a class before having students do it on their own. Follow-up Activities 1. Discuss why some products are more expensive than other products (due to distance for shipping, labor, etc.)	Each student should bring a newspaper containing the weekly grocery ads. Then each student is given twenty-five dollars in play money to buy the family groceries for the week. The student cannot spend more than the twenty-five dollars. Review the basic foods needed daily.	Newspaper Play money

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
2. Discuss items that are basic to a weekly budget. 3. Take a field trip to a local grocery store to see how goods are priced, stocked, delivered, etc. Possibly have students purchase some things. Have them check their change. 4. If possible, go to a local grocery warehouse. 5. Read other parts of newspaper for a language arts activity.		

82

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: To enhance mathematical interest by solving two written problems dealing with athletics

SUGGESTED SUBJECT AREA Math

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Exercises relating math to sports.	1. These exercises may be used to integrate or expand mathematical concepts. This may be done as an individual, group, or class activity.	The resource material is found in the following activity sheets. * Excerpts taken from Math in Sports. Department of Public Instruction, M. F. Peterson, Superintendent Compiled in booklet form by George Fors, Math Consultant, Department of Public Instruction

SUGGESTED CORRELATION FOR THIS ACTIVITY: Physical Education

The Astrodome, which is located in Houston, Texas, is the home of the Houston Astros baseball team. It is often referred to as the "8th Wonder of the World."

1. a) The annual average attendance at the Astrodome is the same as the sum of the average annual attendance at these places:

Paris' Eiffel Tower	1,750,000
New York's Empire State Building	1,500,000
Washington's Smithsonian Institute	1,250,000

What is the attendance at the Astrodome?_____

b) How many more people come to the Astrodome than the Los Angeles Dodgers' Stadium if the attendance at the Dodgers' is 3,250,000?_____

2. The Astrodome has 45,000 seats for baseball and 52,000 seats for football.

a) If each seat for baseball sold for $2.50, how much money would be taken in if all the seats were filled for a certain baseball game?_____

b) If each seat for football sold for $2.00, how much money would be taken if all the seats were filled for a certain football game?_____

c) How much more money can be taken in at the baseball game than the football game?_____

3. If the area playing field of the Rome Colosseum is about 42,000 sq. ft., and that of the Astrodome is about 125,000 sq. ft., how many times larger is the Astrodome playing field as compared to the Rome Colosseum?_____

4. To reduce the acoustical problem in the Astrodome, the underside of each of the stadium's seats was perforated with 1,078 holes. How many perforated holes are there in 45,000 seats?_____

5. With the Astrodome stadium being in use about 15 days per month, the electrical bill will run to more than $30,000 per month. What would be the average electrical bill for the stadium for being used two days?_____

Most of the activities in this section are based on the statistics compiled by high school basketball teams. The statistics of your local team could easily be used to replace the data given here. Note that most of the problems could be used with either the statistics recorded for one game or for a season.

This section also includes work on measurement, conversion, volume, area, a good deal of per cent, and work with units of time.

BASKETBALL

Basketball is said to be the most all-American sport.

Dr. James Naismith is given credit for inventing the game in 1871.

Two peach baskets were put up on opposite ends of a gym. Naismith threw in a soccer ball to play with--and basketball was born.

Maximum dimensions for a basketball floor are 94 X 50 feet.

Minimum dimensions are 74 X 42 feet.

An official basketball is about 30" in circumference and weighs 20 to 22 ounces.

The baskets are 10 feet above the floor.

The metal baskets are 18" in diameter.

Two points are scored for a field goal. (f.g.)

One point is scored for a free throw. (f.t.)

Both boys and girls high school games are played in 4 eight minute quarters. College games are played in 2 twenty minute halves, and professional basketball is played in 4 twelve minute quarters.

Intermission between quarters (high school) is one minute and ten minutes between halves.

The boys' game requires 5 players and a girls' game requires 6 players.

WHAT DO YOU THINK? (Choose the best possible answer.)

1. Basketball was invented: a) more than 100 years ago, b) less than 100 years ago, c) exactly 100 years ago. ____

2. The baskets are a) less than 3 yards above the floor, b) more than 3 yards but less than four yards above the floor, c) more than four yards above the floor. ____

3. A doorway should be a) 85" high, b) 82" high, c) 88" high if "Wilt the Stilt" Chamberlain could walk through it without stooping or bumping his head. (Wilt Chamberlain is 7' 1" tall.) ____

4. A basketball weighs about a) 1 1/4 pounds, b) 1 3/4 pounds, c) 1 pound. ____

5. The area of a maximum sized basketball floor is a) 4700 feet, b) 4700 square yards, c) 4700 square feet. ____

6. The area of the minimum sized basketball floor is a) 3108 square feet, b) 3008 square feet, c) 3208 square feet. ____

7. In order to run a mile you would have to run a) 18 laps, b) 22 laps, c) 19 laps around the maximum sized floor. ____

8. You would have to run a) 23 laps, b) 22 laps, c) 24 laps around the minimum sized floor in order to run a mile. ____

9. If there were no "time-out" periods other than the breaks at the end of the quarters and the half, how long would a basketball game last? a) 50 minutes, b) 38 minutes, c) 44 minutes. ____

10. How many minutes of actual playing time in a junior high basketball game? a) 16 minutes, b) 32 minutes, c) 64 minutes. ____

Note: Let students choose answers individually, then let them form a group and make group decisions. Compare results.

SUGGESTED ACTIVITIES

1. Make a scale drawing of a maximum sized basketball floor. A minimum sized floor. Use the scale 1" = 16 ft.

2. Measure your basketball floor. Find the area in square feet. Square yards. Find the perimeter of your floor. How many laps would you have to run around it in order to run a mile?

3. Measure the height of your classroom door. Could "Wilt the Stilt" Chamberlain walk through it without stooping or bumping his head?

4. Measure the length of your bed. Could Wilt Chamberlain sleep in it stretched out full length?

5. Wilt Chamberlain scored 100 points in one game. Follow your favorite college or professional team and see if anyone ties or breaks his record this season.

6. Do some research about your favorite players, past or present, to find some of their unusual feats.

7. Measure the following in the metric system.
   a. Length and width of basketball floor in meters.
   b. Height of basket above the floor in meters.
   c. Diameter of a basketball in centimeters.

BOWLING

A. RULES

Although scoring looks complicated at first, actually it becomes easy if you remember and follow these simple rules:

1. Each game or "line" on the score sheet consists of 10 frames. Each box on the score sheet represents one frame.

2. The maximum number of balls rolled in each frame is two.

3. If you fail to topple all 10 pins with 2 balls, you simply record the number of pins you knock down on each roll.

   1st ball--5 pins knocked down
   2nd ball--3 additional pins knocked down

5	3
8	

4. If you get a STRIKE (all 10 pins down with the roll of your first ball), you get a score of 10 in that frame plus the number of pins you knock down with your next 2 balls. The maximum score for any frame, therefore, is 30--representing 3 strikes in a row.

   A strike is scored by marking X as shown below:

   1st ball--strike
   2nd ball--strike
   3rd ball--strike

X		X		X	
30					

5. If you get a SPARE (10 pins knocked down on 2 rolls), you score 10 in that frame, plus the number of pins you knock down with your next ball in the next frame.

   A spare is scored by marking a / as shown below

   1st ball--3 pins
   2nd ball--remaining 7 pins (spare)
   3rd ball--5 pins

3	/	5	
15			

6. A SPLIT results if, on your first roll, you knock down the head pin and leave at least two pins standing while at least one of the pins normally placed between the standing pins is toppled.

   A split is recorded by marking a) in the upper right corner of the frame on the score sheet. If, on your second roll, the remaining pins are toppled, the split is said to be "converted" and results in a spare. (See example for a converted split in "B" below.)

B. SCORING SHORTHAND

You keep score with these figures and symbols in the two small squares of each frame.

X	
STRIKE	

7	/
SPARE	

7	)
CONVERTED SPLIT	

9	-
MISS OR GUTTER BALL	

1	2	3	4	5	6	7	8	9	10	TOTAL
5 3	6 /	6 /	X	1 6	X	X	3 3	8 -	X X X	
8	24	44	61	68	91	107	113	121	151	151

(5+3) (10+6) (10+10) (10+7) (7) (10+6+8) (10+3+3) (6) (8) (20+10)

8 + 16 = 24; 24 + 20 = 44; 44 + 17 = 61; 61 + 7 = 68; 68 + 23 = 91; 91 + 16 = 107; 107 + 6 = 113; 113 + 8 = 121; 121 + 30 = 151

C. SCORING A TYPICAL GAME:

1st Frame: 5 pins fall down on first ball; 3 on second. A score of 8 for this frame.

2nd Frame: 6 pins down on first ball; 4 on next for a SPARE. Do not total the score yet; you still have a bonus to add from the first ball in the next frame. (Spare = 10 points + pins toppled by your next ball.)

3rd Frame: 6 pins on first ball. Now you can total the score for the 2nd Frame: 10 pins for the spare plus 6 for your bonus = 16. Add 16 to the 8 from the 1st Frame for a score of 24.
Second ball; you knock down all 4 remaining pins for another SPARE. Do not total the score for the 3rd Frame yet.

4th Frame: A STRIKE. Mark an X in the first small square of the 4th Frame and figure the score for Frame 3. 10 for spare + 10 for score on first ball in next frame = 20. Add 20 to the score of 24 = 44 for 3rd Frame.

5th Frame: 1 pin knocked down on first ball; 6 on second; 7 is then your bonus and you get 10 for the strike = 17 for the frame, a total of 61 for the 4th Frame. Now add the 7 pins you got in the 5th Frame for a total of 68 for the 5th Frame.

6th Frame: A STRIKE. Mark an X in first small square of 6th Frame, but do not total the score for the 6th Frame yet.

7th Frame: Another STRIKE. Mark an X in the 7th Frame. Do not total the score for Frames 6 or 7 yet.

8th Frame: 3 pins knocked down with first ball. Now you can complete score for 6th Frame: 10 for strike in 6th Frame + 10 and 3 for the scores of your next two balls = 23 in 6th Frame for total of 91.
3 pins down with the second ball. Now complete the score for 7th Frame: 10 for a strike + 6 for a bonus = 16 plus previous score of 91 = 107 for 7th Frame. Now, add 6 pins for the 2 balls in 8th Frame for a total of 113 in the 8th Frame.

9th Frame: 8 pins down on first ball; none on second, a MISS. 113 + 8 = 121 for 9th Frame.

10th Frame: STRIKE. Make an X. On the 10th Frame don't wait for your next turn to take your bonus rolls. You have a strike, so roll two extra balls. Strike on first bonus ball. Strike on second bonus ball. Now finish the score: 10 for strike in the 10th Frame + 10 for first bonus ball + 10 for second bonus ball = 30. Add 121 to 30. Total score for game = 151.

1. Fold this paper in half.
2. Score the top five games, then check your answers on the bottom of the sheet.

	NAME	1	2	3	4	5	6	7	8	9	10	TOTAL
1	Jim	4 3	7 2	- 6	1 8	7 /	8 1	X	4 5	4 /	3 5	
2	Jean	6 3	4 /	7 /	2 6	X	7 2	- /	X	3 5	4 / 7	
3	Frank	X	9 -	5 /	4 5	X	X	X	X	6 /	7 -	
4	Paul	X	X	4 /	4 5	X	X	X	X	4 3	7 / X	
5	Your Name	7 /	X	X	4 5	X	X	3 /	X	X	X 7 /	

	NAME	1	2	3	4	5	6	7	8	9	10	TOTAL
1	Jim	4 3	7 2	- 6	1 8	7 /	8 1	X	4 5	4 /	3 5	
		7	16	22	31	(10+8) 49	58	(10+4+5) 77	86	(10+3) 99	107	107
2	Jean	6 3	4 /	7 /	2 6	X	7 2	- /	X	3 5	4 / 7	
		9	(10+7) 26	(10+2) 38	46	(10+7+2) 65	74	(10+10) 94	(10+3+5) 112	120	(10+7) 137	137
3	Frank	X	9 -	5 /	4 5	X	X	X	X	6 /	7 -	
		(10+9) 19	28	(10+4) 42	51	(10+10+6) 81	(10+10+10) 111	(10+10+6) 137	(10+10) 157	(10+7) 174	181	181
4	Paul	X	X	4 /	4 5	X	X	X	X	4 3	7 / X	
		(10+10+4) 24	(10+10) 44	(10+4) 58	67	(10+10+12) 91	(10+10+10) 127	(10+10+4) 151	(10+10) 168	175	(10+10) 195	195
5	Your Name	7 /	X	X	4 5	X	X	3 /	X	X	X 7 /	
		(10+10) 20	(10+10+4) 44	(10+4+5) 63	72	(10+10+3) 95	(10+10) 115	(10+10) 135	(10+10+10) 165	(10+10+7) 192	(10+10) 212	212

*Note: The numbers in parentheses have been included to help explain the scoring.

From the information given below, determine the scores for Tom, Nancy, Chuck and Karen. Put your name in the last line and determine your score.

	NAME	1	2	3	4	5	6	7	8	9	10	TOTAL
11	Tom	X	X	4/	-8	81	4-	25	X	3/	81	
12	Nancy	456	0 17	9-	--	44	18	9-	3/	43		
13	Chuck	8/	X	42	X	63	4/	33	80	7-	-/4	
14	Karen	9/	X	X	4/	34	1-	9/	81	X	42	
15	Your Name	X	X	X	4/	81	X	X	X	52	7/X	

Make your own score. Have a partner check it.

16												
17												
18												
19												
20												

G
O
L
F

The section on golf provides a great deal of drill on averages, scale drawings, and per cent. A suggestion to supplement the geometry in this section is to ask individuals to make a scale of a local course and have the class answer pertinent questions regarding the course and the records of local golfers.

URSKUL GOLF AND COUNTRY CLUB

Score Card

Hole	Yards	Par
1	447	4
2	340	4
3	297	4
4	210	3
5	363	4
6	510	5
7	481	5
8	328	4
9	175	3
Total		

PAR - The number of strokes, based upon the length of each hole that is set as a player's goal.
BIRDIE - One stroke less than par.
EAGLE - Two strokes less than par.
BOGIE - One stroke more than par.
DOUBLE BOGIE - Two strokes more than par.

Using the information given above, answer the following questions:

1. What is the total length of this course in yards? _____

2. If a player two-putts every green, what is the minimum distance his fairway shots must average on each hole in order for him to par each hole? birdie each hole? bogie each hole?

Hole	Par	Bogie	Birdie
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____

3. If a player parred the course, what would be his total score? _____

Given below are the leading golf money winners from years 1960 - 1967.

Leading Money Winners

1960	Arnold Palmer	$ 75,263	1964	Jack Nicklaus	$113,284
1961	Gary Player	64,540	1965	Jack Nicklaus	140,752
1962	Arnold Palmer	81,449	1966	Billy Casper	121,944
1963	Arnold Palmer	128,230	1967	Jack Nicklaus	188,998

1. What are the total winnings of these eight players?

2. What are their average winnings?

3. How much below or above the average was each player?

	Above or Below
Arnold Palmer	_____
Gary Player	_____
Arnold Palmer	_____
Arnold Palmer	_____
Jack Nicklaus	_____
Jack Nicklaus	_____
Billy Casper	_____
Jack Nicklaus	_____

4. If 1/4 of their winnings were paid out in taxes, how much would each pay?

Arnold Palmer	_____
Gary Player	_____
Arnold Palmer	_____
Arnold Palmer	_____
Jack Nicklaus	_____
Jack Nicklaus	_____
Billy Casper	_____
Jack Nicklaus	_____
TOTAL	_____

5. If their expenses (food, travel, etc.) amounted to 1/3 of their winnings, how much would each pay for expenses?

Arnold Palmer	_____
Gary Player	_____
Arnold Palmer	_____
Arnold Palmer	_____
Jack Nicklaus	_____
Jack Nicklaus	_____
Billy Casper	_____
Jack Nicklaus	_____
TOTAL	_____

U. S. OPEN

1960	Arnold Palmer	280	1965	Gary Player	282
1961	Gene Littler	281	1966	Billy Casper	278
1962	Jack Nicklaus	283	1967	Jack Nicklaus	275
1963	Julius Borros	293			
1964	Ken Venturi	278			

The U. S. Open winning scores for the years 1960 through 1967 given above are for 72 holes played.

1. Which of the players averaged more than 4 strokes per hole? _____ Which of the players averaged less than 4 strokes per hole? _____

	Average More than 4	Average Less than 4
Arnold Palmer	_____	_____
Gene Littler	_____	_____
Jack Nicklaus	_____	_____
Julius Borros	_____	_____
Ken Venturi	_____	_____
Gary Player	_____	_____
Billy Casper	_____	_____
Jack Nicklaus	_____	_____

2. What was the average winning score for these eight years?

_____

- -

U. S. WOMEN'S OPEN

1960	Betsy Rawls	291	1965	Carol Mann	290
1961	Mickey Wright	293	1966	Gloria Ehret	282
1962	Mrs. Murle Lindstrom	301	1967	Catherine Lacoste	294
1963	Mary Mills	289			
1964	Mickey Wright	290			

The U. S. Women's Open winning scores given above are for 72 holes played.

1. What was the average winning score for these eight years?

_____

2. What was each player's average score per hole?

	Average		Average
Betsy Rawls	_____	Carol Mann	_____
Mickey Wright	_____	Gloria Ehret	_____
Murle Lindstrom	_____	Catherine Lacoste	_____
Mary Mills	_____		
Mickey Wright	_____		

3. What was the difference between the lowest and highest score for women given? _____

4. Patty Berg, one of the great favorites of women golfers, once played an 18 hole round of 64 in competition, a record not yet matched. What was her average per hole? _____

5. Had Miss Berg played the above match on the Urskul Course, how much above or below par would her score have been?

_____

6. How much lower was the average winning score for the men's open than for the women's open?

_____

1. On the Urskul Golf Course, drawn on the preceding page, hole 5 doglegs to the right. What is the measurement of this angle in degrees? _____

2. What is the perimeter of this golf course? _____

3. If fencing cost 65¢ per yard, what would be the total cost of fencing the course? _____

4. What is the area of the course in square yards? _____

5. What is the area of the parking lot? _____

6. If it costs 30¢ per square yard to surface the parking lot, what would be the total cost of surfacing it? _____

7. If the parking lot is located at equidistant from each side of the course, how far is it from the N.E. corner of the parking lot to the S.E. corner of the course? _____

8. If a player walked diagonally across the course from the S.W. corner of the course to the N.E. corner of the course, about how many yards would he walk?
   _____ about 1200 yds.
   _____ less than 1500 yds. (>1200 yds.)
   _____ more than 1900 yds.

- -

1. In 1963 there were 6,250,000 golfers in the U. S. that played 15 or more rounds of golf per year. It is estimated that by 1970 there will be 12,000,000 golfers playing 15 or more rounds per year. What would be the total increase in golfers over this 7 year period?
   _____

2. Assuming they average 25 rounds per year and the cost per round was $2.00, what would be the total cost for all golfers in the U. S. for 1963? _____ for 1970? _____

3. In 1947 there were 4,870 golf courses in the U. S., in 1963 7,500, and it is estimated there will be 11,000 by 1970. What is the total increase from 1947 to 1970? _____ from 1963 to 1970? _____

4. What was the average number of golfers per course in 1963? _____ in 1970? _____

5. In 1960, 36,000 high schools had golf teams. In 1963, there were 78,000 high schools which had teams. What was the increase during this period? _____

6. What per cent of increase was this? _____

TRACK

The track section includes conversion of units of measure, the rate, time, and distance relationship, and averaging.

A possible research exercise to be used while the Olympics are in progress is to have a student (or students) find and report on the Decathlon event, its component events, scoring, and records. The method of scoring could provide a good exercise in averaging. Track buffs in class might suggest a scoring scheme for a high school decathlon event based on state or conference high school records.

1. An outdoor track in the U. S. measures 440 yards one foot in from the inner circumference.

   440 yd. = _____ ft.
   440 yd. = _____ in.

2. Indoor tracks seldom measure more than 220 yards.

   220 yd. = _____ ft.
   220 yd. = _____ in.

3. In a relay race, four runners run equal distances for a total of one mile.

   1 mile = _____ ft.

   What part of a mile did each runner run? _____
   How many feet did each run? _____
   How many yards did each run? _____

4. Until 1961 nine sprinters shared the world record for the 100 yard dash in 9.3 seconds. How many yards per second did they run? _____

5. Bob Hayes lowered the record to 9.1 seconds in 1963. How many yards per second did he run? _____

6. In a two mile relay race there were four runners. What part of a mile did each run (if each ran an equal distance)? _____
   How many feet did each run? _____
   How many yards did each run? _____

7. An athlete at the Drake Relays threw the discus the following distances. Find the average distance. 165 ft., 172 ft., 191 ft., 167 ft., and 170 ft.
   _____

8. Change the following meter runs to feet.

   100 meters ≈ _____ ft.

   200 meters ≈ _____ ft.

   400 meters ≈ _____ ft.

   800 meters ≈ _____ ft.

   1500 meters ≈ _____ ft.

   5000 meters ≈ _____ ft.

   10000 meters ≈ _____ ft.

Note: 1 meter = approx. 3.2808 ft. 1 meter = approx. 1.0936 yds. ≈ means "approximately equal to"

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.
CONCEPT: Advances in science have altered the occupations that produce goods and services. Having a scientific attitude (problem solving) helps people in their work.
SPECIFIC BEHAVIORAL OBJECTIVE: After completion of each science unit studied each student will be able to list three or more occupations related to the unit.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discussion of occupations related to science unit. Field trip Resource person	As each science unit is completed, occupations related to that field may be interwoven through discussion, field trips or a resource person coming into the classroom.	Science textbook Library books

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand concept specialization leads to interdependency.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list at least three jobs related to sound.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have a few students interview a music teacher and find out how their job is related to sound. 2. Have a speech therapist or speech teacher come into the classroom to explain how their job is closely related to sound. 3. Visit a building supply company to find out about sound-proofing materials. 4. Visit a radio or TV station to learn how sound is transmitted.	Discuss how sound plays a very important part in our lives. How? Have students tell about some workers who are very closely involved with sound. Discuss noise pollution problems we have in the world today.	Texts Library books Resource people - Bell Telephone Co. filmstrips opaque projector for pictures 16mm film from Northwest Bell Telephone A sense of Hearing #796 - 10 min Song: Randu to Andrew p. 215 Electronic Computer Mastering Music - ABC

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list three occupations associated with jet transportation.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss various occupations that result from the use of jet engines in commercial flights. 2. A few of the occupations are as follows: aircraft mechanic, airline reservation agent, co-pilot, stewardess, air traffic controller, flight engineer, pilot, ground maintenance crew, baggage men, radio-operator dispatcher. 3. If possible, make arrangements for a field trip to an airport at an appropriate time to observe a ground crew in action.	1. Allow students to bring models of various airplanes. Also, if possible, have a dress-up day where the students would be able to model clothes worn by the pilot, stewardess, etc. 2. Review different types of airplane engines in comparison to the jet engines. Use the overlays to demonstrate the use of the three basic jet engines. 3. Read the attached excerpt on "The Making of a Pilot" to the class. Review the jobs of the flight crew and ground crew mentioned in the reading. Perhaps some youngsters can think of additional tasks needed to be completed by both crews. 4. Overlays accompanied by explanation are provided for teachers who wish to show the functioning of the jet engine. (This knowledge is pertinent to members of a flight crew.)	Filmstrips: 141-5 Airport Workers Imperial Film Co. Jet Propulsion MDU 131-D Aviation in Space Age Eye Gate Hous Books: The Making of a Pilot Ed Nicher, Westminister Press, Philadelphia, PA 1966 What Does an Airplane Crew Do E. Roy Kar Dodd, Mead and Co., New York 1968 Handbook of Job Facts, SRA 1968 Occupational Information, SRA 1968 Occupations and Careers S. Norman Feingo and Sol Swerdloff, Webster Division, McGraw-Hill Book Co., 1969 Films from Encyclopaedia Brittanica An Airplane Trip by Jet 1918 Jet Pilot - Our Shrinking World 2210

SUGGESTED CORRELATION FOR THIS ACTIVITY: Engine Unit

101

WHERE AIRPLANE STEWARDESSES WORK

Airlines, both domestic
and international

HOW YOU CAN LEARN

- Schools
  run by the airlines
- Private schools

RELATED JOBS

Good work habits developed on this job will lead to better jobs, as shown above.

FOR MORE DETAILS GO TO:

101

D.O.T.
52.878

AIRPLANE STEWARDESS

AN AIRPLANE STEWARDESS

Greets and seats passengers; checks tickets

Checks seat belts; demonstrates other safety equipment

Serves meals and refreshments

Tends to personal needs of passengers; may give first aid

Keeps records; lists lost and found articles

Adjusts seats and ventilation

AN AIRPLANE STEWARDESS SHOULD

Be in excellent health
Be at least 19 years old
Be between 5'2" - 5'9" in height
Weigh no more than 140 pounds
Have at least 20/50 vision
Have a good complexion
Be very well-groomed and poised
Enjoy traveling and helping people
Be at least a high school graduate

$$$ THE PAY $$$

THE HOURS

- About 85 hours a month in the air and 35 hours in ground duties
- Will include night, holiday, and weekend hours

Extras You MAY Get

- Paid vacations
- Sick leave
- Free life insurance
- Meals & lodging
- Uniforms
- Free flying privileges for yourself & family

"I spent a whole day watching TWA ground crews operate at an East Coast airport. Three men handled fuel and water (for the water-injection models of the Boeing 707 jet). Five men worked getting baggage off the airplane and new baggage loaded. One man handled the commissary supplies. Two men cleaned the cabin. Three transportation agents were busy with passengers' details. There were nineteen people working on that one flight. They loaded 2,000 gallons of fuel and 371 gallons of demineralized water (processed right at the airport). They supervised the stacking of more than a hundred meals. They made certain that film was on board for in-flight movies. They checked everything from carpeting to coffee, from tires to tea bags. And they did it so quickly that it would have required three men to watch without missing anything.

It takes 150 ground people at that one station to service some twenty flights a day.

They put the airplane in ready condition. And then the flight crew takes over. Hostesses buzz about the cabin, checking needed supplies. The flight engineer makes an exhaustive preflight check. The first officer (co-pilot) files a flight plan and checks enroute weather, radio frequencies, traffic routing, and myriad other details. The captain, responsible for it all, double checks everybody else. It is he who must accept or reject the planned route and its details. He must be satisfied with his flight engineer's assurances and with his first officer's calculations. He knows exactly how many people are on board, how much the fuel weighs, how fast the airplane will have to be moving before it will lift off. He knows where they'll go

if weather intervenes at the other end of their trip. He knows how much fuel they'll have to turn getting there, or to a second alternate field."

Richter, Ed. The Making of a Pilot. (Westminister Press: Philadelphia, Penn. 1966) pp. 76-77

BASIC STEPS OF HOW THE THREE TYPES OF JET ENGINES WORK

(1) Ramjet

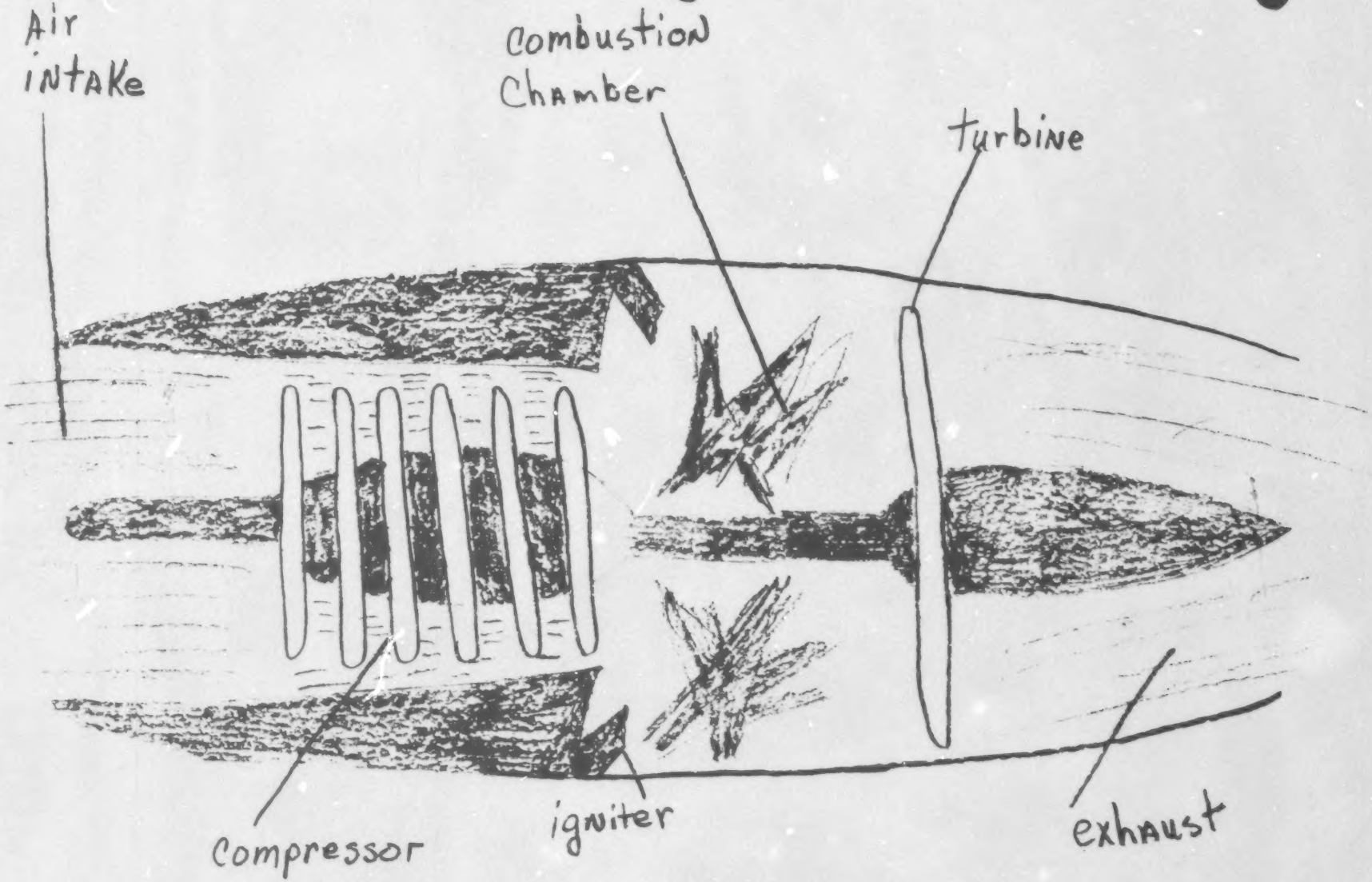
The air intake is designed in a special way to compress or squeeze the air. The air meets the airplane and then squeezes into the air intake where it is compressed. The compressed air moves into the combustion chamber where it mixes with fuel. The igniter ignites the fuel-air mixture causing an explosion forcing the gases to stream outward through the exhaust system. The plane is then forced in a forward motion.

(2) Turbojet

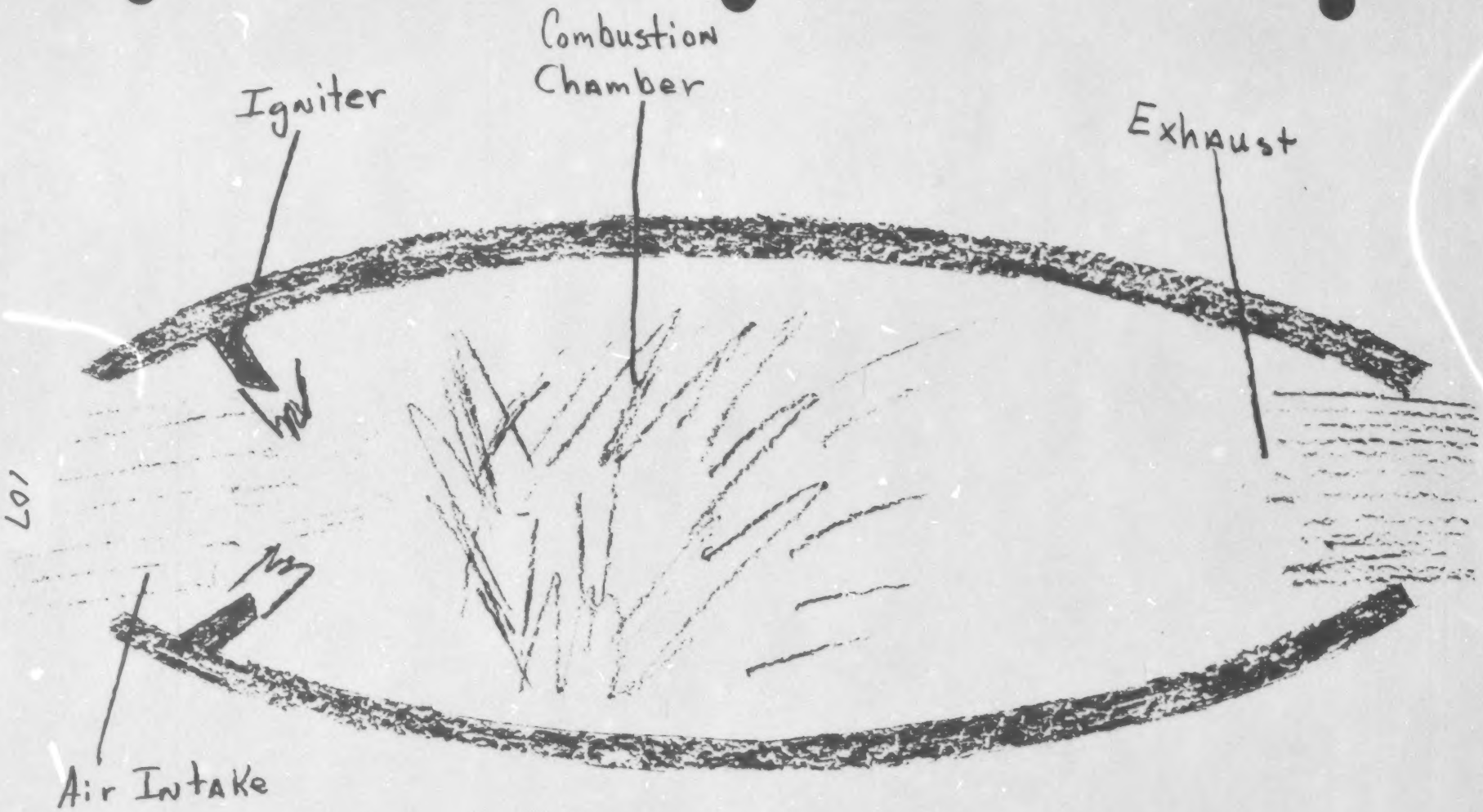
This is basically a gas turbine engine. Air enters into the air intake entrance passing through the compressor. After the air has been compressed by the compressor, it enters the combustion chamber where the fuel-air mixture explodes. From the combustion chamber the exhaust gases are forced through the turbine out the exhaust opening. The gases escaping after the explosion cause the turbine to spin--the faster the turbine spins, the faster the compressor spins. As the compressor turns faster, the more the air will be compressed causing the gases to escape through the exhaust opening at a greater velocity. Therefore, the airplane will move faster.

(3) Turboprop

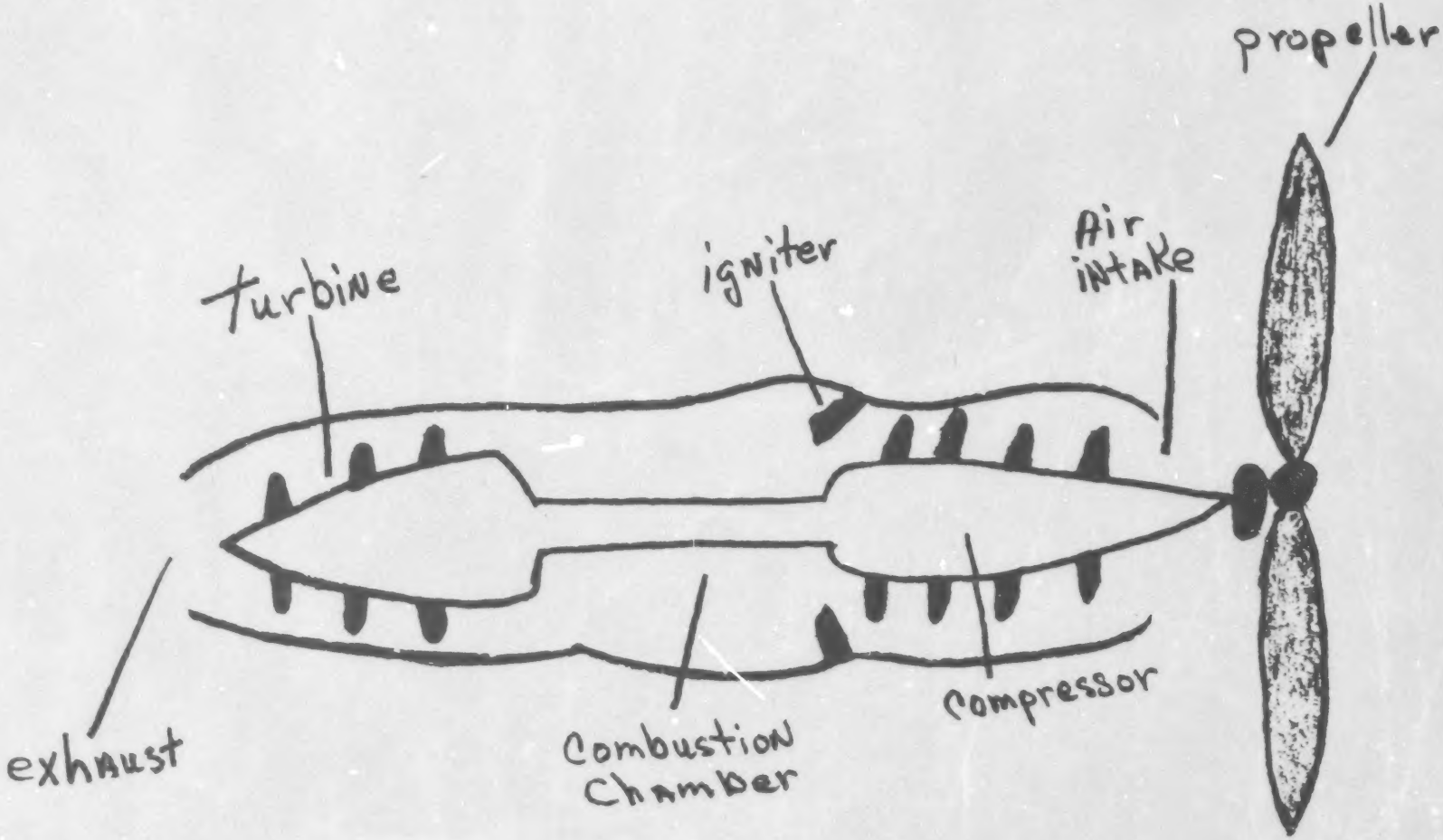
This engine also has a turbine and a compressor. In the turboprop the drive shaft has two basic jobs to do. It runs the compressor and also turns a propeller. Propellers provide most of the thrust in a turboprop; therefore, the engine is really not jet propelled. Exploding fuel-air mixture in the combustion turn the propellers that make the plane go.


Air
intake
Combustion
Chamber
turbine
Compressor
igniter
exhaust

Turbojet



Ramjet


propeller
Air intake
igniter
turbine
exhaust
Combustion Chamber
compressor

Turboprop

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will demonstrate his knowledge of relationship among industry, science, technology by listing an invention that has been developed as a result of the three areas.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

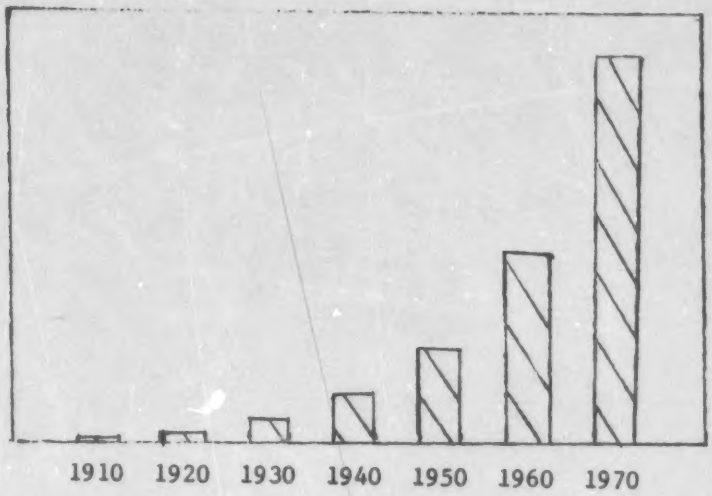
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Discuss how the following played an important role in the development of the rocket engine: technician, engineer, scientist 2. An overlay is furnished to show advancement in technology, industry, and science.	1. The class may divide into three committees and investigate the following: a) scientists b) technicians c) engineers. Each committee may read resource materials and write letters to various foundations regarding careers related to their assigned topic. The committees will want to report their findings to the class. This may be done in the form of charts, reports, or other devices the teacher decides upon. 2. The students may read a variety of books on scientists and inventors who have had an impact on our lives. Brief oral reports will want to be given to the class by each student with an emphasis on the impact of the scientist's contribution(s) on the world of work. 3. Overlays of the rocket engines, along with a simple explanation of how they	Educational Service Branch Office of Educational Programs and Service National Aeronautics and Space Administration Washington, DC Filmstrips with cassettes: Eye Gate House Inc. 131-A Pioneers of Space Age 131-B Exploration of Space Age 131-C Atoms in Space 131-D Aviation in the Space Age 131-E The Conquest of Space 131-F Man Travels in Space 131-G Hazards in Space Travel 131-H Destination in Space 131-I Stations on the Moon Into Space with the Astronauts, Robert Scharff, Grosset and Dunlap, 1965 What Does an Astronaut Do? Robert Wells, Dodd, Mead, and Company, 1961

SUGGESTED CORRELATION FOR THIS ACTIVITY:

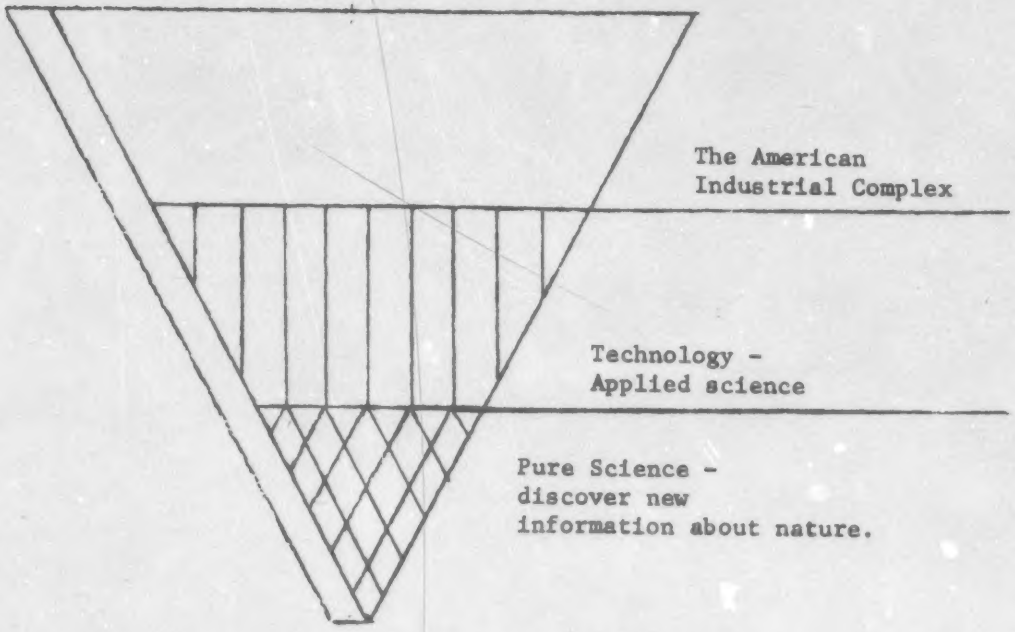
109

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	work is provided for the teacher. Discuss how scientists, technicians, and engineers played a role in development of the rockets.	Occupations and Careers, S. Norman Feingold and Sol Swerdloff, Webster Division, McGraw-Hill Book Co., 1969



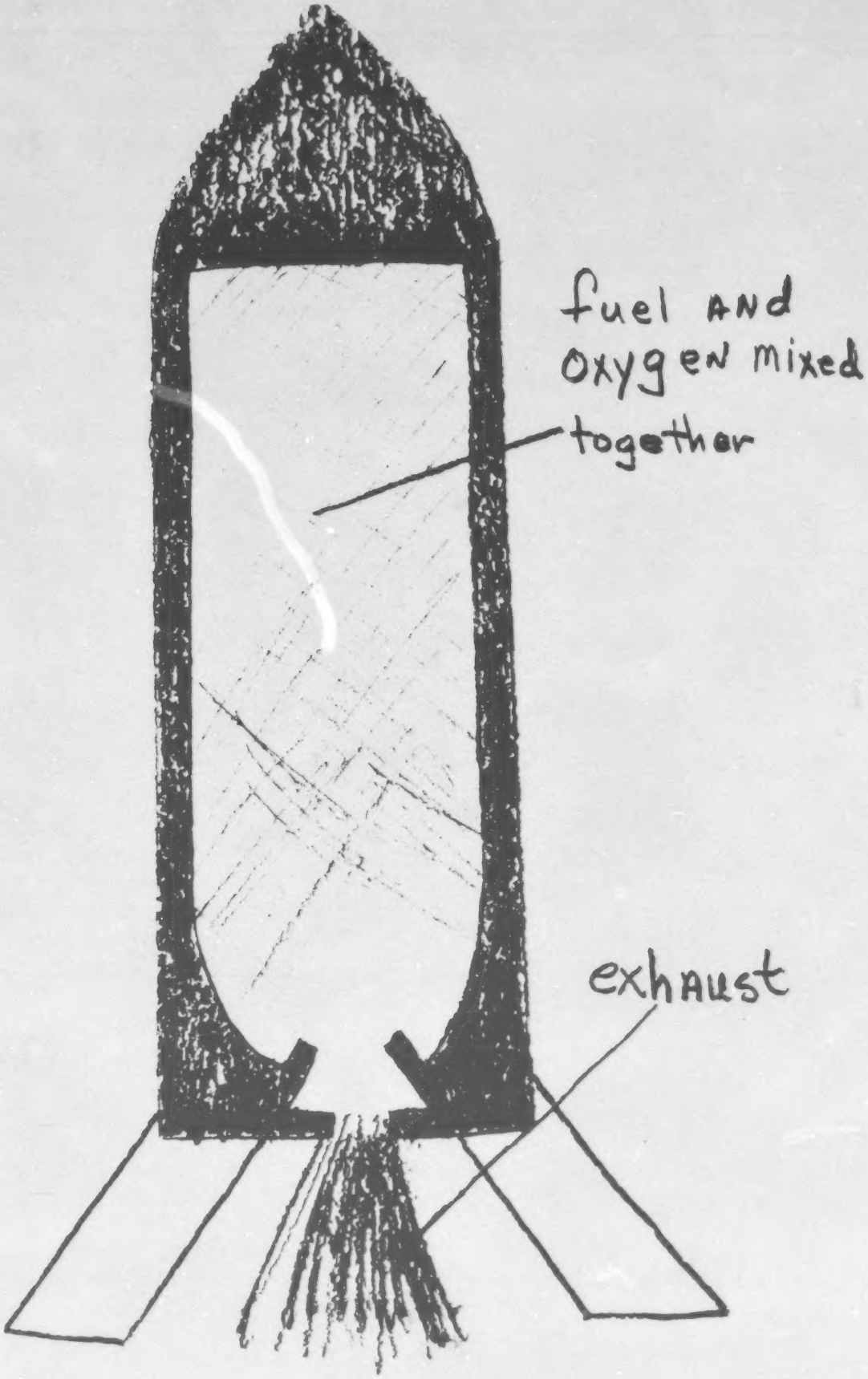
Scientific and engineer population doubles every ten years.



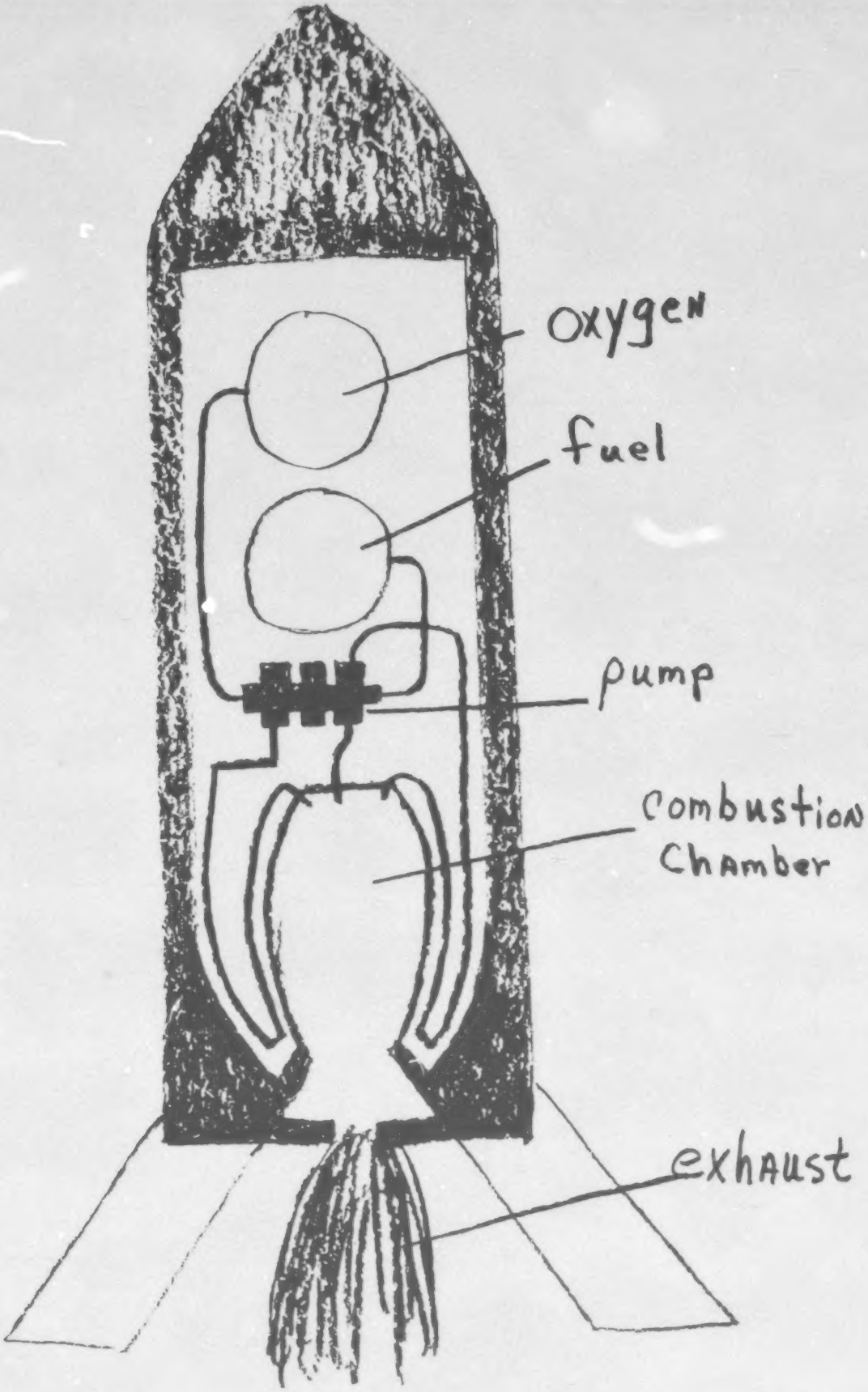
The Relationship of Science to Industry*

*From Teaching Science by Inquiring in the Secondary School, Sund, Robert B., et al, Charles E. Merill, Books, 1967, p. 14.

- Solid propellant



- Liquid Propellant



HOW THE LIQUID PROPELLANT AND SOLID FUEL ROCKETS WORK

Liquid Propellant Rocket

This rocket contains two tanks: a liquid oxygen tank and a fuel tank. A common rocket fuel is kerosene. Liquid oxygen and fuel are pumped into the combustion chamber where they mix together to form an explosion. The explosion forms exhaust gases that exit out the exhaust nozzle forcing the rocket forward. Liquid propellant rockets are used for manned space flights because the fuel system can be shut off and turned back on at any time.

Solid Propellant Rocket

A solid propellant rocket is literally one large combustion chamber. In this rocket fuel an oxygen are mixed together to form a plastic calk-like substance. The plastic fuel is made up of chemicals that contain oxygen. An ignition system ignites the fuel forcing the rocket forward. Once the fuel is ignited, it cannot be turned off. This type of rocket is an unmanned rocket used for satellite purposes.

WHERE ELECTRONICS ASSEMBLERS WORK

- Electronics Plants
- Aircraft Plants
- Missile Plants
- Business Machine Plants

HOW YOU CAN LEARN

- On-the-job
- MDTA classes
- Vocational schools
- Private schools

RELATED JOBS

Electronic Technician

Inspector, Components

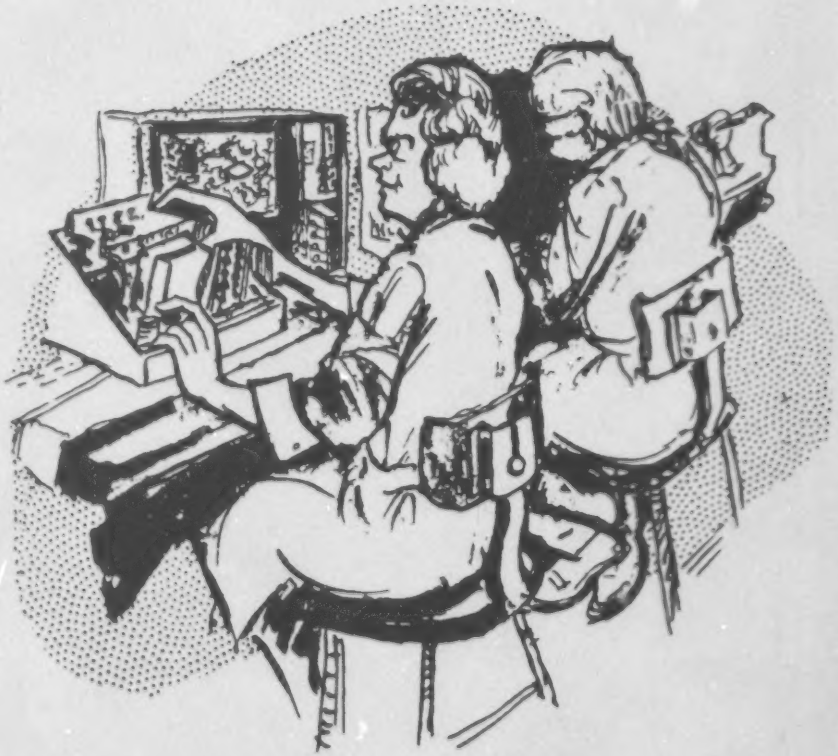
Tester, Electronic Components

Electronics Assembler

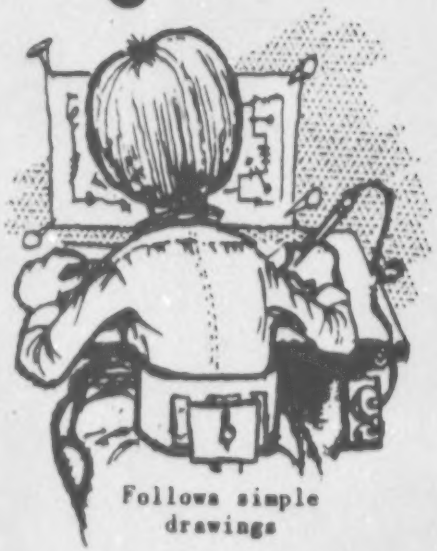
FOR MORE DETAILS GO TO:

D.O.T. 5.781

ELECTRONICS ASSEMBLER



AN ELECTRONICS ASSEMBLER . . . . .



Follows simple drawings

Bolts or screws parts to frame

Wires circuits

Tests unit for shorts, etc.

AN ELECTRONICS ASSEMBLER SHOULD

- Be at least 18 years old
- Have good eyesight
- Not be color-blind
- Like working with small parts
- Work well with his hands

$$$ THE PAY $$$

THE HOURS

- Usually 40 hours a week
- May be night hours
- May work overtime

Extras You MAY Get

- Life and Health Insurance
- Pension Plan
- Paid Holidays
- Paid Vacations

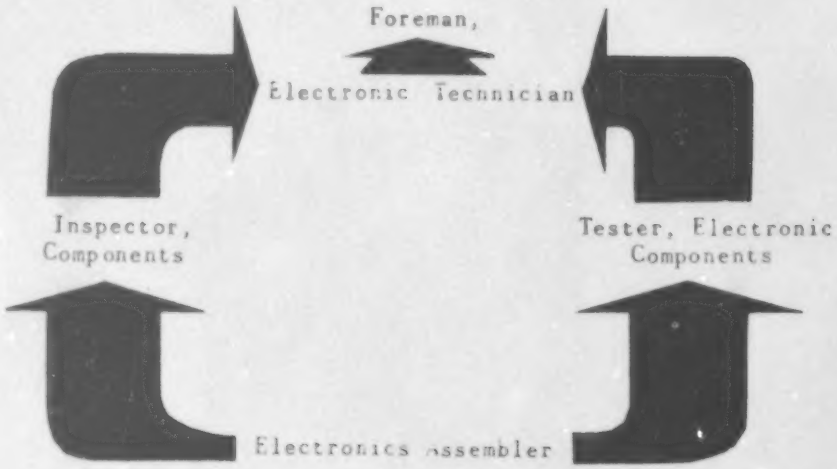
WHERE ELECTRONIC TECHNICIANS WORK

- Electronics Plants
- Aircraft Plants
- Missile Plants
- Business Machine Plants

HOW YOU CAN LEARN

- On-the-job
- MDTA classes
- Vocational schools
- Private schools

RELATED JOBS



FOR MORE DETAILS GO TO:

D.O.T. 003.181

ELECTRONIC TECHNICIAN

AN ELECTRONIC TECHNICIAN

Reads blueprints and wiring diagrams

Wires circuits, using soldering iron

Bolts components to panel or cabinet, using handtools

Tests circuits for shorts

AN ELECTRONIC TECHNICIAN SHOULD

- Not be color-blind
- Like working with small parts
- Work well with his hands
- Must know electronic theory

$$$ THE PAY $$$

THE HOURS

- Usually 40 hours a week
- May be night hours
- May work overtime

Extras You MAY Get

- Life and Health Insurance
- Pension Plan
- Paid Holidays
- Paid Vacations

WHERE A JUNIOR DRAFTSMAN WORKS

- Government - State, Federal or Local
- Manufacturing plants, such as:

Machinery Electrical Equipment
Aircraft Transportation Equipment

- In these fields:

Agricultural
Petroleum
Electrical
Public Utility
Electronics
Title Insurance
Commercial
Plumbing

HOW YOU CAN LEARN

- On-the-job training
- MDTA classes
- Junior colleges
- Vocational schools

RELATED JOBS

Senior or Design Draftsman

↑

Junior Draftsman

↑

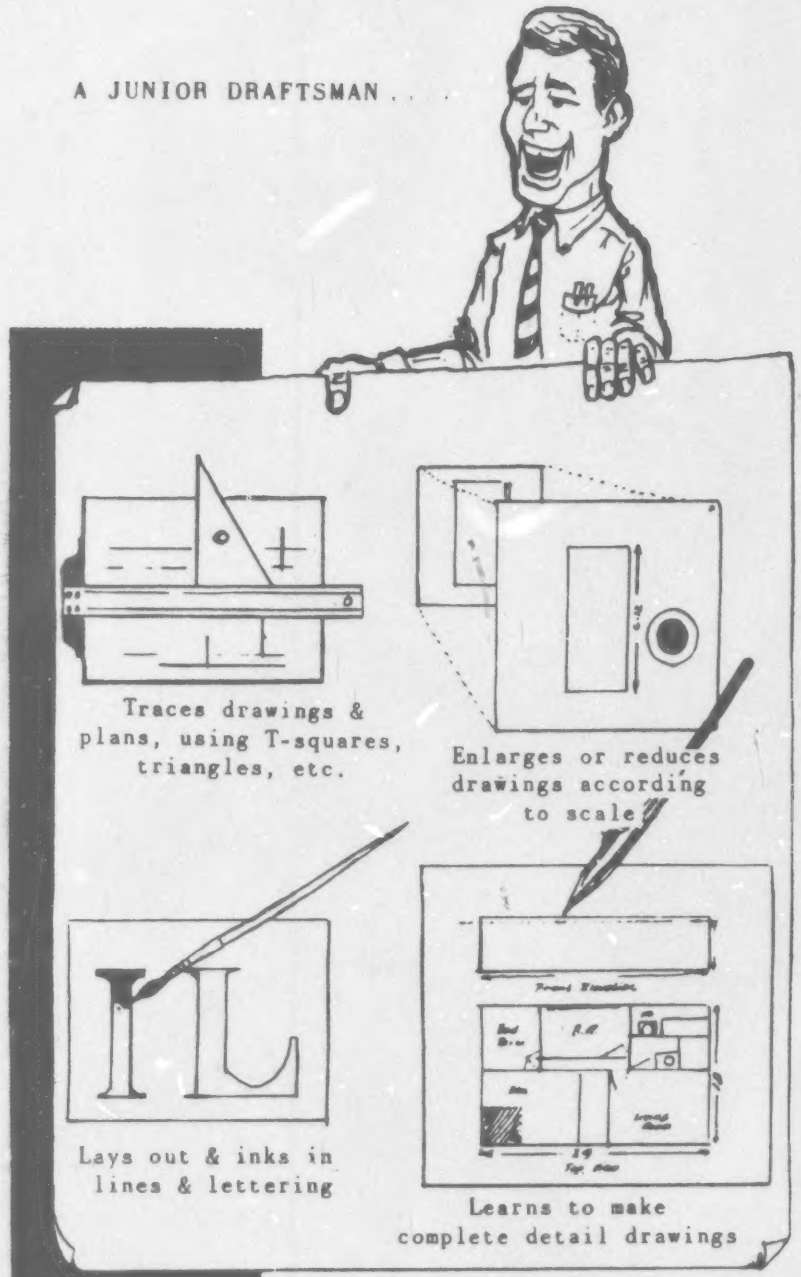
Tracer

FOR MORE DETAILS GO TO:

D.O.T. 017.281

JUNIOR DRAFTSMAN

A JUNIOR DRAFTSMAN . . .



A JUNIOR DRAFTSMAN SHOULD

- Be at least 18 years old
- Be a high school graduate or have a GED
- Have good eyesight
- Have good eye-hand-finger coordination
- Have full use of both arms
- Do neat and precise work
- Be able to do freehand drawings
- Be good in math and enjoy tedious work

$$$ THE PAY $$$

THE HOURS

Usually 40 hours a week

Extras You MAY Get

- Paid vacations
- Paid holidays
- Pension plan
- Sick leave
- Health & Life Insurance

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will learn two techniques used by scientists in discovering identity of elements.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Kitchen chemistry "hands-on" experiment. 2. Discuss different types of jobs associated with chemistry. 3. After the experiments have been completed, have students choose one of the powders and identify the workers involved in the processing cycle of each product.	1. Explain to students in advance the directions in #2 and #1 in resource materials. Also, students will be responsible for bringing materials for the experiment. 2. <u>Directions for experiments</u> Have students bring different substances from home such as flour, sugar instant milk, cocoa, corn starch, etc. The teacher should put the substances into separate containers and number each container. Make sure the students do not see what container the compounds are put into. Each container should have a spoon in it so the substance can be dispersed. Have the students break into groups (2 to a group is ideal). Pass out the material to each group: 1 paper plate, candle, 1 container of vinegar, 1 container of water, 1 book of matches, 1 clothespin, tinfoil, and iodine solution (mixture of water and iodine).	1. Materials needed: tinfoil, clothespins, iodine, vinegar, candles, spoons eye dropper, container (paper cups, et water, matches, paper plates. 2. Encyclopedias

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Next, have each group get one substance from a container. The container should be set at a table so the students can have a choice. The object now is to see if the student can detect the type of powder he has through the process of elimination by experimentation. This is done by having the student taste the powder, feel for the texture of the powder, mix water, vinegar, and iodine solution to the powder. This is done by taking an eye dropper and adding water, vinegar, and iodine solution to the powder separately to see what happens to the powder. The last step of experimentation is to heat the powder. Tinfoil is used to form a basin for holding the powder. Do this by shaping the tinfoil into a cup-shape container (U) and use the clothespin as a handle to the container. The candle will serve as the source of heat. Students are to record what happens to the powder during each phase of experimenting and record it on the sheet provided. When this is done, they record their "guess" as to what the powder is. Do this to all the powders until they have been tested by each group.	

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	After all the powders have been tested, the teacher then goes over the results of what happened to the powder during each phase of the experiment. Then give the answers to each powder. To add more of a challenge to the powders, the teacher may mix powders to form an "X" compound. The student will then have to pick out the various powders in each "X" compound.	

123

NUMBER	VINEGAR	IODINE SOLUTION	WATER	TASTE	TEXTURE	HEAT ELEMENT	YOUR GUESS

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To help develop the basic understanding of electricity and how it applies to the world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the electrical unit, each student will be able to list 5 occupations that result from the direct or indirect use of electricity.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
A. Discuss the various types of electricity. B. Discuss all types of jobs dealing with electricity. C. Use filmstrips dealing with electricity.	Each student or group of students should be given an electrical package made up of one "D" flashlight battery, copper wire, flashlight bulb, and bulb holder. Then hand out worksheets dealing with different areas of electricity. The worksheets are attached to the unit.	A. Go over the worksheets with the students. B. Re-explain different terms in electricity. C. Talk about different occupations dealing with electricity. D. Have students choose which occupation dealing with electricity they would like to have for a future occupation. Then have each of the students do research and a report about the occupation they choose. E. Try to get resource people from various fields to talk to the class.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

125

How many different ways can you devise to make a bulb light using only one battery, one bulb, and one piece of wire?

1. Make sketches of the various connections and explain how you did each step.

Make as many connections as you can by using a battery, a bulb, and two pieces of wire.

1. Make sketches of the various connections and explain how you did each step.

FOLLOW-UP ACTIVITIES

Try each of the following activities and explain what happened in each experiment.

1. Use two or more batteries, light the bulb and show how you did this by making sketches of your connections.
2. How many batteries can be lighted with one battery?
3. Can the bulb be lighted on the other end of the battery?
4. How many ways did you find to make the bulb light?
5. Does the bulb have to touch the battery before it will light?
6. What special places must be touched on the bulb for it to light?
7. What special places must be touched on the battery for the bulb to light?

What is your theory about lighting the bulb?

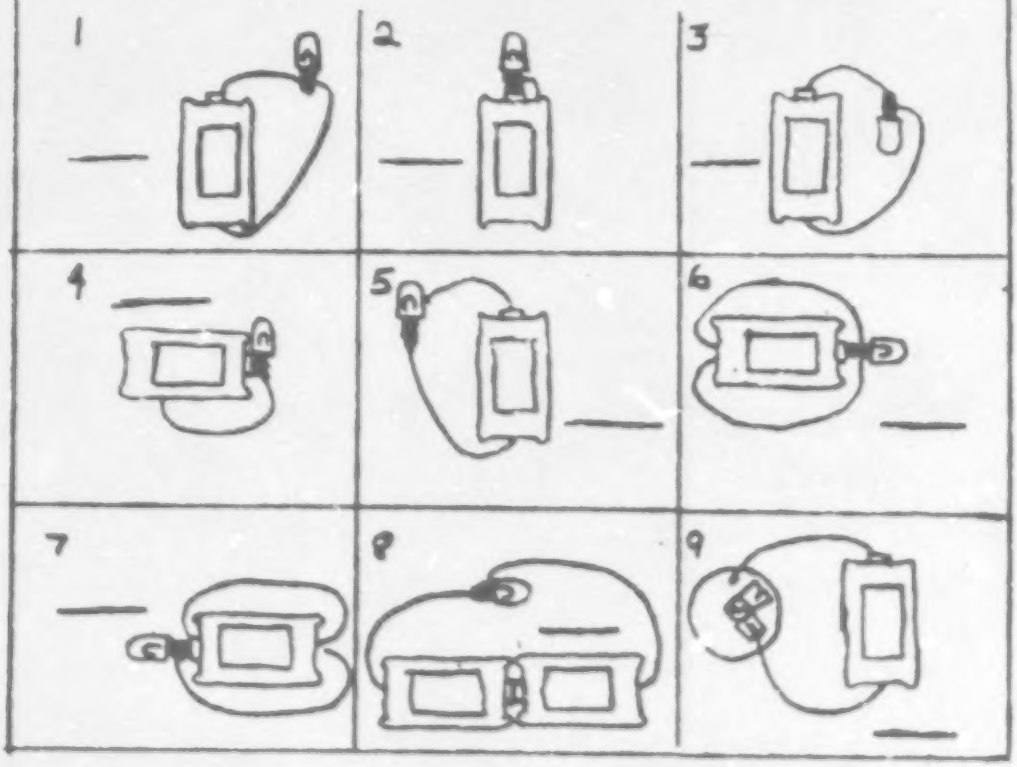
Answer the following questions as complete as possible. Draw complete diagrams for the questions if possible.

1. Try to light a bulb in a bulb holder.
2. Can you light the bulb by using a battery, a bulb holder and one wire?
3. Can you light the bulb by using a battery, a bulb holder, and two pieces of wire?
4. Attach the bulb holder to the battery--try to connect another circuit to the bulb holder to see if you can light two bulbs.
5. Cross the two wires on the bulb holder when the bulb is lit. Explain what happens.
6. Make as many circuits as you can. Draw a sketch of each complete circuit.

TEST CARD 2

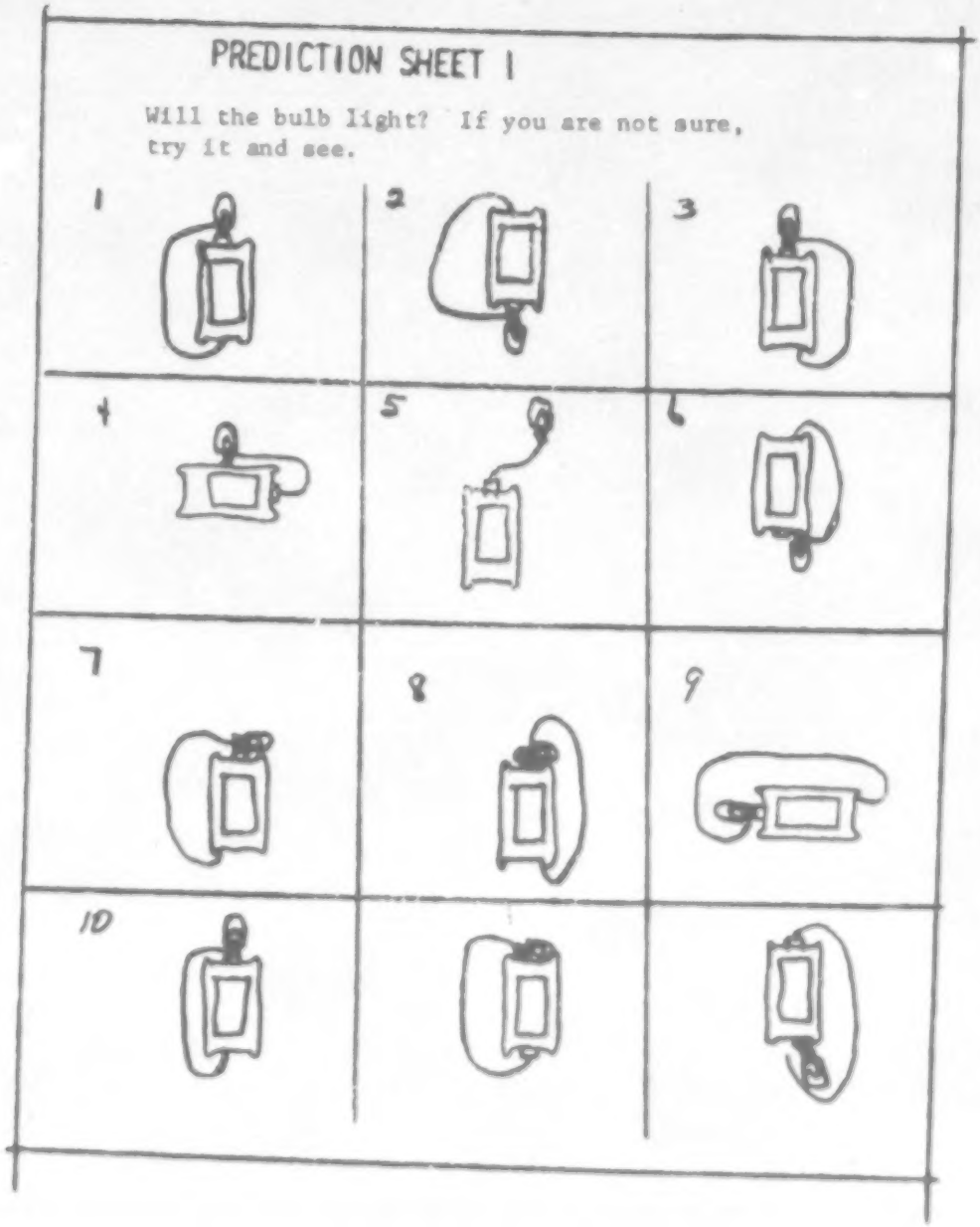
TEST CARD 2

Put an x in the arrangements that will light the bulb.



PREDICTION SHEET 1

Will the bulb light? If you are not sure, try it and see.



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific Observational Experience about the World of Work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will become aware of the nutritional value of their eating habits by charting everything they eat for five days. At the end of the activity each child will list occupations related to food service.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Children will be exposed to necessary information and conduct two experiments. This will develop the concept that a calorie is a unit of heat. Through discussion and recording on a calorie consumption chart (attached page) youngsters will become aware of the importance of a balanced, non-excessive diet to a productive worker. Discuss workers involved in the food service area.	1. As a language arts project, teachers may assign students to write letters requesting free pamphlets, posters, etc. Sources for this information are listed in the Resource Materials section. These free materials will assist students in completing techniques 5,6 and 7. 2. Read and discuss Section One of attached sheet. Emphasize that a calorie is the amount of heat needed to raise one gram of water through one degree centigrade. 3. Conduct the experiment as described in Section Two of attached sheet. Upon completion of the experiment discuss the meaning of small calorie and large calorie as described in Section Three. 4. Conduct the experiment as described in Section Four of attached sheet. Upon completion of the experiment discuss the magnitude of a large calorie. (continued)	Films: 1587 The Food Store, Color 13min 2667 Taking Care of Myself color EBE Book: Todays Basic Science, Harper & Row, 1967 Publications "Foodway to Follow" PM-19 "The Food Mobile" PM-21 may be obtained by writing: North Dakota State Wheat Commission P. O. Box 956 Bismarck, ND "Careers For Youth in the Food Service Industry" may be obtained by writing: Director of Education National Restaurant Association 1530 North Lake Shore Drive Chicago, Ill 60610 For a wide variety of excellent teaching materials about nutrition write to: National Dairy Council 111 N. Canal Street Chicago, Il 60606 continued

SUGGESTED CORRELATION FOR THIS ACTIVITY: Activity on page 69

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	4. continued The information in section five may be helpful. 5. Have each youngster construct a chart to record his calorie consumption in five days. The food recorded on this chart may then be analyzed for nutritional value. (Stress the importance of recording all snacks including candy, pop, gum, etc.,) Discuss the different amounts of calories needed according to age, activity, climate, etc.) 6. Discuss the importance of a balanced non-excessive diet. Mentionable items may include beriberi, pellagra, scurvy, rickets, skin disease, weak bones and teeth, etc. List workers that must be especially aware of nutritional diets. 7. Invite the school cook or another person in the food service field to hold a "news conference" in your classroom. The children should have questions prepared in advance for the visitor.	Other sources include: American Dietetic Association 620N. Michigan Ave. Chicago, Il 60611 National Livestock and Meat Board 36 S. Wabash Ave., Chicago, Il 60603 Pamphlet: "Choose Your Calories Wisely" Dept of Home Economics Service Kellogg Company Battle Creek, Michigan. Films available through the division of Health Education, N. D. Dept. of Health, Bismarck, ND 58501 Big Dinner Table, The Better Breakfasts, USA Color of Health, The Eat for Health Four Food Groups Its All in Knowing How Milk To Grow On Planning for Good Eating Something You Didn't Eat Whats Good to Eat Filmstrips available at same address "Better Breakfasts, USA " "Food We Eat, The""Whats in OUr Food" "Skimpy and Good Breakfast" "Why Eat a Good Breakfast" "Your Daily Bread"

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Filmstrips available through the Divisi of Maternal and Child Care, North Dakot State Dept of Health, Bismarck, ND 5850
		"Breakfast and the Bright Life" (record "Alexanders Breakfast Secret" (record "Project A. M. - Today's Breakfast and Cereal" (record)
		"Food Through the Ages" (record) "Food Store, The" "Getting Food Ready For Market" "Kinds of Food" "Winning Combination"

134

Reproduced from Today's Basic Science, John Navarra and Joseph Zafforoni, Harper and Row, Publishers, 1967 P. 31-34

SECTION ONE: Measuring Heat

Scientists have a special way of measuring heat. They use a unit of heat called the calorie. A calorie is the amount of heat needed to raise one gram of water through one degree centigrade.

The scientist uses the centigrade scale to measure temperature. The common temperature scale is the Fahrenheit scale.

The gram is the scientist's unit for measuring weight. There are about 454 grams in one pound. Or you might say there are about 28 grams in one ounce. A gram of water would be about eighteen drops from a medicine dropper.

It takes very little heat to raise the temperature of 1 gram of water. Do an experiment. You will see that the calorie unit of heat is indeed small.

SECTION TWO: Experiment

You will need: Water, test tube, medicine dropper, alcohol burner, centigrade thermometer, test-tube clamp.

Put eighteen drops of water into the test tube. Use the medicine dropper. The eighteen drops of water will equal about one gram. Meafure the temperature of the water. Use the centigrade thermometer.

Heat the water over the alcohol burner. Hold the test tube with the clamp. Be sure you have heated the water. Then measure the temperature again. How many degrees centigrade has the temperature risen? How many calories of heat were added to the water?

SECTION THREE:

The unit of heat that raises one gram of water one degree centigrade is called the small calorie. The scientist also uses a large calorie in many areas of research. There are one thousand small calories in one large calorie.

The large calorie is used to express units of heat in food. For example a slice of bread produces about 80 calories of heat in your body.

SECTION FOUR: Experiment

You will need: Water, scale, walnut, pan, cup, match, test tubes, centigrade thermometer.

Put 2+2/10 pounds of cold water into the pan. This amount of water equals 1,000 grams. Measure the temperature of the water with the centigrade thermometer.

Remove the shell from the walnut. Place the walnut under the pan. Support the pan with test tubes. Set the walnut on fire. Let the water heat. Then measure its temperature. Hour many calories of heat were added to the water?

SECTION FIVE:

One large calorie of heat is added to the 1,000 grams of water for each degree centigrade the temperature rises. One boy who did the experiment found that the temperature of his 1,000 grams of water rose 7° C. Seven calories were added to the water.

When the boy repeated the experiment, he observed that the water temperature rose 12° C.

CALORIE CONSUMPTION CHART

DAYS	FOOD EATEN	CALORIES CONSUMED
MON.		
TUES.		
WED.		
THURS.		
FRI.		

TOTAL CALORIES _____

Calorie Values of Average Serving of Some Commonly Used Foods

Milk Group

	AMOUNT	CALORIES
Milk, cow:		
Fluid		
whole	1 cup	165
skim	1 cup	90
evaporated (unsweetened)	1 cup	345
buttermilk	1 cup	90
Dried		
whole	1 tablespoon	45
nonfat (skim)	1 tablespoon	25
malted	1 ounce	115
Cheese		
cheddar	1 inch cube	70
cottage, creamed	½ cup	120
cream	1 tablespoon	55
Swiss	1 ounce	105
Ice cream, plain	⅛ quart brick	145

Meat Group

	AMOUNT	CALORIES
Beef cuts, cooked, lean and fat		
chuck	3 ounces	295
hamburger	3 ounces	260
rib roast	3 ounces	395
round	3 ounces	235
sirloin	3 ounces	350
Veal, cooked, lean and fat		
cutlet, broiled	3 ounces	185
chuck roast	3 ounces	210
stew meat	3 ounces	195
Lamb, cooked, lean and fat		
loin chop	3 ounces	325
shoulder roast	3 ounces	305
leg roast	3 ounces	250
Pork, fresh, cooked, lean and fat		
ham	3 ounces	340
loin or chops	3 ounces	350
Pork, cured, cooked, lean and fat		
ham, smoked	3 ounces	260
luncheon meat	2 ounces	165
Variety Meats, beef		
heart, braised	3 ounces	170
liver, fried	2 ounces	140
tongue, simmered	3 ounces	185
Chicken, cooked, flesh and skin		
broiled	3 ounces	185
fried	3 ounces	245
Turkey, cooked, flesh and skin	4 ounces	180
Eggs, hen		
hard-cooked	1	75
scrambled	1	110
Fish and Shellfish		
bluefish, baked or broiled	4 ounces	270
crabmeat, canned	3 ounces	90
haddock, fried	3 ounces	190
halibut, broiled	4 ounces	170
ocean perch, fried	3 ounces	150
oysters, raw	1 cup, meat only	200
salmon, broiled	4 ounces	175
red, canned	3 ounces	140
shrimp, canned, solids	3 ounces	70
tuna, canned, solids	3 ounces	180

	AMOUNT	CALORIES
AS ALTERNATES		
Beans, dry		
red kidney, cooked	1 cup	230
lima, cooked	1 cup	315
Nuts		
almonds, shelled	¼ cup	215
peanuts, shelled	¼ cup	220
pecans, shelled	¼ cup	185
walnuts, shelled	¼ cup	185
Peanut butter	1 tablespoon	90
CONCENTRATE (Kellogg's)	⅓ cup	105
(A ready-to-eat high protein nutrition concentrate with moderate vitamin and mineral fortification.)		

Vegetable-Fruit Group

Those especially valuable as sources of vitamin C and vitamin A

	AMOUNT	CALORIES
Apricots, raw	3	55
canned with sirup	½ cup	110
Asparagus, cooked	1 cup cut	35
Broccoli, cooked	1 cup	45
Brussels sprouts, cooked	1 cup	60
Cabbage, raw, shredded	1 cup	25
Cantaloup, raw	½ small	40
Carrots, raw	1	20
cooked, diced	1 cup	45
Chard, cooked	1 cup	45
Collards, cooked	1 cup	75
Grapefruit, raw	½ medium	50
juice, canned, sweetened	½ cup	65
Guava, raw	1	60
Honeydew melon, raw	1 2-inch wedge	50
Kale, cooked	1 cup	70
Kohlrabi, cooked	1 cup	60
Mango, raw	1 medium	85
Mustard greens, cooked	1 cup	55
Oranges	1 medium	70
juice, fresh	½ cup	55
Papayas, raw	1 cup ½-inch cubes	70
Peppers, green	1 medium	20
Persimmon, raw	1 medium	75
Potato, white, cooked, unpeeled	1 medium	95
sweet, cooked, peeled	1 medium	170
Pumpkin, canned	½ cup	40
Spinach, cooked	1 cup	45
Squash, winter, cooked	1 cup	95
Strawberries, raw	1 cup	55
Tangerines	1 medium	40
juice	½ cup	50
Tomatoes, raw	1 medium	30
canned	1 cup	45
juice, canned	½ cup	25
Turnip greens, cooked	1 cup	45
Watermelon, 4"x8" wedge	1 wedge	120

Other Fruits
Most fruits eaten raw, or prepared with little added sugar, provide about 100 calories for the average serving.

Other Vegetables
An average serving of most vegetables, unless served with added butter or rich sauce, will provide less than 100 calories.

Cereal-Bread Group

Whole-grain, enriched, restored and fortified foods in this group furnish worthwhile amounts of protein, iron, several of the B-vitamins and food energy.

	AMOUNT	CALORIES
Cereals, ready-to-eat, low in fat		
Concentrate (Kellogg's)	⅓ cup	105
Special K	1 cup	70
Corn Flakes	1 cup	75
Rice Krispies	1 cup	105
OKs	1 cup	80
All-Bran, or Bran Buds	½ cup	100
40% Bran Flakes	⅔ cup	105
Raisin Bran	⅔ cup	100
Pep Wheat Flakes	1 cup	105
Shredded Wheat (Kellogg's)	1 biscuit	85
Krumbles	⅔ cup	105
Cereal, to-be-cooked		
corn grits, cooked	1 cup	120
corn meal, cooked	1 cup	120
farina, cooked	1 cup	105
oatmeal, cooked	1 cup	150
rice, cooked	1 cup	200
wheat, whole meal, cooked	1 cup	175
Breads		
cracked wheat	1 slice	60
raisin	1 slice	60
rye	1 slice	55
white	1 slice	60
whole wheat	1 slice	55
biscuits, baking powder	1 medium	130
corn muffins	1 medium	155
crackers, graham	2 medium	55
pancakes	1 medium	60
rolls, plain	1 medium	115
rye wafers	2 medium	45
tortillas	1 medium	50
Other Cereals, low in fat		
Cocoa Krispies	1 cup	110
Froot Loops	1 cup	115
Stars	1 cup	110
Sugar Frosted Flakes	¾ cup	110
Sugar Pops	1 cup	110
Sugar Smacks	1 cup	110

Other Foods

	AMOUNT	CALORIES
Butter	1 tablespoon	100
Fats, vegetable	1 tablespoon	110
Gelatin, dry, plain	1 tablespoon	35
Lard	1 tablespoon	135
Macaroni, cooked	1 cup	155
baked with cheese	1 cup	675
Margarine	1 tablespoon	100
Noodles, cooked	1 cup	200
Oils, pure vegetable	1 tablespoon	125
Salad dressings		
Italian	1 tablespoon	80
French	1 tablespoon	60
mayonnaise	1 tablespoon	110
Soups, canned	1 cup as served	100-200
Sugar, brown or granulated	1 tablespoon	50
Tomato catsup	1 tablespoon	15
White sauce	1 tablespoon	25

157

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show that he understands the value of fine arts to the world of work by listing one way that dancing helps the individual.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Rhythms: 1. Farmer in the Wheat 2. Farmer Grey 3. Shoemaker's Dance 4. Grapevine Mixer 5. Speed the Plow 6. Dive for the Oyster 7. Cotton Pickin Polka 8. Haymaker Jig	Tell how each specific dance relates to the world of work.	1. Victor 2168 or 45-5066 Folkraft 1182 2. Epic LN 3607 3. Victor 45-6171 or 20450 4. Osborne 5. Folkraft F1087B 6. Folkraft 1018 "Old Joe Clark" 7. Victor 45-8951 8. Folk Dancer MN10504 Dance A While, Harris, Pittman Walker 1968 Burgess Pub. Co. Minn. MN

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student involved will be able to state the purpose of the YMCA and its value throughout the country.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Intramural YMCA field trip with a swimming party after a tour of the facility.	Arrange field trip through school and YMCA administration. Arrange transportation. Have tour of facilities as basis of field trip with tour leader knowledgeable in relating the occupations of Y workers, both paid and volunteer, to the students. Also the leader should make aware how the Y is one of the best avenues to adult leisure time activities. After tour a swimming party could be the treat given to the children.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

139

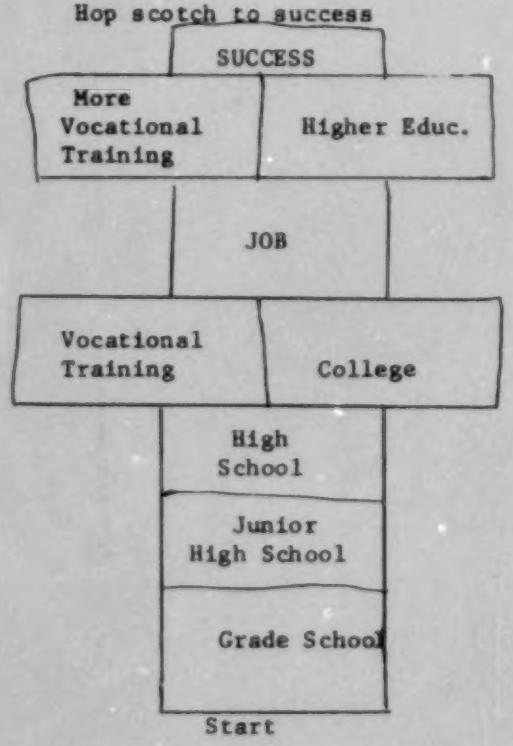
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activity student will be able to state what he thinks his goal in life will be at this time.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Hop scotch to success  	a. An explanation of the hopscoth should be given explaining the ladder of education on the chalkboard at the beginning of class. b. The child chooses either of the double blocks to simulate one type of training with equal opportunity to accomplish either. c. Teams are arranged with three people on each hopscotch. d. Each student chooses a rock. e. The general rules of hopscotch were followed the child threw a rock to the 1st block hops over it and continues on with 1 foot on each block until a line is stepped on or a throw to a block is missed. When this occurs the rock stays on the block where it was when the error was committed, the player goes to the end of the line and the next player takes his turn not being able to step on a block with a rock on it. The child to 1st pass success is the winner.	Dynamic Physical Education for Elementary School Children, Victor P. Dauer Burgess Publishing Co. Minneapolis, MN page 505

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will realize which pscho-motor skill he is the most adapt at and tell one worker to whom this skill is very important.

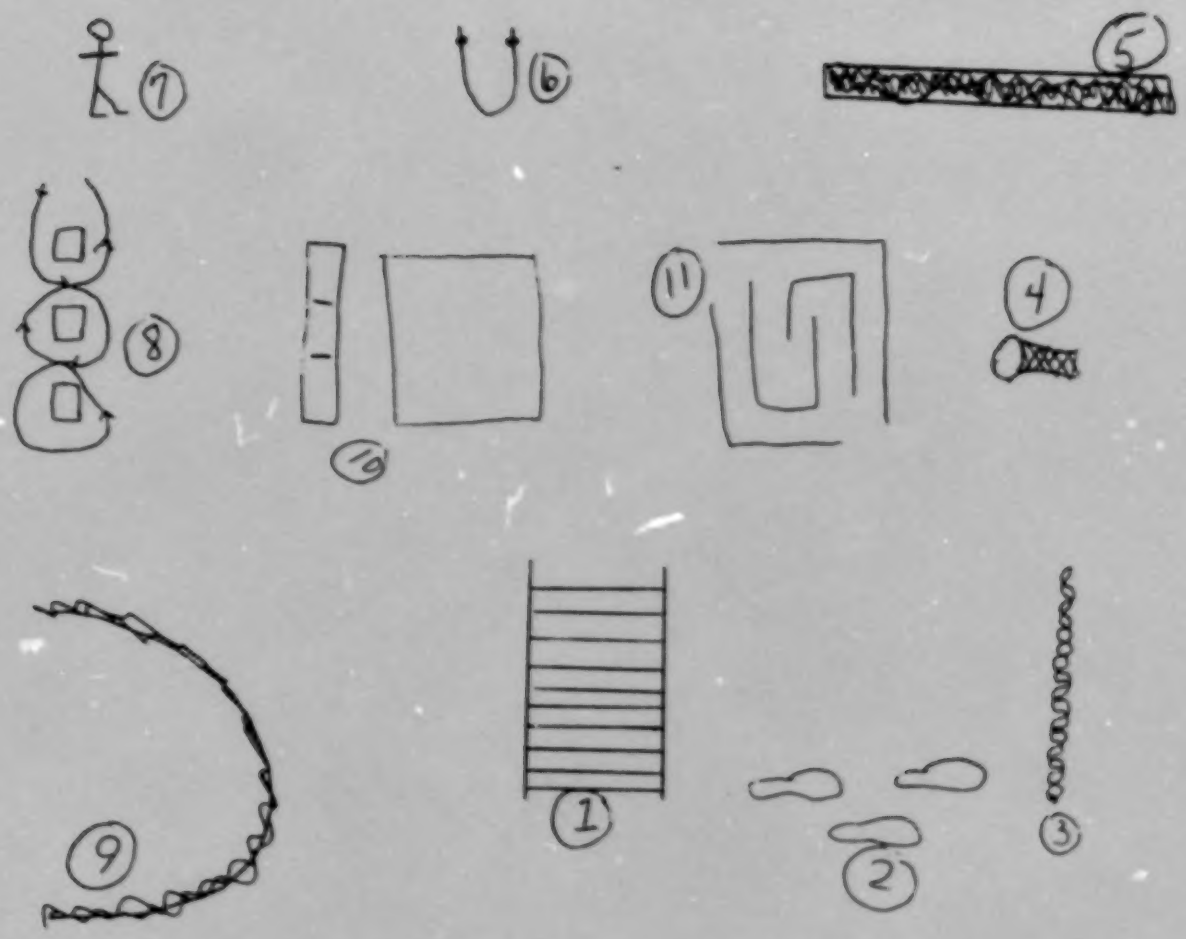
SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Obstacle course An obstacle course where different skills are assigned to different occupations. A record is kept by students to show which jobs he accomplished on the course.	A. Each obstacle is labeled for a certain job relating physical activity with a skill the job would demand. B. The children are numerically assigned to start at different stations. C. A cue given by teacher would mean change to the next higher numbered station. D. Score or evaluation will be determined by the child having a diagram of the course and checking off the obstacles completed. E. The basic obstacle course should be altered to the availability of equipment. F. The president's physical fitness obstacle course could also be used as a activity by stessing?	Horizontal ladder two climbing ropes basketall hoop and basketball Balance Beam Jump ropes three chairs vaulting horse 6 folding mats. Diagram of obstacle course on attached sheet.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

OBSTACLE COURSE



1. Horizontal Ladder (up and down twice)	Painter
2. Gym Walk Around (3 times)	Mailman
3. Climb the Rope to the tope of the gym	Telephone Repairman
4. Make a Basket (once)	Basketball coach
5. Walk a Balance Beam with hands behind back	Carpenter
6. 50 double rope jumps with no miss	Professional Boxer
7. 15 - sixcount burpees	Housewife
8. 3 chair agihity? drill	Dancer
9. Tarzan Rope Swing	Movie stunt man
10. Jump & Roll from vaulting horse	Parachutte Jumper
11. Mat Maze	Adaptability of any occupation

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation, a. discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. b. tying square knot c. threading needle d. arrange bowling pins e. balance two dowels Any number of activities of hand-eye coordination could be developed by creative thinking of instructor.	A. Divide class into equal squads and place them at one end of gym. B. Try each activity before each relay. 1. demonstrate tying square knot 2. threading a needle 3. arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor C. Have student run to end of gym - complete stunt - run back and sit at end of squad. D. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad).

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Dance is a vigorous activity which used as a leisure activity will mentally and socially prepare a worker for work. Folk dance often tells of the work of countries and gives ideas of their life style.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
RHYTHMS: 1. Farmer in the Wheat 2. Farmer Grey 3. Shoemaker's Dance 4. Grapevine Mixer 5. Speed the Plow 6. Dive for the Oyster 7. Cotton Pickin Polka 8. Haymaker Jig 9. Tinickling	Tell how each specific dance relates to the world of work	1. Victor 2168 or 45-5066 2. Folkraft 1182 3. Victor 45-6171 or 20450 4. Osborne 5. Folkraft F1087B 6. Folkraft 1018 "Old Joe Clark" 7. Victor 45-8951 8. Folk Dancer MH1504 9. Let's Dance, Pittman

144

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: The body should be used in the best position for work efficiency.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warmup or exercise part of class period. 1. basic standing 2. basic walking 3. sitting properly 4. bending properly 5. lifting efficiently 6. reaching properly	Explain the proper methods and why the body functions better using the proper methods. Discuss: Body grows to the posture you normally take.	Human Movement (book) Place pictures of correct and incorrect posture on bulletin board.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Exploring work movement by using child's knowledge and creativity of family or friend's work to a conscious level through suggestion.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Exploration of work by exploring father's, mother's, or an acquaintance's occupation. Answers to instructors questions are physically acted out by student.	Instructor has child go to their own special area in gym. Instructor asks children to choose the work of father, mother or someone they know. Instructor then asks the children to physically act out the answers to the question he will ask in any way they wish with each student staying in his own area. Question Suggestions: 1. What type of big physical movement does the occupation involve? 2. Can you think of a movement he makes without moving his feet? 3. By what means of transportation does the worker get to work? 4. If the worker runs a machine, show how. 5. Can you show five (5) things the worker does at work in one day? 6. What is your emotion to the job; boring, exciting, pleasureful, rewarding, etc.?	Exploration of Movement, Hackett N. Dak. Elementary Course of Study Creative thinking by the instructor

SUGGESTED CORRELATION FOR THIS ACTIVITY:

146

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	7. What leisure time activity (after work) would you most like to participate in after working on this job all day?	

147

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests that will open up expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for block of wood which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Parachute Play Occupations of Physical Education The resource poster book should be used with pictures and explanation of the different physical education opportunities. The parachute is used to make a mushroom and each group competes for the job by capturing the block of wood.	a. discuss jobs in big group. b. number off students into six different groups. c. each group chooses an occupation and gives it to teacher. d. all students go around opened chute in mixed numbers. e. a mushroom is formed. f. at signal an occupation is called. g. the children of a group run for block. h. winners become that occupation and are asked to bring a picture or drawing of the job to be placed on bulletin board with name of student.	Elementary Physical Education Course of Study, page 200 Careers in Physical Education (posters) J. Weston Walch, Portland, Maine 04104 Parachute Object to grab such as block of wood with "Hired" written on it.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should be made aware through a field trip of the occupation of operating a bowling alley.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Teaching the skill of bowling. Relate this activity to the world of work by taking a field trip to a bowling alley.	A. Running a three to four week unit in bowling cover bowling technique and scoring. B. Arrange a time and date for field trip with school and bowling alley manager. C. The trip would involve a line of bowling and a presentation by alley manager and a behind the scene look of the bowling machines. D. Activity could be a carryover to discussion of operation of other recreational facilities eg. golf course, curling club, swimming pool, ski resort, archery range.	Commercial gymnasium bowling equipment Homemade equipment such as milk cartons and softballs. Score sheets Transportation to bowling alley Follow-up material for carryover discussion on managing other recreational facilities

SUGGESTED CORRELATION FOR THIS ACTIVITY:

149

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocation choice and to develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should relate the basic rythmic activities with the many occupations involved in dance. The need for group cooperation would also be an objective accomplished if the activity was to be successful.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Professional Dancers in Action (video taped) A modern gymnastic unit in which a routine of balls, hoops, wands or combination is learned by girls and done to music. The performance is video taped	1. Discuss dance being a complete field in itself and all the available occupations leading off from it. 2. Involve class in modern gymnastics using available equipment. 3. Learn basic movements and stunts and then formulate a routine to music. 4. After performance is somewhat polished and memorized, video tape it and then show it to students. 5. A student through very basic instruction could focus on and photograph the group with the constant aid of instructor to insert the occupation of photography.	Gymnastics for Women, Blanche Drury, National Press, Palto Alto, Calif. 1964 Pg. 200 Loops, wands, balls Record player Rythmic records (can be pop tunes) Video tape equipment

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: To involve the selected students more in the actual working of the class.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Continuing career exploration activities to be carried on as a yearly activity.		
Umpires or referees	Teacher could choose or class members could choose.	
Equipment managers	This could be arranged as a yearly schedule and the pupil could be excused early from classroom to help with duties and sent back a little late to classroom.	
Professional athlete (boy and girl for each unit)	This could be chosen by students but could be a professional athlete no more than once. A yearly schedule and a list on blackboard or bulletin board. A written award of achievement could be awarded.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests toward physical education opportunities.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for eraser which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Parachuting Game		Elementary Physical Education Course of Study Page 200
a. Discuss occupations	a. Steal the back	
b. Group chooses six occupations.	b.	Careers in Physical Education posters address:
c. Number off group around parachute	c.	Parachute
d. Make mushroom	d.	Object to grab
e. Place block of wood	e. Block of wood with words "You're Hired" on it.	Block of wood

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of job role student will be able to perform five duties of particular worker.

SUGGESTED SUBJECT AREA physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Continuing Career Exploration Activities. These activities are to be carried on in the yearly program. a- student officials, umpires or referees. b- Equipment managers c- professional athlete	A. The teacher could choose these officials by student volunteering. Trying to give all students a chance to participate, given the students a chance to understand the duties and stresses of an official. B. A yearly schedule with two students working for a two week period. Their job would consist of putting up and taking down equipment. The students will need extra time beside the physical education class period to do their listed duties. C. For each specific unit a boy and girl will be awarded a professional athlete award by the teacher or a student vote. No student will win the award more than twice.	A. Official Pinnies whistles B. Blackboard or bulletin board. C. Paper written award or a ribbon award

SUGGESTED CORRELATION FOR THIS ACTIVITY:

153

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: During the activity each student will have an opportunity to share information about an occupation with other students.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Jump rope of occupation A jumpdown with the missing jump coorelating with the last occupation listed.	A. A simply jump down with the teacher or chosen student reading the list of occupations. When a child misses a jump the last occupation heard is the child's occupation for that moment. B. Since there was two lists of occupations only half the class was active at a time. Although there is a boys and girls list, the groups were not divided sexually C. After one jump down was completed the children could discuss their occupation while the second group was jumping. D. Different types of jumpdowns can be used to vary the activity. E. The last child to miss should be given the opportunity to tell about the occupation they missed on and if they would like that type of work or not.	Occupational Dictionary jump ropes.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

151

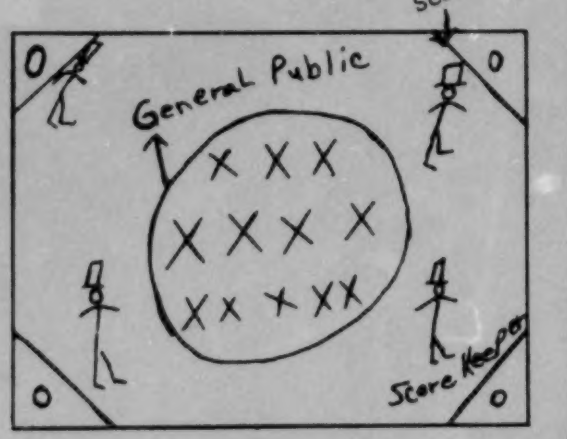
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity student will be able to list three workers that are involved in the insurance business.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Insurance Companies A game of dodgeball involving insurance terms. Diagram. 	A. Discussion of what an insurance policy is. B. Four salesmen and four insurance executives are chosen each to represent a company. If there are less than thirty children involved use two companies. The rest of the class is the general public. C. A game of dodge ball is played with the salesman trying to hit a public. Each public has a card with a policy amount on it which only that individual public knows. It maybe very big or small. When the individual is thrown out he gives his policy to the executive. D. When the player is hit he becomes the salesman and the past salesman becomes a retriever for his company E. After the last person is out all the scores for each company are totaled. The company with the highest total of the amount of policies is the winner which might be the company with fewer policy holders. The principle of commission should be brought up at this time. (continued)	A. An example of insurance policy B. 2 or 4 10" playground balls C. Insurance policy amounts on cards. D. Scorekeeper scoresheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	F. This game could easily be adapted to an outdoor field by making it a tag game instead of a throwing game.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list four occupations in the railroad industry.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Socio-drama to "I've Been Working on the Railroad" The children are given a chance to act out creative dance, or rhythm to the song "I've been Working on the Railroad."	A. An introduction to this activity should be a short discussion of the different jobs available in the industry of railroads and the vastness and importance of the industry. B. The class is divided into groups of five or six and given the assignment to act out the first verse of the tune using movement and sounds but no direct verbalizing. C. The teacher should introduce some probable movements and then let the children create giving a certain time limit. D. The performances will be watched by the part of class not performing. E. This creative activity could be used with other songs stressing the work factor.	Other songs: "Farmer in the Dell" "Wabash Cannonball" "Row-Row Your Boat" "15 mules on the Erie Canal" "16 tons and What do You Get"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to demonstrate the proper way to perform each of the six functions listed below.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL 3

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warm up of basic skills in work use as part of exercise class or warmup. 1. Basic standing 2. Basic walking 3. Sitting properly 4. Bending properly 5. Lifting efficiently 6. Reaching properly	Discuss proper methods of 1-6 and why the body functions better using the proper methods. Body grows to the posture you normally take.	Movement Fundamentals Janet A. Wessel Prentice-Hall Englewood Cliffs, N.Y. Place pictures of correct and incorrect posture on bulletin board.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

851

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list advantage and disadvantage of working for a salary and same for receiving a handout check.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Welfare Alley This is an adaption of the game of prisoners base. The terms have been changed, but the game is played exactly the same. 	During calisthenics discuss working for a salary and receiving handouts - advantages and disadvantages of each. A. Should use out of doors playing field because of the running in the game. B. The basic rule of the game is that any player may be only by an opponent who has left his goal area after the player who is tagged. Each player trip to tag an opponent to make him a welfare receiver. C. If caught the player must go to unemployment alley and stay until he is rescued by another team mate. If there is more than one welfare recipient they form a chain from welfare alley. D. To win the game, a team must have one of its players enter the opponent's goal area without being tagged, or, one team must have a certain amount of opponents unemployed. E. This activity should also bring out reasons for unemployment and instill fact that some people cannot work. There should be no shame or arrogance promoted in this activity.	Field workers for side lines, goals and welfare alley.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will be able to relate at least one occupation that has been acted out entails.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Work charades A game of acting out occupation to a specific time limit.	A. Divide the class into 5 equal groups. B. Have each child choose a job card and keep that job a secret. C. At the sound of a whistle a specified child in each group has thirty seconds to act out the occupation. D. If the group guesses the occupation in the time limit a point is given. E. The group with the greatest amount of points is the winner. F. The occupation should be easily acted out physically but difficult enough to make the game challenging. G. This activity could be used in conjunction with jump rope of occupations. A jump down instead of job cards would be a way of assigning occupations to be acted out in the charade.	Job cards Stop watch Score sheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL 5

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation	A. *Discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. Tying square knots Threading needle arrange bowling pins balance two dowels B. Divide class into equal squads and place them at one end of a gym. C. Try each activity before each relay. 1. Demonstrate tying knot 2. Thread a needle 3. Arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor D. Have student run to end of gym - complete stunt - run back and sit at end of squad. E. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad.) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Any number of activities of hand-eye coordination could be developed by creative thinking of instructor. * Relays involving skills which take high hand eye coordinations.	

103

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (Letter for this purpose attached.) Form xx

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Form xx

Dear _____

My students are studying _____.
We would like to have some first hand knowledge about this area. We are very interested in the work that you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job.
2. Duties.
3. Training or preparation required.
4. Approximate starting salary - salary after ten years (average).
5. Have you been doing this same type of work all of your working life?
6. Demand for such a job.
7. Supply of workers for this occupation.
8. Physical characteristics needed.
9. Social characteristics needed.
10. Do you work alone or with others?
11. Do you need to get along and cooperate with other workers?
12. What school courses helped a great deal in preparing you for this work?
13. How do you feel after a days work? Why?
14. Why do you work?
15. Do you like this job?
16. What are the good and bad points about it?
17. How and where training can be obtained.
18. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____
Number of students _____
Description of facilities and equipment available _____
_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

165

Follow-Up

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and definite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil/Teacher Preparation

Watch for:
1. Working conditions
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

GRADES 4 - 5 - 6

Ideas for Employers Regarding Things to Cover During Occupational Field Trip

1. Title of occupations at your plant

2. Duties of the workers

3. Training or preparation needed

4. Salaries (optional) beginning and ten year average

5. Physical and social characteristics needed.

6. What school work was most helpful for your job

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

E. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House, Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Danaville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

Chronicle Guidance Publications, Inc.
Moravia,
New York 13118

APPENDIX D

INTERVIEWING GUIDELINE

Intermediate Grades

PURPOSE

We see the purpose of an interview to be an accurate personal way to obtain information. A famous social scientist, Gordon Allport, once said, "If we want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do - why not ask them."

Interviewing can be used as an effective way for students to gain insight into a wide variety of jobs and workers.

METHOD AND TECHNIQUES

The following rules, which also apply to professional interviewers, generally should be followed by children.

1. The purpose of the interview, or some orientation to the interview, should be given at the start.

2. The interviewer should be friendly. He should seek to elicit and maintain the cooperation of the respondent.

3. The questions should be asked exactly as stated, and usually in the order given.

4. The responses should be reported as given. The interviewer should not show that he either agrees or disagrees with the answers. (It might be a good idea to have interview teams of two for each interview - one person to ask the questions and probe for the answers, the other to record what is being said.)

5. The interviewer should prompt or probe for some answers. This should be done especially when the answer is not clear, when it is very brief, or when the respondent is reluctant to answer. This is especially important.

PREPARATION FOR INTERVIEWING

1. Students should be aware of the purpose of the interview and also what the information will be used for.

2. Students should know who they will interview and contact that person for permission before the actual interview.

3. Role-playing should be used in the classroom as practice sessions.

4. Survey possibilities for interview in your community through the yellow pages.

5. Teachers should be aware and make students aware that misinformation may result from an interview. The worker may misunderstand the question, or he may not have enough detailed information that the student is seeking.

QUESTIONAIRE

Person Interviewed _____

Person Interviewing _____

Date _____

I. Name of Occupation

General _____

Specific Name _____

II. Information About A Job

1. What are the different types of workers found in your plant?

2. What kind of work do the majority of employees do?

3. Is the work outdoors or indoors?

4. What are your job duties?

178

5. What are the educational and experience requirements for your job?

6. What are the physical requirements?

7. What is possible weekly or monthly earnings? (Don't force this if they don't want to tell you.)

8. What are the future opportunities?

ACCESSION NUMBER: VT101989

PUBLICATION DATE: 30JUN73

TITLE: NORTH DAKOTA EXEMPLARY PROJECT IN CAREER EDUCATION. GRADE SIX CLASSROOM ACTIVITIES.

DESCRIPTOR: *CAREER EDUCATION; *DEVELOPMENTAL PROGRAMS; VOCATIONAL DEVELOPMENT; *CAREER AWARENESS; *CLASS ACTIVITIES; SELF CONCEPT; OCCUPATIONAL INFORMATION; TEACHING GUIDES; RESOURCE MATERIALS; *GRADE 6; JOB SKILLS; OCCUPATIONAL CLUSTERS; SKILL DEVELOPMENT

IDENTIFIER: *NORTH DAKOTA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 141P.; SEE RELATED DOCUMENTS VT 101 983 THRU VT 101 988 IN THIS ISSUE.

ABSTRACT: TEN BROAD OBJECTIVES ARE LISTED FOR GRADES 4-6, EXPANDING THOSE FOR THE PRIMARY GRADES. MATERIALS ON ACTIVITIES FOR VARIOUS ELEMENTS OF CAREER EDUCATION SUITABLE TO GRADE 6 ARE PRESENTED UNDER SELF-AWARENESS, CAREER AWARENESS, DECISION-MAKING SKILLS, APPRECIATIONS AND ATTITUDES, ECONOMIC AWARENESS, SKILL AWARENESS, AND EMPLOYABILITY SKILLS. SUGGESTED SUBJECT AREAS ARE MATH, SCIENCE, LANGUAGE ARTS, SOCIAL STUDIES, GENERAL, ART, AND PHYSICAL EDUCATION. SOMEWHAT MORE DETAILED JOB INFORMATION IS PROVIDED. RESOURCE MATERIALS GUIDELINES ARE APPENDED. (AUTHOR/MF)

CONTRACT NUMBER: OEG-0-70-4752(361)

INSTITUTION NAME: NORTH DAKOTA STATE BOARD FOR VOCATIONAL EDUCATION, BISMARCK.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 101 989

GRADE 6

AWARENESS

SKILLS

ATTITUDES

APPRECIATIONS

VT 101 989

GRADE SIX CLASSROOM ACTIVITIES

of the

North Dakota Exemplary Project in Career Education

Conducted Under

Section 142(c), Part D

Public Law 90-576

Project No. 0-361-0047
Grant No. OEG-0-70-4752(361)

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project Director: Larry Selland
Project Staff: Marvin Kollman
Robert Lamp
Gary Lee
Harry Weisenberger

North Dakota State Board for Vocational Education
State Office Building, 900 East Boulevard
Bismarck, North Dakota 58501

June 30, 1973

TABLE OF CONTENTS

I. Introduction

Preface. v
Acknowledgements vi
Purpose of Guideline vii
Career Education Philosophy. viii
Summary of Career Education Objectives ix
Concepts to Develop K-6. x
Intermediate Grades 4-6 Objectives xii

II. Elements of Career Education to be Achieved K-12
Activities that address themselves to the various elements are found on the following pages:

A. SELF-AWARENESS
Upper Grades Working with Lower Grades. 20
Contracts 29
Personal Hygiene. 67
Emotional Needs 70

B. CAREER AWARENESS
Research Unit 16
Communication Workers 21
Water Plant 40
Meteorologist 41
Electrical Workers. 44
Space Workers 48,49,50
Physical Fitness. 54
Workers in Nutrition Area 58
Workers Related to Sound. 74
Workers Related to Matter & Energy. 75
Recreational Occupation 100,102
Occupational Information. 105
Insurance Business. 106
Transportation. 108

C. DECISION MAKING SKILLS
Choosing Leisure Time Activity. 7
Report on Job 9
Occupational Preference 12
Steps & Activities in Decision-Making 45
Goals & Aspirations 91

D. APPRECIATIONS & ATTITUDES
Principles of Design. 1
Art Project Showing Aspirations 6
Occupations of Great Men. 13
Why People Work 24
Workers Around the World. 77
Immigration 79
Workers in Africa 82
Contrasting Workers in Asia With United States. 84
Leisure Time Act. 95

E. ECONOMIC AWARENESS
Buying Items 33
Unemployment 110

F. SKILL AWARENESS
Letter Writing 18
Newspaper Writing. 19
Math Skills. 32
Use of Fractions in Occupations. 35
Computation by Percent 37
Metric System. 38
Graphing 39
Music Training 87
Dancing. 89
Pscho-motor. 92, 109, 112
Hand-Eye Coordinator 94
YMCA 90

G. EMPLOYABILITY SKILLS
Library workers. 23
Conservation 52
Architecture 78
Healthy Body 96
Family's Occupation. 97
Competitive Games Rhythm 99
Educational Awareness. 101
Securing a Job 103
Job Roles. 104

Contents according to suggested subject area:

Math
Pages: 30, 32, 35, 37, 38

Science
Pages: 40, 41, 44, 48, 49, 50, 52, 54, 58, 67, 70, 74, 75

Language Arts
Pages: 16, 13, 12, 9, 18, 20, 21, 23, 24

Social Studies
Pages: 77, 78, 79, 82, 84

General
Pages: 7, 45

Art
Pages: 6, 1

Phy Ed
Pages: 89-112

III. Appendices

Resource People Guide 112
Field Trip Guide. 116
Address of Suppliers of Resource Materials (these are not free) 119
Interviewing Guideline. 125

PREFACE

The 1968 Vocational Education Amendments called attention to the need for innovative programs in education that would help students bridge the gap between school and work. In response to this legislation the State Board for Vocational Education in cooperation with the Department of Public Instruction, the Bismarck Public School District, and others have initiated a developmental program in Career Education. This program has been developed and field tested in the Bismarck District and other schools that have asked to become involved during 1970 - 1973.

The following materials have been compiled by the staff of North Dakota's Exemplary Career Education Program with the assistance of many individuals and groups. The contents are designed as ideas that could be used to develop various Career Education concepts and objectives. The activities are to be integrated into your existing curriculum, sequenced, and adapted to meet the needs of all people involved in education at the local school.

ACKNOWLEDGMENTS

The staff of the State Exemplary Project in Career Education gratefully acknowledge the help of the teachers, administrators and counselors in the Bismarck Public Schools for assistance in the development and field-testing of the suggested activities.

In addition to the personnel in the Bismarck School District many individuals and groups contributed to furthering the effort of Career Education in North Dakota. The project staff extends a special thank you to the staff of the State Board for Vocational Education, members of the Department of Public Instruction, and all other school districts, agencies, and individuals that helped make this publication a reality.

PURPOSE OF THIS GUIDELINE

The Career Education reference material included in this guideline represents information that will be helpful to teachers in achieving the goals of a Career Education program.

The guide provides a flexible framework to provide experiences that will support the learning principles needed to attain the required knowledge, attitudes and skills essential to productive living. Within this flexibility, there is a planned sequence from one grade level to next. The needs of the students, the involvement in the world of work and the classroom facilities should determine the selection of resource units to be utilized.

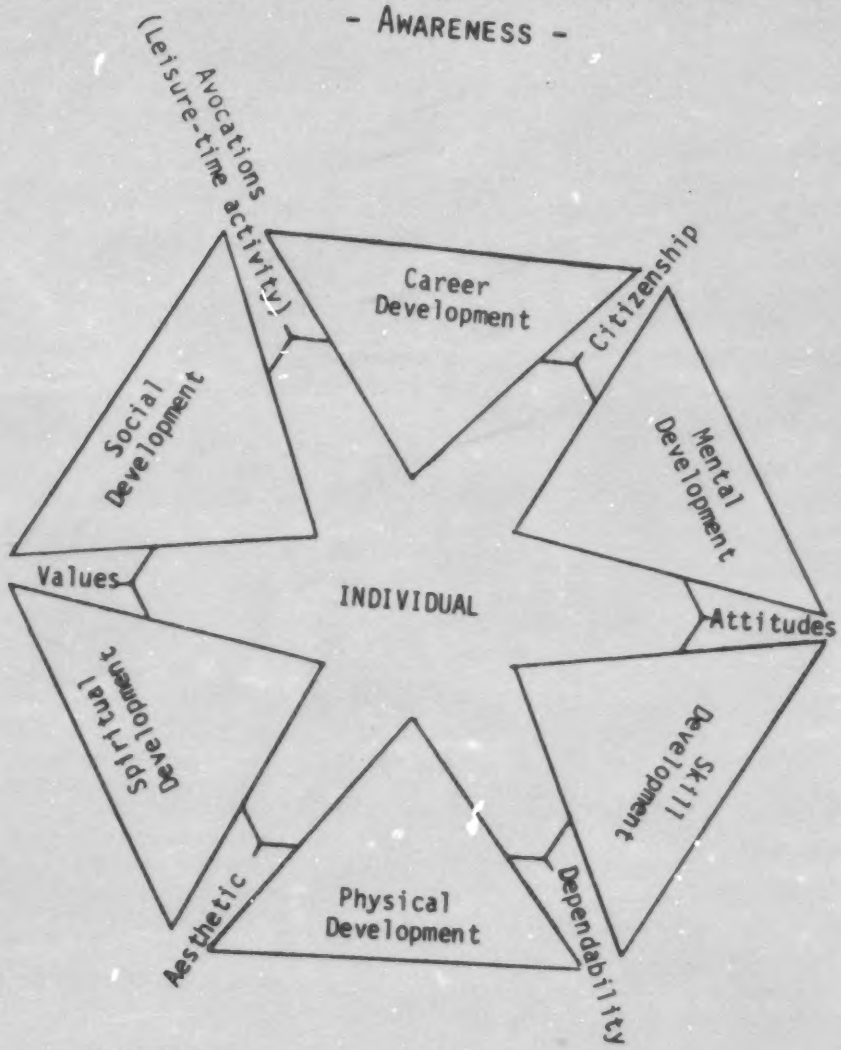
This guide does not provide a framework for a separate unit on careers. Rather, it is expected that learning experiences from the guide will be incorporated into existing units of instruction.

This guide is organized around three major objectives. To achieve these objectives the activities include expected student behavior and suggested learning experiences. Teachers are encouraged to add other goals and learning experiences which they have found successful.

The Career Education activities in this guide have been organized in the Table of Contents as they relate to the major subject areas and the three broad objectives. With this structure, the teacher has a ready reference for the selection of an activity appropriate for that area of the curriculum. In using the activities, the classroom teacher should make special note of the format as it applies to the student and teacher needs. Provisions have been made for a broad objective and supportive techniques. Also, suggested resources have been listed to help the teacher and student work out a plan of study. It is not intended that the teacher be limited to the activity as presented. Rather, it is to be thought of as a point of departure in accomplishing the desired objectives.

CAREER EDUCATION PHILOSOPHY (K-6)

- AWARENESS -



INVOLVEMENT OF HOME, COMMUNITY, AND SCHOOL

INDIVIDUAL DEVELOPMENT

Career development is that one aspect of life-long individual development which relates to the occupational needs of the individual and which occurs with social, emotional, mental, physical, spiritual, and skill development. All facets of individual development are integrated with each other in a life-long continuing process.

Career Education in the elementary school provides for helping individuals build positive self-images, positive attitudes toward all work and workers, and a broad orientation to workers and occupations.

Emphasis on the career development of the individual calls upon teachers, administrators, counselors, parents, and the business community cooperatively searching for ways of providing meaningful activities and experiences for students. These activities should not be taught as an isolated course. An integrated approach giving emphasis to Career Education concepts when and where the appropriate opportunity arises will provide meaning and purpose to the curriculum.

SUMMARY OF CAREER EDUCATION OBJECTIVES

I. PREPARE FOR MAKING CAREER DECISIONS

A. Know own characteristics relevant to career decisions.
B. Know the characteristics and requirement of different careers and occupations.
C. Relate own personal characteristics to occupational requirements.
D. Plan for career education or change.

II. IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

III. POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A. Have generally useful numerical skills.
B. Have generally useful communication skills.
C. Have generally useful manual-processing and decision-making skills.
D. Have generally useful interpersonal skills.
E. Have employment-seeking skills.

IV. PRACTICE EFFECTIVE WORK HABITS

A. Assume responsibility for own behavior.
B. Plan work.
C. Use initiative and ingenuity to fulfill responsibilities.
D. Adapt to varied conditions.
E. Maintain good health and grooming.

V. HAVE POSITIVE ATTITUDES TOWARD WORK

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of societal goals.
E. Pride in work improves quality.

VI. HAVE A POSITIVE IMAGE OF SELF

A. Understand feelings toward myself and others.
B. Understand and accept my similarities and differences.
C. Identify, clarify, accept, or change my values.
D. Assume responsibility toward self and society.
E. Recognize inherent capabilities.

CONCEPTS TO DEVELOP (GRADES K-6)

1. Specialization leads to interdependency.
2. Geographical location determines kinds of work found therein.
3. Individuals live in a particular geographical location due to the nature of their work.
4. People need to speak well in their work.
5. People need to be able to listen in their work.
6. People need to be able to write in their work.
7. Reading helps people in their careers.
8. The ability to communicate effectively helps a person work well with other people.
9. Understanding of mathematics helps people in their work.
10. Money is the chief form of barter in our society.
11. An understanding of science helps people in their work.
12. Having a scientific attitude (problem solving) helps people in their work.
13. Advances in science change work.
14. Advances in science have altered the occupations that produce goods and occupations that produce services.
15. Some people work to help us stay healthy.
16. Some people specialize in their work to keep us healthy.
17. There are many jobs associated with physical education.
18. Music, art, and drama give people pleasure.
19. Some people have occupations in fine arts to give us enjoyment.
20. Careers in the fine arts often require special training.
21. There are many jobs associated with fine arts.
22. Self-understanding is important in making career decisions.
23. Leisure time activities affect career choice.
24. Individuals differ in abilities, interests, attitudes and values.

CONCEPTS OF DEVELOP (Grades K-6) Cont.

26. Supply and demand of goods influences the kinds of workers found in the community.

27. People work for various rewards.

28. Math concepts are necessary in communicating.

29. A healthy body is essential to a productive worker.

30. Many people have special training for work.

31. Recreational activities expand interests.

INTERMEDIATE (GRADES 4-6) BROAD OBJECTIVES

I. To develop a positive self-concept that will lead to future self-fulfillment in a vocation.

A. To help students:

1. To respect and accept self and others
2. To be dependable
3. To be responsible
4. To be cooperative
5. To enjoy work and play
6. To make wise decisions and choices.

II. To develop a wide and varied interest that will open up an expanded basis for vocational choice.

III. To give students an opportunity to express goals and aspirations.

IV. To develop a positive attitude toward work and preparation for work.

V. To present appropriate occupational information using a broad introduction of occupations throughout the world.

VI. To provide more specific observational experience about the world of work.

VII. To make school subjects more meaningful.

VIII. To develop and foster a positive attitude toward the value of fine art.

IX. To impress upon student that a healthy body and mind is essential to a productive worker.

X. To develop skills basic to living a full and meaningful life.

CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

CONCEPT: To expand the concept that careers in the fine arts often require special training.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list three occupations that specifically use principle or elements of design.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 6

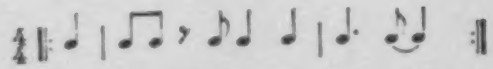
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have students list jobs that specifically use art. List these on the blackboard or bulletin board.	1. Discuss how they can see that art activities could affect their future lives in the world of work.	Drawing of occupations related to interest and ability in art.
2. Have students draw or paint different workers.	2. Use art in every subject area to get students involved.	Building Your Super Highway Zaffo, New Jersey: Garden City c 1957 gr. 4-7
3. Use pictures, graphs, cartoons, paintings, illustrations, etc., as a media in studying about the world of work.	3. Students may design a folder showing the tools needed in their future job. This folder is used throughout the year to hold art activities.	Fashions Looking Forward to a Career Seigel, Margot Dillon Press Mpls, Min
4. Make murals showing the development of a product.		16 mm film The American Vision Nat'l Gallery of Art Extension Service Washington, D. C. 20505
5. Make mural of workers in different parts of the world.		Great Masterpieces, Florida Development Commission, Film Library, Collins Bldg. Tallahassee, Florida 32304
		Filmstrips: X99 How a Picture Is Made (6 fs/cassettes or records) Eye Gate $46.00

SUGGESTED CORRELATION FOR THIS ACTIVITY: Mural used for Caste System - History
Mural used for Food Chains - Science
Perspective drawings correlated with Greek columns, etc.

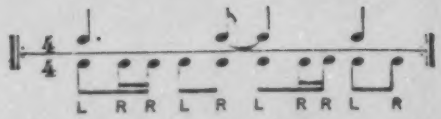
CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Song: "Build Me A Little House" p. 56 Music for Young Americans VI A. B. C. Local Artists to come in to demonstrate how. Build up a picture or Study of a Picture. Art Appreciation Painting Series No 2800 Jam Handy School Service Inc.

Improvise new verses based on school life.



Claves
Bongo



4-1-1 G-21 A-78

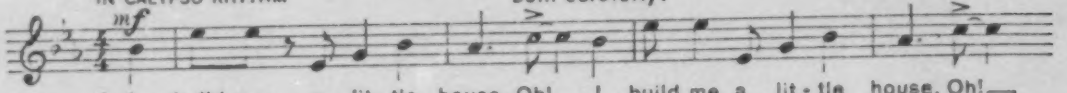
I Build Me a Little House

Key: E♭

The charm of this song lies in the rhythm and the accents. Help children to observe both carefully.

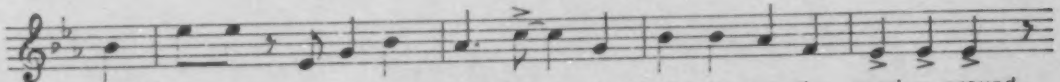
Jamaican Folk Song

IN CALYPSO RHYTHM

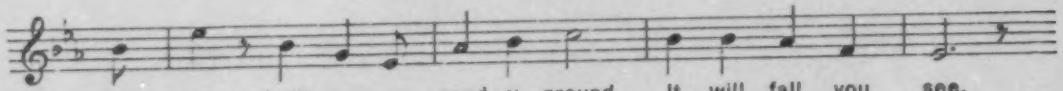


B♭-S-So

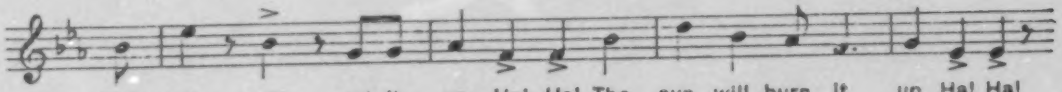
1. I build me a lit - tle house, Oh! I build me a lit - tle house, Oh!
2. I build me a lit - tle house, Oh! I build me a lit - tle house, Oh!



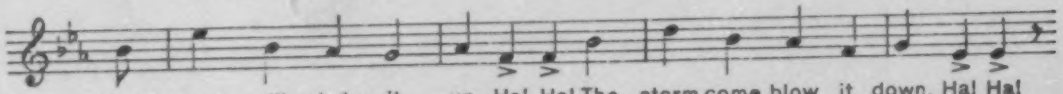
I build me a lit - tle house, Oh! I build it on the sand - y ground.
I build me a lit - tle house, Oh! I build it on the sol - id ground.



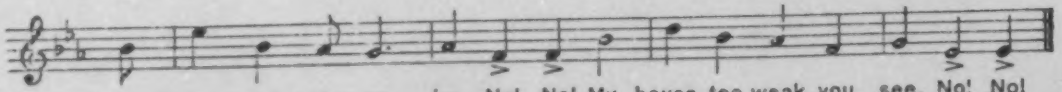
My house built on a sand - y ground, It will fall, you see.
My house built on a sol - id ground, It will stand, you see.



The rain will wet it up, Ha! Ha! The sun will burn it up, Ha! Ha!
The rain can't wet it up, Ha! Ha! The sun can't burn it up, Ha! Ha!



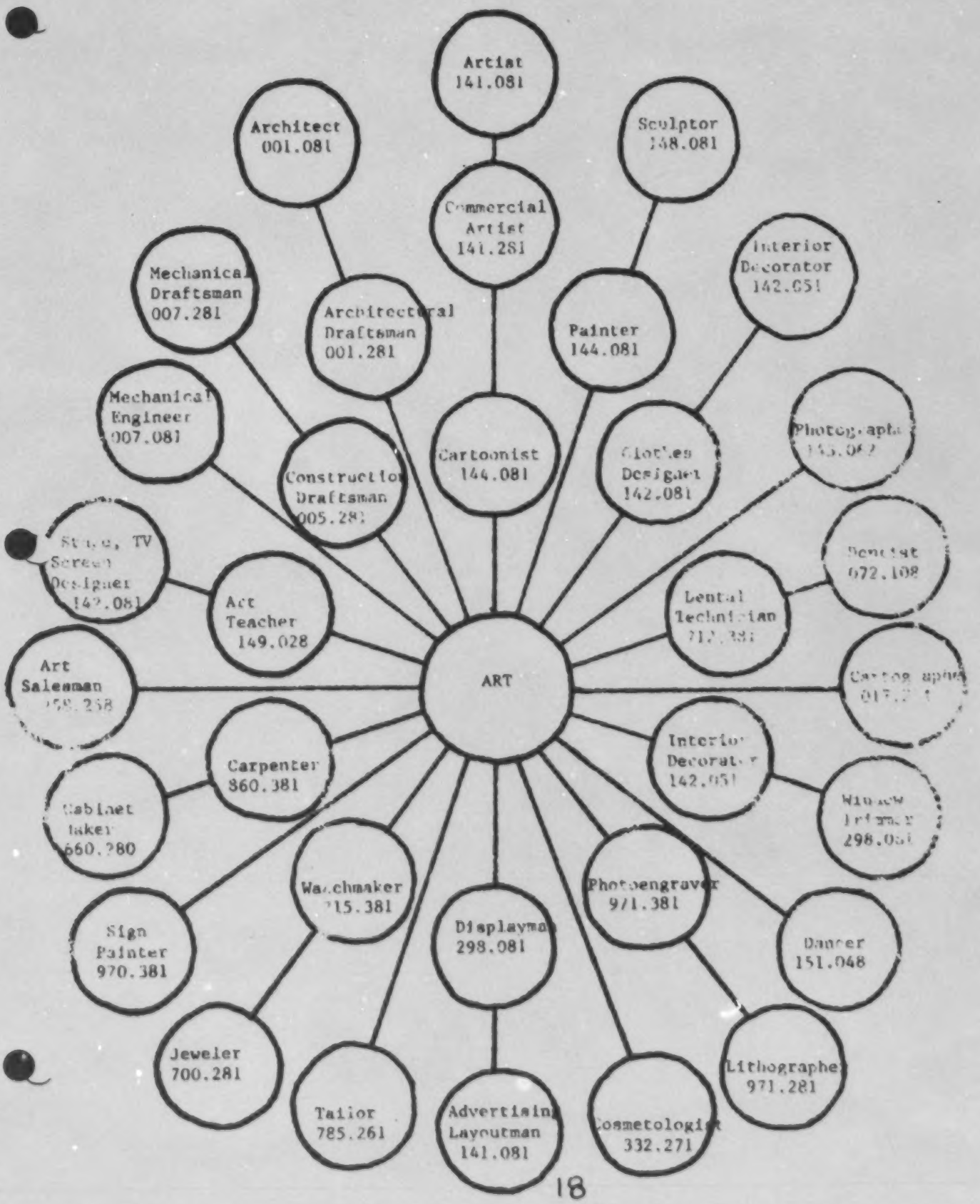
The breeze will shake it up, Ha! Ha! The storm come blow it down, Ha! Ha!
The breeze can't shake it up, Ha! Ha! The storm can't blow it down, Ha! Ha!



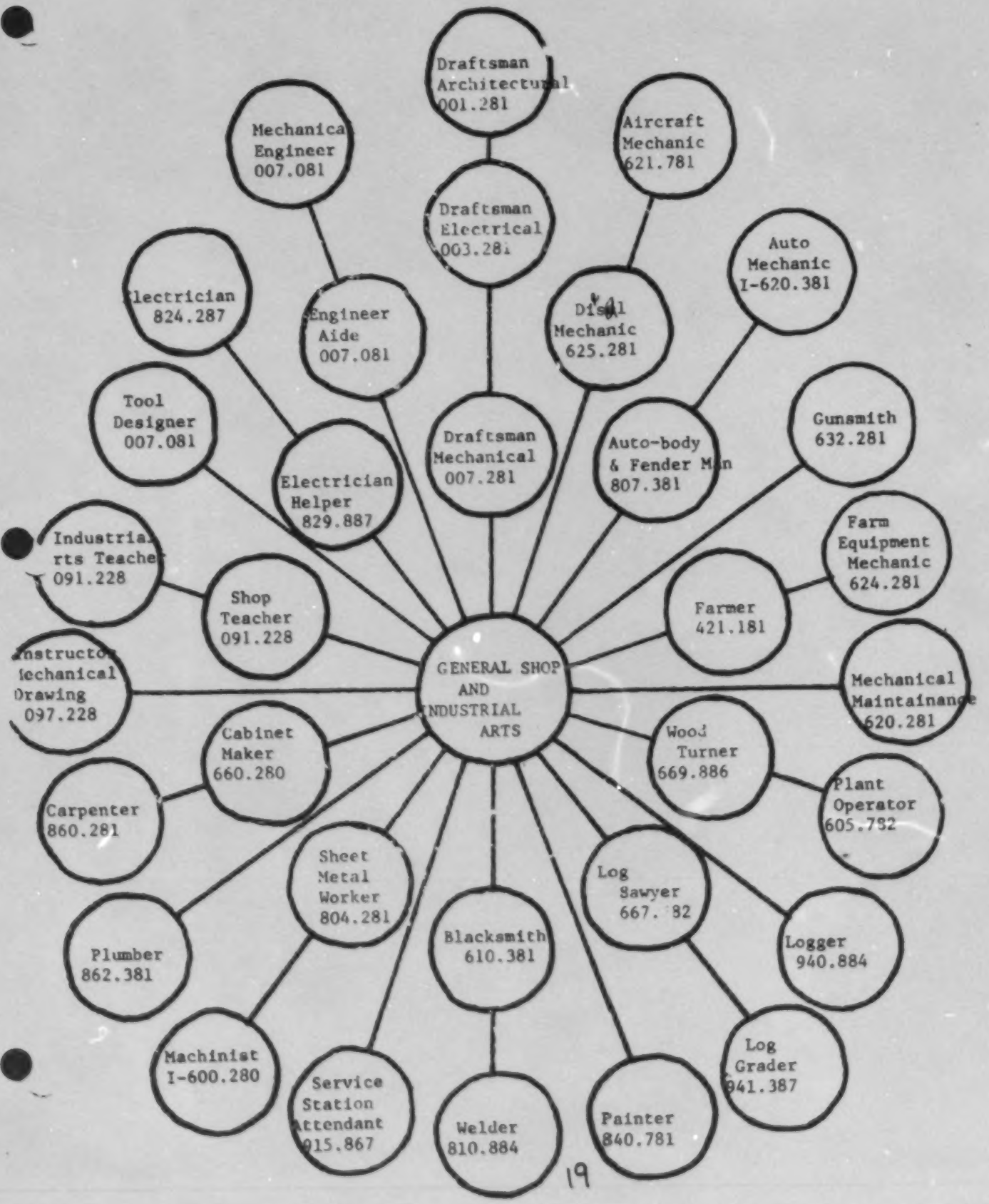
My house can nev - er be, No! No! My house too weak, you see, No! No!
My house will ev - er stand, Yes! Yes! It's built on sol - id land, Ha! Ha!

Taken from:
Music for Young Americans, Book 6
American Book Co.

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN ART



SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN GENERAL SHOP AND INDUSTRIAL ARTS



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts

CONCEPT: To expand the concept that many careers require special training.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will complete an art project showing his aspirations and tools used in an assigned occupation.

SUGGESTED SUBJECT AREA Art

SUGGESTED GRADE LEVEL 6

ACTIVITY

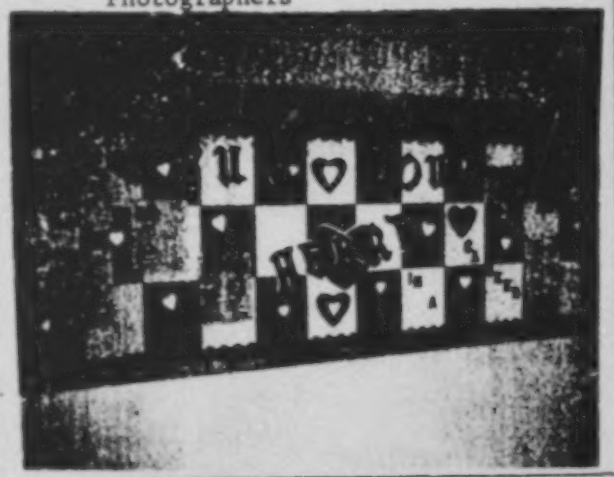
Make an art project showing what they would like to have as a lifetime occupation.

Commercial artists

Industrial designers

Interior Decorators

Photographers



SUGGESTED TECHNIQUE

1. Discuss:
   a. How many of you have given any thought to your future lately?
   b. How many of you have changed your mind since the last time we talked?
   c. What tools would you be using in this occupation?

Today you will have an opportunity to show your aspirations on an art project.

1. Pass out a sheet of black construction paper, 15-1" squares of white paper, and one 8½ x 11' sheet of white paper.

2. Ask students to use their paper to spell out the occupation using the 1" white squares and scissors.

3. Have them use the large white sheet to cut out and color tools they would use in this occupation.

RESOURCE MATERIALS

Creativity

From Stones to Skyscrapers, Bergen, Theo and Richard gr. 4-7 Eau Claire, Wis. E. M. Hale, c 1965

Mr. Budge Builds a House, Adamson, Philadelphia, PA Chilton, 1963 gr. 4-7

The Boy's Book of Tools, Yates Harper and Rowe, New York

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Correlate with Number 1

CAREER DEVELOPMEN ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to choose one area of leisure time activity to participate in for the designated time.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Macramé	Start by teaching the basic knots, then move into simple projects or whatever projects they'd like.	
Knitting	All beginners start with same size needles and yarn to learn the two basic stitches and how to read directions; proceed to simple projects.	Needles, yarn, directions
Crochet	Beginners start with large hook and 4 ply yarn; learn all the stitches and how to read directions; go into simple projects.	Hooks, yarn, directions
Rag Dolls	Instructor bring pattern, fabric, for bodies, yarn for hair; the students do all their own cutting, stitching, embroidering of faces and make clothes from scraps. Some may use new found skills of crocheting and knitting to make clothes.	Fabric, yarn, scissors
Woodwork	To acquaint students with carpentry skills and tools;	

(continued)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Leatherwork	After viewing filmstrips students will proceed to do their own experimenting with leather and tools and projects.	Filmstrips with cassettes: "Creative Approach and Processes in Leather - Part I and II" "Awareness and Design of Leather" "Ideas in Leather for the Elementary" Available from either the Bismarck or Fargo Tandy Leather store.
Electronics	Combination of lecture and actual doing to back basics of electrical circuits; how and why bells ring, light circuitry, switches and how they operate.	
	Macramé, knitting, rag dolls, and crocheting could develop into full or part-time jobs; macramé is often an artistic pursuit.	
	Woodwork, leathercraft, and electronics could easily develop into lifetime careers such as electrical engineering, carpentry, radio and TV repair.	

CAREER DEVELOPMENT ACTIVITIFS

BROAD OBJECTIVE: To broaden the concept of positive attitudes toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will locate, read and report on an article relating to a job that he is interested in.

SUGGESTED SUBJECT AREA Reading for information

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Read: Want Ads Booklets that each other has done. Research for library study skills Story problems - math Captions on filmstrips Magazines Poetry articles Biographies Story of the FBI Write - Want Ads Use for bulletin board Have finger printing lesson from local police force. Make riddle: guess the workers Name a worker-what doe he do.	In what jobs is reading very necessary? In what jobs does the worker not need to know how to read (if there are any)? Read for information about occupations from various sources. Do write ups on chosen professions after discussion of various job choices. Do research into FBI Profession and give its value to our society. 	Filmstrips: "American Folklore Heroes" Series No. 7820 (8) "American Legendary Heroes" Series No. 7420 (6) Encyclopedia Britannica Books: The Great Heritage - Christian Science Monitor: Shippen, Viking Press What Job For Me? Grade 6-12 (14 bk series) McGraw Hill Book Co., N.Y. I Know A City - Shippen, Katherine Viking Press Read About the Teacher, Klapbrun Franci Franklin Watts, Inc. The Story of The FBI, Miers, Carl Schenck Grosset & Dunlap c 1965 gr. 4-9 Seeing Ourselves - Gr. 6 National Forum Series - American Guidance Service, 720 Washington Ave. S. E. Minneapolis, MN 55414 The U. S. Border Patrol Crawford, William - G. P. Putnam, NY Continued

SUGGESTED CORRELATION FOR THIS ACTIVITY: Interest Center Project - Use Elmer's glue to make student's finger print molds.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		1. What Does the Secret Service Agent Do? 2. What Does a Diver DO? 3. What Does a Parachutist Do? all by Wayne Hyde Dodd Mead - NY Songs: "Molly Malon" p. 60 Making Music Your Own Book VI c 1971 Silver Burdette, Co. "Anatomy Lesson" p. 170 (Rhyming) Discovering Music V A. B. C. Others Paths to Follow - grade 6 text Scott Foreasman Local Detective - Police Force

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN ENGLISH

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express their goals and aspirations

CONCEPT: To expand concept a society needs both a producer of goods and of services and many people have special training for world of work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list his preferred occupation and tell three reasons why he is interested in it.

SUGGESTED SUBJECT AREA Reading - Geographical Areas

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Teacher make a list of various examples of jobs or professions as they come up in the course work. End of week - or unit activity. 2. Have students choose the occupations they are most interested in, listing them in order of preference. 3. Student do research on one or two occupations that interest him the most. Find the locational, historical background, present - future - imaginary. 4. Draw jobs of parents Then - Now - Future 5. Make scrap books (fantasy) on occupations each would like to follow in later adult life.	Discuss with students that there are a large number of occupations open to each of them. Impress upon them that it is never too early to start thinking about what they would like to do some day. Draw a cartoon of "Life on other Continents" Do research on chosen occupation. Write up reports and include in scrap books made.	Geography Textbook Reading Textbook Occupational Outlook Handbook U. S. Department of Labor What Job for Me? Series (booklets) McGraw Hill Book Company Film 16 min. (Free) Fisherman's Gamble Consulate General of Canada Film Library 310 S. Michigan Avenue Chicago, Ill. 60604 Filmstrip - Record Distributive Education #207 Educ-craft Inc. Technical & Industrial Occupations #211 Educ. Craft, Inc.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations

CONCEPTS: A. Individuals differ in abilities, interest, attitudes and values. Leisure time activities affect career choice. B. Society needs both a producer of goods and producer of services.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will read about and write a written report on five men and list six reasons for their success in their occupational field.

SUGGESTED SUBJECT AREA Language Arts
Reading - Biographies

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Introduce biography books on hand and how others may be found in library. 2. Share ideas obtained from reading with other pupils. a. book jackets b. dioramas c. reports d. dramatize e. role playing 3. Use attached sheet as example of other activities connected with the biography books. 4. Write an autobiography early in year - "All About Myself" 5. Relate a "success" story	Teacher mentions books and ask students to keep these things in mind as they read the books: 1. Individuals early years a. home b. school c. hobbies d. his goals in life e. early employment 2. Problems he had faced. 3. How he coped with these problems. 4. How individual attained greatness in his area. 5. Character qualities of individuals Write your auto-biography projecting it into the future.	Books - Biographies Song "Knowledge and Wisdom"(round) Filmstrips on famous people could also be used along with biography books filmstrips - The Utilities #204,205,206 #208 Office Occations Educ-Craft

SUGGESTED CORRELATION FOR THIS ACTIVITY: Mental Health Unit

27

■ THE BIOGRAPHER records Franklin's early life in such a way that it foreshadows many of his accomplishments in later life. Events are made subordinate to the inner life of the man, with the stress on his imagination, curiosity, fervent commitment to the possibilities of man, and devotion to his country.

QUESTIONS

1. What were the terms of *indenture* that 12-year-old Ben had to accept when he went to work for his brother? (13–14) How would *you* feel about this kind of arrangement?
2. What would you say was the most difficult situation Ben faced during his life? What do you think caused him the most sadness?
3. What qualities did Benjamin Franklin have that made him a success? What would you say was the most impressive of all his accomplishments?
4. What part of this biography was unfamiliar to you?

APPRECIATIONS

1. What would happen to our community if an embargo were put on trade? (129)
2. Why was Pennsylvania the only colony that had no means of defense? (71–73) Why did Franklin feel it was up to the "middling people" to find the means for defense? (74)
3. Who pays for wars? Were the colonists right to refuse to pay for the British army which protected them? Why? (113–114) Why were the colonists able to refuse? (116, 119)
4. Why was it difficult to unify the colonies after the Revolution? (175)

1 It must have been very difficult for Franklin to accept the fact that his son disagreed with him about breaking free of England. Write the letter that Franklin's son might have written to him explaining *his* point of view.

2 What would you have liked best about living in Philadelphia after the Revolution? How would you have looked? What profession would you have followed, and what would your family have been like? Draw some illustrations to go with your thoughts.

3 If you can locate a copy of *Poor Richard's Almanac*, select one maxim a day for a week, such as the ones on page 62 of this book. Put the maxim up for the class to read and ask them what it means. Be sure you understand it first!

4 Ben Franklin believed in free education for young people. What would be different about our school if our education were *not* free? Put down the reasons why a free education for everyone is necessary.

5 What words might have been in the *Pennsylvania Gazette* about the Battles of Lexington and Concord? Write that newspaper article and make up a headline for it. Read over pages 133 and 134.

Taken from:
This Is Music For Today
Grade 6, Allyn & Bacon

Knowledge and Wisdom *(Round)*

Rapidly

Music and Words by Henry Purcell (1659-1695)

I

Bub-bling and splash-ing and foam-ing and dash - ing,

With noise and with bus - tle, the brook rush-es by;

II

But si - lent and slow does the deep riv- er flow,

On the smooth, glass-y sur-face re - flect - ing the sky.

III

Thus shal-low pre - tence bab - bles on with-out sense,

While true knowl-edge and wis - dom sit qui - et - ly by.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide occupational information.

SPECIFIC BEHAVIORAL OBJECTIVE: Each sixth grade English student will be able to complete a folder of material about a job that interests them.

SUGGESTED SUBJECT AREA English

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Compile a folder of detailed information that has been researched regarding an occupation of interest.	This could be done as a unit with integration of Language Arts skills or as separate activities over a longer period of time.	Occupational Outlook Handbook Occupational materials from guidance office Library books

SUGGESTED CORRELATION FOR THIS ACTIVITY:

WORLD OF WORK PROJECT
Due at end of 9 week period

English 6
Mrs. Walth, Teacher

17

Each 6th grade english student is to compile a folder of material about a particular job or occupation in which he is interested. There is a vast selection from which he can choose. The list titled Some Occupations Related to Interest and Ability in English contains only a suggestion of possibilities.

The folder will be graded on

1) Quality of information; types of information included; grammatical acceptance and thoroughness of subject matter.
2) Creativity: art work, variety of content, arrangement of materials attractiveness of folder, and general interest to other students.

Suggestions for content ideas:

1. Write paragraphs to tell a) Why people work (generally speaking) b) Why you are interested in this job c) What language skills are needed for this job and how are they used. (Reading, writing, typing, spelling, creativity, speaking, good grammar, study skills...maps, dictionaries, reference books, use of library; letter writing, use of microphones, interviewing, meeting people, listening, etc.) d) What rewards result in this occupation? (Self respect, good use of time and talent, getting to know people, self-satisfaction, material rewards...salary, challenges, and growth and development that promotes ones well being mentally, socially, spiritually, and/or emotionally.

2. Include magazine and newspaper articles and want ads pertaining to your type of job selection. Include pictures with articles when possible.

3. List captions or titles of books, films, articles, or biographies related to the job.

4. Include your own artwork, drawings or sketches related to job. Make your cover interesting and attractive.

5. List or include copies of letters you have written for information or to thank some establishment for helping you in this project.

6. Include write ups of interviews you've made related to the job. You might write "thank you" letters to people you have interviewed, and make note f of this in your folder.

7. Include samples of products or goods produced by such a person if products are a part of his profession...or pictures of products.

8. List of resources used in preparing folder:
   A. Names of persons interviewed
   B. List of books and magazines read (titles and Authors)
   C. Visits to establishments where one finds workers in this occupation.

Notice that the above are only suggestions. Do some brainstorming, be creative, let yourself go and see what you come up with! You will probably have many more ideas.

Basic ability of each student will be considered when folders are graded.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: To expand concept specialization leads to interdependency

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will write an assigned letter and proofread another person's letter.

SUGGESTED SUBJECT AREA Grammar and Spelling Language Arts

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Review language skills in correct usage, capitalization, and punctuation. Write up an interview interview letters of -thank you -invitations -ordering Make up collage of all workers in communication fields.	Why is correct grammar use necessary for success in world of work? What is proofreading? What job area would need such persons? Why is correct form in letter writing essential?	Handbook - section of Language Text Filmstrips: Beginning Grammar (color) Series No. 8840 Encyclopedia Britannica Resource people: Secretary Printer Lawyer Book: How to Write Letters for All Occasions, Sheffs & Ingalls Doubleday $3.95

SUGGESTED CORRELATION FOR THIS ACTIVITY: Would be good to correlate with spelling - call in a printer, legal secretary, CPA to stress the importance of proper spelling, proofreading and accuracy and what the effects are (consequences)if errors are made .

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

Concept: To expand concept specialization leads to interdependency

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will contribute to an assigned school newspaper and proofread and edit.

SUGGESTED SUBJECT AREA Language arts Newspaper, creative writing, printing

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Study the Newspaper	Why is correct grammar use necessary for success in world of work?	Handbook - section of Language Text
2. Write up an interview, editorial, feature story, sports stories also letters of thanks, invitation, ordering.	What is proofreading? What job area would need such persons? (Edited - Proofreading for school paper)	Filmstrips: Beginning Grammar (color) Series No. 8840 (8) Encyclopedia Britannica
3. Do a school newspaper. Study beginning of printing (Gutenberg to present day) Find errors in newspapers	Why is correct form and language essential? What categories constitute the newspaper.	Resource People: Legal secretary or bookkeeper (speak to class on need for Language Arts skills e.g. writing, spelling, punctuation, verb forms)
4. Use a hand printing set type setting, movable type.	Use rubber stamp and ink pad (movable type) to teach concept of printing press.	
5. Children may wish to draw plueprints.		Architectural Business Blueprints
6. Creative writing.	Independent activity	Imagine and Write booklets from American Education Corp.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMEN ACTIVITIES

BROAD OBJECTIVE: To build positive self-image.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show improvement in relationship with other students as observed by teacher.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Choose library book from lower level and easy books. Creative writing with primary student dictating to older student. Doing art activities	Teacher contact primary room to establish one-to-one pupil relationship. Upper grade student reads to lower grade student and younger student reads to student from book he can share.	Textbooks Supplementary reading books Creative writing starter ideas

SUGGESTED CORRELATION FOR THIS ACTIVITY: This is done weekly and works best to develop friendly relationships if children go for at least 3 to 4 months at a time and are working with the same child each time.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: To expand the concept of the ability to communicate effectively helps a person work well with other people. And people need to be able to listen in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will play the role of a worker in the communication field.

SUGGESTED SUBJECT AREA Oral Communication and Language Arts - Listening skills

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Improve yourself by constructive criticism give reports dramatize ask riddles tell jokes recite poetry do choral reading Perform for others lower grades Your own peers upper	What jobs depend mainly on oral communication? How important is speech use in radio announcing Television sales talk receptionist public speaker entertainer public relations (you) teacher Do role-playing for different workers.	Resource people Ministers - How to prepare and deliver a sermon. Campaign speeches - resource people SRA - Listening Skill Builders tapes - intermediate grades Books: The First Book of Acting, Schrion Karl, Franklin Watts, Inc. c 1965 gr. 4 Dramatic recordings: Ogden Nash Reads, Caedmon Records Hearing Poetry, Caedmon Records "Lame Tame Crane" p. 9 (Tongue twister) This is Music VI, Allyn Bacon "Knowledge & Wisdom" p. 54 (same edition) 53 (A-I) Story of Communication IF53 - 9 films 5 casettes Eyegate

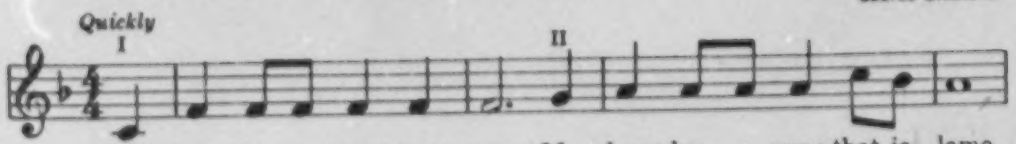
SUGGESTED CORRELATION FOR THIS ACTIVITY:

Taken from:
This is Music, Book VI
pg. 9. Allyn & Bacon

36

Lame Tame Crane *(A Tongue-twister Round)*

Source Unknown



My dame has a lame tame crane, My dame has a crane that is lame.

Pray, gen- tle Jane, let my dame's lame crane___ feed and come home a - gain.

CAREER DEVELOPMENT ACTIVITIES

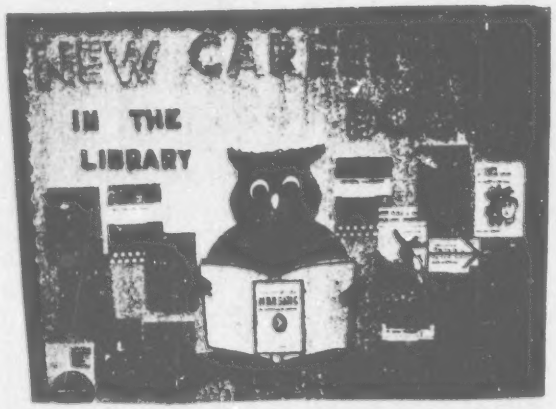
BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: To expand the concept that reading helps people in their careers.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list two work responsibilities of each library employee.

SUGGESTED SUBJECT AREA Language Arts
Library Skills

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study the library 1. Necessity 2. School (central vs. room) 3. Public 4. Industrial (clinical) Visit local libraries with focus on jobs and workers needed in various capacities.  	1. Build a library personnel pyramid and list duties of each. Field trip to library. 2. Draw floor plan of local school library: card catalog - author card, title, subject, cross reference references; maps; magazines; newspapers. Interview each type of worker. 3. Write up articles for school newspaper. 4. Write a mini-term paper using note cards, outline, etc. (good preparation for junior high) 5. Catalog paper back books in room.	Pamphlets on the library skills workbook Texts The card catalog Reader's Guide (current magazines) Resource people Books: Read About the Librarian, Klagsbrun, Francine, Franklin Watts, Inc. C 1970 New York, NY (Lexington Ave. 10022) Some Day I'll Be a Librarian Splaver, Sarah, New York, NY Hawthorn Book Inc. 1967 gr. 5-9 Transparency 031-2 The Floor Plan Its Relation to the House - Eyegate

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Correlates well with field trip to architectural firm. Blue print, floor plans, etc. and students enjoy drawing a floor plan.

CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To develop a positive self-concept (5) that will lead to future self-fulfillment in a vocation.

CONCEPT: To introduce the concept that people work for various rewards.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student is able to list four reasons why people work.

SUGGESTED SUBJECT AREA Language Arts & Math

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Use questionnaire (See attached sheet) 38 	Interview: Encourage each student to interview a worker other than a parent or relative and ask them to check all the reasons, (positive and negative) why they work. Students are encouraged to inverview people who work in a job or career they themselves may eventually have. Students will need to have preparation on how to conduct an interview (see appendix). (attached questionnaire) Compute the results and graph to show the reaction.	Library books: How money is Made, Cooke, David C. New, York: Dodd-Mead & Co. c. 1962 grades 4-6 What Subjects for Me to Like? What Job For Me? Series c 1966 Anton, Stanley - Charlie the TV Repairman Goodman, Burton - Pete the Service Station Attendant C 1966 (18 book series) gr. 4-12 McGraw-Hill Some Day I'm Going to Be Somebody, Dunham, Hohn, Chicago Ill, Children's Pre C 1970 Song: "When Everyone is Sombodee" Gilbert,Sullivan p. 74-77 Mastering Music Book 6 American Book Co. 1970 "This Land is Your Land" p. 22 Making Music Your own, Silver Burdette Cc C 1971

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Weekly Reader - Columbus, Ohio Graphs and Tables (pamphlet) Song: A Merry Life "Tour of the Fed" on Federal Reserve Bank, money checks, etc. call bank for. For films on money call Carol DeForest, N. D. Bankers Association Office, Bismarck, ND

WHY DO YOU WORK?

Work for many people has become more and more simply a means toward the end of earning a living. Having a job serves other functions than the one of earning a living. Working gives us a feeling of being tied into the larger society of having something to do, of having a purpose in life. We are interested in exploring the function and meaning of work for employed people. Please check the positive and negative reasons why you work.

Occupation _____

POSITIVE REASONS

____ Enjoy the kind of work -

____ To be associated with people -

____ To keep occupied -

____ Justifies my existence -

____ Gives feeling of self respect -

____ Keeps individual healthy -

____ Other _____

NEGATIVE REASONS

Without work, would:

____ Feel lost, go crazy -

____ Feel useless -

____ Feel bored -

____ Not know what to do with my time -

____ Habit, inertia -

____ To keep out of trouble -

____ Other _____

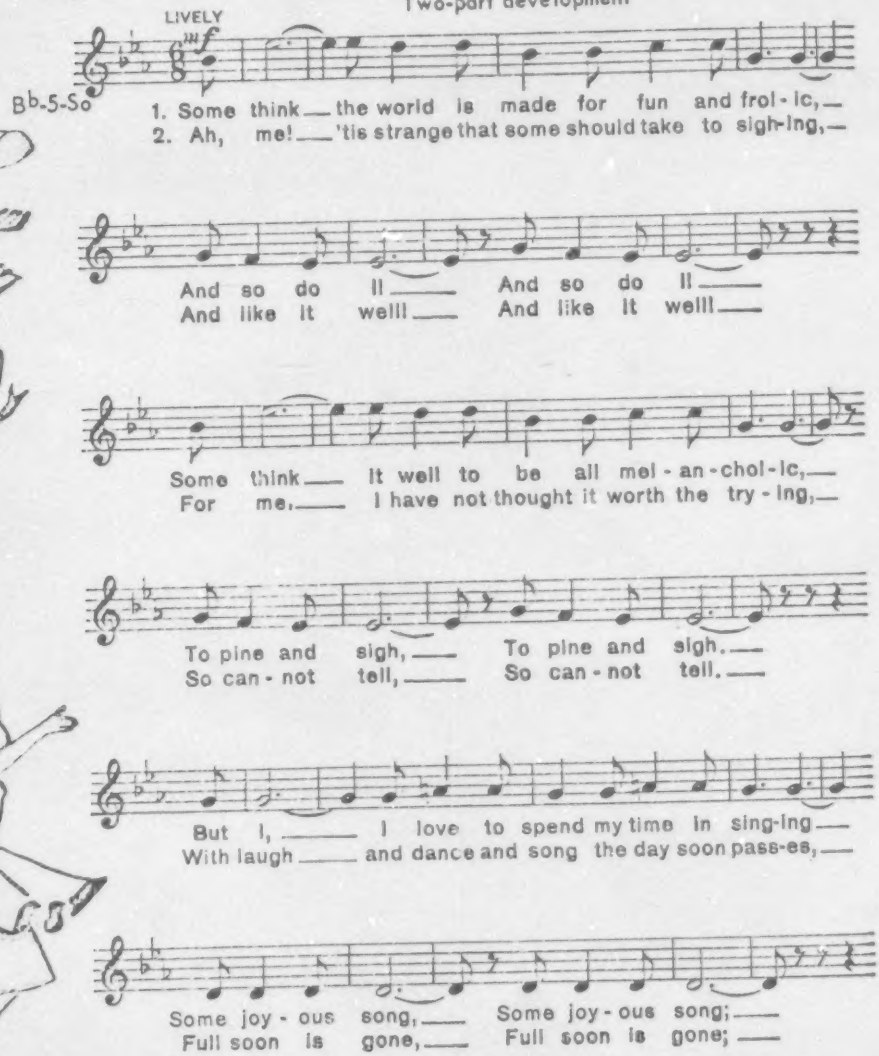
1-3-1 G-10 A-22

A Merry Life

Key: E♭

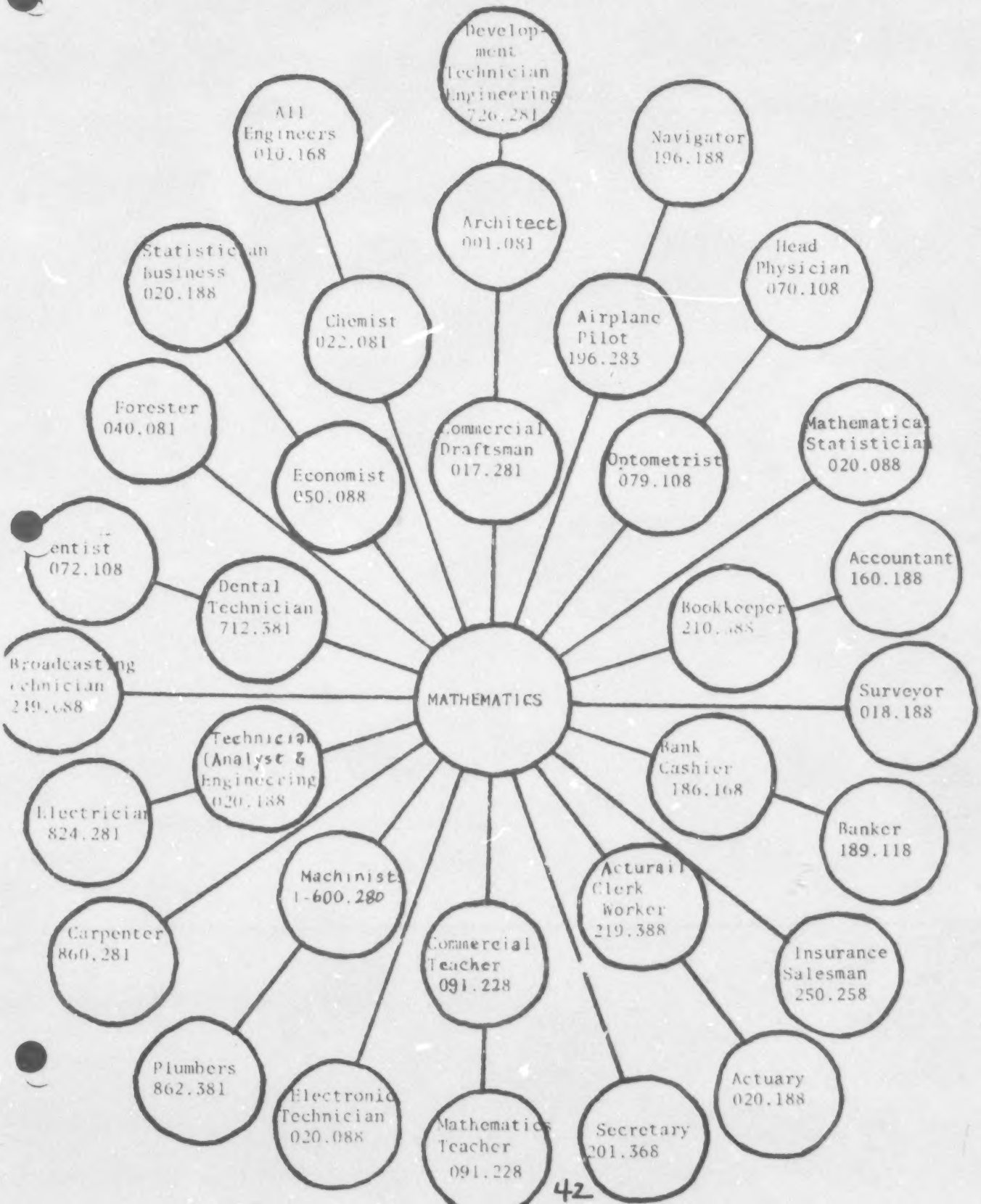
Words and Music by Luigi Denza

Expressive singing
Two-part development



Taken from:
Music for Young Americans, Book 6
American Book Co.

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN MATHEMATICS



CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To develop a positive self-concept (to be dependable) that will lead to future self-fulfillment in a vocation.

CONCEPT: To develop the concept that math concepts are necessary in communicating

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will prepare a performance contract between himself and another person.

SUGGESTED SUBJECT AREA Language Arts

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have teacher make up a contract between teacher and students to show them that Math concepts are necessary in writing a contract in everyday life. 1. Student receives: a. Contract b. Progress charts c. Worksheets - (when ready to complete them) 2. Tests are corrected by teacher; student checks and records daily work; papers are filed in folders. 3. Each contract is found in a labeled manila folder. Student readily finds needed keys or materials.	Discuss: 1. What are math concepts? 2. What is a contract? 3. Show sample contract between two people. 4. What is the value of having a contract? 5. In what ways are math concepts written into a contract? 6. Fulfill your contract. 7. I would like each of you to draw up a contract between yourself and another person.	Sample contract (attached) Math Book "Arithmetic Song" p. 26-27 Singing Together copy p. 16 mm film Donald in Mathmagic Land, 26 min (color) University of Illinois - 1971-74 Clean Air - Sparkling Water Dorothy Shuttlesworth, Doubleday Co. "Mathematics in Action"(51 1-A-H) Eyegate

SUGGESTED CORRELATION FOR THIS ACTIVITY:

SUBJECT: Math - Fractions
GRADE _____ ROOM _____
CONTRACT #7-245-255-6
PUPILS NAME _____
TEACHERS NAME _____

(1.) TITLE: Fractional Numbers
(2.) PURPOSE: To successfully use fractions in the operations of addition, subtraction, multiplication, and division.
(3.) INSTRUCTIONAL PURPOSE: To have the pupils understand and carry out operations using fractional numbers, (1.) know the definition of a reciprocal, (2.) zero (0) does not have a reciprocal, (3.) divide fractional numbers, (4.) comparing fractional numbers, (5.) using exponents with fractional numbers.
(4.) PRETEST:
(5.) RESOURCE-ACTIVITIES: TEXT: Elementary Mathematics, Patterns and Structure, 6.
Do the following assignments:

_____ a. Chalkboard activities: Select 5-6 students, see your teacher for explanations of (1.) reciprocals, (2.) division of fractions.
_____ b. Read p.245, then do 4-9 on pages 246-247; and Exercises 1-2 on page 247.
_____ c. Read "Division by One" on pages 247-248; then do Exercises 1-2 page 248. Just find answer and then do, "Keep in Practice" #1-5 on page 248.
_____ d. Do Exercises #1 on page 252 and #1 on page 255.
_____ e. View Filmstrip "Division of Fractions"
_____ f. Worksheet #D-1
_____ g. Do pages 260-261 (1-7).
_____ h. Do Worksheet #D-2, #D-3, #D-4.

(6.) Post Test:

Date Completed:			Percentage	Grade
_____	(1.)	Chalkboard activities with teacher:		
_____	(2.)	View filmstrip "Division of fractions"		
_____	(3.)	Problems #4-9, page 246-247; Exercises 1-2 page 247	_____	_____
_____	(4.)	Exercises 1-2 page 248; and #1-5 on page 248.	_____	_____
_____	(5.)	Exercise #1 on page 252; Exercise #1 on page 255.	_____	_____
_____	(6.)	Worksheet #D-1	_____	_____
_____	(7.)	Pages 260-261 (1-7)	_____	_____
_____	(8.)	Worksheet #D-2	_____	_____
_____	(9.)	Worksheet #D-3	_____	_____
_____	(10.)	Worksheet #D-4	_____	_____

Average on this contract ____
Teacher's initials _____

	Percentage	Grade
	_____	_____

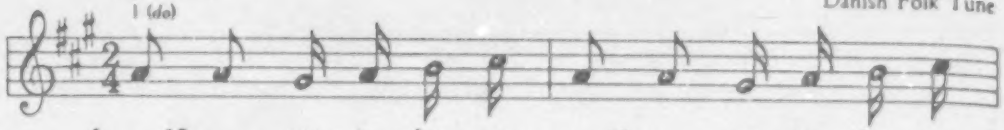
Date Completed:		Supplementary		
_____	1.	_____	_____	_____
_____	2.	_____	_____	_____
_____	3.	_____	_____	_____

Arithmetic Song (p. 248)

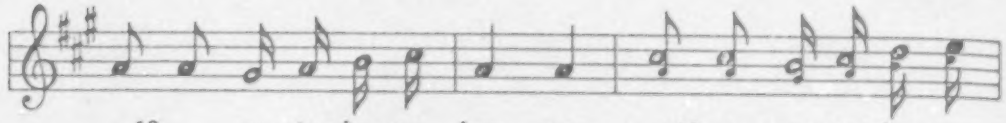
Charles J Cromwell

Rhythmically
1 (*do*)

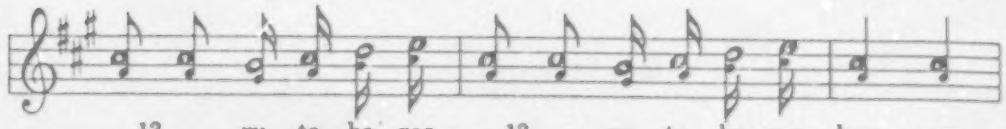
Danish Folk Tune



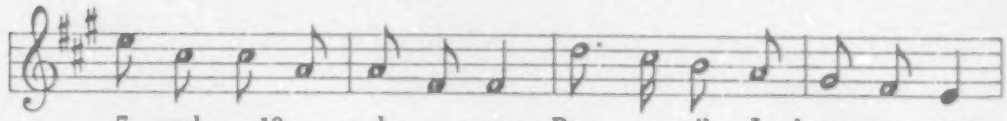
1. 13 ru - ta - ba - gas, 13 ru - ta - ba - gas,
2. 14 ru - ta - ba - gas, 14 ru - ta - ba - gas,
3. 15 ru - ta - ba - gas, 15 ru - ta - ba - gas,



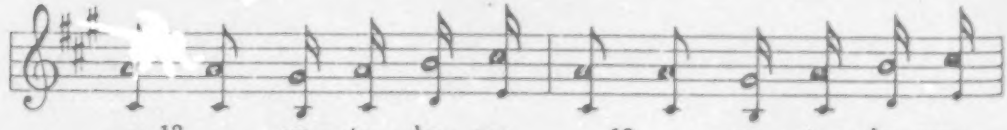
13 ru - ta - ba - gas, buy now. 13 ru - ta - ba - gas,
14 ru - ta - ba - gas, buy now. 14 ru - ta - ba - gas,
15 ru - ta - ba - gas, buy now. 15 ru - ta - ba - gas,



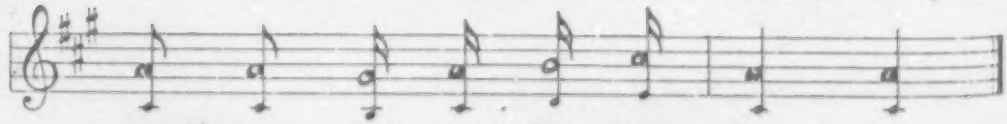
13 ru - ta - ba - gas, 13 ru - ta - ba - gas, buy now.
14 ru - ta - ba - gas, 14 ru - ta - ba - gas, buy now.
15 ru - ta - ba - gas, 15 ru - ta - ba - gas, buy now.



7 and 13 make a score, Buy un - til I have no more.
(?) and 14 make a score, Buy un - til I have no more.
(?) and 15 make a score, Buy un - til I have no more.



13 ru - ta - ba - gas, 13 ru - ta - ba - gas,
14 ru - ta - ba - gas, 14 ru - ta - ba - gas,
15 ru - ta - ba - gas, 15 ru - ta - ba - gas,



13 ru - ta - ba - gas, buy now.
14 ru - ta - ba - gas, buy now.
15 ru - ta - ba - gas, buy now.

Taken from:
Singing Together, Book 5
Ginn Co.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: To expand understanding of math helps people in their work

SPECIFIC BEHAVIORAL OBJECTIVE: Students will show by concrete means that they are preparing for li e by taking mathematics.

SUGGESTED SUBJECT AREA Math concepts

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Ask students how they use math in their life. Examples: A. Sports B. Mechanics C. Hobbies 1. fish scale 2. leather work 3. recipes 2. List occupations and tell how they use math. Do research to get this information. A. Reading B. Interview C. Questionnaire	Discuss why math is in the school curriculum and why they are required to take a certain amount of it. Bring out the point that education is a preparation for life. Have student make original story problems from four fundamental processes. (+ - x ÷)	Books Magazines - "Sports Illustrated" "Young Miss" "Highlights" World Almanac Filmstrips : "The Fundamentals of Thinking" 9 captioned filmstrips - Eye Gate

SUGGESTED CORRELATION FOR THIS ACTIVITY: Income Tax Unit
Banking Unit

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: To expand on the concept that money is the chief form of barter in our society and that an understanding of mathematics helps people in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will figure individual cost of items priced at 6 for 89¢ and compute the savings compared to purchasing them at 23¢ per can.

SUGGESTED SUBJECT AREA Math & Unit cost

SUGGESTED GRADE LEVEL 6

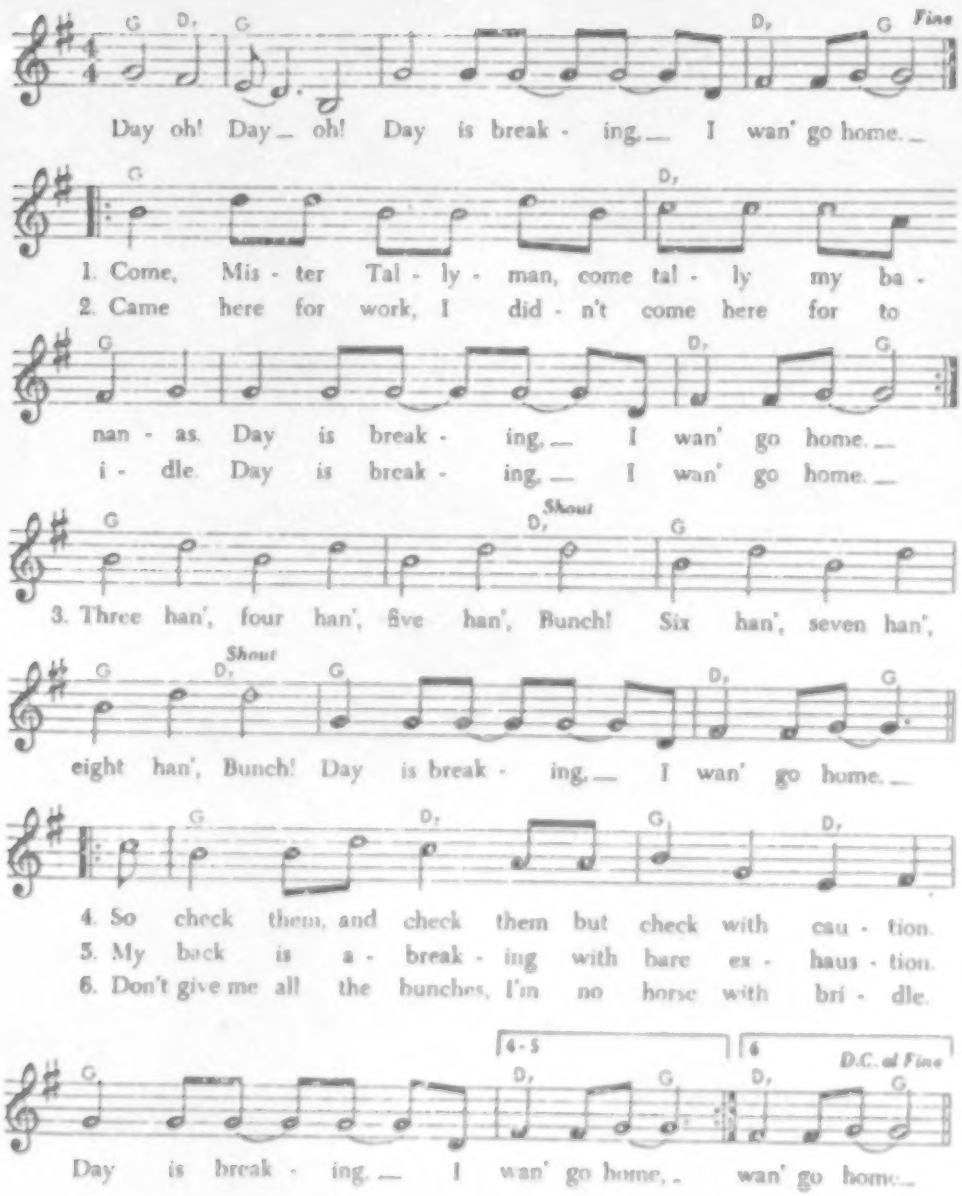
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Visit a warehouse and observe different manner of pricing items. Also bring sale brochure from newspapers to school to work on problems with unit cost. Design problems for students where they must figure unit price. Plan a meal for hot lunch (for grade). Look up prices in newspaper. Plan cost. Divide into groups for work areas. Plan serving, cleaning, etc.	Discuss why grocer prices items at 3 for $1.00 and 6 for 89¢. Learn to figure individual cost as sometimes group cost is misleading. Also same discussion on why large stores can sell cheaper; involving such things as volume buying and increased freight rates. Overhead costs. Use ratio techniques to compute unit cost.	Newspaper ads Local store advertising brochures and personnel to explain them. workbooks - ratio - unit price 16 mm film (free) Jobs in Mathematics Gr. 6-10 color Popular Science c 1967 Song: "Banana Boat Loaders" Music Around the World Filmstrips: "Seeing the Use of Numbers" Set VII 9 captioned fs Eye Gate House

SUGGESTED CORRELATION FOR THIS ACTIVITY:

The men who load boats with bananas grown in the Caribbean sing in a syncopated rhythm

Banana Boat Loaders

JAMAICAN FOLK SONG



Taken from:
Music Around the World, Book 6
Silver Burdett

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To broaden students interests which will open up an expanded basis for vocational choice.

CONCEPT: To expand the concept that an understanding of math helps people in their work and to make math more meaningful.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to name one way that each of the workers studied use fractions in their occupation.

SUGGESTED SUBJECT AREA Math (fractional measurement)

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have students measure things around the classroom to have them become aware of fractional parts of an inch. 2. Relate fractions to the world of work by having students find how the workers listed below use fractions in their work. Carpenter — meat packer housewife — accountant seamstress — painter engineer — service station nurse — mechanic wallpaper hanger baker — astronaut 3. Draw to scale what you are to use. 4. Make a blueprint. Make different models of tools used by the above listed workers (use cardboard) Build bird houses, dog houses, or rabbit hutches of cardboard or plywood. Also build needed equipment for classroom. (continued)	Develop awareness that some people have talent for building, designing and handling tools while others must learn proper procedure, safety. Discuss for importance of carpenter and his need for understanding of measurements, such as fractions. How can this be correlated with different geometric designs? Review the fractional parts of an inch on a ruler or yardstick. Assign specific places for specific small groups to measure. Have them measure the area exactly. Discuss the student's findings. Have volunteer students demonstrate how each of the workers use fractions. Ask students if they know any other workers that use fractions in their work.	Math textbooks Worksheets and packets of fractional parts. Blueprints - instructions. Study blueprints after field trips to architect Industrial Art Patterns Popular Mechanics Filmstrips: "Scale Drawing - Maps, Tables" McGraw-Hill "Fractions" (4 fs) SVE "Fractional Numbers" McGraw-Hill "Fractional Numbers - Properties" McGraw-Hill "Fractional Numbers - Problems" McGraw-Hill "The Story of Houses" (9 fs/4 cass.) Eye Gate Looking Forward to a Career - Building Trades, Siegel. Dillon Press

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
5. Draw floor plan of school library. or of students home.		
6. Adjusted recipes to larger quantities or parts.		

CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To make school subjects more meaningful

CONCEPT: To develop concept math concepts are necessary in communicating and helps a person work well with other people

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will compute his own scores of achievement in sports, subjects, bank interest.

SUGGESTED SUBJECT AREA Math decimals & Percentages

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Grade own papers. Have student calculate grades when less than hundred is involved. For example: figure the percent correct when you score 17 correct answers on a 25 item test. 2. Permit groups of students to shoot baskets and figure the percent of accuracy. During a softball game have each student figure their batting average. 3. Interview an officer from a credit concern relative to interest rates on house payments, car payments, bike payment, boats and motorcycles. 4. Visit a bank or savings and loan company to obtain information on savings accounts from bank officials.	Question students: 1. How do you as a student use decimals? (comparative use of fractions, decimals, and percentage.) 2. How are decimals used in sports? 3. Can you solve problems by relating ratio to percentage? 4. What is interest? 5. How do interest rates affect the wage earner? 6. Who benefits from the interest charges? 7. What is a savings account? 8. Why does a bank pay interest on savings accounts? 9. Teacher could expand this to other areas such as: Grocer - percent of mark-up on merchandise and discounts Weatherman - measuring precipitation percent possibility of rain. Budgets for home, personal	Math Textbooks Resource Person - Banker, Savings and Loan officials Newspapers - sales ad Filmstrips: "Money" McGraw-Hill "Reading Instruments" McGraw-Hill "Decimals" SVE "Meaning and Reading of Decimals" SVE Book: Young Teens and Money, Mary Beery. McGraw-Hill

SUGGESTED CORRELATION FOR THIS ACTIVITY:

51

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: To expand the concept advances in science change work and require special training

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will convert standard measures of weight, capacity, and distance to the metric system.

SUGGESTED SUBJECT AREA Math Metric System

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Convert athletic achievements, especially Olympic records, to the standard system. Use materials or take measurements in classroom and convert to metric system. Invite a pharmacist to visit class and tell about the metric system and his work. Visit a science lab and interview a chemist about the metric system in relation to his work. Similar activities could be used for other workers: Doctors Dietitian Mechanics of foreign cars Soldiers - military personnel Photographers	What is the metric system? Where did it originate? Why is it used in many countries today? Name workers who use the metric system. Is it possible that the metric system will someday be used on a world wide basis? Why or why not?	World Almanac Math Textbook Science Textbook State Capitol Public Service Dept. Weights and Measures Bismarck, ND Resource People: (parents or friends of pupils) Pharmacist Chemist Dietician Young Olympic Champion - Gilman, Steve Scholastic paperback Song Un Kilométre À Pied French Hiking Song p. 12-13 Mastering Music VI American Book Co c 19

SUGGESTED CORRELATION FOR THIS ACTIVITY:

52

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

CONCEPT: To expand concept understanding of math helps people in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Given two variables each student will complete at least one graph.

SUGGESTED SUBJECT AREA Math (graphs & tables)

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Make graphs - Bar, line, picture. Compare records of professional track men with student's own speed. Find starting salary for various occupations. Show increase and decrease in demand of a number of occupations. A chart or with a graph.	Discuss different kinds of graphs and what graphs can be used for.	Occupational Outlook Handbook Math Text World of Work - library books Weekly Reader - Columbus, Ohio Graphs and Charts (pamphlets) World Almanac Filmstrips: "A Graph Tells a Story" Filmstrip of the Month "Reading Instruments" McGraw-Hill "Mathematics in Action" Eye Gate

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand the concept that an understanding of science helps many people in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will identify three ways for each that an understanding of science helps the workers at the water filtration plant, the sewage plant, or pure food labs.

SUGGESTED SUBJECT AREA Science - in the world today

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
To gain knowledge of the source of water supply and waste disposal. Read for facts - filtration for human consumption; disposal plants; city health problems and solutions; fluoride action; pollution; purification; food laws. Field trip to water filtration plant; sewage plant; pure food labs. City filtration plant. Group I visit (bacteria screening Group II visit in-take and settling area Group III visit chemical application lime fluoride.	Set up and follow a contract teaching plan. Use of index, tables of contents, cross references. Organize and give special reports. Review civic laws controlling areas. Draw and label charts General lecture on size, water storage gallons per day used, etc. In conclusion, Mr. Hanson pointed out that to work in a place as this cleanliness was very important; to prepare one for his job in the world of work, in college subject areas one would need are - biology (bacteriology); physics, chemistry, and engineering. But above all to be able to get along with fellow workers. (ccoperation)	Science texts, encyclopedias pamphlets City Water Supply and Filtration Plant Pollution articles 16 mm film The Water Cycle Filmstrips: "Public Utilities - Water" EBE "Public Utilities - Waste Disposal" EBE "Moisture in Atmosphere - Water Cycle" Filmstrip House "Sanitation & Sanitation Workers" Eye Gate Tour of Water Treatment Plant Personnel from State Conservation Dept.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand the concept that an understanding of science helps many people in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: All students will write a short paragraph explaining what the meteorologist does in his work.

SUGGESTED SUBJECT AREA Science meteorology

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Develop an awareness of the importance of weather and its affect on different occupations. Watch TV weather reports and learn meanings of the terms and symbols used by the weatherman. Make a scrapbook of daily newspaper weather forecasts, headlines from newspapers about storms, pictures from the paper and magazines on weather and how it has affected things, people, places, etc. Build weather instruments, rain gauge, anemometer, wind wave, etc. Bring a barometer to school. Learn to read it. Observe cloud formations. See if you can forecast the weather for the day. Visit Weather Bureau	Use in conjuction with the weather chapter in Science. Discuss with the students the idea that this is a very scientific occupation that most of us know very little about. Much can be done through discussion and observation. Also visit a weather station and talk to weatherman about importance of their job to other occupations such as airplane pilots. If conditions are available also visit an airport and talk to airport managers, pilots, stewardesses, and air traffic controllers about their work. What is the importance of weather forecasts to these occupations. List appropriate vocabulary and map symbols for forecasting weather.	U. S. weather maps from local weather stations or newspapers. Filmstrips about weather Film: "Unchained Goddess" Available through Northwest Bell Books: Storms by Paul Lehr The Wind by Ethel Campbell Our Changing Weather by Carroll Fenton The Making of a Pilot, Richter, E. J. Westminster Press, Witherspoon Bldg. Juniper & Walnut Sts. Philadelphia, PA 19107 c 1966 gr. 5-7 Newspapers and magazines Resource people Songs: "Who Has Seen the Wind", p. 250 Mastering Music VI A.B.C "Signs of Weather" p. 100-101 Mastering Music VI American Book Co

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Make a graph of high and low temperatures for each day over a period of time.	16 mm film "You and the Weather" Texaco Inc. Mr. R. B. Smithwick 1570 Grant Street Denver, Colorado 80203 Air Masses and Fronts Dept. of Air Force Air Force Film Library St. Louis, Mo 63125 Civil Defense Field Trip Weather Bureau Control Tower

Taken from:
Mastering Music, Book VI
American Book Co.

Signs of Weather *(Canon)*

Music and Words by James Niblock

Andante

1. Eve - ning red and morn - ing grey, Is___ the sign of
2. Eve - ning red and morn - ing grey, Send___ the sail - or

1. Eve - ning red and morn - ing grey,
2. Eve - ning red and morn - ing grey,

sun - ny day; Eve - ning grey and morn - ing red,
on his way; Eve - ning grey and morn - ing red,

Is___ the sign of sun - ny day; Eve - ning grey and
Send___ the sail - or on his way; Eve - ning grey and

Bring down rains___ up - on our head.
Bring down rains___ up - on his head.

morn - ing red, Bring down rains___ up - on our head.
morn - ing red, Bring down rains___ up - on his head.

CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To make school subjects more meaningful

CONCEPT: An understanding of science helps people in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list five occupations related to magnetism and electricity

SUGGESTED SUBJECT AREA Science - Electricit and Magnetism

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Visit an electric shop and repair service. 2. Have an electrical contractor visit the classroom to tell about his work. 3. Visit a hydroelectric plant or coal burning plant for information about workers involved in the generation of electricity. 4. Write to an electrical generating plant for information on workers there.	In covering the unit on magnetism and electricity discuss the fact that many jobs are associated with magnetism and electricity. Make electric applications from dry cell - bell, light code	MDU field trip Garrison Dam - pamphlets Film and slides on gas and electricity from MDU Electrician - local Science Handbooks (State Dept) Communication by Electricity filmstrip Box of junk to test with magnets, including pennies and a Canadian nickel.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMEN ACTIVITIES

BROAD OBJECTIVE: To give students practice in decision-making.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list four steps in the decision-making process and use steps in making a decision.

SUGGESTED SUBJECT AREA General

SUGGESTED GRADE LEVEL Elementary

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Decision-making activities that allow students to make individual or group decisions using a systematic method. Hopefully students will have the opportunity to experience success in the decisions they make.	Any content can be used as a vehicle to give students practice in decision-making, whether it is the attached activity or a classroom situation or choice of when to do an assignment.	See attached sheets

SUGGESTED CORRELATION FOR THIS ACTIVITY: Can correlate this with any subject area or incident that arises.

DECISION-MAKING

One of the elements of Career Education is decision-making. Attached is an activity developed by Jay Hall, University of Texas, School of Business Administration, to assist students in practicing the four general steps in decision-making which are:

1. identify the problem
2. weigh the alternatives
3. make the decision
4. evaluate

Group work is very effective in doing this exercise. Students also learn how to operate effectively in a group situation.

Listed below are the answers to the activity and explanation as determined and explained by NASA's space survival unit.

Scoring Key

(15)	Box of matches	Little or no use on moon
(4)	Food concentrate	Supply daily food required
(6)	50 feet of nylon rope	Useful in tying injured, help in climbing
(8)	Parachute silk	Shelter against sun's rays
(13)	Portable heating unit	Useful only if party landed on dark side
(11)	Two .45 calibre pistols	Self-propulsion devices could be made from them
(12)	One case dehydrated milk	Food, mixed with water for drinking
(1)	Two 100-pound tanks of oxygen	Fills respiration requirement
(3)	Stellar map of the moon's constellation	One of principal means of finding directions
(9)	Life raft	CO_2 bottles for self-propulsion across chasms, etc.
(14)	Magnetic compass	Probably no magnetized poles; thus, useless
(2)	5 gallons of water	Replenishes loss by sweating, etc.
(10)	Signal flares	Distress call within line of sight
(7)	First-aid kit containing injection needles	Oral pills or injection medicine valuable
(5)	Solar-powered FM receiver-transmitter	Distress signal transmitter, possible communication with mother ship

You are in a space ship crew originally scheduled to rendezvous with another ship on the lighted surface of the moon. Mechanical difficulties, however, have forced your ship to crash-land at a spot some 200 miles from the rendezvous point. The rough landing damaged much of the equipment aboard. Since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200 mile trip. Below are listed the 15 items left intact after landing. Your task is to rank them in terms of their importance to your crew in its attempt to reach the rendezvous point. Place number 1 by the most important item, number 2 by the second most important, and so on through number 15, the least important.

_____ box of matches

_____ food concentrates

_____ 50 ft. of nylon rope

_____ parachute silk

_____ portable heating unit

_____ Life raft

_____ two .45 calibre pistols

_____ one case dehydrated milk

_____ two 100-pound tanks of oxygen

_____ Signal flares

_____ magnetic compass

_____ 5 gallons of water

_____ first aid kit containing injection needles

_____ solar - powered FM receiver-transmitter

_____ stellar map (of the moon's constellation)

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world of work.

CONCEPT: To expand concept that an understanding of advances in science help many people to change occupations.

SPECIFIC BEHAVIORAL OBJECTIVE: Students show that they have developed an awareness of the importance of space exploration and its significance to life and work by listing three ways that the space program affects the world of work and three ways that it affects our lives.

SUGGESTED SUBJECT AREA Science - Space Program

SUGGESTED GRADE LEVEL 6'

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Start with word lists of people, places and things to be kept up as study progresses. Start scrapbook of people, areas of work, news and industry related to the space program. Display charts, graphs, maps posters, missiles, spaceships, etc.	Begin by reviewing most recent space flights or space achievements. Present reports on Apollo. Students may report on the Mercury and Gemini programs to reveal prior planning and progress made before Apollo flights.	Encyclopedias, newspapers, magazines, brochures, booklets, pamphlets. NASA Free films and booklets: "Tommy Looks at Space" B. F. Goodrich Co Akron, Ohio 16mm film - What is Space? (11 min) I-J (the universe) 1864 color Encyclopedia Britannica Adventure in Space, International Business Machines Corp. America In Space - Apollo Mission Highlights Before Saturn - NASA Books: What Does An Astronaut Do? Dodd, Mead Publishing Co. Kit material - Jobs related to space program - find these and reproduce. Learning About Space Careers by NASA U. S. Gov't Printing Office.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Correlates well with chapter in text

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to understand that specialization leads to interdependancy, by listing at least five special occupations that are needed by the space industry for success.

SUGGESTED SUBJECT AREA Science - Problems an Occupations

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Do research about space problems: food, clothing, medical needs of spacemen. 2. Complete biographical sketches of people in history up to present who have been connected with space and related fields. Example: Werner Von Braun, Jules Verne, and astronauts. 3. Build and fly model planes. 4. Assemble and launch a toy rocket.	Discuss various occupations that provide clothing, food, medical service, etc. to the space industry. Notice the progress of techniques changes from first launching.	Newspapers, Magazines, films and model planes and rockets Into Space with Astronauts Scharff, Robert, New York Groosett & Dunlap, c 1965 gr. 4-5 The Uses of Space, Bova, Benjamin; New Y Holt Rinehart Winston, Inc. C. 1965 gr 5 Filmstrips: The Space Age Int/Jr. $73.50 Series 131 (a-i) (9) Eye Gate- 14601, Archer Avenue Jamaica, NY 2001-16mm. P/I Encyclopedia Brit. Airport in the Jet Age - 11 min Kit material - Jobs related to space program - find these and reproduce. Learning About Space Careers by NASA U. S. Gov't Printing Office Free Film: The Year 1999 A.D. Ford Motor Film Lib. The American Rd., Dearborn, Michigan 481

SUGGESTED CORRELATION FOR THIS ACTIVITY:

63

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will demonstrate his knowledge about the space industry by listing three ways that a person in the space industry makes use of the things studied in school.

SUGGESTED SUBJECT AREA Science - Space indust

SUGGESTED GRADE LEVEL 6

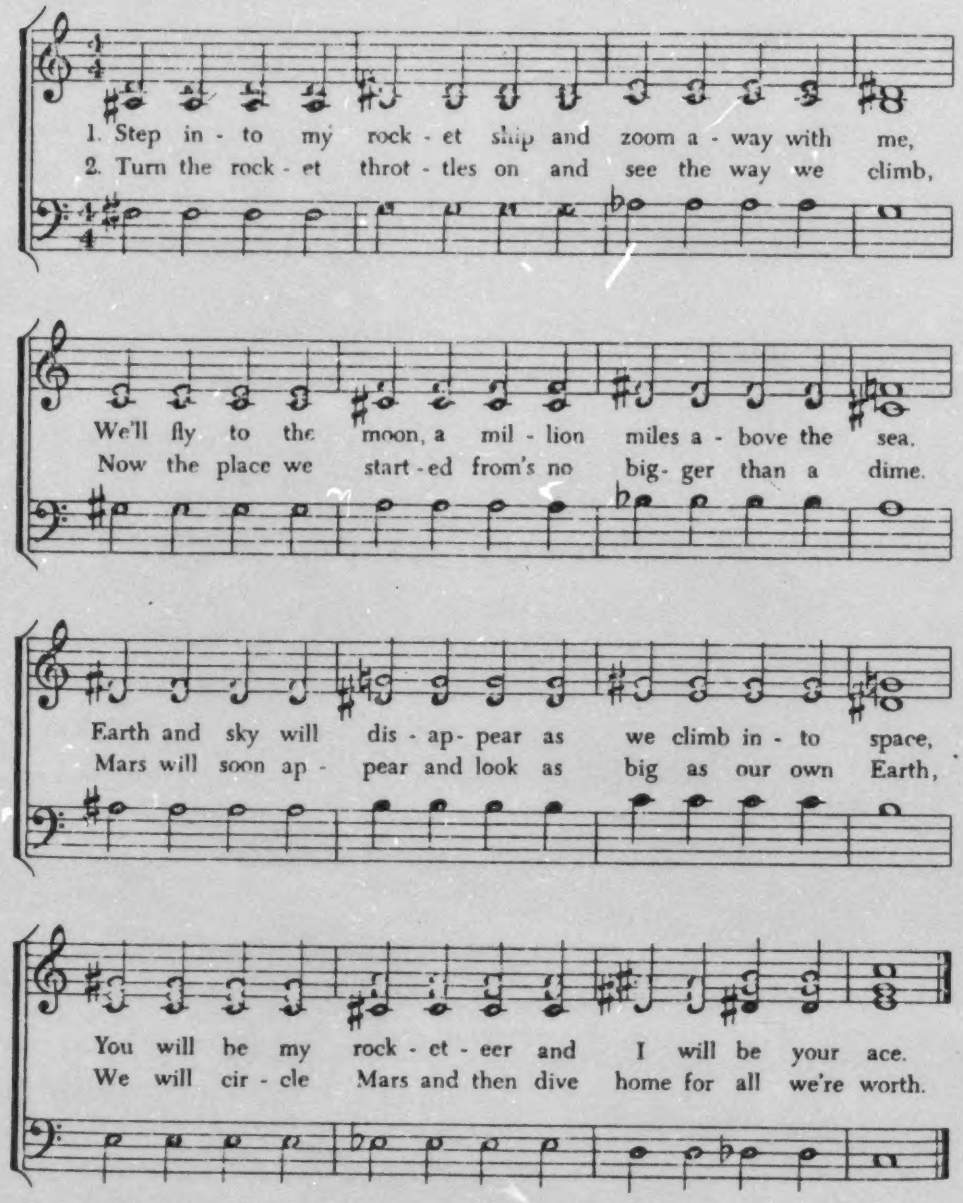
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Read, do research, give book reports of careers in the space industry. 2. In art, design space ships and space stations. Draw plan to scale. 3. Have guest speakers from the Armed Forces or other knowledgeable person who can tell about the space program. 4. Make lists of career possibilities, discuss needs and ability requirements of each. 5. Put up bulletin board from up-to-date pictures and clippings.	1. Continue discussing the space program. 2. Discuss how the subject areas now being studied in school would be used by a worker in the space industry. 3. Discuss how a person with an art background would be needed in the space industry.	Filmstrip: "How Rockets Work" Filmstrip House Current articles in newspapers, magazines Book How Scientists Find Out, Lotspeicht, Wm. D. Boston , Ma. Little Brown C 1965 gr. 6-12 Resource speakers. Song: "Rocket Ship", Music for Young Americans, Book 5. American Book Co.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Rocket Ship

As the melody is sung, take turns playing this easy piano accompaniment. Note that each phrase moves up—steadily.

WORDS AND MUSIC BY HOAGY CARMICHAEL



Taken from:
Music for Young Americans, Book 5
American Book Co.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

CONCEPT: Recreational activities create kinds of work found in various areas.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will list five occupations involved with local, state, and national areas of conservation.

SUGGESTED SUBJECT AREA Science

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Contact the State Conservation Department for information about their workers in the field of bird banding, bird refuges, wildlife preservation, game laws and how they vary with the seasons, park service workers and rangers. 2. Contact florists, nurserymen, and gardeners for ideas in how to better care for the home yard in care of plants, pruning of trees, lawns, root and bulb storage, etc. 3. Visit Agronomy Farm 4. Take Field Trip to a Tree Nursery	1. Discuss what the word conservation means. 2. Ask students why it was necessary for workers to be hired to work in the conservation area. 3. Make list of 5 occupations involved with local, state and national areas of conservation. 4. Make booklets. 5. Project Area to Future planning. Burbank, etc.	Pamphlets People from state department Mr. Jensen - State Game & Fish Comm. Abner Lee - Soil Conservation Service Slides on erosion State Health Dept for contact people Park Service Field trips Library books texts (supplementary) Conservation of Natural Resources in North Dakota, Hove Fish and Wildlife, Colby, C. B New York, NY Coward McCann c 1955 gr. 4- others by same author Park Ranger, Smoke Eaters, Soil Savers (Careers in conservation) Tall Timber, Coward 1935 Colby, Caroll

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Medora Field Trip (one day - erosion plants, animals, historic lore) Song: "Come Fetch The Axes" p. 120-121 Making Music Your Own Silver Burdette c 1971 16 mm film Forest Ranger (13 min) N. 632 color Encyclopedia Britannica Science Conserves the Forest (16 min) I-JH 2685 color Field Trip - Nursery The Conservation of our Resources (A-I) IF99 9 films 5 cassettes Eyegate

67

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world of work.

CONCEPT: A. To expand the concept that advances in sciences change work.
B. Some people specialize in their work to keep us healthy and be productive worker

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will be able to list three ways that physical fitness helps you in your work.

SUGGESTED SUBJECT AREA Science
Physiology and Safety

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Corresponds with the chapter in text -"Senses and Signals and Your Living Body" Read to be knowledgeable of facts to explore. Arrange for a planned lecture tour through the clinic arranged by the business manager. Divided into three groups I Therapy Room - interns II X-ray III Technicians Lab - nurses Have students question personnel in each area to determine what advances in science have been made in the last five years that have changed their work. Arrange for a field trip to a veterinarian	To appreciate and maintain physical and mental fitness; to know functions of the body parts in coordination--one can fulfill this goal by studying certain aspects in the laboratory. Lecture and question-answer period. Practical Personal Hygiene Reports Posters Explore scale workers in this field (Make a people pyramid) Have school nurse discuss proper care of bone injuries, first aid for lacerations, etc. When studying "Senses Signals," there is an excellent opportunity to bring in information on drugs. Obtain X-ray from clinic or hospital.	1. Texts and supplement texts 2. Encyclopedias 3. Posters (large and colored) 4. Human body - hanging chart 5. Overhead film transparencies the Human Body for Grades 5-9 by Ortleb and Cadice. 6. 3-D objects - the visible man, teeth 7. Clinic labs 8. Films: "Homo, the Magnificent" & "Gateways to the Mind" Telephone Co. 2743 "The Doctor" EBE Drug films available from: Glenn Dolan, Guidance Dept. Dept. of Public Instruction Captiol Bldg. Bismarck, ND 58501 "A Place to Get Well", March Sharp and Dohme Film Library, West Point Penn. 19486

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
69		Filmstrips: 29 "Good Health and You" Eye Gate 69 "Your Body and How to Take Care of It" Eye Gate "The Cell: Basic Unit of Life" Filmstrip House "Health Adventures" Jam Handy "How Our Eyes See" Filmstrip House "Light and Eyes" Filmstrip House "Whys of Elementary Science" Fimlstrip House F69 "Your Body and How to Take Care of It" Eye Gate 213 "Health Services" Edu-Craft Resource People: School Health Nurse Civil Defense - Artificial Respiratior Clinical Personnel Specialists Book: Nurses and What They Do, Kay. Franklin Watts Walter Reed-Boy Who Wanted to Know, Higgins. Bobbs Merrill Will and Charlie Mayo: Boy Doctors Hammontree. Bobbs Merrill What Does a Veterinarian Do? Compton. Dodd, Meadd Song: "Anatomy Lesson" Discovering Music Together, Book V Follett

Taken From:
Discovering Music Together,
Book V. Follett Pub.

Anatomy Lesson

ILO ORLEANS

Norman Delo Joio

Flowing and Frisky (𝅗𝅥 = 66)

mf

My bod-y is a po-em, my bod-y's full of rhymes; That is what I've

mf

thought a-bout Man-y, man-y times. For I have toes, a chin and nose, and

cheeks and lips, arms and hips, Should-ers, thighs, and brows and

f

eyes, Fin-gers, thumbs, Ears and drums, Tooth and tongue, Heart and lung.

That is how I fig-ured out man-y man-y times, My bod-y is a po-em — be-

cause it's full of rhymes, be-cause it's full of rhymes.

NORMAN DELLO JOIO, a leading American contemporary composer, was born in New York City in 1913. Dello Joio's direct contact with many contrasting styles is reflected in his own music: old church music, American jazz, Italian opera, and study with the famous modern composer, Paul Hindemith.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: List three major characteristics and three requirements of different careers and occupations related to nutrition.

SUGGESTED SUBJECT AREA Science - Health (Nutrition)

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have pupils keep a record of their own diets for a few days and then compare it to the Basic 4 Food Plan. (Pupil's record should be kept private and for his use only) The N. D. Wheat Commission has excellent teaching aids for this activity. 2. Use school lunch menu for discussion on proper nutrition. Analyze the week's menus to see if it meets proper nutritional requirements. 3. Make menu posters of a day's menu, using the Basic Four Food Plan as a guide. Have students judge other student posters to see if its a balanced menu. 4. Display menues, food groups. meals, etc by mobiles.	1. Check current newspapers and magazines for articles about current nutritional findings. 2. Look in reference books for information about James Lind, Takaki(Japanese), and Joseph Goldberger who worked in the field of nutrition. 3. Prepare reports on world-wide problems of nutrition and food shortages in the world. 4. Have students do research on some of the various careers in the field of nutrition (dietician, home economist, food chemist, food service manager, cook, chef, etc.) See Home Ec. Clusters.	1. Texts, supplementary texts. 2. Pamphlets, other resource materials: (free or low cost materials on nutrition) a. National Dairy Council 111 N. Canal St. Chicago, Il 6066 b. N. D. Wheat Commission 321 N. Fifth St. Bismarck, ND c. American Dietetic Assn- 620 N. Michigan Ave. Chicago, Il 60611 d. American Institute of Baking 400 E. Ontario St. Chicago, Ill 60611 e. Cereal Institute 135 S. LaSalle St. Chicago, Ill 60603 f. General Mills, Inc. 9200 Wayz Blvd Minneapolis, MN 55426 g. National Livestock & Meat Board 36 S. Wabash Ave. Chicago, Ill 60603 (continued)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

72

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		3. Resource Persons: State Nutritionist - State Health Dept. School Lunch Supervisor MDU Home Economics Dept. 4. Books: a. The Wonderful World of Food John B. Orr (Doubleday) b. Your Food and You Herbert S. Zim (Morrow) c. Looking Forward to a Career Jo Nelson (Dillon Press) d. Careers for Youth in the Food Industry (pamphlet) A. J. Heinz (Pittsburgh, PA. 5. Filmstrips a. Your Food - Chance or Choice (order from Nat'l Dairy Council) b. Other filmstrips available from N. D. Wheat Commission c. Home Economics #212 Edu-Craft, I 6. Films: (free) Hold High the Torc (proper nutrition is essential for Olympic participants to be physicall fit) Order from Nat'l Dairy Council N. D. State Health Dept. Prefer you write, not call requests. In Bismarck films must be picked up an returned. 1. What's Good to Eat - 17½ min col 2. Four Food Groups 11 min color 3. Something You Didn't Eat 15 min 4. Why Clean Your Teeth, 12 min.

HOME PREVIEW ON NUTRITION

1. Do the children help in planning meals? Yes _____ No_____

   Do they help in preparing the meals? Yes _____ No _____

2. Check the meals your family eats together. breakfast _____ lunch _____

   dinner _ ___

3. List the three snacks most popular for your family.

   (1)

   (2)

   (3)

4. Are home menus planned using the Four Basic Food Groups?

   Yes _____ No _____

5. Do you budget the amount of money spent on groceries? Yes _____ No _____

6. Do you plan your menus a week ahead? Yes _____ No _____

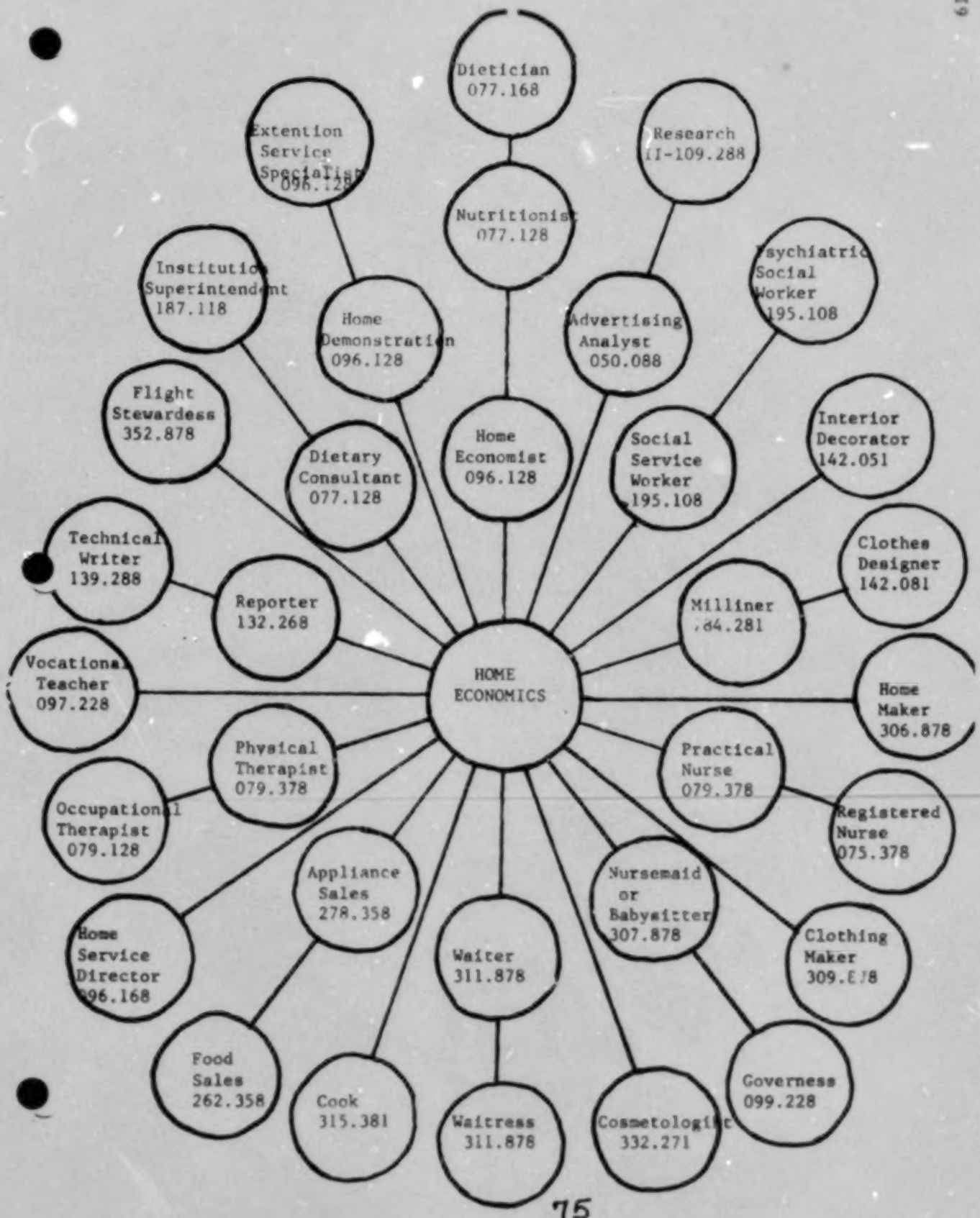
7. What food group (protein-meat, vegetable, fruits, bread and cereals-milk - cheese) is most liked by your family? _____

8. What food group is used least by your family? _____

9. What areas in nutrition would you like your child to study?

10. Comments:

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN HOME ECONOMICS



HOW TO SCORE YOUR DIET

This score sheet is a device by which you can score your diet quickly. Its system has been simplified to avoid awkward decimals, as explained on the inside back cover. Suggestion for using it is to place a check (√) beside each food you have eaten during one day. After you have done this, add the values of these foods on each double page. When all of the pages are in place you may then add up the figures for meat, vegetables, cereals, and so forth, to obtain your total score. Finally, compare these with the recommended daily allowances on the last page. You may then discover what foods you need to add to improve your diet.

The blank pages in the back may be used in planning the pattern of meals in the total day's diet.

The number of foods which could be included in this booklet is necessarily limited. With some foods you will need to figure what is in the food. For example, vegetable stew:

Beef 1 portion — **Potatoes 1 portion**
Carrots 1 portion — **Tomatoes ½ portion**
Gravy 1 portion

RECOMMENDED DAILY ALLOWANCES EXPRESSED IN UNITS

Adapted with practical modifications from the Recommended Dietary Allowances of the National Research Council, 1963. Refer to inside back cover for explanation of units.

	Age (years)	Weight (lbs.)	Height (in.)	Vitamin D Units	Calories	UNITS Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
Infants up to 1 year		18		400	Kg x 115 ± 15	Kg x 2.5 ± 0.5	20	Kg x 1.0	1,500	30	40	60	60
CHILDREN	1-3	29	34	400	1,300	520	90	80	2,100	40	50	80	90
	3-6	40	42	400	1,600	100	80	100	2,500	50	60	100	110
	6-9	55	49	400	2,100	520	90	120	3,500	60	80	130	140
BOYS	9-12	72	55	400	2,400	600	110	150	4,500	70	100	140	160
	12-15	98	61	400	3,000	750	140	150	5,000	80	120	180	200
	15-18	134	68	400	3,400	850	140	150	5,000	80	140	200	220
GIRLS	9-12	72	55	400	2,200	550	110	150	4,500	80	90	130	150
	12-15	105	62	400	2,400	620	130	150	5,000	80	100	150	170
	15-18	117	64	400	2,500	600	150	150	5,000	70	90	130	150
MEN	18-35	154	69		2,900	700	90	100	5,000	70	120	170	190
	35-55	154	69		2,600	700	80	100	5,000	70	100	160	170
	55-75	154	69		2,250	700	80	100	5,000	70	90	130	150
WOMEN	18-35	128	64		2,100	600	80	150	5,000	70	80	130	140
	35-55	128	64		1,900	500	80	150	5,000	70	80	120	130
	55-75	128	64		1,600	500	80	100	5,000	70	80	120	130
Pregnancy (3rd trimester)				400	+ 200	+ 200	+ 50	+ 50	+ 1,000	+ 30	+ 20	+ 30	+ 30
Lactating				400	+ 1,000	+ 400	+ 50	+ 50	+ 1,000	+ 30	+ 40	+ 60	+ 20

	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
TOTAL DAY'S INTAKE									

Food	Size of Serving	Calories	Protein	Calcium	Iron	Vitamin A	Vitamin C	Thiamine	Riboflavin	Niacin
PROTEINS										
Milk										
Whole	1 cup (8 oz.) 1	165	85	28	2	390	3	10	40	3
	2	330	170	56	4	789	6	20	80	6
	3	495	255	84	6	1,170	9	30	120	9
	4	660	340	112	8	1,560	12	40	160	12
[illegible], vitamin D enriched	½ cup + ½ cup water	175	88	30	2	500	2	6	45	[illegible]
Skim, and nonfat buttermilk	1 cup (8 oz.)	85	85	30	2	10	3	9	15	3
Vitamin D enriched	1 cup (8 oz.)	165	85	28	2	385	2	10	10	2
Meats and Fowl (For all fried meats and fowl, add 100 calories per serving.)										
Bacon, crisp	(See Fats)									
Beef, lamb, mutton, veal (roasted or broiled)	1 serving (¼ lb.)	240	190	1	25	..	..	6	15	40
Frankfurter, cooked	1 average	125	70	..	6	..	..	8	9	12
Hamburger, lean, cooked	1 large patty (¼ lb.)	300	182	1	27	..	..	6	14	37
Liver, cooked	1 serving (¼ lb.)	140	200	6	70	44,000	30	26	330	140
Liverwurst, braunsweiger	1 slice (15 per lb.)	80	50	..	16	1,730	..	5	34	14
Other luncheon meats	2 slices	85	60	1	10	..	..	5	5	5
Pork or ham (roasted)	1 serving (¼ lb.)	300	165	1	25	..	..	80	19	43
Pork chops, cooked	1 loin chop	300	165	1	25	..	..	80	19	43
Pork sausage, cooked	2-in. patty	185	65	..	10	..	..	20	10	13
Broiler	½ medium (½ lb. meat, no bone)	334	440	3	30	..	..	17	35	220
Fowl, roasted or stewed	1 serving (¼ lb.)	200	200	2	20	..	..	8	15	100
Fish and Shellfish (For all fried fish, add 100 calories per serving.)										
Cod, haddock (cooked)	1 serving (¼ lb.)	170	180	1	5	..	..	5	9	20
Halibut (cooked)	1 serving (¼ lb.)	200	210	2	8	500	..	6	6	90
Lobster meat, cooked	⅔ cup	90	185	7	8	..	..	3	7	20
Oysters, raw	5 – 8 medium	85	100	9	56	320	..	15	20	12
stew	4 oysters + 1 cup milk	320	150	35	38	1,060	3	19	55	11
Salmon, canned with bones	1 serving (⅔ cup)	140	205	19	8	70	..	3	18	80
fresh, boneless	1 serving (¼ lb.)	290	210	2	6	460	..	12	25	80
Sardines, canned	1 sardine	100	90	19	20	15	..	5	15	37
Shrimp, canned or cooked	4 – 6 medium	65	135	6	16	30	..	1	2	10
Tuna, canned	½ cup	200	290	1	14	80	..	5	12	130
Eggs (For fried egg, add 100 calories.)										
boiled or poached	1 medium	80	60	3	15	550	..	5	14	..
omelet or scrambled	1 egg + 2T. milk	106	68	5	13	640	..	5	17	..
Cheese										
American cheddar	1-in. cube (1 oz.)	115	71	20	3	400	..	1	12	..
Cheese spread	1 oz.	105	60	2	..	..	..	..	..	..
Cottage cheese, dry	½ cup	95	195	10	3	20	..	2	30	1
creamed	½ cup	155	205	12	5	270	..	..	34	1
Processed cheese	1 oz.	90	50	17	..	..	..	..	..	..
Nuts										
Almonds	12 – 15	90	28	4	7	..	..	4	10	7
Peanuts	12 – 15	85	40	1	3	..	..	5	2	24
Pecan or walnut halves	12 – 15	100	20	1	4	7	..	8	2	2
Peanut Butter	1 T.	90	40	1	3	.	..	2	2	24
TOTAL MILK, MEAT, FISH, EGGS, CHEESE, NUTS										

BREADS AND CEREAL FOODS											
Enriched white or whole grain Bread	1 slice	1	65	20	2	4	..	..	6	4	5
		2	130	40	4	8	..	..	12	8	10
		3	195	60	6	12	..	..	18	12	15
Muffin, plain	1 av.		120	32	3	7	190	..	8	10	6
Roll, plain, pan	1 med.		80	21	2	5	75	..	7	6	5
Pancake	1 (4" × 4")		60	18	4	4	50	..	5	6	3
Waffle	1 (5" × 5" × ½")		216	70	14	14	270	..	14	20	10
Cereal, cooked											
Oatmeal or rolled oats	½ cup		75	25	1	8	..	..	11	3	2
Wheat	½ cup		70	28	1	7	..	..	9	5	7
Cereal, ready-to-eat, flakes	1 cup		115	27	1	9	..	..	12	4	14
puffed	1 cup		49	12	..	4	..	..	7	2	11
sugar-coated	1 cup		110	12	3	5	..	..	13	2	10
Crackers, graham	1 cracker		30	5	..	1	..	..	2	1	1
soda	1 cracker		30	7	..	1	..	..	1	1	..
Egg noodles, enriched, cooked	1 cup		107	35	1	8	60	..	22	10	17
Macaroni, rice, spaghetti unenriched, cooked	1 cup		209	62	2	7	..	..	3	2	7
FATS											
Bacon	1 strip, crisp		50	18	..	2	..	..	4	2	3
Butter or fortified margarine	1 teaspoon		35	..	..	..	165	..	..	..	..
Cream, light (coffee)	2 T. (⅛ cup)		60	8	2	..	250	..	..	2	..
heavy (whipping)	2 T. (⅛ cup)		100	6	2	..	440	..	..	4	..
Shortenings (Add these values to any fried food not given a listing as fried.)											
Beef suet, rendered	1 T.		120	2	..	..	70	..	..	..	..
Homogenized vegetable	1 T.		110	..	..	..	..	..	..	..	..
Lard	1 T.		125	..	..	..	..	..	..	..	..
Foods with high fat content											
Gravy (with milk)	¼ cup		100	25	7	2	225	..	4	11	2
Mayonnaise	1 T.		90	2	..	1	35	..	..	..	..
Salad dressing (French)	1 T.		60	1	..	..	..	..	..	..	..
White sauce (medium)	2 T.		50	13	4	1	165	..	1	5	1
SWEETS											
Chocolate-coated candy bar	2 oz.		270	52	5	14	..	..	3	9	3
Honey, strained	1 T.		60	1	..	2	..	..	..	1	..
Jam, jelly, syrup	1 T.		55	..	..	..	..	..	..	..	..
Molasses, medium dark	1 T.		45	..	6	12	..	..	..	..	..
Sorghum	1 T.		50	..	3	24	..	..	2	3	6
Sugar, granulated	1 T.		50	..	..	..	..	..	..	..	..
brown, dark	1 T.		50	..	1	4	..	..	..	..	..
BEVERAGES											
Chocolate malted milk shake	1 serving (8 oz. milk)		500	130	42	13	900	4	19	65	5
Cocoa or chocolate	1 cup (6 oz. milk)		180	70	22	9	300	2	8	33	3
Grape juice, sweetened	3 oz.		70	4	1	3	..	..	4	5	2
Soft drinks	1 bottle (6 oz.)		80	..	..	..	..	..	..	..	..
TOTAL CEREALS, FATS, SWEETS, BEVERAGES			____	____	____	____	____	____	____	____	____

64

BEST COPY AVAILABLE

65

VEGETABLES

Asparagus, cooked	¾ cup	20	24	2	10	1,040	25	13	17	12
Canned green	6 medium stalks	20	24	2	19	800	18	6	8	10
Beans, green, cooked	½ cup	15	9	3	4	315	5	4	6	3
canned	½ cup	20	12	4	15	500	5	4	5	4
lima, green, frozen, cooked	½ cup	110	65	5	19	220	20	10	7	8
Beets, cooked	½ cup	35	8	2	6	15	5	2	4	2
Broccoli, cooked	¾ cup	30	33	13	13	3,500	75	7	15	8
Brussels sprouts, cooked	½ cup	30	30	2	9	280	33	3	8	4
Cabbage, raw	½ cup	15	7	2	3	50	25	3	3	2
cooked	½ cup	20	12	4	4	75	25	4	4	3
Sauerkraut	¾ cup	25	14	4	5	40	15	3	6	1
Carrots, raw	1 large	40	12	2	8	12,000	3	6	6	5
cooked	¾ cup	20	5	2	5	9,400	3	4	4	3
Cauliflower, cooked	½ cup	15	15	1	7	50	17	4	5	3
Corn, cooked	1 ear 5" long	85	27	1	6	400	8	11	10	14
canned	½ cup	90	39	3	7	200	7	4	7	12
Dried navy beans, peas, cooked	½ cup	115	70	5	25	..	..	6	6	10
Leafy greens										
Beet tops, spinach, cooked	⅔ cup	30	25	..	25	10,000	35	8	20	6
Lettuce	⅙ head									
Celery	2 pieces	10	5	2	2	100	4	2	3	2
Cucumber	8 slices									
Okra, egg plant, cooked	½ cup	40	10	3	6	80	8	3	4	3
Peas, green, cooked	½ cup	60	38	2	15	600	12	20	11	20
canned	½ cup	70	36	3	17	550	8	10	5	8
Potatoes										
Sweet, baked	1 medium	180	26	4	11	12,000	30	12	8	9
Sweet, canned	½ cup	100	20	3	8	9,000	15	5	4	5
White, boiled, peeled	1 medium	85	20	1	7	20	15	9	3	10
baked, without skin	1 medium	100	24	1	8	20	17	11	5	14
French fried, shoestring	10 pieces	200	27	2	10	25	15	9	6	17
hashed brown	½ cup	240	33	2	12	30	7	8	6	17
Pickles, sweet cucumber	1 medium	10	1	1	1	10	..	..	..	..
Dill	1 large	15	9	4	2	420	8	..	8	..
Rutabagas, cooked	½ cup	25	2	4	3	270	16	4	6	5
Squash, winter, baked	½ cup	50	19	2	4	6,000	7	5	15	6
Tomatoes, canned	½ cup	25	12	1	7	1,250	20	7	4	8
juice, canned	½ cup	20	10	1	4	1,050	16	5	3	8
raw	1 medium	30	15	2	9	1,650	35	9	6	8
Turnips, cooked	⅔ cup	25	8	4	5	..	18	4	6	4
For buttered vegetables, add per serving:		50	..	...	..	200	..	..	..	..

If fried, add 100 calories per serving.

TOTAL VEGETABLES

FRUITS (For sweetened canned or frozen fruit, add 50 calories per serving. For sweetened fresh fruit, add 20 calories per tsp. sugar used.)

Apple, raw	1 medium	75	4	1	4	120	6	5	4	2
Applesauce, sweetened	½ cup	90	3	1	5	40	1	3	2	1
Apricots	2-3 medium	50	10	2	5	2,800	7	3	5	8
Banana	1 medium	130	18	1	9	650	15	6	8	10
Cantaloupe	½ (4½" diam.)	30	9	3	6	5,000	50	8	6	7
Cherries, sweet, raw,	15 large	60	11	2	4	620	8	5	6	4
sour, canned, unsweetened	½ cup	50	8	1	3	720	6	3	2	6
Citrus – orange, grapefruit, lemon	1 orange or lemon or ½ grapefruit or ½ cup juice	50	9	3	4	180	50	8	3	3
Cranberry sauce	2 T.	40	..	..	..	6	4	..	..	..
Dried dates, figs, raisins	¼ cup	80	5	3	9	15	..	4	3	6
Fruit cocktail, canned	½ cup	90	5	1	5	205	3	2	2	5
Grapes	1 bunch (22 to 24)	70	14	2	6	80	4	6	4	2
Peach, raw	1 medium	50	5	1	6	880	8	2	5	9
Pear, raw	1 medium	60	1	2	3	20	4	2	4	1
Pineapple, canned, sweetened	½ cup	100	5	4	8	100	12	10	2	2
fresh, unsweetened	½ cup	50	4	2	3	130	24	8	2	2
Plums, raw	2 medium	50	7	2	5	350	5	6	4	5
Prunes, cooked, unsweetened	4 medium	85	7	2	13	550	..	2	5	4
Raspberries, blackberries	¾ cup	60	10	4	9	200	25	2	7	3
Rhubarb, cooked, sweetened	½ cup	140	3	..	2	16	2	..	..	..
Strawberries	10 large	40	8	3	8	60	60	3	7	3
Watermelon	6" diam. × 1½"	170	3	4	12	3,540	35	30	30	12

DESSERTS

Cakes										
Angel	1/10th of 10" cake	150	35	..	1	..	..	..	6	1
Chocolate, white icing	1/12th of 9" cake	360	30	2	5	260	..	2	7	1
Fruit	3" × 3" × ½"	140	20	4	10	150	..	6	6	4
Plain, white icing	3" × 2" × 1¾"	300	38	8	3	450	..	2	5	2
Cookies, plain, sugar	2 (3" diam.)	130	20	1	4	50	..	6	6	4
Chocolate brownie	2" × 2" × ¾"	140	18	1	5	230	..	4	4	2
Fruit nut (rich)	2 (3" diam.)	230	15	1	5	20	5	3	3	..
Custard, baked	½ cup	200	90	16	10	600	..	8	30	1
Doughnuts, cake type	1 medium	140	20	1	6	40	..	7	6	5
raised	1 medium	120	20	2	4	70	..	7	5	5
Gelatin dessert, plain	½ cup	70	16	..	..	..	..	..	..	..
Ice cream, vanilla	½ cup (⅛ qt.)	150	28	9	1	370	1	3	13	1
Pies										
Blueberry	⅙ of 9" pie	370	40	1	7	170	5	3	3	4
Cream filling, with meringue	⅙ of 9" pie	350	75	5	8	300	..	7	24	2
Fruit (apple, peach, cherry)	⅙ of 9" pie	380	40	2	6	500	2	5	4	6
Pumpkin	⅙ of 9" pie	330	65	10	20	2,300	..	6	16	5
Pudding, cream style	½ cup	150	45	15	1	200	..	4	20	1

● **TOTAL FRUITS and DESSERTS**

CAREER DEVELOPMENT ACTIVITIES

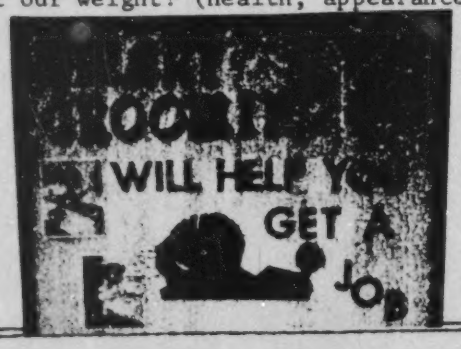
BROAD OBJECTIVE: To develop a positive self-concept that will lead to future self-fulfillment in a vocation. To help students respect and accept self and others.

CONCEPT: Advances in science have altered the occupations that produce services.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will set a weekly schedule of personal hygiene.

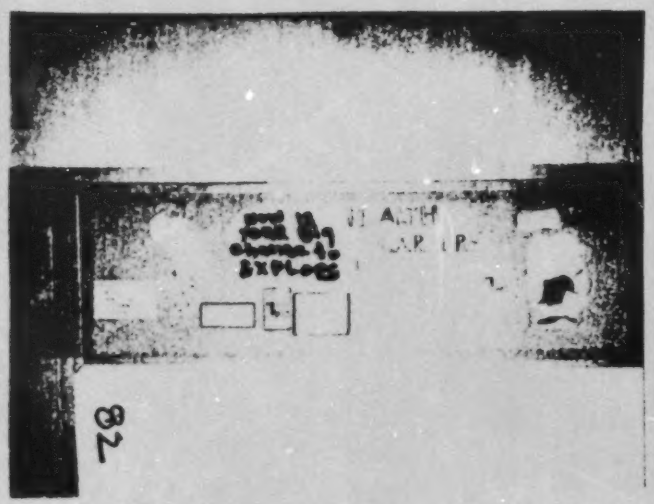
SUGGESTED SUBJECT AREA Science - Grooming Cleanliness

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Correlate with "Your Living Body" chapter in science text and nutrition activity. Students can make posters showing the grooming habits which they should have. Students will make a weekly schedule of personal hygiene. Take a field trip to a barber shop, beauty shop, hair stylist college. Have a group make graphs of the growth-weight records to use on the bulletin board. Have each student compare his weight-height to the graph. Have school nurse in for a class discussion.	Discuss proper grooming. How does it affect ourselves, others and future jobs? Do research on the various careers related to proper grooming (barbers, beauticians, hair stylist, fashion designer, modeling, dermatologists, etc.) Have a discussion why a doctor checks the weight and height of patients. 1. Is there a "correct" weight for all boys and girls? (Bring out that they're entering a faster growth period; some will enter this stage sooner than others.) 2. Why should we be concerned about our weight? (health, appearance).  	1. Texts, supplementary texts 2. Pamphlets- American Red Cross Office 3. Teacher References: Metropolitan Life (address listed below has many pamphlets and materials availabl for teaching health) 4. Books: Etiquette, Jr., Clark & Twigley; Doubleday 5. Filmstrips: Health Hero filmstrips, color, 35mm with recorded sound (famous people who made contributions in advancement of health.) These filmstrips are presented to school film libraries on request and may be retained permanently. From: Health and Welfare Division Metropolitan Life Ins. Co. 1 Madison Ave. New York, NY 10010 210 Personal Services, Edu-Craft, I (includes record)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		6. Films (free) Good Looks, Here and Now (15 min color) Modern Talking Picture Servic 9129 Lyndale Ave. S. Minneapolis, MN 55420 7. Resource persons: School nurse - cleanliness N. D. State Health Dept. (dental Office - teeth) 8. Full length mirror 9. Leaflets on health careers N. D. Health Careers Council Mr. Lee Standberg Pharmacy Dept. NDSU Fargo, ND 58102

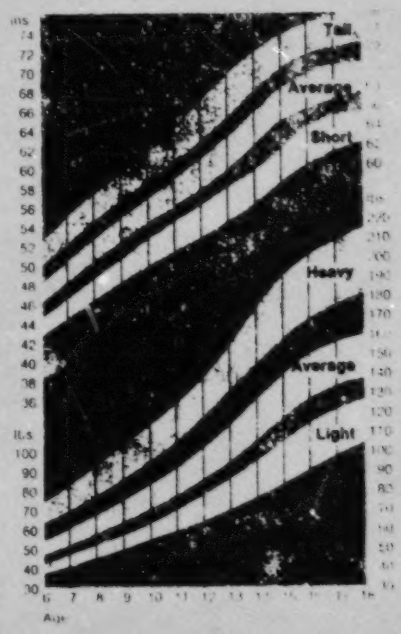
Checking Your Height and Weight

The doctor checks your height and weight to see what gains there have been since he last examined you. A loss in weight, or failure to gain over a long period, may indicate poor nutrition or a problem with your general health.

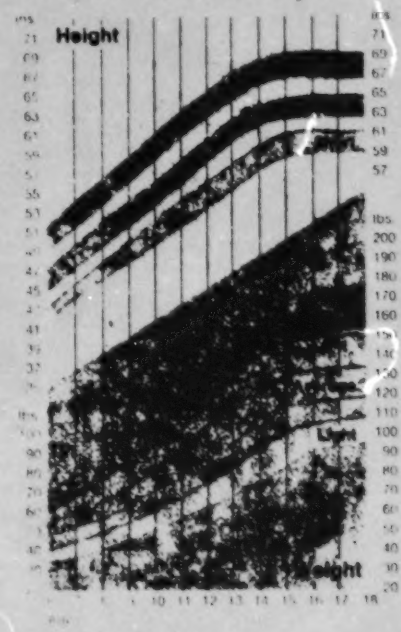
The doctor knows that there is no one *right* height or *right* weight for all boys, or for all girls, of a certain age. He always takes body build into account when he is checking a young person's height and weight.

He also keeps in mind that young people go through the period of rapid growth at different rates and at different ages. He may show you individual growth records like the ones on this page and page 96 which have normal weight and height ranges for the ages six through eighteen. Notice that weight ranges are given for young people of different body builds – light, average, and heavy – and height ranges indicate whether a youngster is short, average, or tall for his age. Tall boys and girls are usually closer to the higher weights; short youngsters are closer to the lower weights.

Physical Growth Record for Boys[1]



Physical Growth Record for Girls[1]



Understanding How You Grow

During a health examination, the family doctor may explain the patterns of growth for boys and girls your age. He is especially likely to do this if you mention, or if he senses, that you are concerned about your growth. You may think, for example, that your feet are unusually large or that you are too tall or not tall enough. Information of the kind the doctor may give you on matters of growth is shown on pages 98 – 99.

Read this material and be ready to summarize what you have learned about *growth spurts* and *individual differences* in growth.

[1]Adapted from "Physical Growth Record for Girls" from PHYSICAL GROWTH RECORD FOR GIRLS by the Joint Committee on Health Problems in Education of the NEA and AMA. Reprinted by permission of the Joint Committee on Association for Health, Physical Education, and Recreation.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body and mind is essential to a productive worker.

CONCEPT: Mental health affects physical health and vice-versa

SPECIFIC BEHAVIORAL OBJECTIVE: Students will acquire information about emotional needs and give examples of three emotional needs.

SUGGESTED SUBJECT AREA Science - Mental health

SUGGESTED GRADE LEVEL 6

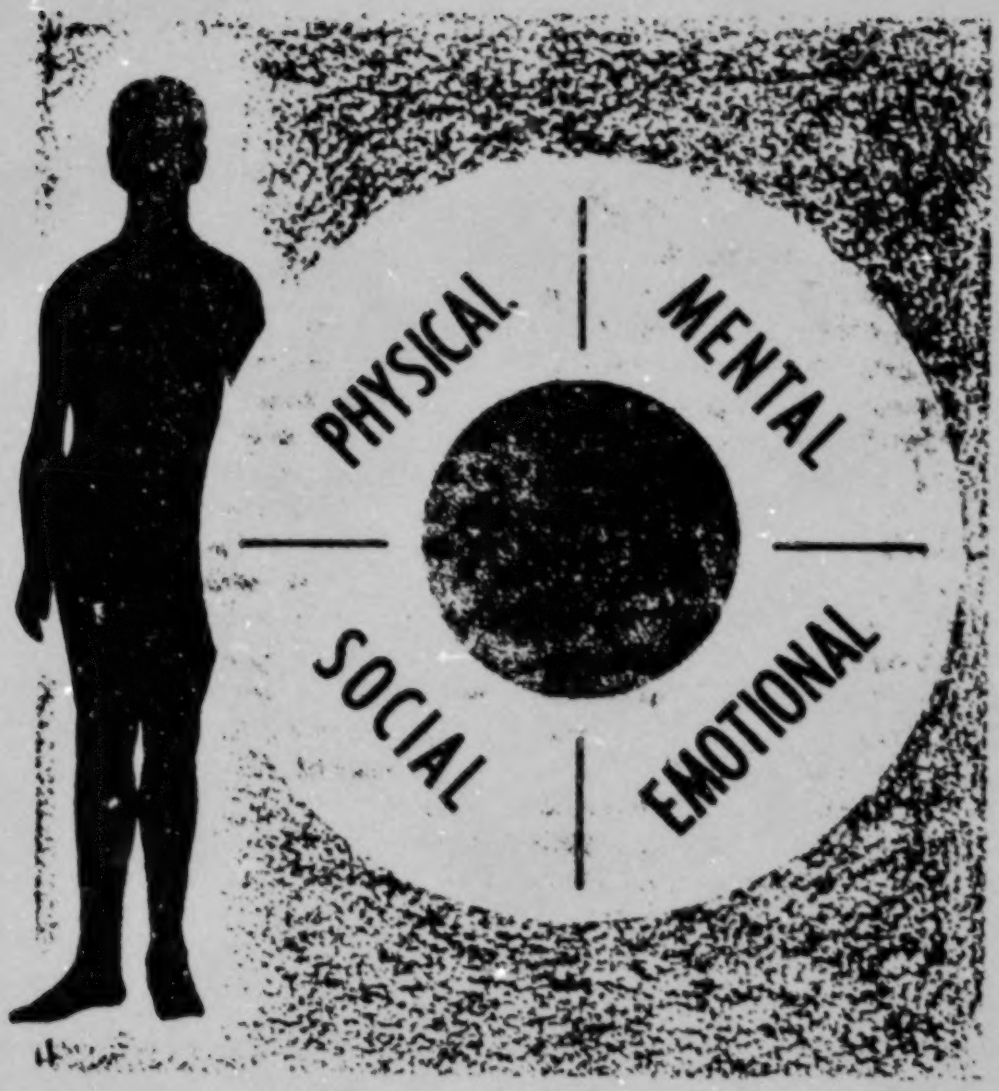
ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Discuss problems students have. (structure discussion in terms of other student, people, friends, etc. to avoid embarrassment; gradually lead to discussion of feelings - worry, anger, fear.) Students write a paragraph on "The Fear I Wish I could Overcome" or "The Fear I Have Overcome" Have students give examples of characters in short stories, literature who meet emotional needs. Another group could find information on characters who compensated, using substitute behavior (emphasizing strengths to make up for weaknesses) - Napoleon, Beethoven, Abe Lincoln, F. D. Roosevelt, Helen Keller, Ray Charles, John Milton.	Make a bulletin board or transparency showing the emotional needs of an individual.* 1. Need to like and be liked, admire and be admired, respect and be respected by others. 2. Need to create 3. Need to achieve 4. Need of feeling of self-worth 5. Need to set goals that one can hope to reach and be realistic about their weak and strong points. 6. Need to have a design for living. * Add to or delete from list as you see fit. i.e. Need to have good examples to follow (students could refer to biographies - Clara Barton, Lou Gehrig) Explore scale workers in the mental health field Reports Question and answer period.	1. Encyclopedias 2. Texts, supplemental texts 3. Transparencies 4. Resource people 5. Free or inexpensive pamphlets: Nat'l Assn. for Mental Health 10 Columbus Circle New Yrok, N.Y. 10019 6. Books About Growing Up, Nat'l Forum Foundation, American Guidance Service SRA Guidance Series (20 booklets) Discovering Myself - Nat'l Forum Seeing Ourselves Nat'l Forum 7. "Red Cross Journal" Dec. 1968 ("Who Am I") 8. Filmstrips: TF9-2 Guidance For Young People; 10 filmstrip, 8 cassettes Eyegate a. Characters Make a Difference (Eye Gate) b. Making the Most of Yourself and What You Like to Do? Society for Visual Education.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

Correlates with "Your Living Body" Chapter in science.

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		c. Let's Talk About Behavior Series Encyclopedia Britannica d. Maturing Boys & Girls & What is a Job? Society for Visual Educ. e. Building Work Habits Series: Barrie Didn't Report & Sandy Got Stuck - McGraw Hill f. Me, Myself & I-Eyegate 9. Films a. Social Acceptability & Social Development - McGraw Hill b. Emotional Health c. Facing Reality d. Beginning Reality e. Are you Popular? Coronet Films Getting Ready for Junior High BFA



Personality Wheel

Ladder of Self-Control

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand concept specialization leads to interdependency.

SPECIFIC BEHAVIORAL OBJECTIVE:

Student will list at least three jobs related to sound.

SUGGESTED SUBJECT AREA Science - Sound & Hearing

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have a few students interview a music teacher and find out how their job is related to sound. 2. Study xylophone . Fill bottles with water to heights to make notes. 3. Have a speech therapist or speech teacher come into the classroom to explain how their job is closely related to sound. 4. Use Hearing Test apparatus (school's) 5. Visit a building supply company to find out about sound proofing materials. 6. Study sound pollution in industrial neighborhood 7. Interest Center: use of tape recorder.	Discuss how sound plays a very important part in our lives. Have student tell about some workers who are very closely involved with sound. Discuss noise pollution problems we have in the world today.	Texts Library books Resource people - Bell Telephone Co. filmstrips opaque projector for pictures 16 mm film from Northwest Bell Telephone A Sense of Hearing #796 - 10 min Song: "Randu to Andrew" p. 215, Electronic Computer, Mastering Music - ABC

SUGGESTED CORRELATION FOR THIS ACTIVITY: Music: Studying musical instruments

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To show the relationship between subject matter and the "World of Work".

CONCEPT: To expand the concept an understanding of science and specialization leads to interdependency in their work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to state five jobs related to matter and energy in our everyday lives.

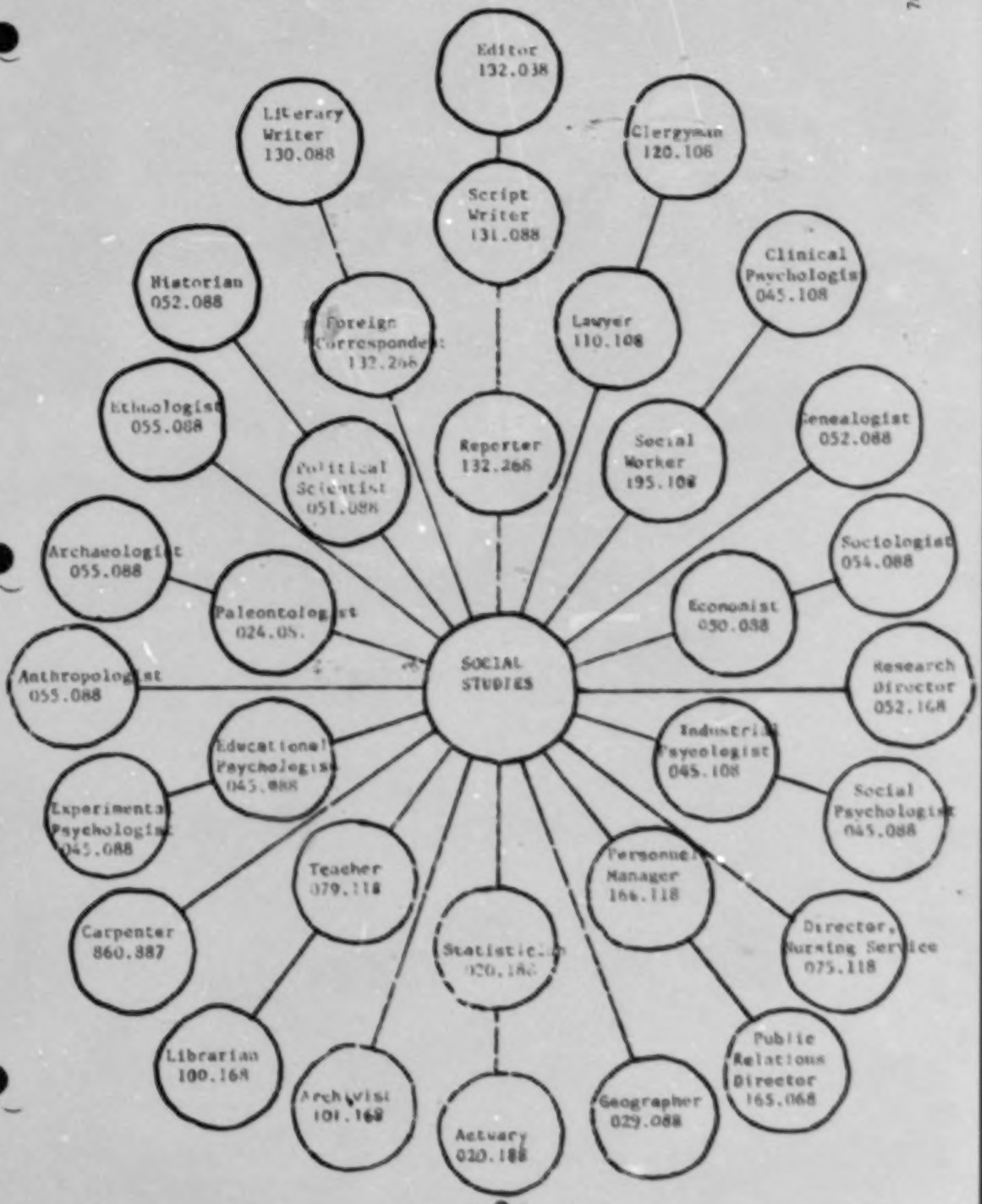
SUGGESTED SUBJECT AREA Science - The Senses

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have a professional photographer come into the classroom to illustrate how chemical changes are useful in picture making. 2. Use a chemistry set to illustrate chemical change. 3. Plan a visit to a drug story and pharmacy department. 4. Make a study of local industries such as soap factory to see and learn about the use of elements as raw materials, chemical changes and other phases of chemicals involved in industry.	During the unit on matter and energy many jobs and workers can be introduced as you are going through the unit. Do experiments with home chemistry sets.	Science Text Encyclopedias Local personnel Field trips North Dakota Elementary Science Handbook Tinker Toys Visit Photographer's Business

SUGGESTED CORRELATION FOR THIS ACTIVITY: Light Unit in Science or the Eye (senses and signals)

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN SOCIAL STUDIES



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the work done throughout the world.

CONCEPT: To expand concept that a society needs both a producer of goods and a producer of services.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will construct an imaginary map of a chosen area. (use a legend or key)

SUGGESTED SUBJECT AREA Map and Globe Work

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have students collect and mount pictures showing workers that need to use maps in their work. Needs of being able to read a map: 1. Taxi driver 2. Tourist 3. Housewife 4. Pilot 5. Truck driver 6. Visitor to a large building or city. 7. You	1. What workers are involved in making maps and globes? 2. What are needs of people today to be able to read a map? (legend) 3. What determines location of road sites today? railroad? towns? (Bring into focus history factor) 4. What conditions contribute to size of cities? (industries and people) 5. Study urbanization. 6. Have students make an imaginary island or country map - work in terms of map reading (longitude, latitude, etc)	Weekly Reader - Columbus Ohio Maps Skill Booklet Road maps - Airway maps Encyclopedias Map workshop World Geography by Roeder, Oxford book company - c 1965 Resource people Air traffic maps texts Filmstrips: Learning to Use Maps, EBE 63-D Latitude, Longitude and Time, Eye Gate M-2 Maps and How to Use Them, Eye Gate Films: House of Man, Encyclopaedia Brit. Jobs in the City: Women at Work, Centron

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand concept that geographical location determines kinds of work found therein.

SPECIFIC BEHAVIORAL OBJECTIVE:

SUGGESTED SUBJECT AREA History

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Have architect visit school. Make a study of buildings Functionalism vs elaborate more ornate ones. Or go on field trip to architectural firm.	1. Compare architecture through the ages 2. Study the coming about of craftsmen from early man's needs. 3. What workers and people were involved in trade. 4. Compare modern work methods with those of ancient civilizations.	Texts - selective material from encyclopedias Films - Claudius, Boy of Ancient Rome Ancient Greece Filmstrips (by country) Egypt, Greece, Near, Middle &Far East Rome, India, China, etc. Books: Mapping the World, Colby, Carroll New York, NY Coward-McCann, Inc. C 1959 gr. 5-7 Transparency - 031-2 The Floor Plan - Its Relation to the House. 5 colors 5 colors 14 - with 2 overlaps Eye Gate Resource people - field trip to architectural firm 16 mm. The Calendar - Our Record of Time 11 min. 2111 color The Story of Houses - 9 filmstrips and cassettes EyeGate

SUGGESTED CORRELATION FOR THIS ACTIVITY: Areas of Ancient Civilization - Egypt, Greece, Italy, S. W. Asia to Indus River

92

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

CONCEPT: To expand the concept that supply and demand of goods influences the kind of workers found in the community.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will secure one reason from a local person why the individuals ancestors came to America.

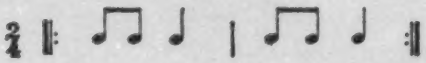
SUGGESTED SUBJECT AREA Social Studies European Industries

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Study immigration of U. S. from Europe; percent from each area Which trades were brought with them? Introduce local trade union Discuss country differences in work and why there are those differences because of climate and environment. Drawings and map work of European peoples. Discuss their occupations.	1. Study life in countries today showing industry, people, occupations. 2. Compare the various governments to ours. Do chart or unit on government comparing them to Democracy. 3. Contrast guilds with free enterprises Discuss progress often creates jobs and workers can be trained to undertake any task.	Texts Film: Russian Life Today: Inside the Soviet Union Filmstrip: Any country - which title includes today or modern Local Trade Representative Songs: A Rovin' P.46 Making Music Your Own Silver Burdette c 1971 "Troika Riding"p. 31 ABC Book 6 "Beautiful Finland" p. 32 "Finiculi-Finiculi" (Italy Growing With Music - Prentice Hall ("Magildi Magaldi" (Welsh) Exploring Music VI Foreign Exchange Student Foreigh parents or foreign doctors.

SUGGESTED CORRELATION FOR THIS ACTIVITY: Geography

93

Sleighbell accompaniment: 

G-27 A-110

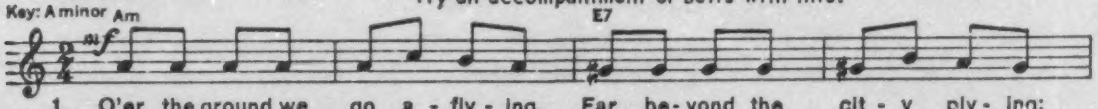
Troika Riding

Adapted Words Ukrainian Folk Tune

RAPIDLY

Key: A minor

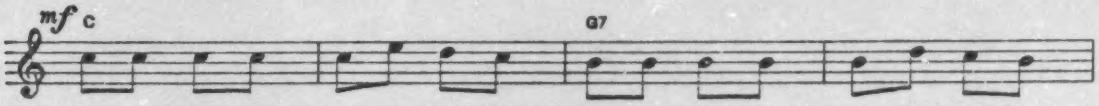
Try an accompaniment of bells with this.



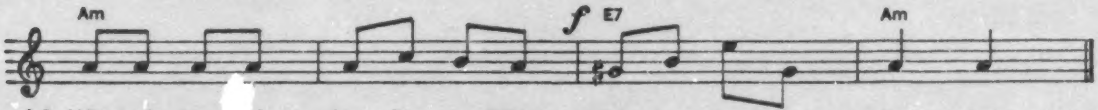
1. O'er the ground we go a - fly - ing, Far be-yond the cit - y ply - ing;
2. 'Round us swirls the snow a - fly - ing, Ice be-neath the snow is ly - ing;

A-1-La

How I love to go a - rid - ing, Rid - ing in a troi - ka!
Bun-dled up, don't mind the weath-er, Snug-gled in a troi - ka!



Hors - es three, with hooves a-pound-ing, Pull us on; a curve we're round-ing!
Ev - 'ry - one is out a-sleigh-ing, Skat- ing, slid - ing, or just play - ing.

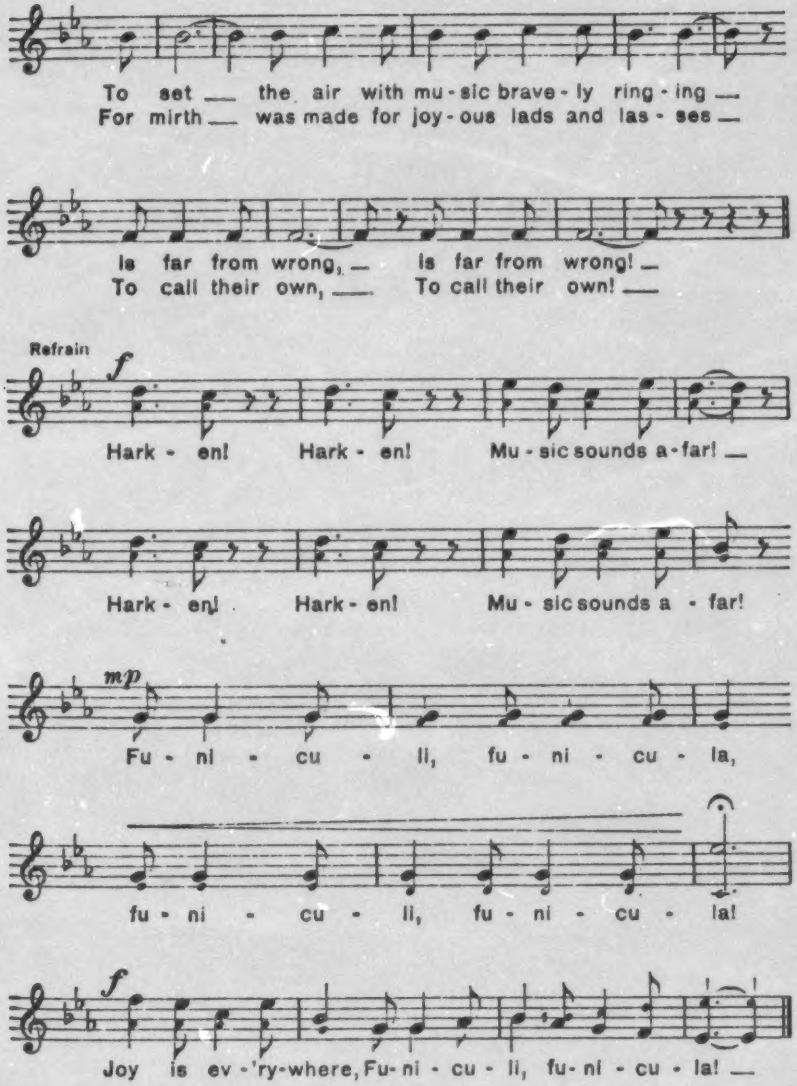


1-2. Win-ter's lots of fun for me When rid - ing in a troi - ka!

A troika (troy-kah) is a vehicle drawn by three horses abreast.

This is a fine example of a minor song which is gay and lively.

Taken from:
Music for Young Americans, Book 6
American Book Co.



The expression marks used in this song are explained in the Glossary at the back of the book.

CAREER DEVELOPMENT ACTIVITIES

GENERAL OBJECTIVE: To provide more specific observational experiences about the world of work.

CONCEPT: To expand the concept that geographical location determines different kinds of work found therein.

SPECIFIC BEHAVIORAL OBJECTIVE: Student is able to list three ways how a person in Africa earns a living that could also be done in our area.

SUGGESTED SUBJECT AREA Social Studies
African Regions

SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Invite a visitor from Africa to talk to class about his home, school, customs, costumes and major economic, political or religious occupations. Study U. S. involvement in African industry. Make scrapbook. Make a mural which shows many aspects of life in one of the countries. Make a list of present leaders in Africa Compile vocabulary list. Report on related articles. Reports on ways of making a living in Africa as compared to our own. Student display or exhibit on African articles direct from Africa.	Discuss the meaning of social, economic and political changes taking place in Africa. Direct learning to ways of earning a living. Contrast ways of earning a living from primitive time to modern times. Ways of earning a living: 1. Farming 2. Raising and herding livestock 3. Fishing 4. Forestry 5. Manufacturing 6. Trading 7. Merchandising (bazaars, markets, stores) 8. Public and domestic service 9. Building and other construction work 10. Government leaders 11. Religious leaders	Compton's Pictured Encyclopedia (use cross references) Maps (population distribution) Relief (occupations, rainfall, natural resources) Films: "Africa - Living in Two Worlds" 14 min. #2632 EBE (color) "African Rythms" Assoc. Films, NY Filmstrips: "African Folk Tales", Slide-O-Chrome Corp. "Africa - the Land of Developing Countries", SVE "If I Were Going to South Africa" Row - Peterson "Union of South Africa", Audio-Visual Assoc. "Life in Northern Africa", Row-Peterson Textfilm

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
		Books: The New Africa, Gatti. Scribner First Book of Africa, Hughes. Watts Here is Africa, Gatti. It Happened in South Africa, Norris Masai - Herders of East Africa, Bleeker. Morrow Children of Africa, Stinetorf. Lippincott Hassan - Boy of the Desert, Darbois. Follett African Wonder Tales, Carpenter. Doubleday Rivers - Story of Nile - Congo National Geographic Songs: "Kum Ba Yah", pg. 200, Making Music Your Own. Silver Burdette "As the Sun Goes Down", pg. 172-173, Mastering Music. American Book Co.

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To provide more specific observational experiences about the world of work

CONCEPT: To expand the concept that geographical location determines kinds of work found therein.

SPECIFIC BEHAVIORAL OBJECTIVE: Student will compare or contrast three occupations found in Asia that are found in the U. S.

SUGGESTED SUBJECT AREA: Social studies Asian Geography

SUGGESTED GRADE LEVEL: 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Make maps showing location, (latitude and longitude) political features, relief, & boundaries in comparison to the United States. Invite a service man to relate to class Eastern Asian life as he saw it. (slides, pictures, etc.) Make scrap book. Round table discussions in which students compare persons of great importance in Asia and the United States.	Follow a study-in-depth outline of Asia. Current events from magazines, daily newspapers. Display of articles of culture. Make a time line. Point out differences and similarities of dress, religion, education occupations, standards of living, & compare. Study problems of population density in Asian areas (India, China)	Text-use many sources. Encyclopedias Library 900 Historical fiction Geographical fiction Folktales Newpapers Magazines filmstrip: (by title) Resource people - travelogue Mr. M. F. Peterson Mr. Victor Solheim (Education tours in India, S.E. Asia, Israel, etc.) with slic Weekly Reader Scholastics Magazine (weekly) "Music of Middle East"p. 157-161 Mastering Music Bk. "Taffta Hindi"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Art projects murals model the clothes of an Arab nomad	To Western worlds compare governments with advancements. List natural resources with products imports and exports. Compare industrialism vs labor Discuss: Would you sooner live in Asia or in North America? Why? Why not? What jobs do you know in Asia that are not found in North America and vise versa.	Art and craft supplies, Opaque projector for pictures. Overhead for transparencies Slide projector for films Chalk - maps 16 mm film The Suez Canal Gateway to World Trade 11 min 1974 color Encyclopedia Britanni

Taken from:
New Dimensions in Music Series, Book 6
American Book Co.

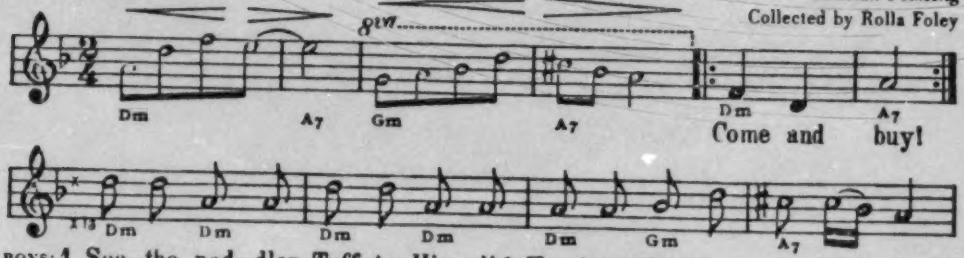
Taffta Hindi

57

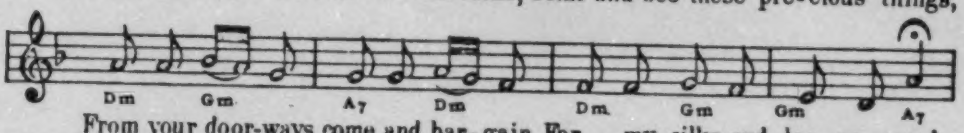
B. P. K.

Allegretto

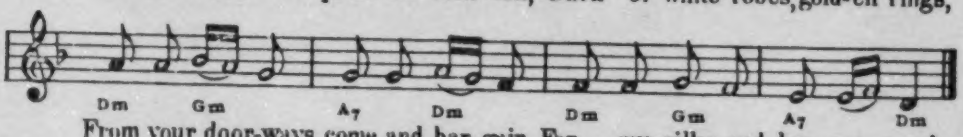
Arabian Folksong
Collected by Rolla Foley



BOYS: 1. See the ped - dler, Taff - ta Hin - di,* He has silks for maid - ens fair,
GIRLS: 2. Taff - ta Hin - di, Taff - ta Hin - di, You may show us all you prize,
ALL: 3. Maid-ens there be - hind the cur-tains, Come and see these pre-cious things,



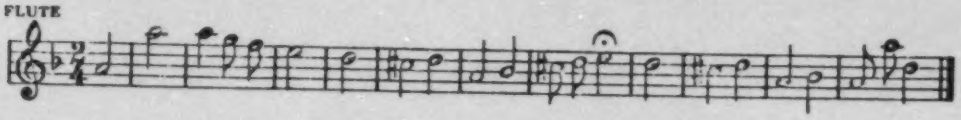
From your door-ways come and bar-gain For my silks and lac - es rare!
En - ter now the pal - ace cham-ber; Spread your wares be-fore our eyes!
Silk - en robes are quite the fash - ion, Dark or white robes, gold-en rings,



From your door-ways come and bar-gain For my silks and lac - es rare!
En - ter now the pal - ace cham-ber, Spread your wares be-fore our eyes!
Silk - en robes are quite the fash-ion, Dark or white robes, gold-en rings.

*silk from India

FLUTE



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine art.

CONCEPT: To expand the concept that many people have special training for the world of work

SPECIFIC BEHAVIORAL OBJECTIVE: Students are able to show how music training will affect them later in life by listing six ways that they could make use of music in the future.

SUGGESTED SUBJECT AREA Music - Occupations

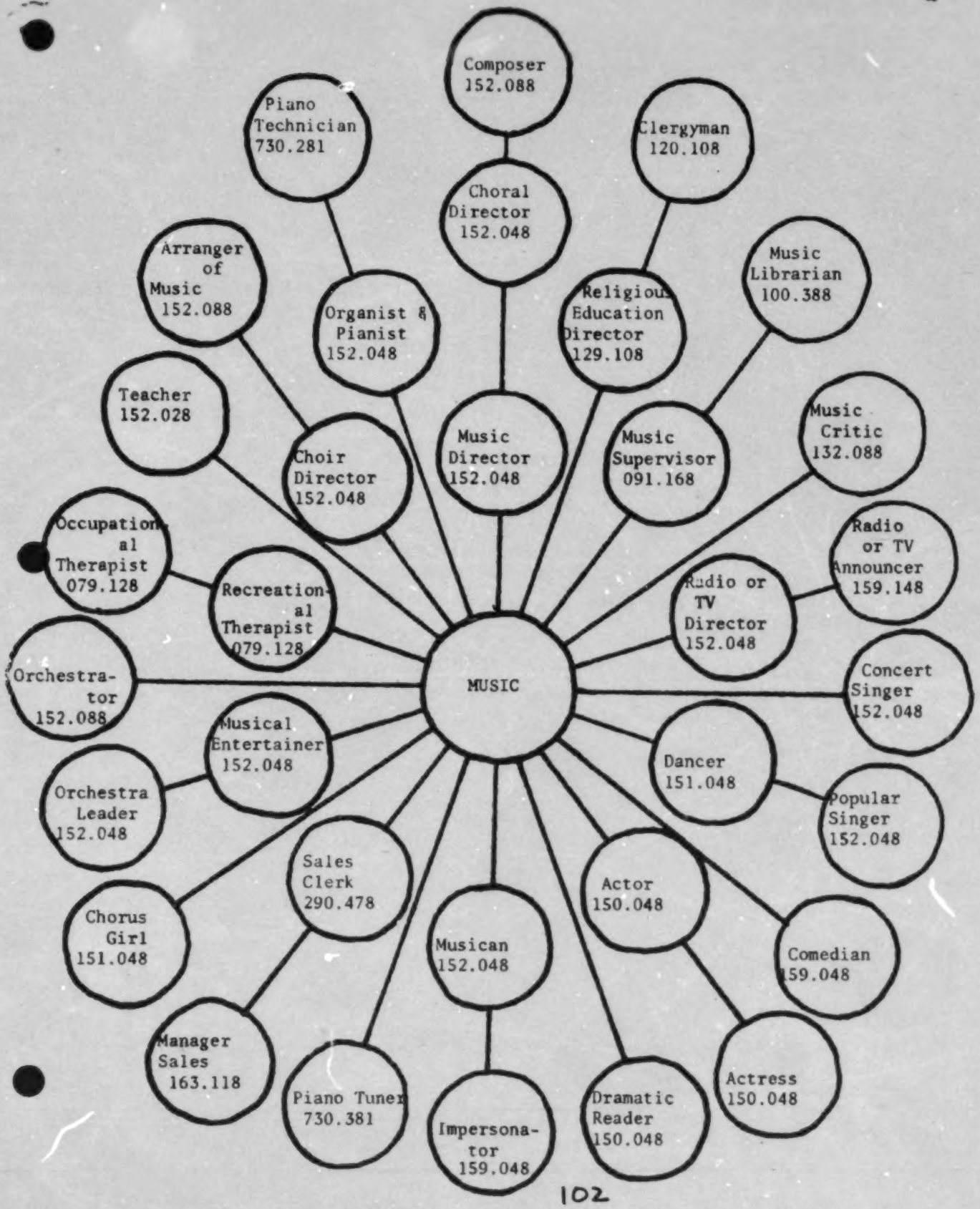
SUGGESTED GRADE LEVEL 6

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Have students tell as many jobs as they can think of that relate to music. List these on a large piece of tagboard and mount on wall (don't forget workers involved in making instruments) 2. Have students find pictures in magazines or newspapers showing how people use music as a form of recreation or pastime. 3. When singing songs related to an occupations discuss what workers are depicted. 4. Have students make a bulletin board using the attached diagram as a guide. They could find pictures in magazines that depict the various occupations related to music.	1. Discuss with students how music training they are receiving could be valuable to them in later life. 2. Discuss music as a form of recreation or pastime. 3. Use Songs depicting different work of nations for a parent program. 4. Bulletin Board (student or teacher constructed) 5. Performance - give an operetta 	Drawing of music related occupations Resource people - Music Teacher Bismarck Films service Music from folk songs to jazz 16 mm film Music Books Record Library Discovering Music Together VI Rev. Follett c 1970 (correlates art, music & poetry) Song: "Jazz Man" p. 206-7 Mastering Music VI ABC c 1970

SUGGESTED CORRELATION FOR THIS ACTIVITY:

101

SOME OCCUPATIONS RELATED TO INTEREST AND ABILITY IN MUSIC



CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will show that he understands the value of fine arts to the world of work by listing one way that dancing helps the individual.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Rhythms: 1. Farmer in the Wheat 2. Farmer Grey 3. Shoemaker's Dance 4. Grapevine Mixer 5. Speed the Plow 6. Dive for the Oyster 7. Cotton Pickin Polka 8. Haymaker Jig	Tell how each specific dance relates to the world of work.	1. Victor 2168 or 45-5066 Folkraft 1182 2. Epic LN 3607 3. Victor 45-6171 or 20450 4. Osborne 5. Folkraft F1087B 6. Folkraft 1018 "Old Joe Clark" 7. Victor 45-8951 8. Folk Dancer MN10504 Dance A While, Harris, Pittman Walker 1968 Burgess Pub. Co. Minn. MN

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student involved will be able to state the purpose of the YMCA and its value throughout the country.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Intramural YMCA field trip with a swimming party after a tour of the facility.	Arrange field trip, through school and YMCA administration. Arrange transportation. Have tour of facilities as basis of field trip with tour leader knowledgeable in relating the occupations of Y workers, both paid and volunteer, to the students. Also the leader should make aware how the Y is one of the best avenues to adult leisure time activities. After tour a swimming party could be the treat given to the children.	

SUGGESTED CORRELATION FOR THIS ACTIVITY:

104

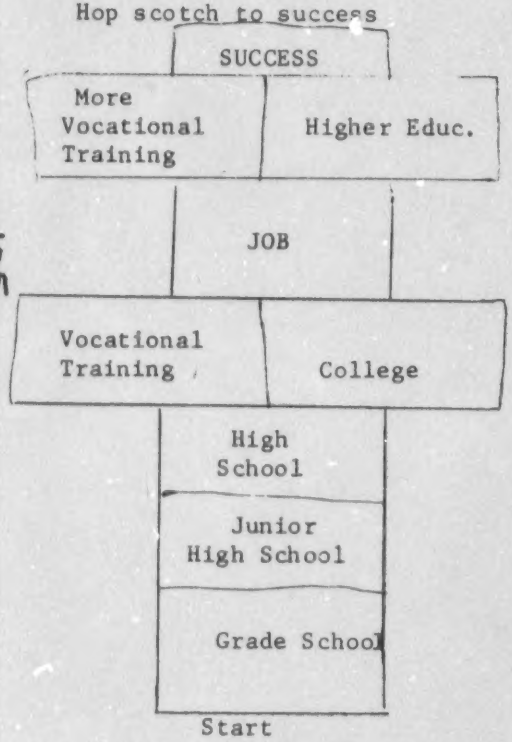
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To give students an opportunity to express goals and aspirations.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of activity student will be able to state what he thinks his goal in life will be at this time.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Hop scotch to success  	a. An explanation of the hopscoth should be given explaining the ladder of education on the chalkboard at the beginning of class. b. The child chooses either of the double blocks to simulate one type of training with equal opportunity to accomplish either. c. Teams are arranged with three people on each hopscotch. d. Each student chooses a rock. e. The general rules of hopscotch were followed the child threw a rock to the 1st block hops over it and continues on with 1 foot on each block until a line is stepped on or a throw to a block is missed. When this occurs the rock stays on the block where it was when the error was committed, the player goes to the end of the line and the next player takes his turn not being able to step on a block with a rock on it. The child to 1st pass success is the winner.	Dynamic Physical Education for Elementary School Children, Victor P. Dauer Burgess Publishing Co. Minneapolis, MN page 505

SUGGESTED CORRELATION FOR THIS ACTIVITY:

105

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: Develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will realize which pscho-motor skill he is the most adapt at and tell one worker to whom this skill is very important.

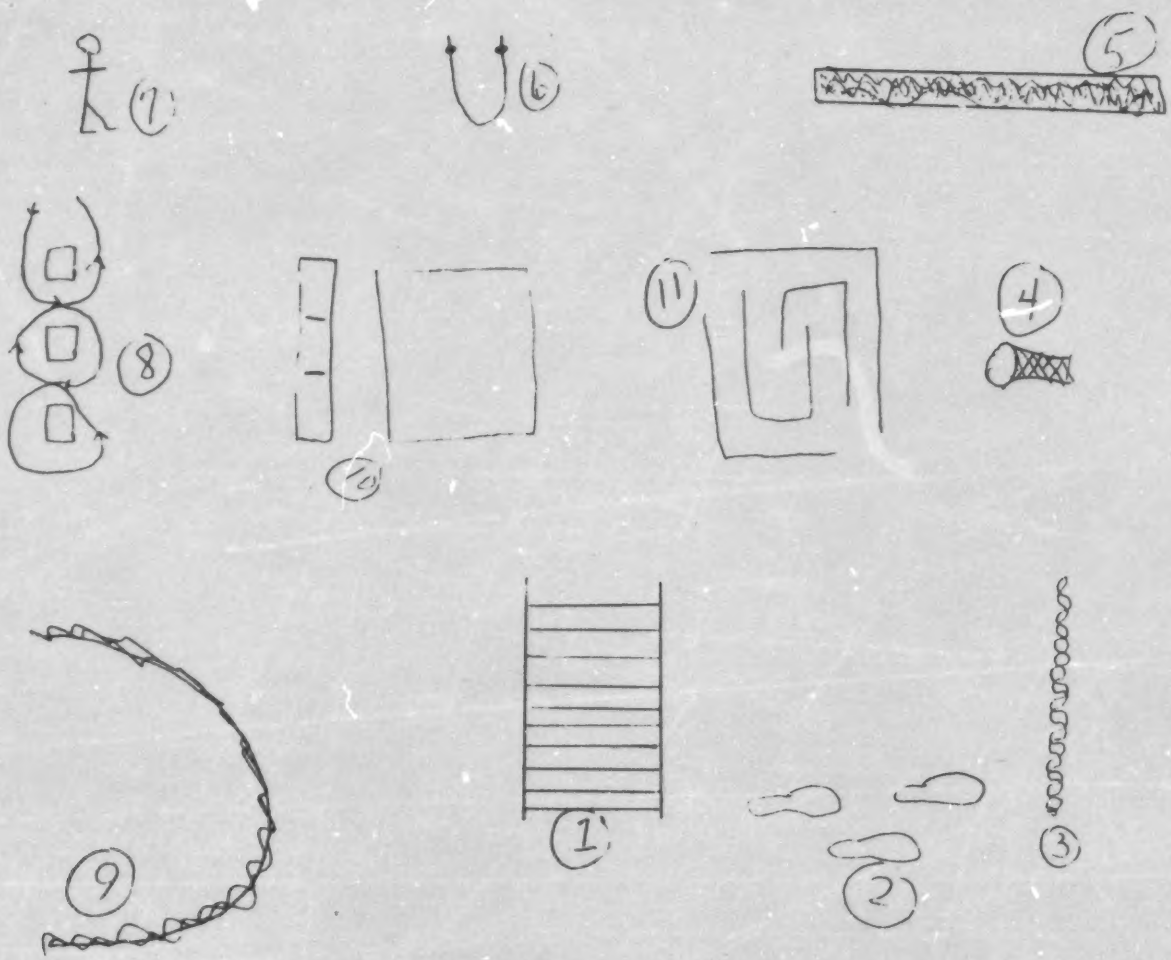
SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Obstacle course An obstacle course where different skills are assigned to different occupations. A record is kept by students to show which jobs he accomplished on the course.	A. Each obstacle is labeled for a certain job relating physical activity with a skill the job would demand. B. The children are numerically assigned to start at different stations. C. A cue given by teacher would mean change to the next higher numbered station. D. Score or evaluation will be determined by the child having a diagram of the course and checking off the obstacles completed. E. The basic obstacle course should be altered to the availability of equipment. F. The president's physical fitness obstacle course could also be used as a activity by stessing?	Horizontal ladder two climbing ropes basketall hoop and basketball Balance Beam Jump ropes three chairs vaulting horse 6 folding mats. Diagram of obstacle course on attached sheet.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

OBSTACLE COURSE



1.	Horizontal Ladder (up and down twice)	Painter
2.	Gym Walk Around (3 times)	Mailman
3.	Climb the Rope to the tope of the gym	Telephone Repairman
4.	Make a Basket (once)	Basketball coach
5.	Walk a Balance Beam with hands behind back	Carpenter
6.	50 double rope jumps with no miss	Professional Boxer
7.	15 - sixcount burpees	Housewife
8.	3 chair agihity? drill	Dancer
9.	Tarzan Rope Swing	Movie stunt man
10.	Jump & Roll from vaulting horse	Parachutte Jumper
11.	Mat Maze	Adaptability of any occupation

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation, a. discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. b. tying square knot c. threading needle d. arrange bowling pins e. balance two dowels Any number of activities of hand-eye coordination could be developed by creative thinking of instructor.	A. Divide class into equal squads and place them at one end of gym. B. Try each activity before each relay. 1. demonstrate tying square knot 2. threading a needle 3. arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor C. Have student run to end of gym - complete stunt - run back and sit at end of squad. D. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad).

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: The body should be used in the best position for work efficiency.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warmup or exercise part of class period. 1. basic standing 2. basic walking 3. sitting properly 4. bending properly 5. lifting efficiently 6. reaching properly	Explain the proper methods and why the body functions better using the proper methods. Discuss: Body grows to the posture you normally take.	Human Movement (book) Place pictures of correct and incorrect posture on bulletin board.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Exploring work movement by using child's knowledge and creativity of family or friend's work to a conscious level through suggestion.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Exploration of work by exploring father's, mother's, or an acquaintance's occupation. Answers to instructors questions are physically acted out by student.	Instructor has child go to their own special area in gym. Instructor asks children to choose the work of father, mother or someone they know. Instructor then asks the children to physically act out the answers to the question he will ask in any way they wish with each student staying in his own area. Question Suggestions: 1. What type of big physical movement does the occupation involve? 2. Can you think of a movement he makes without moving his feet? 3. By what means of transportation does the worker get to work? 4. If the worker runs a machine, show how. 5. Can you show five (5) things the worker does at work in one day? 6. What is your emotion to the job; boring, exciting, pleasureful, rewarding, etc.?	Exploration of Movement, Hackett N. Dak. Elementary Course of Study Creative thinking by the instructor

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	7. What leisure time activity (after work) would you most like to participate in after working on this job all day?	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests that will open up expanded basis for vocational choice.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for block of wood which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Parachute Play Occupations of Physical Education The resource poster book should be used with pictures and explanation of the different physical education opportunities. The parachute is used to make a mushroom and each group competes for the job by capturing the block of wood.	a. discuss jobs in big group. b. number off students into six different groups. c. each group chooses an occupation and gives it to teacher. d. all students go around opened chute in mixed numbers. e. a mushroom is formed. f. at signal an occupation is called. g. the children of a group run for block. h. winners become that occupation and are asked to bring a picture or drawing of the job to be placed on bulletin board with name of student.	Elementary Physical Education Course of Study, page 200 Careers in Physical Education (posters) J. Weston Walch, Portland, Maine 04104 Parachute Object to grab such as block of wood with "Hired" written on it.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should be made aware through a field trip of the occupation of operating a bowling alley.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Teaching the skill of bowling. Relate this activity to the world of work by taking a field trip to a bowling alley.	A. Running a three to four week unit in bowling cover bowling technique and scoring. B. Arrange a time and date for field trip with school and bowling alley manager. C. The trip would involve a line of bowling and a presentation by alley manager and a behind the scene look of the bowling machines. D. Activity could be a carryover to discussion of operation of other recreational facilities eg. golf course, curling club, swimming pool, ski resort, archery range.	Commercial gymnasium bowling equipment Homemade equipment such as milk cartons and softballs. Score sheets Transportation to bowling alley Follow-up material for carryover discussion on managing other recreational facilities

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a wide and varied interest that will open up an expanded basis for vocation choice and to develop and foster a positive attitude toward the value of fine arts.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student should relate the basic rythmic activities with the many occupations involved in dance. The need for group cooperation would also be an objective accomplished if the activity was to be successful.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Professional Dancers in Action (video taped) A modern gymnastic unit in which a routine of balls, hoops, wands or combination is learned by girls and done to music. The performance is video taped	1. Discuss dance being a complete field in itself and all the available occupations leading off from it. 2. Involve class in modern gymnastics using available equipment. 3. Learn basic movements and stunts and then formulate a routine to music. 4. After performance is somewhat polished and memorized, video tape it and then show it to students. 5. A student through very basic instruction could focus on and photograph the group with the constant aid of instructor to insert the occupation of photography.	Gymnastics for Women, Blanche Drury, National Press, Palto Alto, Calif. 1964 Pg. 200 Loops, wands, balls Record player Rythmic records (can be pop tunes) Video tape equipment

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop varied and wide interests toward physical education opportunities.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate understanding of competition in securing a job by running for eraser which is symbol of occupation sought by five others.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Parachuting Game		Elementary Physical Education Course of Study Page 200
a. Discuss occupations	a. Steal the back	
b. Group chooses six occupations.	b.	Careers in Physical Education posters address:
c. Number off group around parachute	c.	Parachute
d. Make mushroom	d.	Object to grab
e. Place block of wood	e. Block of wood with words "You're Hired" on it.	Block of wood

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To make school subjects more meaningful

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of job role student will be able to perform five duties of particular worker.

SUGGESTED SUBJECT AREA physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
1. Continuing Career Exploration Activities. These activities are to be carried on in the yearly program. a- student officials, umpires or referees. b- Equipment managers c- professional athlete	A. The teacher could choose these officials by student volunteering. Trying to give all students a chance to participate, given the students a chance to understand the duties and stresses of an official. B. A yearly schedule with two students working for a two week period. Their job would consist of putting up and taking down equipment. The students will need extra time beside the physical education class period to do their listed duties. C. For each specific unit a boy and girl will be awarded a professional athlete award by the teacher or a student vote. No student will win the award more than twice.	A. Official Pinnies whistles B. Blackboard or bulletin board. C. Paper written award or a ribbon award

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: During the activity each student will have an opportunity to share information about an occupation with other students.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Jump rope of occupation A jumpdown with the missing jump coorelating with the last occupation listed.	A. A simply jump down with the teacher or chosen student reading the list of occupations. When a child misses a jump the last occupation heard is the child's occupation for that moment. B. Since there was two lists of occupations only half the class was active at a time. Although there is a boys and girls list, the groups were not divided sexually C. After one jump down was completed the children could discuss their occupation while the second group was jumping. D. Different types of jumpdowns can be used to vary the activity. E. The last child to miss should be given the opportunity to tell about the occupation they missed on and if they would like that type of work or not.	Occupational Dictionary jump ropes.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

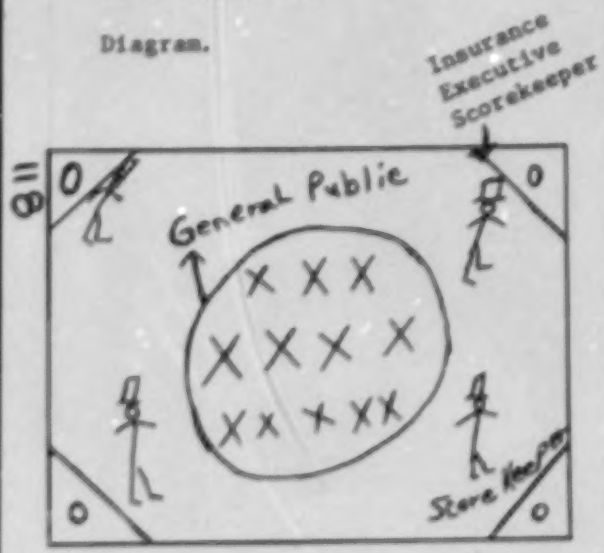
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity student will be able to list three workers that are involved in the insurance business.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Insurance Companies A game of dodgeball involving insurance terms. Diagram.  	A. Discussion of what an insurance policy is. B. Four salesmen and four insurance executives are chosen each to represent a company. If there are less than thirty children involved use two companies. The rest of the class is the general public. C. A game of dodge ball is played with the salesman trying to hit a public. Each public has a card with a policy amount on it which only that individual public knows. It maybe very big or small. When the individual is thrown out he gives his policy to the executive. D. When the player is hit he becomes the salesman and the past salesman becomes a retriever for his company E. After the last person is out all the scores for each company are totaled. The company with the highest total of the amount of policies is the winner which might be the company with fewer policy holders. The principle of commission should be brought up at this time. (continued)	A. An example of insurance policy B. 2 or 4 10" playground balls C. Insurance policy amounts on cards. D. Scorekeeper scoresheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	F. This game could easily be adapted to an outdoor field by making it a tag game instead of a throwing game.	

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To impress upon the student that a healthy body is essential to a productive worker.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to demonstrate the proper way to perform each of the six functions listed below.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Warm up of basic skills in work use as part of exercise class or warmup. 1. Basic standing 2. Basic walking 3. Sitting properly 4. Bending properly 5. Lifting efficiently 6. Reaching properly	Discuss proper methods of 1-6 and why the body functions better using the proper methods. Body grows to the posture you normally take.	Movement Fundamentals Janet A. Wessel Prentice-Hall Englewood Cliffs, N.Y. Place pictures of correct and incorrect posture on bulletin board.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

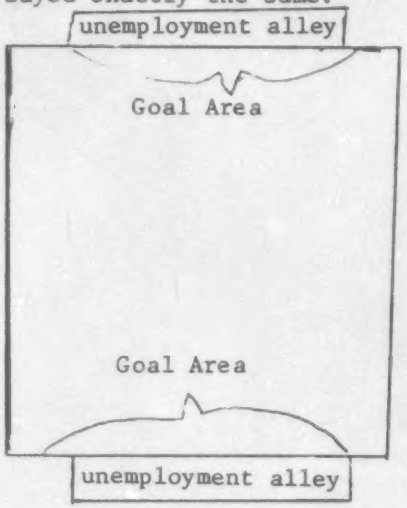
CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop a positive attitude toward work and the preparation for work.

SPECIFIC BEHAVIORAL OBJECTIVE: Students will be able to list advantage and disadvantage of working for a salary and same for receiving a handout check.

SUGGESTED SUBJECT AREA Physical Educ.

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Welfare Alley This is an adaption of the game of prisoners base. The terms have been changed, but the game is played exactly the same.  	During calisthenics discuss working for a salary and receiving handouts - advantages and disadvantages of each. A. Should use out of doors playing field because of the running in the game. B. The basic rule of the game is that any player may be only by an opponent who has left his goal area after the player who is tagged. Each player trip to tag an opponent to make him a welfare receiver. C. If caught the player must go to unemployment alley and stay until he is rescued by another team mate. If there is more than one welfare recipient they form a chain from welfare alley. D. To win the game, a team must have one of its players enter the opponent's goal area without being tagged, or, one team must have a certain amount of opponents unemployed. E. This activity should also bring out reasons for unemployment and instill fact that some people cannot work. There should be no shame or arrogance promoted in this activity.	Field workers for side lines, goals and welfare alley.

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To present appropriate occupational information using a broad introduction of occupations throughout the world.

SPECIFIC BEHAVIORAL OBJECTIVE: After completion of the activity each student will be able to relate at least one occupation that has been acted out entails.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Work charades A game of acting out occupation to a specific time limit.	A. Divide the class into 5 equal groups. B. Have each child choose a job card and keep that job a secret. C. At the sound of a whistle a specified child in each group has thirty seconds to act out the occupation. D. If the group guesses the occupation in the time limit a point is given. E. The group with the greatest amount of points is the winner. F. The occupation should be easily acted out physically but difficult enough to make the game challenging. G. This activity could be used in conjunction with jump rope of occupations. A jump down instead of job cards would be a way of assigning occupations to be acted out in the charade.	Job cards Stop watch Score sheets

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop skills basic to living a full and meaningful life.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will demonstrate the relation of hand-eye coordination in relay form as it would apply to the world of work.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Relay of hand manipulation	A. *Discuss what hand-eye coordination is and that some people have high hand-eye coordination making them ready for certain jobs. Tying square knots Threading needle arrange bowling pins balance two dowels B. Divide class into equal squads and place them at one end of a gym. C. Try each activity before each relay. 1. Demonstrate tying knot 2. Thread a needle 3. Arranging pins in bowling formation or any formation desired - have marks on floor where pins must be placed. 4. balance one dowel on top on another which is flat on the floor D. Have student run to end of gym - complete stunt - run back and sit at end of squad. E. Teacher should okay each students activity before he returns to squad.	Jumping ropes (one for each squad) Large darning needle and thread (one for each squad.) Plastic bowling pins, wooden Indian clubs or any group of objects that must be set on end in a desired formation. Wooden dowels (two for each squad)

SUGGESTED CORRELATION FOR THIS ACTIVITY:

CONTINUATION ACTIVITY SHEET

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
	Any number of activities of hand-eye coordination could be developed by creative thinking of instructor. * Relays involving skills which take high hand eye coordinations.	

124

CAREER DEVELOPMENT ACTIVITIES

BROAD OBJECTIVE: To develop and foster a positive attitude.

SPECIFIC BEHAVIORAL OBJECTIVE: Each student will be able to list four occupations in the railroad industry.

SUGGESTED SUBJECT AREA Physical Education

SUGGESTED GRADE LEVEL _____

ACTIVITY	SUGGESTED TECHNIQUE	RESOURCE MATERIALS
Socio-drama to "I've Been Working on the Railroad" The children are given a chance to act out creative dance, or rhythm to the song"I've been Working on the Railroad."	A. An introduction to this activity should be a short discussion of the different jobs available in the industry of railroads and the vastness and importance of the industry. B. The class is divided into groups of five or six and given the assignment to act out the first verse of the tune using movement and sounds but no direct verbalizing. C. The teacher should introduce some probable movements and then let the children create giving a certain time limit. D. The performances will be watched by the part of class not performing. E. This creative activity could be used with other songs stressing the work factor.	Other songs: "Farmer in the Dell" "Wabash Cannonball" "Row-Row Your Boat" "15 mules on the Erie Canal" "16 tons and What do You Get"

SUGGESTED CORRELATION FOR THIS ACTIVITY:

APPENDIX A

RESOURCE PEOPLE GUIDELINES

Preparation:

1. Make the initial contact.

2. Teacher should obtain background information on person so she can make the introduction.

3. Provide information to the speaker describing the type and number of students, the program, facilities and equipment you can provide, things to cover, etc. (Letter for this purpose attached.) Form xx

4. Cover the area concerning the resource person before he or she comes to the classroom.

5. Give students some general knowledge of this person's field.

6. Talk about questions that they wish to have answered. (general) Have these organized so that all questions can be asked without repetition.

7. If question period lags the teacher should ask questions to bring out things that haven't been covered thus far.

Form xx

Dear _____

My students are studying _____.
We would like to have some first hand knowledge about this area. We are very interested in the work that you do at your job. Below are listed some areas that we would like to have included in your talk to the class.

1. Title of job.
2. Duties.
3. Training or preparation required.
4. Approximate starting salary - salary after ten years (average).
5. Have you been doing this same type of work all of your working life?
6. Demand for such a job.
7. Supply of workers for this occupation.
8. Physical characteristics needed.
9. Social characteristics needed.
10. Do you work alone or with others?
11. Do you need to get along and cooperate with other workers?
12. What school courses helped a great deal in preparing you for this work?
13. How do you feel after a days work? Why?
14. Why do you work?
15. Do you like this job?
16. What are the good and bad points about it?
17. How and where training can be obtained.
18. Leave plenty of time for questions.

Listed below is some information you may find useful.

Grade _____
Number of students _____
Description of facilities and equipment available _____
_____

Thank you very much for consenting to spend some time with our class.

Sincerely yours,

Teacher

Follow-Up

1. Discuss things they learned from visit (what do they know now about this job that they did not know in the past).

2. Discuss:

   a. Is this person's work useful? How?

   b. Would you like this type of work?

   c. What characteristics do you have that would be valuable in this work?

   d. What must you improve on if you were to go into this line of work?

APPENDIX B

FIELD TRIPS

Guidelines:

I. Set up plans:

A. Plan type of trip
Are students interested in going?
Is trip justifiable? (Can classroom provide same learning?)
Reason for taking trip:
1. Develop awareness of different workers
2. Helping them observe working conditions
3. Awareness of interdependence of workers.

B. Preparation

1. Permission from principal
2. Plans for transportation
3. Permission slips
Develop form-sheet for the tour of business place
4. Contact business tour establishment

a. Permission to come and definite date and time
b. Information given them
1. Number of children
2. Age and grade level
3. What material covered by children previously
4. Questions they might ask
5. Workers children may question
6. Do you have materials you would like us to go over beforehand or hand out on tour?
7. Safety measures to be observed

C. Pupil/Teacher Preparation

Watch for:
1. Working conditions
2. Training of workers
3. Duties of workers
4. Clothes they wear - appropriate
5. Numbers of workers
6. Safety
7. Do they like this work?

Our preparation for trip:
1. Appropriate clothing
2. Safety - conduct on tour
3. Courtesy (going and at tour base)
4. Departure time

D. Follow-up

1. Did you enjoy the trip and would you recommend trip to others? Why? Why not?
2. Discuss observations (C)
3. Were all your questions answered?
4. Which of these workers would you like to be?
5. What did you learn on this trip that you didn't learn in classroom?

GRADES 4 - 5 - 6

Ideas for Employers Regarding Things to Cover During Occupational Field Trip

1. Title of occupations at your plant

2. Duties of the workers

3. Training or preparation needed

4. Salaries (optional) beginning and ten year average

5. Physical and social characteristics needed.

6. What school work was most helpful for your job

APPENDIX C

ADDRESS OF SUPPLIERS OF RESOURCE MATERIALS

Academy Films
748 West Seward St.
Hollywood, Calif. 90038

Allyn & Bacon Inc.
College Division
Rockleigh, NJ 07647

American Book Company
300 Pike Street
Cincinnati, Ohio 45202

American Guidance Service
Publishers Bldg.
Circle Pines, Minn. 44014

Association-Sterling Films
512 Burlington Ave.
LaGrange, IL. 60525

Association Films
660 Madison Ave.
New York, NY 10022

BFA (Bailey-Film Assoc.)
2211 Michigan Ave.
Santa Monica, CA 90404

Benefic Press
10300 W. Roosevelt Rd.
Westchester, IL 60153

Bobbs & Merrill
4300 W. 62nd St.
Indianapolis, Ind. 46268

Careers, Inc.
P. O. Box 135
Largo, Florida 33540

Childrens Press
1224 W. Van Buren St.
Chicago, IL 60607

The Child's World, Inc.
515 N. Front St., Box 711
Mankato, Minn. 56001

Chilton Book Co.
401 Walnut St.
Philadelphia, PA 19106

Churchill Films
662 N. Robertson Blvd.
Los Angeles, Calif. 90069

David C. Cook Pub. Co.
Elgin,
Illinois 60120

Communico
1735 Administration Dr.
St. Louis, MO 63141

Coronet Films
Coronet Building
65 E. South Water St.
Chicago, IL 60601

Coward-McCann, Inc.
200 Madison Ave.
New York, NY 10016

Crowell, Thomas Y.
201 Park Ave. S.
New York, NY 10003

Denoyer-Geppert
5235 Ravenswood Ave.
Chicago, IL 60640

Developmental Learning Corp.
3505 N. Ashland Ave.
Chicago, IL 60657

Dillon Press
108 Washington Ave. N.
Minneapolis, MN 55401

Walt Disney Productions
Educational Film Division
500 S. Buenavista Ave.
Burbank, Calif. 91503

Dodd, Mead & Company
79 Madison Ave.
New York, NY 10016

Doubleday & Company
501 Franklin Ave.
Garden City, NY 11530

Edu-Craft
(See Denoyer-
Geppert)

Educators Progress Service, Inc.
212-214 Center St.
Randolph, Wisc. 53956

Educational Progress Corp.
8538 E. 41st St.
Tulsa, OK 74145

Encyclopaedia Brittanica
Preview/Rental Library
1822 Pickwick Ave.
Glenview, IL 60025

Eye Gate House
146-01 Archer St.
Jamaica, NY 11435

Fearon Publishers, Inc.
2165 Park Blvd.
Palo Alto, Calif. 94306

Filmstrip House
432 Park Ave. S.
New York, NY 10016

Filmstrip of the Month
Popular Science Pub. Co.
355 Lexington Ave.
New York, NY 10017

Finney Company
3350 Gorham Ave.
Minneapolis, MN. 55426

Florida Development Commission
Film Library
Collins Bldg.
Tallahasee, Florida

Follett Educational Corp.
Customer Service Center
Box 5705
Chicago, IL 60680

Ford Market, Inc.
63 St. Anthony Blvd. N. E.
Minneapolis, MN 55421

Gel-Stenn
911-913 S. Hill St.
Los Angeles, Calif. 90015

Ginn & Company
Staler Building
125 Second Ave.
Boston, Mass. 02154

Grove Press
80 University Pl.
New York, NY 10003

Guidance Associates
41 Washington Ave.
Pleasantville, NY 10570

E. M. Hale & Co., Inc.
1201 S. Hastings Way
Eau Claire, WI 54701

Harper & Row Publishers
Keystone Industrial Park
Scranton, PA 18512

Harvey House Inc.
5 S. Buckhout St.
New York, NY 10533

Hawthorne Book, Inc.
70 Fifth Ave.
New York, NY 10011

Highlights for Children
2300 W. Fifth Ave.
Columbus, OH 43216

Holt, Rinehart & Winston, Inc.
383 Madison Ave.
New York, NY 10017

Houghton Mifflin Co.
1900 S. Batavia Ave.
Geneva, IL 60134

Imperial Film Co.
4404 S. Florida Ave.
Lakeland, Florida 33803

Information Systems & Service
P. O. Box 1231
Milwaukee, Wisc. 53201

Instructo Corp.
Paoli,
Pennsylvania 19301

Jam Handy
2781 E. Grand Blvd.
Detroit, Michigan 48211

Alfred A. Knopf, Inc.
501 Madison Ave.
New York, NY 10022

Laidlaw Brothers
Thatcher & Madison
River Forest, IL 60305

Little Brown & Co.
34 Beacon St.
Boston, MA 02106

Long Filmslide Service
7505 Fairmount Ave.
El Cerrito, Calif.

Marrow Publications
4163 Market St.
San Diego, Calif. 92101

Macrae-Smith Co.
225 S. 15th St.
Philadelphia, PA 19102

McGraw-Hill Book Co.
330 W. 42nd St.
New York, NY 10036

Melmont Publishers
(See Childrens Press)

Milton Bradley Aids
74 Park St.
Springfield Mass. 01102

Modern Talking Picture Service
9129 Lyndale Ave. S.
Minneapolis, MN 55420

National Dairy Council
111 North Canal St.
Chicago, IL 60606

National Forum Foundation
(See American Guidance Service)

National Gallery of Art
Extension Service
Washington, DC

Net Film Service
Indiana University
Bloomington, IN 47405

F. A. Owens Publishing Co.
Dansville,
New York

Oxford Book Co.
387 Park Ave. S.
New York, NY 10016

G. P. Putnam
200 Madison Ave.
New York, NY 10016

Q Ed Productions
P. O. Box 1608
Burbank, Calif. 91505

Radim Films
220 W. 42nd St.
New York, NY 10036

Random House
201 East 50th St.
New York, NY 10022

Richard Rosen Press
29 E. 21st St.
New York, NY 10010

Rider College
Public Information Unit
Trenton, NJ 08602

Scholastic Book Service
2931 E. McCarty St.
Jefferson City, MO 65101

Scholastic Magazine, Inc.
(Weekly Reader)
902 Sylvan Ave.
Englewood Cliffs, NJ 07632

Science Research Assoc.
259 E. Erie St.
Chicago, IL 60611

Scott, Foresman & Co.
3145 Piedmont Rd. N. E.
Glenview, IL 60025

Sextant Systems
(See Information Systems
& Services)

Shell Film Library
450 N. Meridian St.
Indianapolis, Ind. 46204

Silver Burdett Company
460 S. N. W. Highway
Park Ridge, IL 60068

Society for Visual Education
1345 Diversey Parkway
Chicago, IL 60614

Steck-Vaughn Co.
Box 2028
Austin, Texas 78767

Sterling Publishing Co., Inc.
419 Park Ave. S.
New York, NY 10016

Taylor Publishing Co.
Box 597
Dallas, Texas 75221

Texaco Inc.
Mr. Smithwick
1570 Grant St.
Denver, Colo.

Thompkins Films
Box 46611
Los Angeles, Calif. 90046

Trend Enterprises
White Bear Lake,
Minnesota

U. S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U. S. Dept. of Labor
240 New Federal Bldg.
653 Second Ave. N.
Fargo, ND 58102

Viking Press
625 Madison Ave.
New York, NY 10022

VISTA
1111 18th St. N. W.
Washington, DC 20506

J. Weston Walch, Publisher
Box 1075
Portland, Maine 04104

Franklin Watts, Inc.
575 Lexington Ave.
New York, NY 10022

Weekly Reader
(See Scholastic Magazine)

Westminster Press
Witherspoon Bldg.
Juniper & Walnut St.
Philadelphia, PA 19107

Weston Woods
Newtown Turnpike
Weston, Conn. 06880

Whitman, Albert
560 W. Lake St.
Chicago, IL 60606

John Wiley & Sons
605 Third Ave.
New York, NY 10016

H. Wilson Corporation
555 West Taft Drive
South Holland, IL 60473

Chronicle Guidance Publications
Moravia,
New York 13118

APPENDIX D

INTERVIEWING GUIDELINE

Intermediate Grades

PURPOSE

We see the purpose of an interview to be an accurate personal way to obtain information. A famous social scientist, Gordon Allport, once said, "If we want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do - why not ask them."

Interviewing can be used as an effective way for students to gain insight into a wide variety of jobs and workers.

METHOD AND TECHNIQUES

The following rules, which also apply to professional interviewers, generally should be followed by children.

1. The purpose of the interview, or some orientation to the interview, should be given at the start.

2. The interviewer should be friendly. He should seek to elicit and maintain the cooperation of the respondent.

3. The questions should be asked exactly as stated, and usually in the order given.

4. The responses should be reported as given. The interviewer should not show that he either agrees or disagrees with the answers. (It might be a good idea to have interview teams of two for each interview - one person to ask the questions and probe for the answers, the other to record what is being said.)

5. The interviewer should prompt or probe for some answers. This should be done especially when the answer is not clear, when it is very brief, or when the respondent is reluctant to answer. This is especially important.

PREPARATION FOR INTERVIEWING

1. Students should be aware of the purpose of the interview and also what the information will be used for.

2. Students should know who they will interview and contact that person for permission before the actual interview.

3. Role-playing should be used in the classroom as practice sessions.

4. Survey possibilities for interview in your community through the yellow pages.

5. Teachers should be aware and make students aware that misinformation may result from an interview. The worker may misunderstand the question, or he may not have enough detailed information that the student is seeking.

QUESTIONAIRE

Person Interviewed _____

Person Interviewing _____

Date _____

I. Name of Occupation

General _____

Specific Name _____

II. Information About A Job

1. What are the different types of workers found in your plant?

2. What kind of work do the majority of employees do?

3. Is the work outdoors or indoors?

4. What are your job duties?

5. What are the educational and experience requirements for your job?

6. What are the physical requirements?

7. What is possible weekly or monthly earnings? (Don't force this if they don't want to tell you.)

8. What are the future opportunities?

ACCESSION NUMBER: VT101991

TITLE: CONSUMER AND HOMEMAKING K-1-2. MANUAL FOR CAREER EDUCATION.

PERSONAL AUTHOR: STEWART, JAMES C., COMP.

DESCRIPTOR: *CAREER EDUCATION; *CURRICULUM GUIDES; CLASS ACTIVITIES; RESOURCE MATERIALS; *CONSUMER EDUCATION; *HOMEMAKING EDUCATION; KINDERGARTEN; GRADE 1; GRADE 2

IDENTIFIER: *KNOX COUNTY SCHOOLS; TENNESSEE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 68P.; SEE RELATED DOCUMENTS VT 101 992 THRU VT 101 996 IN THIS ISSUE.

ABSTRACT: OBJECTIVES OF THE SPICE (SCHOOL PROGRAMS IN CAREER EDUCATION) CURRICULUM GUIDES ARE CONCERNED WITH THE AREAS OF SELF-CONCEPT, DIGNITY OF WORK, CHANGE IS CONSTANT IN CAREERS, AND RELEVANCE OF SCHOOL TO WORK. THE CAREER EDUCATION CURRICULUM IN THIS VOLUME PRESENTS UNITS WHICH MAY BE TAUGHT AS SEPARATE SUBJECTS, INCORPORATED INTO ALL AREAS OF THE EXISTING CURRICULUM, OR USED AS THE TOTAL CURRICULUM, WITH TEXTS AS REFERENCES. EACH UNIT CONTAINS SUGGESTED ASSIGNMENTS AND ACTIVITIES IN MATH, LANGUAGE ARTS, SCIENCE, AND ART. THE CONSUMER AND HOMEMAKING UNITS FOR KINDERGARTEN, GRADE 1, AND GRADE 2 PROVIDE ACTIVITIES AND RESOURCES FOR VERY YOUNG CHILDREN TO ACQUIRE BEGINNING KNOWLEDGE AND HABITS NEEDED FOR CAREERS IN THESE FIELDS. (AUTHOR/MF)

INSTITUTION NAME: KNOX COUNTY SCHOOLS, KNOXVILLE, TENN.

VT 101 991

Manual for Career Education

Compiled and Edited by

James C. Stewart
Curriculum Coordinator

Curriculum Guide

School Programs in Career Education
Bruce Hinton, Director
Phyllis Morelock, Guidance Coordinator

Published by
The Knox County Schools
Knoxville, Tennessee
Mildred E. Doyle, Superintendent

COVERS

Mrs. Margaret McPherson

ART WORK AND ILLUSTRATIONS

James C. Stewart

SECRETARIAL WORKERS

Sharon Perry
Dolores McMillan
Jayne Rosenbalm

The staff of School Programs in Career Education would like to express it's appreciation to the teachers of South Knox County who served on the S.P.I.C.E. Curriculum Revision Committee.

K-1-2

Mrs. Catherine C. Wigington (High Bluff)
Mrs. Edna Monday (New Hopewell
Mrs. Clara J. Tarwater (Bonny Kate)
Mrs. Judith Henson (New Hopewell)
Mrs. Judith Martin (Mt. Olive)

3-4

Mrs. Hazel Arnwine (High Bluff)
Mrs. Eva O. Graves (Bonny Kate)
Mrs. Carolyn Newman (New Hopewell)
Miss Barbara Hinchey (Mt. Olive)

5-6

Mr. Ronald Spire (High Bluff)
Mr. Robert Evridge (Bonny Kate)
Mrs. Sharon Ballentine (New Hopewell)
Mrs. Amaryllis Deaton (New Hopewell)
Mrs. Jena Scarbrough (Mt. Olive)

FOREWORD

PHILOSOPHY

The world of work is a dynamic, swiftly changing aspect of modern life. Jobs that are flourishing today may not even exist twelve years from now. Children whose only exposure to career education is from their parents may find themselves left far behind in our competitive, technical age.

The increased change in the job market must be counterbalanced by an increased awareness on the part of students who, heretofore, have waited until their late teens to concern themselves about a career. All education, all school K-12, is a part of the process of building a career.

Students at the middle school level (6, 7, 8) must frequently make course decisions that will affect their future job plans and prospects. In years past students entering this intermediate stage of their educational development had little if any career orientation and direction. Their selection of courses was often erratic and based upon frivolous considerations such as sports, friendships, and popularity. Later in high school many of these students discovered that they had irreversibly eliminated many of the most desirable careers because they had not taken school or the future seriously.

Children have, for some years, looked upon work with mixed feelings. Many have come to see work as a necessary evil which may eventually be eliminated. Work as a way of life needs a better image. There is not only monetary reward in work but there is also fulfillment and satisfaction. There must be re-created in children a true respect for work as well as an appreciation for a job well done, regardless of the type of work. Children must come to see that there is dignity in all work.

GENERAL OBJECTIVES

To integrate career education concepts into the existing elementary curriculum K-6 in order that students may broaden their knowledge and understanding of careers and develop a true appreciation and understanding of themselves - their abilities, limitations and attitudes, as these relate to a future career.

SPECIFIC OBJECTIVES

Self-Concept

1. To help each student develop the ability to assess himself - his abilities, ambitions, and prejudices, as they relate to a career.

2. To help each student see himself as important and necessary to the community.

3. To help each student appreciate his abilities regardless of the career to which they may relate.

4. To help each student realize that getting along with other people is the key to a successful career and that this comes by first accepting himself.

Dignity of Work

1. To help students develop an appreciation for work and for the dignity of any job well done.

2. To help students realize that all work is important and necessary.

3. To help students know and accept the fact that workers work for many different rewards and satisfactions and that money isn't necessarily the most important objective.

4. To help students understand that any productive worker is to be respected.

Change is Constant in Careers

1. To help students think of the world of work as changing. To help them understand that some jobs are eliminated and that others are created by change.

2. To help students appreciate the many new jobs that have been created by technology and social change.

3. To help students plan for a world of change where they may be retrained many times.

Relevance of School to Work

1. To help students relate school to work and realize that school helps now and will also help to prepare for the future.

2. To help students understand that school attendance is a part of the process of developing self-concepts and learning to get along with others.

3. To help students understand that basic skills such as reading, writing, spelling, math, and speech are skills which have a high carry-over value where jobs and careers are concerned.

4. To help students recognize that a career must be built slowly and that the school is the best framework within which a career may be built.

5. To help students understand that the gaining of much knowledge about jobs and themselves is an important part of the process of choosing a career.

The Curriculum

The career education curriculum here presented is developed in such a way as to give the teacher maximum flexibility. Each unit may be an adjunct to the existing curriculum. This is to say, it may be taught as a separate subject. On the other hand, the teacher, if she so desires, may incorporate aspects of career education into all areas of her curriculum, including math, language arts, and science. At the most comprehensive level, the teacher may use the S.P.I.C.E. units as her total curriculum, with texts as references. Each unit contains suggested assignments and activities in math, language arts, science, and art.

The units are prepared for multigrade or nongraded classrooms as well as the self-contained classroom. Units are developed in three blocks: K-1-2, 3-4, 5-6. The teacher may use as much or as little of a unit as she sees fit, depending upon the capacity and interest of the class. Supplementary materials are contained in the resource kit which accompanies each unit guide. Additional help and materials may be obtained through the project coordinators. The coordinators will assist the teacher in planning her unit, utilizing materials, acquiring additional materials, obtaining resource persons, and aiding to some extent with classroom activities.

The curriculum guide is given as an outline of what might be done in teaching about a particular job cluster. The teacher should feel free to supplement, alter, or replace any teaching technique or suggested activity with those of her own. The teacher should also feel free to acquire and to use additional materials not contained in the resource kit.

The Teacher

Career education does not represent a new subject. Many teachers have taught career education for years without giving it a name. Career education is any education which attempts to help the child find himself, his abilities, and his ambitions, as well as to teach him something about the world of work and what life is like there - in the real world - outside the classroom - where he must live most of his life.

The only change that need take place in the teacher is a change in emphasis. Instead of simply teaching children to read or write or do math, teach them the purpose in learning these skills. Help them see how these skills are related to later school years and beyond that to a career.

The good career education teacher has other attributes which are always a part of a good teacher, such as understanding and a concern for children. This, at the elemantary level, may be called guidance. In practice it means patience; it means letting children discover themselves in a way that will be acceptable to them; it means helping each child feel proud of his abilities without feeling inferior because of those he does not possess. It means making a child feel pride in any job or career that interests him; and it means developing among her pupils an appreciation for all kinds of work and for all kinds of people.

CONSUMER AND HOMEMAKING

K-1-2

General Scope

Children can begin at a very early age to acquire the knowledge and habits required for careers in consumer and homemaking education. These careers are of a wide variety, but in this unit we shall deal with the more obvious jobs in this cluster. Many of these jobs are closely associated with a particular skill or activity, such as washing, ironing, cleaning house, etc. In the classroom the teacher can easily relate these jobs to activities. Even kindergarten children should be able to get the idea of some of the jobs consumer and homemaking workers do.

Concepts

1. Consumer and homemaking workers have dignity.
2. Consumer and homemaking workers are important and necessary.
3. Consumer and homemaking careers are of a wide variety.
4. Consumer and homemaking careers are special skills.
5. Consumer and homemaking workers depend upon their jobs to fulfill their needs.
6. Consumer and homemaking workers work with people.

SCOPE	ACTIVITIES	RESOURCES

I. CONCEPT: CONSUMER AND HOMEMAKING WORKERS HAVE DIGNITY.

A. THE PERSON WHO DOES MORE CONSUMER AND HOMEMAKING JOBS THAN ANYONE ELSE IS MOTHER. EVEN THOUGH SHE IS NOT RECOGNIZED AS AN OFFICAL CONSUMER AND HOMEMAKING WORKER AND EVEN THOUGH SHE USUALLY DOES NOT GET PAID DIRECTLY FOR HER WORK, SHE IS NEVERTHELESS, A CONSUMER AND HOMEMAKING WORKER.

II. CONCEPT: CONSUMER AND HOMEMAKING WORKERS ARE IMPORTANT AND NECESSARY.

1. WORK IN THE HOUSE

BEGIN WITH A DISCUSSION OF THE JOBS IN THE HOUSE: SWEEPING, MOPPING, COOKING, PICKING UP THINGS, PUTTING THINGS AWAY, IRONING. LET THE STUDENTS NAME AS MANY AS THEY CAN.

DRAW PICTURE OF HOUSEHOLD TOOLS ON CARDBOARD OR BLEACH BOTTLE PLASTIC OR MODEL SUCH A TOOL FROM CLAY.

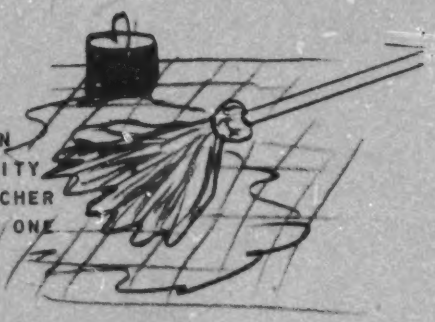
2. NOW ASK THE STUDENTS IF THEY CAN DO SOME OF THESE JOBS. LET THEM TALK ONE AT A TIME AND TELL WHAT THEY CAN DO: SWEEP, IRON, COOK, ETC.

3. LET THEM COUNT THE JOBS THAT THEY HAVE LISTED. THE TEACHER COULD LIST THESE ON CHALK BOARD OR ON A CHART

SCOPE	ACTIVITIES	RESOURCES

4. THE STUDENTS COULD NEXT BE GIVEN THE CHANCE TO DEMONSTRATE THEIR SKILLS. THE TEACHER SHOULD LIST EACH SKILL ALONG THE TOP OF THE CHALK BOARD OR CHART AS FOLLOWS.

SWEEPING	MOPPING	IRONING
BETTY	SAM	JOHN
BOB	SUE	FRED
MARY	CAROLYN	ALICE
JIM	TED	NANCY

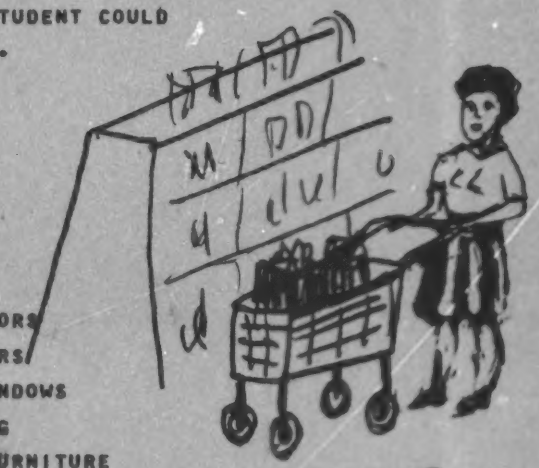


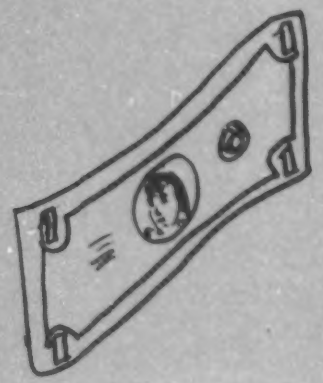
THEN THE CHILDREN CAN SIGN UP FOR THE SKILL OR ACTIVITY THEY WANT TO DO. THE TEACHER COULD LET EACH STUDENT DO ONE ACTIVITY EACH DAY.

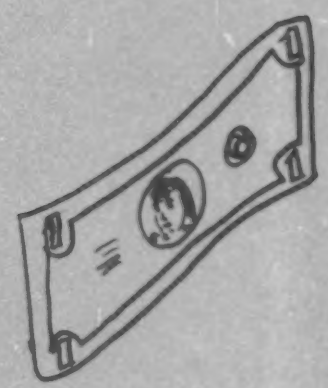
5. AT THE END OF EACH DAY'S ACTIVITY THE CLASS COULD HAVE A SHORT CLASS MEETING AT WHICH TIME THE TEACHER COULD ASK SUCH QUESTIONS AS THE FOLLOWING:

A. HOW DID YOU LIKE YOUR JOB?
B. WOULD YOU LIKE TO DO THIS JOB EVERY DAY?
C. HOW DID YOU FEEL AFTER YOU HAD DONE YOUR JOB?
D. DID YOU FEEL GOOD?
E. DOES DOING A GOOD JOB MAKE YOU FEEL IMPORTANT?

SCOPE	ACTIVITIES	RESOURCES
	F. DO YOU THINK OTHER PEOPLE WHO DO THESE JOBS ARE IMPORTANT? G. DO YOU THINK YOUR MOTHER IS IMPORTANT? H. WHICH OF THESE JOBS DOES SHE DO?	
	6. NOW THAT THE CLASS IS FAMILIAR WITH SEVERAL OF THE JOBS IN CONSUMER AND HOMEMAKING, THEY COULD PLAY A SIMPLE FORM OF WHAT'S MY LINE. ONE STUDENT SELECTS A JOB FROM CONSUMER AND HOME-MAKING AND ACTS IT OUT WHILE THE OTHERS TRY TO GUESS WHAT IT IS. THE CLASS MAY ASK THE WORKER QUESTIONS SUCH AS THE FOLLOWING: WHERE DO YOU WORK? WHAT TIME DO YOU GO TO WORK? DO YOU USE A BROOM, A DISH TOWEL, AN IRON? THE WORKER IS ONLY ALLOWED TO ANSWER YES OR NO. THE STUDENT WHO CORRECTLY GUESSES HIS JOB THEN GETS TO BE THE NEXT WORKER.	
	7. EACH STUDENT DRAWS A PICTURE OR TELLS A STORY ABOUT SOME JOB IN CONSUMER AND HOMEMAKING.	

SCOPE	ACTIVITIES	RESOURCES
	8. THE STUDENTS COULD CONCLUDE THIS CONCEPT BY MAKING A STICK PUPPET TO REPRESENT MOTHER.	
III. CONCEPT: CONSUMER AND HOME-MAKING CAREERS ARE OF A WIDE VARIETY.		
A. THE LOWER ELEMENTARY STUDENT WILL PROBABLY PROGRESS BETTER BY WORKING FROM THE KNOWN TO THE UNKNOWN. IN OTHER WORDS, THE STUDENTS ARE NOW FAMILIAR WITH SEVERAL DIFFERENT SKILLS AND ACTIVITIES THAT TAKE PLACE IN THE HOME WHICH ARE ALSO FULL-TIME CONSUMER AND HOMEMAKING JOBS OUTSIDE OF THE HOME. FOR EXAMPLE, IRONING IS A JOB THAT MOTHER DOES, BUT IT AS ALSO ONE DONE BY SOME PEOPLE AS A SOURCE OF EXTRA INCOME OR AS A LIVELIHOOD, SUCH AS LAUNDRIES, CLEANING, ETC. THERE ARE OTHERS.	1. LET THE CLASS LIST ALL THE DIFFERENT JOBS THAT ARE DONE AT HOME. ONE STUDENT COULD ILLUSTRATE EACH. A. COOKING B. WASHING C. IRONING D. SWEEPING E. MAKING BEDS F. SEWING G. MOPPING FLOORS H. WAXING FLOORS I. CLEANING WINDOWS J. DUST MOPPING K. POLISHING FURNITURE L. PUTTING THINGS AWAY M. SHOPPING	

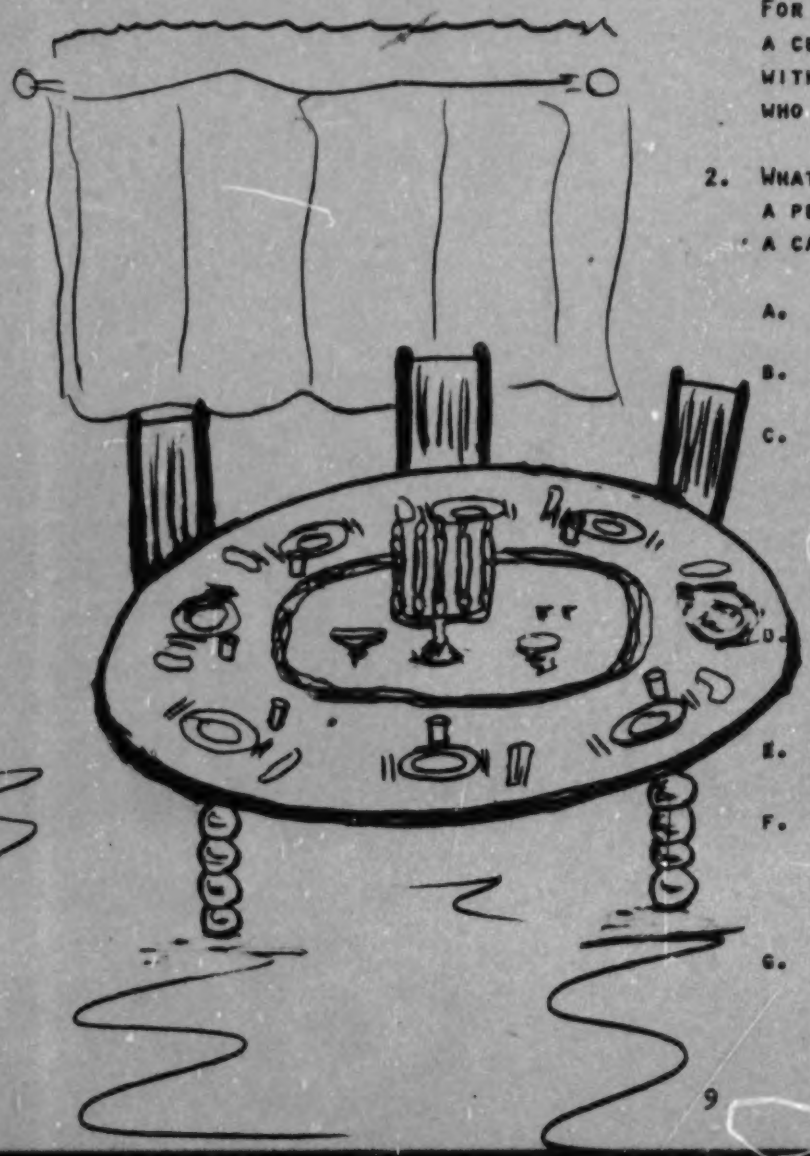
SCOPE	ACTIVITIES	RESOURCES
	N. DOING ERRANDS LET STUDENTS ADD TO THIS LIST.	
	2. DO SOME OF THESE WORKERS DO THESE JOBS AS A FULL-TIME JOB? SOME OF THE STUDENTS MAY HAVE PARENTS OR RELATIVES INVOLVED IN THE DRY CLEANING OR LAUNDRY BUSINESS. OPERATING A LAUNDRYMAT OR TAKING IN WASHING AND IRONING ARE BOTH JOBS FROM THIS CLUSTER.	
	3. INVITE A WORKER FROM THE CONSUMER AND HOMEMAKING CLUSTER TO COME IN AND TALK TO THE CLASS.	
	4. PEOPLE WHO HELP OTHER PEOPLE SPEND THEIR MONEY WISELY ARE CONSUMER AND HOMEMAKING WORKERS ALSO. THE CLASS COULD HAVE A DISCUSSION OF MONEY AT THIS TIME. THE TEACHER COULD BRING COINS OF EACH DENOMINATION AS WELL AS BILLS. THE CLASS COULD SPEND TIME HANDLING AND GETTING FAMILIAR WITH THESE COINS. THIS WOULD BE A GOOD	 THERE IS MATERIAL ON MONEY AND SPENDING IN THE RESOURCE MATERIALS FILE IN YOUR SCHOOL.

SCOPE	ACTIVITIES	RESOURCES
	M. DOING ERRANDS LET STUDENTS ADD TO THIS LIST.	
	2. DO SOME OF THESE WORKERS DO THESE JOBS AS A FULL-TIME JOB? SOME OF THE STUDENTS MAY HAVE PARENTS OR RELATIVES INVOLVED IN THE DRY CLEANING OR LAUNDRY BUSINESS. OPERATING A LAUNDRYMAT OR TAKING IN WASHING AND IRONING ARE BOTH JOBS FROM THIS CLUSTER.	
	3. INVITE A WORKER FROM THE CONSUMER AND HOMEMAKING CLUSTER TO COME IN AND TALK TO THE CLASS.	
	4. PEOPLE WHO HELP OTHER PEOPLE SPEND THEIR MONEY WISELY ARE CONSUMER AND HOMEMAKING WORKERS ALSO. THE CLASS COULD HAVE A DISCUSSION OF MONEY AT THIS TIME. THE TEACHER COULD BRING COINS OF EACH DENOMINATION AS WELL AS BILLS. THE CLASS COULD SPEND TIME HANDLING AND GETTING FAMILIAR WITH THESE COINS. THIS WOULD BE A GOOD	 THERE IS MATERIAL ON MONEY AND SPENDING IN THE RESOURCE MATERIALS FILE IN YOUR SCHOOL.

SCOPE	ACTIVITIES	RESOURCES
	OPPORTUNITY FOR STUDENTS TO COUNT. THEY COULD COUNT WITH MARKS ON THE BOARD HOW MANY PENNIES IN EACH COIN. THEY COULD THEN DRAW THE COINS ON HEAVY CARDBOARD (LARGER THAN THE ACTUAL SIZE OF THE COIN) AND USE THEM FOR MONEY IN OTHER CLASSROOM ACTIVITIES.	
	5. PREPARE FOR A "WHITE ELEPHANT SALE." URGE EACH CHILD TO BRING SOMETHING THAT IS A DISCARD. THE TEACHER CAN HELP THE STUDENTS "PRICE" EACH ITEM AND THEN SPREAD ITEMS ON TABLES AND COUNTERS AROUND THE ROOM. EACH CHILD CAN BE GIVEN .50¢ IN SHOPPING TOKENS TO "BUY" WHAT HE WANTS TO KEEP. FOR A INTRODUCTORY LESSON, READ POEMS RELATED TO CONSUMER DECISIONS SUCH AS "CHILDREN" (J. B. LIPPINCOTT CO., PUBLISHER; 1961)	

SCOPE	ACTIVITIES	RESOURCES
	6. There are many different workers in consumer and homemaking. Develop a class book of children's drawings showing these workers at work. Include captions showing how each job helps the family.	
	7. Make a frieze depicting consumer and homemaking workers at work.	
	8. Students could select one of these jobs and pantomine it for the class.	
IV. Concept: Consumer and homemaking workers need special skills.		
A. The children will discover that they already have many of the skills needed in consumer and homemaking occupations; however, they will also discover that there are certain other skills that they do not know.	1. The teacher at this time could introduce one occupation outside of the home which most of the class will probably not be familiar with. This is the caterer. The teacher will need to carefully explain to the class what a caterer is. A catering service serves other people food and provides entertainment	

SCOPE	ACTIVITIES	RESOURCES



before or after the meal. For this the caterer gets a certain amount of money with which he pays those who are helping him.

2. What are the skills that a person must have to be a caterer?

   A. Be able to set a table properly.
   B. Be able to place food on table properly.
   C. Must know which foods and silverware to place on the table for each course. (The teacher should explain what is meant by "course.")
   D. The caterer must know how to count money and make change.
   E. The caterer must be able to write down instructions.
   F. The caterer must be able to listen carefully so that he or she will know what to do.
   G. The caterer must be able to work with others in order to do his part successfully.

SCOPE	ACTIVITIES	RESOURCES
	3. THE CLASS MIGHT LIKE TO ROLE-PLAY THE CATERER'S JOB. THE CLASS COULD ELECT FIVE OR SIX STUDENTS TO ACT AS CATERERS. THE REST OF THE CLASS COULD BE THOSE BEING SERVED. THE TEACHER WITH THE SCHOOLS HELP COULD GET TOGETHER SILVERWARE, PLATES, GLASSES, NAPKINS, AND OTHER MATERIALS NECESSARY. THE STUDENTS COULD TAKE TURNS SETTING THE TABLE, AND CLEARING THE TABLE. PERHAPS WITH THE PRINCIPAL'S COOPERATION THE CLASS COULD BE ALLOWED TO EAT ONE MEAL IN THEIR ROOM OR IN A SPECIAL AREA OF THE CAFETERIA WHERE THOSE SELECTED AS CATERER'S COULD SERVE THE REST OF THE CLASS. SOME STUDENTS MIGHT AGREE TO SING OR PLAY MUSICAL INSTRUMENTS IN ORDER TO PROVIDE ENTERTAINMENT.	
	4. THE CLASS COULD LATER DISCUSS THE ACTIVITY AND LIST THE MANY DIFFERENT SKILLS THAT WERE NEEDED.	
	5. THE TEACHER COULD BRING ITEMS USED IN CONSUMER AND HOMEMAKING TO DISPLAY FOR THE CLASS:	

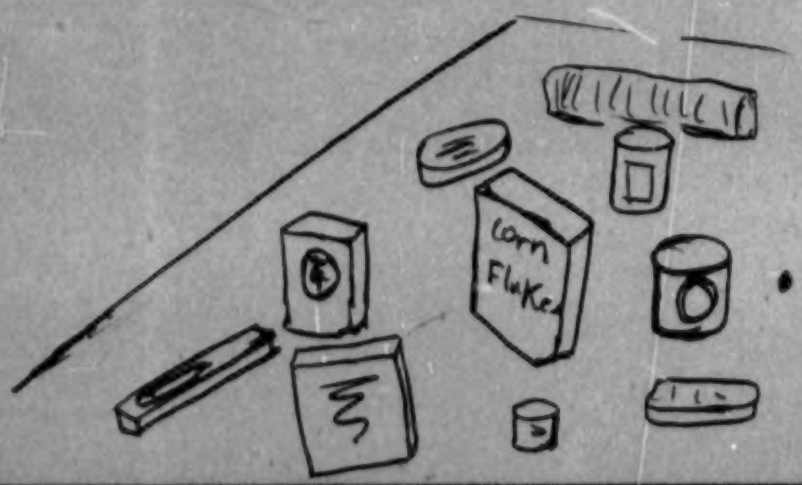
SCOPE	ACTIVITIES	RESOURCES

A. MOP (DUST OR WATER)
B. FLOOR POLISH
C. FLOOR POLISHER
D. DISHES
E. SILVERWARE
F. FURNITURE POLISH
G. WASHING DETERGENT
H. DISHWASHING LIQUID
I. AJAX
J. SHEETS AND TOWELS
K. FOLDING COT FOR MAKING BED
L. PILLOW AND PILLOWCASE

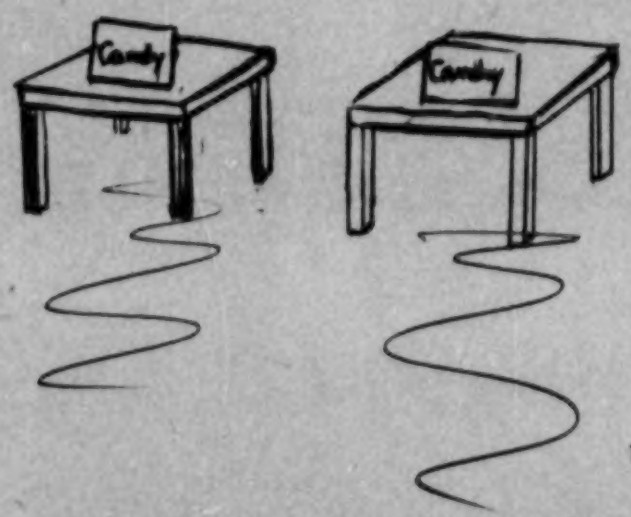
6. ONE OF THE MOST IMPORTANT SKILLS OF CONSUMER AND HOME-MAKING IS KNOWING HOW TO SPEND MONEY WISELY.

THERE ARE SEVERAL ACTIVITIES THAT COULD BE CARRIED ON IN CLASS TO HELP STUDENTS DEVELOP THE SKILLS OF SHOPPING.

A. THE CLASS COULD SET UP A STORE CONTAINING EMPTY BOXES AND CANS OF THE KINDS OF THINGS ONE BUYS AT THE LOCAL GROCERY STORE. EACH CHILD IS GIVEN A CERTAIN AMOUNT OF MONEY AND SENT TO THE STORE TO SHOP. LATER THE CLASS COMPARES AND DISCUSSES THEIR PURCHASES. THE TEACHER SHOULD TRY IN-



SCOPE	ACTIVITIES	RESOURCES
	SOFAR AS POSSIBLE TO HAVE AN EXPENSIVE AND AN INEXPENSIVE BRAND OF EACH ITEM. THE STUDENTS SHOULD NOT KNOW THIS BEFORE THEY GO SHOPPING. THIS FACT SHOULD COME OUT IN THE DISCUSSION THAT TAKES PLACE LATER. THIS SHOULD MAKE A PERMANENT IMPRESSION ON THE STUDENTS AND HOPEFULLY THEY WILL TAKE IT INTO LIFE WITH THEM.	
	FOR KINDERGARTEN AND FIRST GRADE CHILDREN, THIS SAME CONCEPT COULD BE TAUGHT IN A SLIGHTLY DIFFERENT WAY. SET UP TWO STANDS (TABLES, CHAIRS, DESKS) IN THE BACK OF THE ROOM. LET A THIRD OR FOURTH GRADER BE IN CHARGE OF EACH STAND. AT EACH STAND HAVE PENNY CANDY. EACH STUDENT IS GIVEN TWO CENTS IN PLAY MONEY AND IS INSTRUCTED TO PURCHASE CANDY IN THE BACK OF THE ROOM.	



SCOPE	ACTIVITIES	RESOURCES
	MATERIALS:	
	A. As many pieces of candy as you have students.	
	B. Play money in two cent pieces. The money could be made from light cardboard. The teacher might prefer to use real money by having each child bring two pennies.	Gameboard called "Candy" helps teach the principal of saving to primary students.
	Play money can be purchased at variety stores also.	
	C. A sign for each desk with the word CANDY printed in large letters.	
	PROCEDURE:	
	A. Give each child one two cent piece. This gives him the experience of making change.	

34

SCOPE	ACTIVITIES	RESOURCES
	B. INSTRUCT STUDENTS TO GO TO THE BACK OF THE ROOM AND PURCHASE CANDY. C. THE STUDENT AT ONE BOOTH OR STATION IS INSTRUCTED TO SELL CANDY FOR ONE CENT A PIECE. AT THE OTHER BOOTH THE STUDENT CHARGES TWO CENTS PER PIECE. THE STUDENTS ARE TOLD NOTHING OF THIS DIFFERENCE. D. AFTER EACH CHILD HAS BOUGHT A PIECE OF CANDY, ALL CHILDREN ARE REASSEMBLED. THE TEACHER ASKS THE FOLLOWING QUESTIONS: 1. DID EVERYONE BUY A PIECE OF CANDY? HAVE STUDENTS HOLD UP THEIR CANDY. 2. HOW MANY OF YOU GOT A PENNY BACK? RAISE YOUR HAND AND SHOW YOUR COIN. 3. WHY DO YOU HAVE A PENNY LEFT OVER? 4. WHY DO THE REST OF YOU HAVE NO PENNY LEFT OVER? 5. DID YOU PAY TOO MUCH FOR YOUR CANDY? HOW DID THIS HAPPEN? 6. DO THINGS ALWAYS COST THE SAME?	

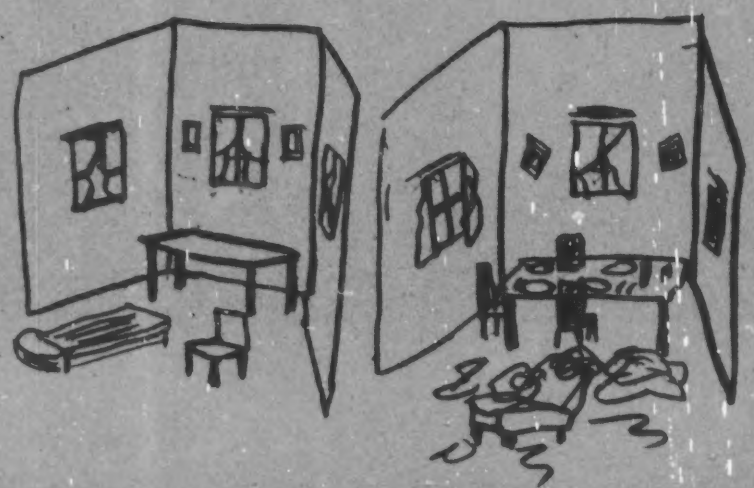
SCOPE	ACTIVITIES	RESOURCES
	7. How can we keep from paying too much?	
	We must look for the stores with the best bargains. What is a bargain?	
	The teacher might give one penny back to those who paid too much.	
	7. For second graders: Let students design, color and cut out play money in several denominations.	
	The teacher might show a dollar bill on the opaque projector.	
	8. Bring old bank checks. The children are always fascinated by checks. They could write their name on them and use them for money in certain activities. The students could draw their own personalized checks.	

SCOPE	ACTIVITIES	RESOURCES
	9. STUDENTS SHOULD BE INTRODUCED TO THE CONCEPT OF SAVING. THE HABIT OF SAVING MIGHT BE MOTIVATED IN SEVERAL DIFFERENT WAYS. A. LET EACH CHILD SAVE HIS COMPLETED HOMEWORK IN A FOLDER. B. LET STUDENTS SAVE MONEY - ONE CENT A WEEK. THE TEACHER COULD SET UP AN INSENTIVE: THE CHILD COULD SPEND IT FOR BUBBLE GUM EACH DAY OR SAVE IT FOR A CANDY BAR AT A LATER DATE. THE TEACHER WILL WANT TO GET THE PARENT'S PERMISSION FOR THE CHILDREN TO BRING PENNIES TO CLASS.	

SCOPE	ACTIVITIES	RESOURCES
	c. SAVE OTHER OBJECTS (BOTTLE CAPS, WRAPPERS, ETC.) D. SAVE ART WORK IN A FOLDER E. LET STUDENTS MAKE A PIGGY BANK OUT OF A SMALL BLEACH BOTTLE.	
V. CONCEPT: CONSUMER AND HOMEMAKING WORKERS DEPEND UPON THEIR JOBS TO FULFILL THEIR NEEDS.		
A. IN CLASS DISCUSSION HELP THE STUDENTS SEE THAT MOST PEOPLE WORK PRIMARILY TO EARN A LIVING; HOWEVER, THERE ARE OTHER REASONS PEOPLE WORK.	1. HAVE STUDENTS LIST REASONS WHY PEOPLE WORK. 2. LET STUDENTS TELL WHY THEY WOULD WORK. (REASONS OTHER THAN MONEY.) 3. LET THEM TELL WHY THEIR PARENTS WORK. 4. WHY DO CHILDREN WORK AT HOME?	

SCOPE	ACTIVITIES	RESOURCES
	(A) TO HELP MOTHER (B) TO EARN ALLOWANCE (C) TO MAKE THINGS LOOK NICER	
	5. WHY DO MOTHERS OFTEN STAY AT HOME AND KEEP HOUSE WHEN THEY COULD BE GOING OUT TO WORK FOR MONEY? LET STUDENTS DEMONSTRATE THE ANSWER TO THIS QUESTION BY DOING THE FOLLOWING ACTIVITY. SET UP TWO PLAY HOMES - ONE ON EACH SIDE OF THE ROOM. IN EACH HOME HAVE CHAIRS, A DESK TO REPRESENT THE DINING TABLE, A DESK OR TABLE COVERED WITH A BLANKET FOR A BED, HAVE PLAY DISHES ON THE TABLE, AND OLD CLOTHES. EACH HOME IS IN A MESS. EVERYTHING IS TURNED UPSIDE DOWN. A HUSBAND AND A WIFE FOR EACH HOME ARE SELECTED BY THE CLASS. THE TIME IS MORNING AND THEY HAVE JUST FINISHED BREAKFAST.	

SCOPE	ACTIVITIES	RESOURCES



IN THE HOUSEHOLD WHERE THE WIFE WORKS, BOTH HUSBAND AND WIFE LEAVE FOR THEIR JOBS. IN THE OTHER HOUSE THE MOTHER STAYS HOME. DURING THE TIME OF THE WORKING DAY (SAY FIVE MINUTES) THE WIFE WHO STAYS AT HOME SPENDS THIS TIME STRAIGHTENING THINGS UP.

AT THE END OF THE WORKING DAY, ALL THE PARENTS COME HOME. THE STUDENTS NOW SEE THE DIFFERENCE IN THE TWO HOUSEHOLDS. IN ONE THINGS ARE NEAT AND ORDERLY. IN THE OTHER THINGS ARE IN A MESS, AND BOTH HUSBAND AND WIFE HAVE TO CLEAN THINGS UP WHICH LEADS TO A FUSS. THE POINT IS THAT WITH MOTHER STAYING AT HOME THE FAMILY MAY MAKE LESS MONEY BUT THEY MAY BE HAPPIER.

THE CLASS SHOULD BE GIVEN THE CHANCE TO DEVELOP ALTERNATIVES TO THIS SITUATION, SUCH AS THE FOLLOWING:

A. A MAID COMES IN AND CLEANS HOUSE.

SCOPE	ACTIVITIES	RESOURCES
	B. THE HUSBAND AND WIFE GET UP EARLY ENOUGH TO DO IT THEMSELVES WITH EACH DOING A PART. C. THE WIFE ONLY WORKS HALF A DAY AND HAS TIME TO DO THE HOUSE WORK.	
	6. THE STUDENTS WHOSE MOTHER'S WORK COULD TELL HOW IT IS DONE AT THEIR HOUSE.	
	7. THE CLASS COULD DISCUSS WHICH IS BEST.	
	8. DO CONSUMER AND HOMEMAKING WORKERS USUALLY MAKE A LOT OF MONEY? ANSWER: NO. WHY DO THEY DO JOBS IN CONSUMER AND HOMEMAKING SUCH AS CATERING, BABY-SITTING, LAUNDRY, COOKING, ETC. IF THESE JOBS DO NOT PAY A LOT? STUDENTS INTERESTED AND ACQUAINTED WITH THE VARIOUS AREAS OF CONSUMER AND HOMEMAKING CAN PROBABLY ANSWER THIS QUESTION.	

SCOPE	ACTIVITIES	RESOURCES
VI. CONCEPT: CONSUMER AND HOME-MAKING WORKERS WORK WITH PEOPLE.		
A. THE BEST APPROACH FOR GETTING ACROSS A CONCEPT OF THIS TYPE IS TO LET THE STUDENTS ACTIVELY PARTICIPATE IN ACTIVITIES THAT WILL DEMONSTRATE IT.	1. LET STUDENTS CHOOSE A PARTNER. EACH GROUP OF TWO IS GIVEN A TASK TO DO IN THE ROOM, SUCH AS PICKING UP PAPER, SWEEPING, PUTTING BOOKS AWAY, ERASING THE CHALK BOARD, EMPTYING THE TRASH, ETC.	
B. BY DOING THIS ACTIVITY THE STUDENTS ARE PARTICIPATING IN A CONSUMER AND HOMEMAKING ACTIVITY AND ARE WORKING TOGETHER AT THE SAME TIME.	2. AFTER THE ACTIVITY IS COMPLETED, BRING THE CLASS TOGETHER FOR DISCUSSION: A. WHAT JOB DID YOU AND YOUR PARTNER DO? B. HOW DID IT GO? DID YOU GET THROUGH QUICKLY? C. HOW DID YOU MANAGE TO GET THROUGH SO FAST? (OR WHY DID IT TAKE YOU AND YOUR PARTNER SO LONG?) D. DID YOU AND YOUR PARTNER WORK WELL TOGETHER? E. WOULD YOU LIKE TO HAVE THE SAME PARTNER NEXT TIME?	

SCOPE	ACTIVITIES	RESOURCES
	F. WHY DO WORKERS NEED TO WORK WELL TOGETHER ON THE JOB? G. NAME JOBS IN CONSUMER AND HOMEMAKING WHERE PEOPLE MUST WORK TOGETHER. 1. CATERING 2. KITCHENS 3. NURSERY SCHOOL 4. LAUNDRY AND DRY CLEANERS	
C. PRESENTING A SKIT. A SKIT SHOULD FULFILL THREE FUNCTIONS FOR THE CLASSROOM: (1) IT SHOULD PROVIDE STUDENTS WITH CREATIVE OPPORTUNITIES, (2) IT SHOULD GIVE CHILDREN THE CHANCE TO SPEAK BEFORE OTHERS AND (3) IT SHOULD GIVE CHILDREN THE OCCASION TO WORK COOPERATIVELY WITH OTHERS IN A COMMON ENDEAVOR. THE SKIT HERE PROVIDED SHOULD SERVE ONLY AS A GUIDE AROUND WHICH CHILDREN CAN BUILD THEIR OWN SKIT.	3. <u>SKIT</u> FATHER: WHO ATE CRACKERS ON THE CARPET IN FRONT OF THE T.V.? BROTHER: I DID. MOTHER: OH, DEAR! NOT AGAIN! CRACKERS ON MY RUG. BIG SISTER: EVERYBODY BE QUIET! I'M WATCHING T.V.! FATHER: THE VACUUM CLEANER! THE VACUUM CLEANER! CLEAN IT UP! CLEAN IT UP! BROTHER: BIG SISTER ATE THEM TOO. BIG SISTER: ONLY THREE! BROTHER: DAD ATE CRACKERS TOO.	

SCOPE	ACTIVITIES	RESOURCES

MOTHER: WHAT?

BROTHER: DAD ATE CRACKERS TOO!

FATHER: (GRUMBLING) ONLY ONE.

BIG SISTER: DADDY GETS TO HELP, DADDY GETS TO HELP. (SKIPPING AROUND)

BROTHER: THIS IS FUN. WE CAN ALL CLEAN THE CARPET TOGETHER.

FATHER: O.K.; I'LL BRING THE VACUUM CLEANER. SISTER CAN VACUUM AND BROTHER CAN TAKE IT OUT. THEN WE CAN ALL GET BACK TO THE T.V.

APPENDIX

CONTENTS

	Page
Book List	26
Resource People	33
Film List	35
Bulletin Board Ideas	39
List of Careers	40
Checklist	43
Self-Concept Assessment	44
Evaluation	45
Thoughts Pertinent to Applying for a Job	46
Cluster Symbols	48
S.P.I.C.E. Activity Record	49
Letters to Parents	52
Activities for Integrating Skills	53
Activity Kits	57
Vocabulary List	58

Book List
Consumer and Homemaking
Knox County Materials Center

Adler, Irving	Fibers
Alexander, Arthur	The Hidden You
Ames, Gerald	Food and Life
Andry, Andrew	Hi, New Baby
Arnold, Paulene	Food Facts for Young People
Aylesworth, Thomas	It Works Like This
Banks, Marjorie	How We Get Our Dairy Foods
Barr, Donald	How and Why Wonder Book of Building
Barr, Jene	What Can Money Do?
Beck, Barbara	Vegetables
Beim, Jerrold	Tim and the Tool Chest
Bendick, Jeanne	The First Book of Supermarkets
Berry, Erich	Eating and Cooking Around the World
Better Homes and Gardens	Better Homes & Gardens Decorating Book
Black, Algernon	The First Book of Ethics
Boydorr, John	The Wonderful World of Food

Breetveld, Jim	Getting to Know United Nations Crusaders
Buck, Pearl	Welcome Child
Buehr, Walter	Bread: The Staff of Life
Buehr, Walter	Cloth from Fiber to Fabric
Callahan, Dorothy	The Great Nutrition Puzzle
Carson, Byrta	How You Look and Dress
Carter, Phyllis	The Story of Cloth
Checroun, Natalie	Pull Up a Chair
Clayton, Nanalee	Young Living
Colonius, Lellium	At the Bakery
Cooney	It's Up to You
DeSantis, Mallen	Bubble Baths and Hair Bows
Dow, Emily	Brooms, Buttons and Beaux
Eberle, Irmengarde	The World of Fabrics
Evans, Eva	People are Important
Evans, Eva	All About Us
Felson	Letters to a Teenage Son

Flouthe, Louise	The Farmer and His Cows
Georgior, Constantine	Whitney and Whiskers and Food
Glassner, Sherwin	How the American Economis System Functions
Glynne	The American Girl Beauty Book
Goldenson, Robert	All About the Human Mind
Graham, Ada	Great American Shopping Cart
Gruenberg, Benjamin	Your Breakfast and the People Who Made It
Hammond, Winifred	Cotton: From Farm to Market
Hammond, Winifred	Plants: Food and People
Hastings, Evelyn	At the Dairy
Helfman, Elizabeth	This Hungry World
Henriod, Lorraine	I Know a Grocer
Hirsch, S.	Fourscore and More
Hoffman, Peggy	Sew Easy
Hollos, Clara	The Story of Your Coat
Hurd, Edith	Come with Me to Nursery School
Jackson, Kathryn	Homes Around the World

Johnson, Lois	What We Eat
Jusslier, Ruth	Jill's Check-up
Juro, Frank	Nothing to Wear but Clothes
Katzoff, Betty	Cathy's First School
Kenworthy, Leonard	Three Billion Neighbors
Leaf, Munro	Manners Can Be Fun
Lee, Tina	Manners to Grow On
Lent, Henry	Men at Work in the South
Lerner, Marguerite	Michael Gets the Measles
Lerner, Marguerite	Who Do You Think You Are?
Lewinton, Mina	Faces Looking Up
Liang, Yen	The Skyscraper
Lowenherz, Robert	Population
Maginley, C.J.	Historic Models of Early America
Maher, John	Ideas About Choosing
Martin, Lealon	Conquest of Disease
Meeks, Esther	Families Live Together

McDonald, Barbara	Casserole Cooking Fun
McDonald, Barbara	Cooking Fun
Neghbert, Ester	The True Story of Cloth
Neigoff, Anne	Dinner's Ready
Neurath, Marie	Many Foods
Newcomb, Ellsworth	Miracle Fabrics
New York Hearald Tribune	Young America's Cookbook
Perkins, Wilma	The Fannie Farmer Junior Cookbook
Perl, Lila	Red-Flannel Hash and Shoo-Fly Pie
Petersham, Maud	Let's Learn About Silk
Petersham, Maud	The Story Book of Things We Wear
Pitt, Valerie	Let's Find Out About the Family
Post, Elizabeth	The Emily Post Book of Etiquette for Young People
Provus	How Families Live Together
Radlauer	What Is a Community?
Riedman, Sarah	Food for People
Roberts	Where Time Stood Still

Rogers, Matilda	The First Book of Cotton
Romano, Louis	This Is a Department Store
Rosenbaum	Economics of the Consumer
Rosenbaum	How a Market Economy Works
Rossomando, Frederic	Earning Money
Scheib, Ida	The First Book of Food
Schloat, Warren	Milk for You!
Schloat, Warren	The Wonderful Egg
Schneider, Herman	Everyday Machines and How They Work
Shannon, Terry	About Food and Where It Somes From
Sharidge, Norah	Looking at You
Speiser, Jean	UNICEF and the World
Stanek	How People Live in the Big City
Stanek, Muriel	How People Live in the Suburbs
Symons, Arthur	Fix-it Book
Vogel, Ray	The Other City
Waller, Leslie	Clothing
Whitney, David	Let's Find Out About Milk

Wilkinson, Jean	Come to Work with Us in a Hotel
Young, Dot	Dot Young's Sewing Book
Young, Marjabelle	Stand Up, Shake Hands, Say "How Do You Do?"
Zim, Herbert	Things Around the House
Zim, Herbert	Your Food and You

4/3

RESOURCE PEOPLE

Mr. Kemp Fain
Financial Service Corporation
588-6544

Mrs. Amaryllis S. Deaton
New Hopewell School
577-4545

Mrs. Ellen Monroe
KUB
524-2911

Miss Ann Dooley
KUB
524-2911

Linda Cruze
KUB
524-2911

Becky Davis
KUB
524-2911

Mr. Tom Milligan
KUB
524-2911

Mr. Bob Werner
Job Placement Coordinator
Knox County Schools
525-7686

Mrs. Katherine Greenwood
Regional Supervisor
Home Economic Education
525-7307

Miss Willa Selvey
Elementary Supervisor
Knox County Schools
525-6261

Marcie Papa
Youth Coordinator
Meller's Department Store
524-4040

Karen Henry
Fashion Coordinator
Sears
546-8111 Ext. 216

Mr. Walter McMillan
Job Placement Coordinator
Knox County Schools

Mr. John Hudson (Talks of the Family)
Child and Family Services
Knoxville
524-7485

Maggie Barnard
Child and Family Services
Knoxville
524-7483

RESOURCE PEOPLE FOR THE WELFARE DEPARTMENT - 546-1530

MARY ARMS
CHILD DEVELOPMENT
EXT. 288

CHARLOTTE TURNER
CHILD DEPARTMENT
EXT. 287

MARGARET GUESS
SOCIAL WORK
EXT. 287

CAROLYN CONDRY
SOCIAL WORK
EXT. 294

ELIZABETH MISER (**NOTE: CALL MRS. MISER FOR SCHEDULING ALL THE ABOVE.)
CHILD DEVELOPMENT
SOCIAL WORK
EXT. 208

FILM LIST

Buying and Selling

Inflation and You

Money

Money and Government

Money and Panic

Money Goes to Work

Our Money System

State and Local Taxes

Too Little Spending

At Home in the Evening

Brothers and Sisters

Family Fun

Getting Ready for Bed

Getting Ready for School

Growing Up

Helping Mother

Keeping Busy

Our Family to the Rescue

Food From the Sun

Food Store

Fruit (Food for Us)

Getting Food Ready for Market

Keeping Food from Spoiling

Kinds of Food

Marvelous Peanut

Milk

Production of Food

Story of Food

Sugar Through the Ages

Vegetables (Food for Us)

What's in Our Food?

Where Food Comes From

Buttonholes (Sewing Series)

Buying Food Wisely

Cooking Terms (Cooking Series)

Cotton Fabrics (Consumer Education)

Finishing Touches (Sewing Series)

Getting Acquainted (Child Care)

How to Cook Meat by Dry Heat

How to Cook Meat by Moist Heat

Keeping Children Happy (Child Care)

Keeping Children Safe (Child Care)

Materials (Sewing Series)

Measuring Accurately (Cooking Series)

Rayon Fabrics (Consumer Education)

Retail Store (Consumer Education)

Safety in the Kitchen (Cooking Series)

Seams (Sewing Series)

Select Your Style (Consumer Education)

Serving Meals (Cooking Series)

Sleeves and Necklines (Sewing Series)

Slide Fasteners (Sewing Series)

Special Daytime Problems (Child Care)

Sterling Silver on Your Tables

Storing Food (Cooking Series)

Using Your Pattern (Sewing Series)

Wool (Clothing and Shelter

Wool Fabrics (Consumer Education)

Eskimo Family (Families Around the World)

Family of Brazil (Families Around the World)

Family of Central Asia (Families of Other Lands)

Family of Guatemala (Families Around the World)

Family of India (Families Around the World)

Family of Israel (Families Around the World)

Family of Jamaica (Families of Other Lands)

Family of Jordon (Families Around the World)

Family of Mexico (Families Around the World)

Family of Scotland (Families Around the World)

Family of West Germany (Families of Other Lands)

Family of Yugoslavia (Families Around the World)

Getting Along with Your Brothers and Sisters (Family Living)

Is There a Typical Family? (Family Living)

Parents Are People Too (Family Living)

BULLETIN BOARD IDEAS

1. A BULLETIN BOARD MADE UP OF PICTURES OF TEMPTING DISHES. (CUT FROM OLD MAGAZINES)
2. PICTURES OF TOOLS AND PRODUCTS USED IN HOUSEKEEPING. (CUT FROM OLD MAGAZINES)
3. LET EACH STUDENT DRAW, COLOR, AND PLACE ON THE BULLETIN BOARD A PICTURE OF HIMSELF AS A CONSUMER OR HOMEMAKING WORKER.
4. PLACE SAMPLE OF CREATIVE WRITING ON BULLETIN BOARD.
5. PUT UP POSTER SHOWING NAMES OF PARENTS INVOLVED IN CONSUMER AND HOMEMAKING AND WHAT THEIR JOBS ARE. PICTURES OF EACH WORKER COULD BE CUT FROM MAGAZINES AND PLACED BESIDE EACH JOB.
6. PICTURES CUT FROM MAGAZINES OF FAMILIES DOING VARIOUS THINGS AT HOME.
7. A LARGE PICTURE OF A WORKER (THREE FEET TALL) WITH CAPTIONS EXPLAINING WHAT HE OR SHE DOES.
8. MAKE A BULLETIN BOARD USING THE LABELS FROM VARIOUS FOODS OR HOUSEHOLD PRODUCTS.
9. USING NEWSPAPERS MAKE A BULLETIN BOARD OF THE BEST BARGAINS OF THE WEEK.
10. BULLETIN BOARD OF SUGGESTIONS FOR APPLYING FOR A JOB.
11. PICTURE OF PERSON PROPERLY DRESSED CONTRASTED WITH PICTURE OF PERSON IMPROPERLY DRESSED.
12. BULLETIN BOARD USING CHARLIE BROWN AS A CARTOON CHARACTER FOR CAREER EDUCATION. THE CAPTION COULD BE SOME OF THE CONCEPTS USED FOR CAREER EDUCATION OR SELF-CONCEPT.
13. BULLETIN BOARD MADE UP OF CARTOONS FROM THE BOOK OF CARTOONS FROM S.P.I.C.E.

CONSUMER AND HOMEMAKING WORKERS

NURSEMAID

FOSTER MOTHER

CHILD-CARE ATTENDANT (SCHOOL)

KINDERGARTEN TEACHER

DAY CARE WORKER

LAUNDRESS

CLOTHING MANAGEMENT SPECIALIST

WARDROBE SPECIALIST WORKER (MOTION PICTURE)

DRESSER (AMUSEMENT AND RECREATION)

NURSERY SCHOOL TEACHER

WARDROBE MISTRESS (AMUSEMENT AND RECREATION)

WARDROBE ATTENDANT (AMUSEMENT AND RECREATION)

DRESSMAKER

SEAMSTRESS

GARMENT INSPECTOR

COSTUMER (MOTION PICTURES)

CATERER

DIRECTOR (SCHOOL LUNCH PROGRAM)

MANAGER (CAFETERIA OR LUNCHROOM)

FOOD PRODUCTS TESTER

FOOD SERVICE SUPERVISOR

CATERER HELPER

HOME LIGHTING DEMONSTRATOR

HOME SERVICE REPRESENTATIVE

HOME LIGHTING ADVISOR (LIGHT, HEAT, POWER)

SLIPCOVER CUTTER (HOUSE OR CAR)

HAND SEWER

DRAPERY OPERATOR

SLIPCOVER SEAMSTRESS

HOUSE MOTHER (PRIVATE SCHOOL OR COLLEGE)

EXECUTIVE HOUSEKEEPER

MANAGEMENT AIDE

HOME DEMONSTRATION AGENT

INSPECTRESS (HOTEL OR RESTAURANT)

MAID (MOTEL, HOTEL, HOME)

MAID (HOSPITAL)

S.P.I.C.E. UNIT CHECKLIST

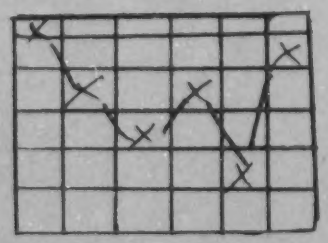
BELOW CHECK THE COLUMN_____THAT BEST EXPRESSES THE DEGREE TO WHICH YOU HAVE TAUGHT THE SPECIFIC CONCEPTS SET FORTH IN YOUR CAREER EDUCATION MANUALS:

	VERY LITTLE	SOME	EXTENSIVELY
1. INTEGRATED CAREER EDUCATION INTO THE TOTAL CURRICULUM.			
2. HELPED STUDENTS RECOGNIZE THEIR ABILITIES, AMBITIONS, AND LIMITATIONS AS THEY RELATE TO A CAREER.			
3. HELPED EACH STUDENT SEE HIMSELF AS IMPORTANT AND NECESSARY.			
4. HELPED STUDENTS DEVELOP AN APPRECIATION FOR ALL JOBS.			
5. HELPED STUDENTS UNDERSTAND WHY WORK IS DESIRABLE			
6. HELPED STUDENTS UNDERSTAND WHY WORK IS NECESSARY.			
7. HELPED STUDENTS UNDERSTAND THE CHANGING NATURE OF THE WORLD OF WORK.			
8. HELPED STUDENTS RELATE THEIR SCHOOL WORK TO THE WORLD OF WORK OUTSIDE THE CLASSROOM.			
9. HELPED STUDENTS SEE THE IMPORTANCE OF GETTING ALONG WITH OTHERS.			
10. HELPED STUDENTS PARTICIPATE IN HANDS-ON ACTIVITIES THAT BROADEN THEIR KNOWLEDGE AND INCREASE THEIR AWARENESS OF JOBS.			

CHART OF ABILITIES

TO COMPLETE THIS EVALUATION ON EACH STUDENT AT THE END OF THE YEAR, MARK AN X IN THE APPROPRIATE BOXES AND JOIN THEM WITH A STRAIGHT LINE.

SAMPLE:



STUDENT'S NAME _____

	Decision Making	Manual Skills	Planning and Organization Skills	Creativity and Inventive Skills	Academic Skills	Self-Concept	Career Maturity	Artistic Ability
Excellent								
Average								
Poor								

TO BE PLACED IN CR-2 FOLDER

EVALUATION

1. STUDENTS WILL BE ABLE TO NAME TEN SKILLS IN CONSUMER AND HOMEMAKING THAT ARE LEARNED IN PART BY OBSERVING.

2. STUDENTS WILL LIST FOUR WAYS INTERACTION BETWEEN WORKERS HELPS IMPROVE KNOWLEDGE ABOUT CAREERS.

3. STUDENTS WILL BE ABLE TO DEAL WITH FIVE OCCUPATIONS FROM CONSUMER AND HOMEMAKING INDICATING OTHER JOBS THEY ARE QUALIFIED TO DO.

4. STUDENTS WILL BE ABLE TO NAME FOUR NEW CAREERS IN CONSUMER AND HOMEMAKING THAT HAVE COME ABOUT IN THE LAST TEN YEARS DUE TO TECHNOLOGICAL OR SOCIOLOGICAL CHANGE.

5. STUDENTS WILL BE ABLE TO LIST FIVE REASONS WHY CAREER INFORMATION IS IMPORTANT AND NECESSARY TO EVERYONE.

6. STUDENTS WILL BE ABLE TO LIST FIVE WAYS IN WHICH LEISURE TIME IS AFFECTED BY JOBS IN CONSUMER AND HOMEMAKING.

7. STUDENTS WILL KNOW THREE JOB FAMILIES IN CONSUMER AND HOMEMAKING.

8. STUDENTS WILL BE ABLE TO NAME FIVE OTHER CLUSTERS UPON WHICH CONSUMER AND HOMEMAKING WORKERS ARE DEPENDENT.

THOUGHT PERTINENT TO APPLYING FOR A JOB

THE EMPLOYER WANTS TO HEAR:

1. THAT YOU CAN HANDLE THE JOB.

2. THAT YOU ARE WILLING TO WORK WITH HIM.

3. THAT YOU WILL BE THERE EVERY MORNING AT THE AGREED UPON TIME. THAT YOU WILL, IN RETURN FOR A FULL DAY'S PAY, DEMONSTRATE YOU HAVE EARNED THAT PAY.

OTHER SUGGESTIONS:

4. IF ANY UNFORESEEN EVENT PREVENTS YOUR APPEARANCE UPON THE JOB, LET YOUR EMPLOYER KNOW WELL IN ADVANCE. NEVER LEAVE HIM WONDERING WHERE YOU ARE.

5. DO NOT BE NEGATIVE--BE POSITIVE IN YOUR APPROACH AND ANYTHING YOU TELL THE EMPLOYER DURING THE INTERVIEW.

6. THE EMPLOYER WOULD RATHER HEAR OF YOUR SUCCESSES THAN FAILURES. DON'T LEAVE ANYTHING OF A NEGATIVE NATURE WITH HIM TO MULL OVER IN YOUR ABSENCE.

7. NEVER TELL HIM YOU HAVEN'T HAD ANY EXPERIENCE FOR THE JOB YOU ARE APPLYING FOR.

8. DRESS SENSIBLE--NEATLY, AND ABOVE ALL BE CLEAN AND FRESH-SMELLING. TAKE A BATH THE MORNING BEFORE THE INTERVIEW AND HAVE CLEAN, SWEET-SMELLING CLOTHES READY TO PUT ON. IF POSSIBLE, USE AN UNDERARM DEODRANT. HOWEVER, DON'T OVERDO IT. NEVER OVERPOWER A PROSPECTIVE EMPLOYER WITH STRONG PERFUMES, AFTER-SHAVE LOTIONS, ETC.

9. ABOVE ALL, BE A GOOD LISTENER. LEAVE HIM WITH THE FEELING THAT YOU WOULD BE AN EXCELLENT EMPLOYEE TO HAVE AROUND HIS ORGANIZATION, THAT YOU WOULD BE EASY TO GET ALONG WITH, THAT YOU CAN TAKE ADVICE AND CRITICISM AND ARE NOT TO RADICAL. YOU CANNOT TELL HIM YOU WON'T GET A HAIRCUT (IF YOUR HAIR IS GIRL LENGTH AND YOU ARE A BOY) AND HE HAS TO GIVE YOU A JOB. IT IS HIS PREROGATIVE TO SELECT THE PEOPLE HE WANTS TO FILL THE JOB

BECAUSE IT IS HIS ORGANIZATION AND HE WANTS IT THAT WAY. IF YOU REFUSE TO CONFORM TO RULES, REGULATIONS, AND REQUIREMENTS FOR A PARTICULAR JOB, THERE ARE PLENTY OF EMPLOYERS WHO WILL NOT GIVE YOU A CHANCE.

10. ARE YOU INTERESTED IN THE JOB FOR WHICH YOU ARE APPLYING? NO EMPLOYER WANTS TO HEAR YOU SAY, "I'LL TRY IT FOR A FEW DAYS." EMPLOYERS ARE LOOKING FOR PEOPLE WHO WILL STAY WITH THEM, WHO ARE SEEKING A PERMANENT JOB, AND WHO WILL BE A CREDIT TO THE ORGANIZATION.

11. ARE YOU LOOKING FOR A "JOB"? OR ARE YOU LOOKING FOR "WORK"? DO YOU KNOW HOW TO SPELL "WORK"? TOO MANY PEOPLE ARE LOOKING FOR A "JOB" AND NOT ENOUGH FOR "WORK"!!! "WORK" IMPLIES TO AN EMPLOYER THAT YOU ARE READY TO TACKLE ANYTHING HE HAS TO OFFER AND THAT YOU ARE WILLING TO TACKLE IT. THE PEOPLE WHO ARE LOOKING FOR A "JOB" SAY THEY ARE HIRED TO TYPE AND NOT TO FILE--OR HIRED TO BUS TABLES, NOT TO SWEEP AND MOP FLOORS--ETC. PEOPLE WHO WANT TO "WORK" WILL FIND THINGS TO KEEP THEM BUSY AND PRODUCTIVE.

69

S.P.I.C.E. ACTIVITY RECORD

SCHOOL _____ GRADE _____ TEACHER _____

BELOW GIVE US A BRIEF SUMMARY OS SOME OF THE THINGS THAT YOU HAVE BEEN DOING IN CAREER EDUCATION. IF YOU HAVE HAD RESOURCE PERSONS IN, TELL US WHO THEY WERE. IF YOU HAVE DONE OTHER THINGS, INDICATE WHAT THEY WERE:

1. SPEAKERS OR RESOURCE PERSONS _____

2. FILMS _____

3. BOOKS _____

4. FIELD TRIPS _____

5. SKITS (TITLES) _____

6. BULLETIN BOARDS _____

7. HANDS-ON ACTIVITIES _____

8. ART _____

9. CLASS MEETING _____

10. ROLE-PLAYING _____

11. CREATIVE WRITING _____

12. FILMSTRIPS _____

13. RECORDS OR CASSETTES _____

14. PARENT HELPERS _____

15. OTHER HELPERS _____

16. OTHER ACTIVITIES _____

_____

_____

_____

_____

_____

17. GUIDANCE ACTIVITIES _____

_____

_____

FUTURE PLANS _____

_____

_____

DEAR PARENT,

SCHOOL PROGRAMS IN CAREER EDUCATION IS ATTEMPTING TO GIVE BOYS AND GIRLS A BROAD KNOWLEDGE ABOUT MANY DIFFERENT JOBS. WE ARE SURE THAT YOU WILL FIND YOUR CHILD'S KNOWLEDGE OF THE WORLD OF WORK INCREASING DAILY. WE HOPE THAT MUCH OF WHAT THE STUDENTS LEARN WILL COME FROM PARENTS OF SOUTH KNOX COUNTY WHO ARE WILLING TO SIT DOWN WITH A CLASS OF STUDENTS AND DISCUSS THEIR WORK.

THE PARENT IS NOT ASKED TO MAKE A SPEECH BUT RATHER TO COME DRESSED IN HIS OR HER WORK CLOTHES AND SIMPLY DISCUSS HIS OR HER WORK WITH THE CHILDREN. IF THE PARENT CAN BRING SOME TOOLS OF HIS TRADE OR SOMETHING ELSE RELATED TO HIS WORK TO SHOW TO THE CHILDREN, THIS WILL BE VERY GREATLY APPRECIATED BY THE STUDENTS.

PARENT'S NAME _____

ADDRESS _____

PHONE _____

JOB TITLE _____ JOB LOCATION _____

DAY OR DAYS OF THE WEEK THAT WOULD BE MOST CONVENIENT FOR YOU _____

THE TIME OF DAY YOU COULD COME _____

SOGNATURE _____

Activities for Integrating the Skills into Consumer and Homemaking

MATH

1. Utilize number puzzles in reinforcing numeral recognition.

2. Practice counting and enumiration skills by counting the different utinsels in the kitchen.

3. The students could begin the understanding of sets by counting the number of shirts of a certain type or color, the number of trousers of a certain type or color, etc.

4. The teacher could compare boys' and girls' clothing and teach like and unlike sets. From the kitchen the teacher could empty sets teach and equal sets.

5. Practice simple addition and subtraction (one and two place figures) in computing different types of fruits and vegetables.

6. Let students determine the number of eggs, potatoes, oranges, apples, etc. used by a family in one week.

7. Discuss the use of mathematics by cooks: measuring, using various utinsels and containers for measuring, telling time, computation skills, calendar reading, thermometer reading, reading scales, etc.

8. Devise role-playing activities that will give the students an opportunity to practice these skills.

9. Use rulers and yardsticks to measure various utinsels and appliances in the kitchen. The class could visit the school kitchen and count the various appliances, measure the room, measure cabinets, shelves, counters, etc.

10. Use a series of jars to illustrate largest, middle and smallest.

LANGUAGE ARTS

1. INCORPORATE NEW VOCABULARY WORDS INTO CLASS ACTIVITIES.

2. ON A BULLETIN BOARD OR POSTERBOARD WRITE NEW WORDS AS THEY ARE INTRODUCED.

3. LET STUDENTS PRACTICE WRITING THESE WORDS AT THEIR SEATS OR AT THE CHALKBOARD AS PART OF THEIR PENMANSHIP PRACTICE.

4. USE SEQUENTIAL PICTURES TAKEN FROM CONSUMER AND HOMEMAKING (EX. THE STEPS MOTHER GOES THROUGH IN MAKING A GINGERBREAD MAN) TO HELP THE CHILDREN DEVELOP THEIR SKILLS IN TELLING STORIES IN ORDER.

5. PLAN DIFFERENT WRITING LESSONS ON THE UNIT TOPIC--CONSUMERISM (SHOPPING, MAKING CLOTHES, PLANNING MEALS, ETC.)
   HOMEMAKING (COOKING, KEEPING HOUSE, DECORATING ROOM, ETC.)

6. READ STORIES TO THE STUDENTS RELATED TO CONSUMER AND HOMEMAKING.

7. PROVIDE BOOKS ON THE SUBJECT FOR STUDENTS TO READ ON THEIR OWN.

8. INVOLVE YOUNGSTERS IN ROLE-PLAYING ACTIVITIES THAT ALLOW THEM TO EXPRESS THEIR FEELINGS AND IDEAS AS CONCERNS CONSUMER AND HOMEMAKING. ENCOURAGE THEM TO VERBALIZE THESE FEELINGS AND REACTIONS TO THE ACTIVITIES IN A "TALK IT OVER" SESSION AFTERWARDS.

9. USE PUPPETS MADE IN OTHER ACTIVITIES TO PRACTICE STORYTELLING AND ORAL COMMUNICATION SKILLS. YOUNGSTERS COULD USE PUPPETS THEY HAVE MADE AS VISUAL AIDS AND AS PROPS IN ACTING OUT STORIES THEY HAVE MADE UP ON THE CONSUMER AND HOMEMAKING. THE STUDENTS COULD TAKE THEIR THEMES FROM SHIPPING, FAMILY LIFE AT HOME, COOKING, HOUSEKEEPING, CHILD CARE, ETC.

10. INVOLVE THE CLASS IN COMPOSING RHYMES OR SHORT POEMS ABOUT DIFFERENT ASPECTS OF CONSUMER AND HOMEMAKING. USING THE TUNE FROM THE SONG "THE FARMER TAKES A WIFE," MAKE A SONG ABOUT SHOPPING.

    A SHOPPING WE SHALL GO!
    A SHOPPING WE SHALL GO!
    HI, HO, THE DAIRY O,
    A SHOPPING WE SHALL GO!

SCIENCE AND SOCIAL STUDIES

1. PLAN AN INTRODUCTORY LESSON ON THE NEED FOR FOOD AND HOW THE BODY USES IT. TALK ABOUT VITAMINS AND HOW THEY HELP US. TALK ABOUT THE DIFFERENT KINDS OF FOOD WE EAT (VEGETABLES, FRUITS, CEREALS, ETC.) AND WHY WE NEED A BALANCED DIET. THE TEACHER MIGHT MENTION HOW CERTAIN FOODS HELP PARTICULAR PARTS OF THE BODY: FOR EXAMPLE, CARROTS FOR THE EYES, MILK FOR STRONG TEETH AND BONES, MEAT FOR MUSCLES, ETC.

2. TALK ABOUT DIFFERENT TYPES OF FRUITS AND VEGETABLES. DISCUSS THE COVERING (TEXTURE) OF EACH AND HOW IT COMES OFF.

3. TALK ABOUT WEATHER AS IT CONCERNS THE GROWING OF FRUITS AND VEGETABLES.

4. HAVE THE STUDENTS RELATE FRUITS, VEGETABLES AND CEREALS TO PRODUCTS BOUGHT IN THE STORE.

5. THE SAME CAN BE DONE WITH DAIRY AND MEAT PRODUCTS.

6. TALK ABOUT FRUITS AND VEGETABLES THAT CANNOT GROW IN OUR AREA OF THE COUNTRY.

7. DISCUSS CLOTHES AND THE MATERIALS THEY ARE MADE OF: THOSE THAT COME FROM ANIMALS AND THOSE THAT ARE SYNTHETIC.

8. TAKE MANY ITEMS IN THE HOME AND DISCUSS THE MATERIALS USED IN THEIR MANUFACTURE AND WHERE THESE MATERIALS COME FROM. SEE IF ANY OF THESE MATERIALS COME FROM YOUR AREA OF THE COUNTRY.

ART

1. STUDENTS COULD DRAW AND COLOR DIFFERENT KINDS OF FRUITS AND VEGETABLES.

2. THE STUDENTS COULD ALSO CUT THESE OUT AND MAKE A POSTER. THE FRUITS COULD BE ARRANGED ON ONE SIDE AND THE VEGETABLES ON THE OTHER.

3. IN THEIR DRAWINGS ENCOURAGE THE STUDENTS TO USE VARIOUS MEDIA, SUCH AS CRAYONS, CHALK, PASTELS, ETC.

4. GIVE STUDENTS MIMEOGRAPHED PICTURES OF WORKERS IN CONSUMER AND HOMEMAKING TO COLOR AND KEEP IN THEIR NOTEBOOKS.

5. DESIGN AND DRAW A MURAL SHOWING THE INSIDE OF A RESTAURANT. LET THE STUDENTS DRAW IN THE WORKERS: WAITER, WAITRESS, MANAGER, CASHIER, COOKS, DELIVERY MAN, ETC.

6. USE MODELING CLAY OR PLAY-DOUGH AND SHAPE DIFFERENT FRUITS AND VEGETABLES, OR THE STUDENTS COULD MAKE THESE SAME OBJECTS FROM PAPER MACHÉ AND PAINT THEM IN REALISTIC COLORS.

7. DESIGN AND COLOR A PLACEMAT.

8. DESIGN A VINYL PATTERN FOR THE KITCHEN.

9. DESIGN AND CUT OUT CLOTHING. THIS IS ESPECIALLY INTERESTING TO STUDENTS WITH CREATIVE ABILITY.

10. STUDENTS COULD DISCUSS THE IMPORTANCE OF COLOR IN FOOD AND HOW IT MAKES FOOD MORE APPETIZING AND ATTRACTIVE.

11. STUDENTS COULD ALSO DISCUSS THE IMPORTANCE OF COLORS IN CLOTHES AND HOW CLOTHES ARE WORN IN COLOR COMBINATIONS.

Activity Kit Ideas

1. Make a neck or a head scarf. Decorate it with potato-print, stencilled designs, etc.

2. Make a wall-hanging sewing on a design.

3. Make pot holders.

4. Make button pictures.

5. Weave paper placemats.

6. Let students do embroidery, cross stitch, (with hoops) etc.

7. Make take-home gifts for Christmas.

   a. Instant Spice mix
   b. Bake and decorate cookies
   c. Pop corn - make popcorn balls - string corn as Christmas tree ornament
   d. Make party mix with wheat chexs, nuts, etc.

8. Caterer's kit - include apron, hat, paper plates, plastic knives, forks, spoons, etc.

Vocabulary Words for Consumer and Homemaking

1. Boil
2. Bake
3. Burn
4. Toast
5. Fry
6. Freeze
7. Broil
8. Fork
9. Knife
10. Spoon
11. Plate
12. Glass
13. Table
14. Pitcher
15. Bowl
16. Cake pan
17. Frying pan
18. Milk
19. Butter
20. Cheese
21. Ice cream
22. Eggs
23. Bacon
24. Ham
25. Chicken
26. Bread
27. Fruit
28. Grain
29. Nuts
30. Sugar
31. Salt
32. Pepper
33. Brown sugar
34. Corn
35. Beans
36. Candy
37. Oven
38. Stove
39. Soup
40. Sink
41. Dessert
42. Glass
43. Drink
44. Fish
45. Meat
46. Snack
47. Meal
48. Chill
49. Chop
50. Cream
51. Crush
52. Peal
53. Slice
54. Drain
55. Drip
56. Flour
57. Beat
58. Grease
59. Cup
60. Cook
61. Rice
62. Lemon
63. Orange
64. Grapefruit
65. Apple
66. Banana
67. Cherry
68. Berry
69. Juice
70. Oil
71. Potatoes
72. Pork
73. Biscuit
74. Rolls

89

75. Buns
76. Popcorn balls
77. Peach
78. Grape
79. Stew
80. Gravy
81. Beef
82. Cabbage
83. Cucumber
84. Hamburger
85. Cheeseburger
86. Bacon and tomato sandwich
87. Pie
88. Cake
89. Pot
90. Pan
91. Cabinet
92. Tea
93. Hot dog
94. Breakfast
95. Dinner
96. Supper
97. Duck
98. Hen
99. Goose
100. Turkey
101. Jam
102. Jelly
103. Plum
104. Crisp
105. Lettuce
106. Mashed potatoes
107. Radish
108. Turnip
109. Wheat

67

ACCESSION NUMBER: VT101996

TITLE: TRANSPORTATION K-1-2. MANUAL FOR CAREER EDUCATION.

PERSONAL AUTHOR: STEWART, JAMES C., COMP.

DESCRIPTOR: *CAREER EDUCATION; *CURRICULUM GUIDES; CLASS ACTIVITIES; RESOURCE MATERIALS; *TRANSPORTATION; KINDERGARTEN; GRADE 1; GRADE 2

IDENTIFIER: *KNOX COUNTY SCHOOLS; TENNESSEE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 72P.; SEE RELATED DOCUMENTS VT 101 991 THRU VT 101 995 IN THIS ISSUE.

ABSTRACT: OBJECTIVES OF THE SPICE (SCHOOL PROGRAMS IN CAREER EDUCATION) CURRICULUM GUIDES ARE CONCERNED WITH THE AREAS OF SELF-CONCEPT, DIGNITY OF WORK, CHANGE IS CONSTANT IN CAREERS, AND RELEVANCE OF SCHOOL TO WORK. THE CAREER EDUCATION CURRICULUM IN THIS VOLUME PRESENTS UNITS WHICH MAY BE TAUGHT AS SEPARATE SUBJECTS, INCORPORATED INTO ALL AREAS OF THE EXISTING CURRICULUM, OR USED AS THE TOTAL CURRICULUM, WITH TEXTS AS REFERENCES. EACH UNIT CONTAINS SUGGESTED ASSIGNMENTS AND ACTIVITIES IN MATH, LANGUAGE ARTS, SCIENCE, AND ART. THE TRANSPORTATION UNIT FOR KINDERGARTEN AND GRADES 1 AND 2 PRESENTS MATERIALS AND ACTIVITIES TO BROADEN THE CHILDREN'S KNOWLEDGE OF THE TRANSPORTATION INDUSTRY AND ITS WORKERS. (AUTHOR/MF)

INSTITUTION NAME: KNOX COUNTY SCHOOLS, KNOXVILLE, TENN.

VT 101 996

Manual for Career Education

Compiled and Edited by

James C. Stewart
Curriculum Coordinator

Curriculum Guide

School Programs in Career Education
Bruce Hinton, Director
Phyllis Morelock, Guidance Coordinator

Published by
The Knox County Schools
Knoxville, Tennessee
Mildred E. Doyle, Superintendent

COVERS

Mrs. Margaret McPherson

ART WORK AND ILLUSTRATIONS

James C. Stewart

SECRETARIAL WORKERS

Sharon Perry
Dolores McMillan
Jayne Rosenbalm

The staff of School Programs in Career Education would like to express it's appreciation to the teachers of South Knox County who served on the S.P.I.C.E. Curriculum Revision Committee.

K-1-2

Mrs. Catherine C. Wigington (High Bluff)
Mrs. Edna Monday (New Hopewell
Mrs. Clara J. Tarwater (Bonny Kate)
Mrs. Judith Henson (New Hopewell)
Mrs. Judith Martin (Mt. Olive)

3-4

Mrs. Hazel Arnwine (High Bluff)
Mrs. Eva O. Graves (Bonny Kate)
Mrs. Carolyn Newman (New Hopewell)
Miss Barbara Hinchey (Mt. Olive)

5-6

Mr. Ronald Spire (High Bluff)
Mr. Robert Evridge (Bonny Kate)
Mrs. Sharon Ballentine (New Hopewell)
Mrs. Amaryllis Deaton (New Hopewell)
Mrs. Jena Scarbrough (Mt. Olive)

FOREWORD

PHILOSOPHY

The world of work is a dynamic, swiftly changing aspect of modern life. Jobs that are flourishing today may not even exist twelve years from now. Children whose only exposure to career education is from their parents may find themselves left far behind in our competitive, technical age.

The increased change in the job market must be counterbalanced by an increased awareness on the part of students who, heretofore, have waited until their late teens to concern themselves about a career. All education, all school K-12, is a part of the process of building a career.

Students at the middle school level (6, 7, 8) must frequently make course decisions that will affect their future job plans and prospects. In years past students entering this intermediate stage of their educational development had little if any career orientation and direction. Their selection of courses was often erratic and based upon frivolous considerations such as sports, friendships, and popularity. Later in high school many of these students discovered that they had irreversible eliminated many of the most desirable careers because they had not taken school or the future seriously.

Children have, for some years, looked upon work with mixed feelings. Many have come to see work as a necessary evil which may eventually be eliminated. Work as a way of life needs a better image. There is not only monetary reward in work but there is also fulfillment and satisfaction. There must be re-created in children a true respect for work as well as an appreciation for a job well done, regardless of the type of work. Children must come to see that there is dignity in all work.

GENERAL OBJECTIVES

To integrate career education concepts into the existing elementary curriculum K-6 in order that students may broaden their knowledge and understanding of careers and develop a true appreciation and understanding of themselves - their abilities, limitations and attitudes, as these relate to a future career.

SPECIFIC OBJECTIVES

Self-Concept

1. To help each student develop the ability to assess himself - his abilities, ambitions, and prejudices, as they relate to a career.
2. To help each student see himself as important and necessary to the community.

3. To help each student appreciate his abilities regardless of the career to which they may relate.

4. To help each student realize that getting along with other people is the key to a successful career and that this comes by first accepting himself.

Dignity of Work

1. To help students develop an appreciation for work and for the dignity of any job well done.

2. To help students realize that all work is important and necessary.

3. To help students know and accept the fact that workers work for many different rewards and satisfactions and that money isn't necessarily the most important objective.

4. To help students under stand that any productive worker is to be respected.

Change is Constant in Careers

1. To help students think of the world of work as changing. To help them understand that some jobs are eliminated and that others are created by change.

2. To help students appreciate the many new jobs that have been created by technology and social change.

3. To help students plan for a world of change where they may be retrained many times.

Relevance of School to Work

1. To help students relate school to work and realize that school helps now and will also help to prepare for the future.

2. To help students understand that school attendance is a part of the process of developing self-concepts and learning to get along with others.

3. To help students understand that basic skills such as reading, writing, spelling, math, and speech are skills which have a high carry-over value where jobs and careers are concerned.

4. To help students recognize that a career must be built slowly and that the school is the best framework within which a career may be built.

5. To help students understand that the gaining of much knowledge about jobs and themselves is an important part of the process of choosing a career.

The Curriculum

The career education curriculum here presented is developed in such a way as to give the teacher maximum flexibility. Each unit may be an adjunct to the existing curriculum. This is to say, it may be taught as a separate subject. On the other hand, the teacher, if she so desires, may incorporate aspects of career education into all areas of her curriculum, including math, language arts, and science. At the most comprehensive level, the teacher may use the S.P.I.C.E. units as her total curriculum, with texts as references. Each unit contains suggested assignments and activities in math, language arts, science, and art.

The units are prepared for multigrade or nongraded classrooms as well as the self-contained classroom. Units are developed in three blocks: K-1-2, 3-4, 5-6. The teacher may use as much or as little of a unit as she sees fit, depending upon the capacity and interest of the class. Supplementary materials are contained in the resource kit which accompanies each unit guide. Additional help and materials may be obtained through the project coordinators. The coordinators will assist the teacher in planning her unit, utilizing materials, acquiring additional materials, obtaining resource persons, and aiding to some extent with classroom activities.

The curriculum guide is given as an outline of what might be done in teaching about a particular job cluster. The teacher should feel free to supplement, alter, or replace any teaching technique or suggested activity with those of her own. The teacher should also feel free to acquire and to use additional materials not contained in the resource kit.

The Teacher

Career education does not represent a new subject. Many teachers have taught career education for years without giving it a name. Career education is any education which attempts to help the child find himself, his abilities, and his ambitions, as well as to teach him something about the world of work and what life is like there - in the real world - outside the classroom - where he must live most of his life.

The only change that need take place in the teacher is a change in emphasis. Instead of simply teaching children to read or write or do math, teach them the purpose in learning these skills. Help them see how these skills are related to later school years and beyond that to a career.

The good career education teacher has other attributes which are always a part of a good teacher, such as understanding and a concern for children. This, at the elementary level, may be called guidance. In practice it means patience; it means letting children discover themselves in a way that will be acceptable to them; it means helping each child feel proud of his abilities without feeling inferior because of those he does not possess. It means making a child feel pride in any job or career that interests him; and it means developing among her pupils an appreciation for all kinds of work and for all kinds of people.

TRANSPORTATION

K-1-2

General Scope

Transportation and the workers associated with various forms of transportation are already familiar to most of the children K-1-2. It will be the purpose of this unit to begin to build and broaden the child's basic knowledge of transportation as well as the workers involved in this industry. Among other things the teacher will attempt to foster the concept that all workers are important and that all work has dignity. She will also attempt to make clear to the students that all workers work to gain certain personal rewards and satisfactions many of which may be in doing the kind of work they enjoy doing. In the world of work there is no single factor that is more important than the ability to work successfully wibh others. Grades K-1-2 represent an excellent period in the child's development to begin building self-concept. Children, like adults, cannot accept and get along with others until they can accept themselves.

Concept

1. Transportation workers are important and necessary.
2. Transportation careers have dignity.
3. Transportation workers work to meet personal and social needs.
4. Transportation workers work for various rewards and satisfactions.
5. Transportation workers work with other people.
6. In transportation cooperation between workers is essential.
7. Careers in transportation are of a wide variety.

SCOPE	ACTIVITIES	RESOURCES

I. Concept: Transportation workers are important and necessary.

II. Concept: Transportation careers have dignity.

A. At this point the teacher should attempt to establish the fact that everyone is important because of the part that he plays in the lives of others. This concept can then be transferred to the transportation worker who serves many vital functions in our everyday lives. Much time should be concentrated on the area of self-concept at K-1-2. Students at this level must first identify themselves before they can fully understand and appreciate others.

Discussion

1. How did you get to school this morning?

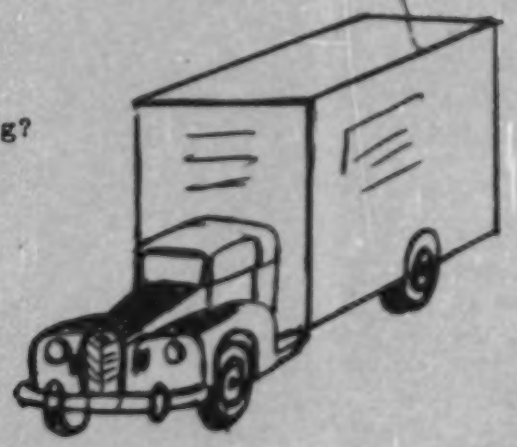
2. Name all the ways students come to school.
   a. Walk
   b. Bicycle
   c. Car
   d. Bus
   e. Truck

3. Who rode the bus this morning?

4. Who drove the bus?

5. Do men or women drive buses?

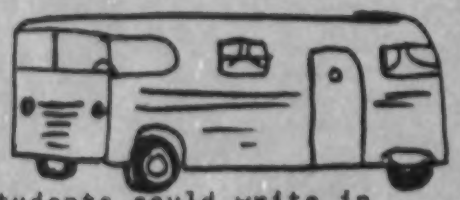
6. Have you watched your bus driver?



SCOPE	ACTIVITIES	RESOURCES

Supplementary Activity

Let boys and girls gather pictures of cars, buses, campers, trucks, etc., and make a scrapbook. The students can get these pictures from magazines, newspapers, new car brochures, etc. Some students may want to collect pictures of motorcycles, bicycles or the interiors of mobile homes or campers.



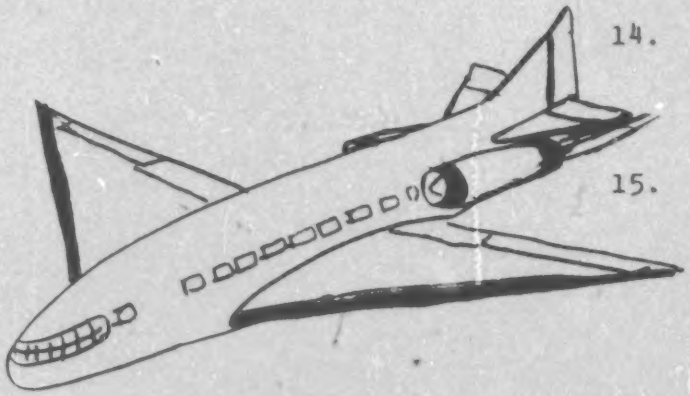
Students could write in information about each entry.

7. What does the bus driver do?
   a. Starts the bus
   b. Shifts gears
   c. Puts on gas
   d. Puts on brakes
   e. Puts on turn indicator
   f. Puts out stop sign
   g. Opens bus door
   h. Turns on lights
   i. Puts on clutch

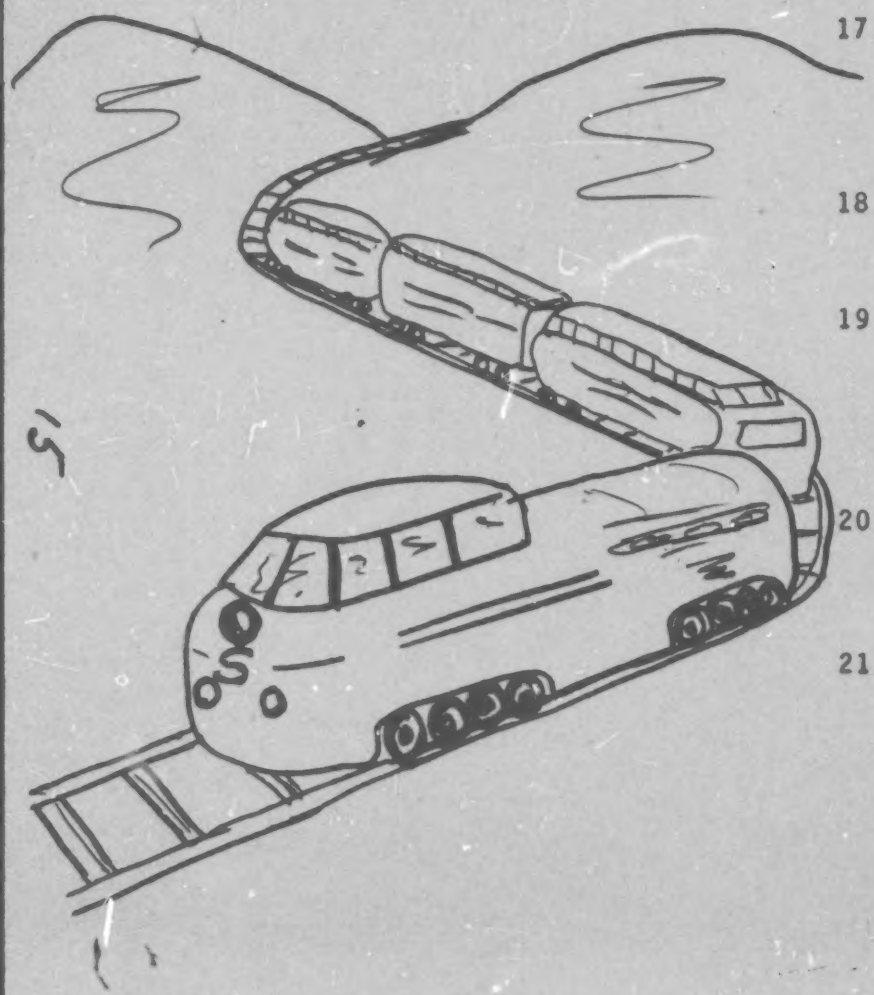
8. How many of you can ride a bicycle?
   a. Show the class how you ride a bike.
   b. What should you be careful about when riding a bike?
      1. Not to ride out into a street
      2. Always watch out for others so that you don't run into someone
      3. Don't carry someone on behind you
      4. Always be on the lookout for cars
      5. Wear bright colored clothes so that you can be seen
      6. Don't ride at night
      7. Don't race or play games on a highway

S.P.I.C.E. has a cardboard model of a bus that you may borrow.

SCOPE	ACTIVITIES	RESOURCES
B. The teacher should stress how important it is for each passenger to play his part. The teacher might ask some "what if..." questions to get across the fact that we all play a part in transportation.	9. How many have ridden a motorcycle? 10. How many have ridden in an airplane? 11. How many have ridden on a train? 12. What are some of the other things you have ridden on? 13. Have any of you seen a race car up close? 14. Does anyone's father, brother or uncle drive a stock car or other racing car? 15. Does anyone's parent drive any kind of vehicle (explain vehicles) for a job? a. Truck b. Airplane c. Boat d. Car (taxi) e. Train f. Bus 16. Does anyone's parent work with a company that operates any of these vehicles?	



SCOPE	ACTIVITIES	RESOURCES



17. Let each student whose parent works in the area of transportation draw and color a picture of his parent at work.

18. Let the other students draw a picture of their family in the family car.

19. Let students draw a mural of a school bus on the way to school. Each student could draw his picture in a window of the bus.

20. Let students count the number of cars at school. Let them see how many of each make are there.

21. Let each student tell about a trip he or she has taken. The teacher could write some of these on a chart as a language experience exercise.

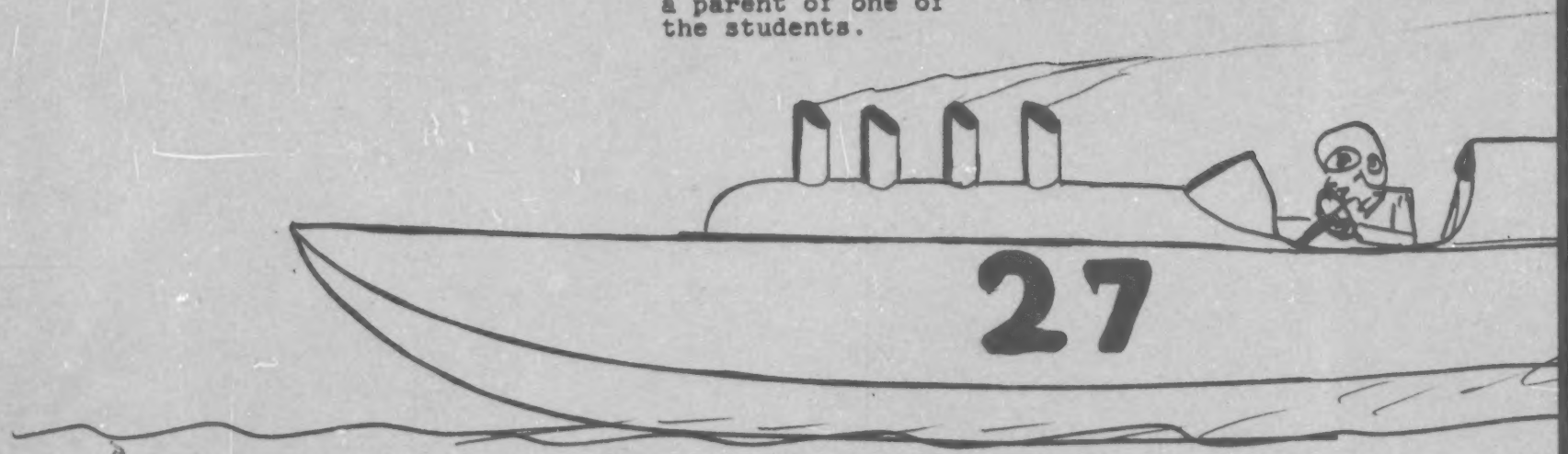
    Following are some of the questions the teacher might have the students answer in this exercise:

    a. Where did you go?
    b. How long did you stay?
    c. How did you get there?

SCOPE	ACTIVITIES	RESOURCES
	d. How long did it take you to get there? e. How did you feel? f. What did you see? g. Did you ride on any other vehicle while you were there? h. Who was with you? 22. Let the students locate this place on a road map. 23. First and second graders could add up the miles between each town to see how far this place was from their home.	
E. Activities of this type which help students see what characteristics are important to other students will help in self-preception and ultimately in establishing an acceptable self-concept.	<u>Let's Pretend</u> Let's pretend the classroom is a steamship crossing the ocean. We are all passengers, but we have no captain. We must choose a person to be captain. Who shall we choose? Let the students discuss this question and then nominate two or three persons to be captain. Let these students leave the room and hold elections to choose a captain.	

SCOPE	ACTIVITIES	RESOURCES
	Story: The teacher could read stories about transportation.	See appendix for list of books.
	Art Work: Let each child draw a picture (or cut from a magazine the pictures) of the transportation worker he would most like to be. Indicate to the student that he or she is the driver (pilot, engineer, etc.) and that his family is riding as passengers. Draw them in.	
	Bulletin Board: The students could prepare a bulletin board of as many forms of transportation as they can think of. These pictures could be cut from magazines or drawn.	See appendix for more complete list of bulletin board ideas.

SCOPE	ACTIVITIES	RESOURCES
	Resource Person: Invite a transportation worker to class to tell about his work. It would be best if the worker could be a parent of one of the students.	



SCOPE	ACTIVITIES	RESOURCES

III. Concept: Transportation workers work to meet personal and social needs.

IV. Concept: Transportation workers work for various rewards and satisfactions.

A. Students at the elementary level often have a distorted concept of why people work. They see their fathers or mothers going off to work and they hear them discuss their work, but most children have not been with their parents on the job and do not know the things they do or the people they associate with on the job. In teaching the two concepts above, it will be necessary for the student to have a clear indication of what happens when his parents work and why they prefer their jobs to others.

Experiment:

In the following activity students will be given a series of choices to point out to them that there are rewards other than money to work for:

1. Would you rather mow the neighbors lawn for a quarter or go swimming free with your friends?

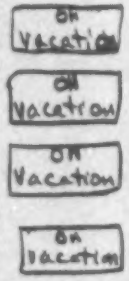
2. Would you rather work all day for a dollar or go on a trip through the Smokies with your parents?

3. Would you rather drive a truck for money or be a race driver for no money?

SCOPE	ACTIVITIES	RESOURCES
	4. Would you rather work on an old motor or mow lawns for money?	
B. The students will be able to better understand the rewards and satisfactions of transportation workers once they understand the rewards and satisfactions that their own parents work for. Students should be led to see that work is something that one does because he likes to, not because he has to.	<u>Parent Questionnaire</u>: The student could take home a questionnaire pertaining to his parents' work. <u>Parent Questionnaire</u>: 1. What is your job? 2. How long have you worked at this job? 3. How much training did it require? 4. What other jobs have you done? 5. Why do you like the job you have now? What are the rewards you receive? 6. What is the most important satisfaction (thing) that you receive from your job?	

20

The following could be prepared for the class bulletin board. The students could have their parents complete the questionnaire of the previous page and then compile the statistics on this chart. Each time the worker mentions one of these things, paste on a symbol.

Money	Free Time	Own Boss	Work Outside	Travel	Meet People	Good Pay	Long Vacations
							

The various symbols above could be drawn on ditto and run off in quantity. They could then be cut out, colored, and pasted on the chart. The chart could be made on a piece of poster board turned long ways.

21

SCOPE	ACTIVITIES	RESOURCES
	5. Let each student prepare a chart showing the rewards and satisfactions that are most important to him. The various rewards could be represented by drawings or pictures cut from magazines or catalogues.	
	6. The class could make a list of these rewards and satisfactions with the teacher writing them down. The class could pay particular attention to rewards and satisfactions provided by different jobs in transportation.	
	7. Name as many jobs as you can in transportation. The teacher could write these on the board. The class could go over each, pointing out some of the advantages and disadvantages of the job. The following are sample questions that may be asked about driving a truck. Sample: a. Is a truck driver away from home a lot? (yes) b. Does he drive many miles without stopping? (yes)	Show filmstrip called "Getting the Goods to the Users." Obtain this filmstrip with record through S.P.I.C.E. 525-7686.

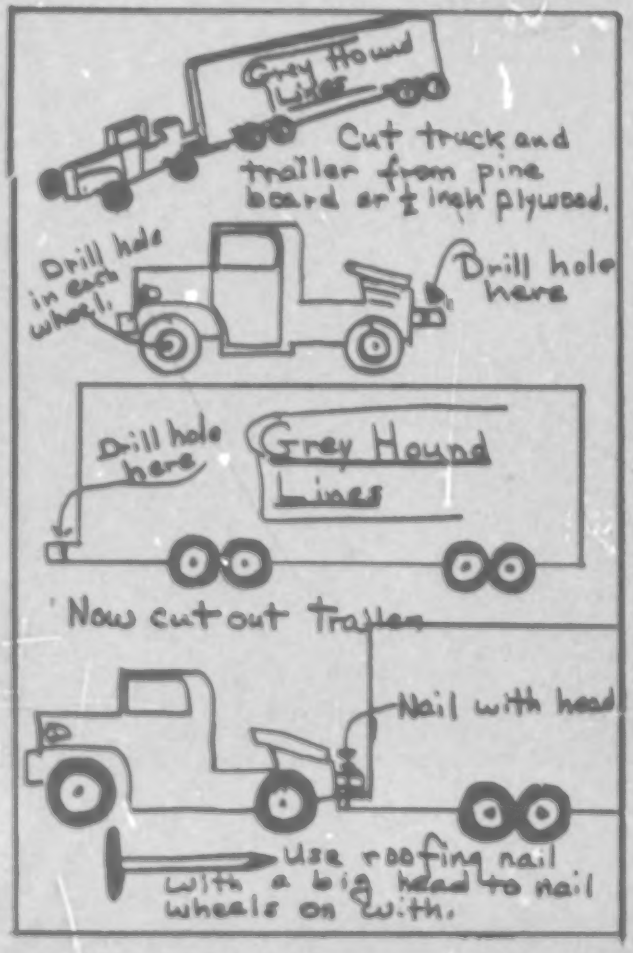
SCOPE	ACTIVITIES	RESOURCES
	c. Does he get tired and sleepy? (yes) d. What does he like about his job? 1. Gets to travel and see new places. 2. Gets to be the driver of a big truck. 3. Gets to meet many people. 4. Gets to be his own boss while driving. (The students could think of other advantages and disadvantages.)	
<u>Supplementary Activity</u> The teacher with the help of the class could make up a set of words or questions relating to the transportation cluster. On a racing game board which the S.P.I.C.E. office will supply the students could review the questions. These questions should be simple and should pertain	Read story "Driver Dan" Dan drove a big long truck. He drove many places, carrying different things in his truck. One day he stopped at a restaurant truckstop to eat and the waiter said: "Dan, don't you get tired of driving that truck mile after mile, day after day?"	Contact S.P.I.C.E. co-ordinator: The Mayflower Moving Campany has offered to bring a truck to the school to let students see it and talk to the driver.

SCOPE	ACTIVITIES	RESOURCES
directly to things covered in class.	Dan was not a man to be outdone so he turned the question around. "Don't you get tired of working in this restaurant day after day, week after week? Out on the road I get to see new things everyday. I pass through different towns and cities, I see new buildings going up, I see billboards and lights and lots of people coming and going. All I have to do is sit up there and drive, and I get to see the whole country. I get paid for it too. That's almost like being on vacation all the time. Now what do you think about truck driving?" "That sure does sound interesting," the waiter said. "How could I get to be a truck driver too?"	
See the Games and Activities in Career Education booklet for instructions for playing the game.		Brochures and pamphlets on trucks are available in the resource kit on transportation.

SCOPE	ACTIVITIES	RESOURCES

Supplementary Activity

Let students make a trailer truck. Using wood or heavy cardboard, cut out the cab:



Let students discuss "Driver Dan" and other jobs from transportation.

Resource Person:

The teacher could see her S.P.I.C.E. coordinator or work through the parents of her students to obtain a truck driver as a resource person to come to the class.

Check the appendix for a complete drawing of this trailer truck.

The students might like to prepare a set of questions in advance. They could take turns, each student asking one question. Among the questions might be the following:

1. Why did you become a truck driver?

2. What other jobs did you do before becoming a truck driver?

3. Why do you like to drive a truck?

25

SCOPE	ACTIVITIES	RESOURCES
Supplementary Activity Let the students make a vocabulary list including words from the Truck Driver's Dictionary. They could also get new words and terms from the guest speaker. The teacher can take these down for the class.	4. Is there any other job you would rather do? 5. How much training did your job require? 6. Do you have good benefits? (Teacher will have to explain benefits.) 7. Is it necessary for you to be retrained from time to time? Who pays for this? 8. How much free time do you have? Vacation? 9. What is the worst part of your job? 10. How much gas (or diesel fuel) does your truck hold? 11. How many miles will this take you? 12. How many miles do you get per gallon? 13. How many miles do you drive each day? Give example.	The teacher may obtain a copy of the Truck Driver's Dictionary from her S.P.I.C.E. coordinator. Supplementary Activity The class might like to compile a similar dictionary for airline pilots or boat operators on the Tennessee River.

26

SCOPE	ACTIVITIES	RESOURCES
	14. How much sleep do you get?	
	15. Do you buy your own uniform?	
	16. Do you have a set of tools? Are they yours?	
	17. Do you know how to work on a truck?	
	18. Have you ever had a breakdown? a wreck?	
	19. What are some of the rules truck drivers are supposed to go by?	
	20. Who works on your truck if you have a breakdown?	
	21. What are the things you have in the cab of your truck?	

SCOPE	ACTIVITIES	RESOURCES
C. To properly appreciate the rewards and satisfactions of jobs in transportation today the students should understand how jobs in transportation used to be.	**Research:** At K-1-2 there cannot be extensive research; however, students can gain a good deal of historical information by talking to their parents or grandparents about the way things used to be. This could be divided into areas with four or five students taking each area. 1. Roads as they used to be 2. Street lights (traffic lights, etc.) 3. Horse-drawn vehicles, wagons, buggies, etc. 4. Cars the way they used to be (Get old photos or newspaper clippings) 5. Buses the way they used to be 6. Roads and highways in the local areas 7. Trains the way they used to be	

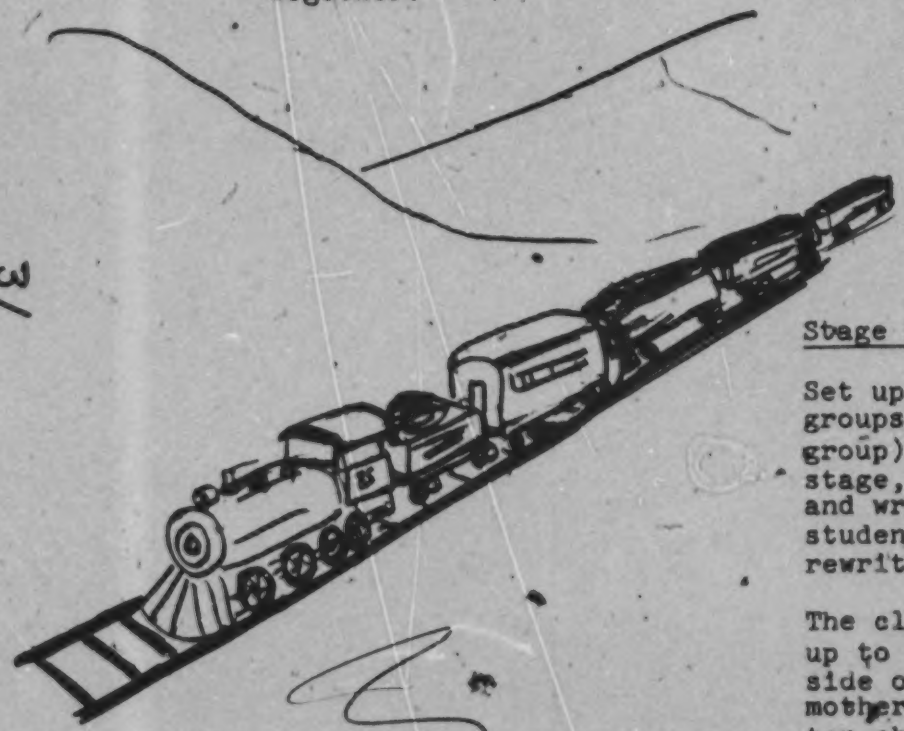
SCOPE	ACTIVITIES	RESOURCES
C. To properly appreciate the rewards and satisfactions of jobs in transportation today the students should understand how jobs in transportation used to be.	<u>Research</u>: At K-1-2 there cannot be extensive research; however, students can gain a good deal of historical information by talking to their parents or grandparents about the way things used to be. This could be divided into areas with four or five students taking each area. 1. Roads as they used to be 2. Street lights (traffic lights, etc.) 3. Horse-drawn vehicles, wagons, buggies, etc. 4. Cars the way they used to be (Get old photos or newspaper clippings) 5. Buses the way they used to be 6. Roads and highways in the local areas 7. Trains the way they used to be	

SCOPE	ACTIVITIES	RESOURCES
IV. Concept: Transportation workers work with other people.		
V. Concept: In transportation, cooperation between workers is essential.		
A. The concept of cooperation is important to nearly all careers, but it is especially important in transportation. The bus driver, for example, must be able to meet the public and also be able to work with the many people who help in the areas of maintenance, ticket sales, publicity, repair, storage and handlings, etc. The teacher should stress the importance of being able to work with others. The primary reason for most changes of jobs stems from the workers' inability to get along with others.	Compatibility Survey Students are divided into groups of four. Each group is given a game board for the game Teamwork. The teams that finish first may generally be considered the most cooperative. After the students have completed the game let each student on each team rate the members of his team on cooperativeness. The teacher could write the following rating form on the board which the students could copy on a piece of paper. Circle the appropriate word: Example: Poor Fair Excellent Name _____	Check the booklet entitled Games and Activities in Career Education page 23 for instructions. Check with your S.P.I.C.E. coordinator for the Teamwork game board. Each player gets the same number of pieces. He gives his pieces away in order to help others spell out the names of transportation workers.

SCOPE	ACTIVITIES	RESOURCES

(A continued)

The teacher could devise situations wherein students can learn to work together.



SKIT

A Train Is a Train

Cast: Policeman
Engineer
Conductor
Fireman
Mother
Children
Father
Passengers
Fat Lady
Businessman
Little Boy (Roger)

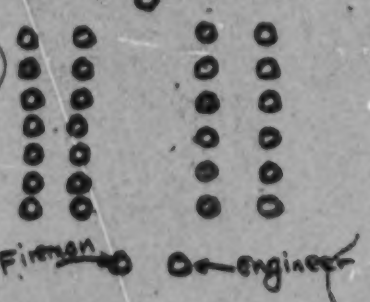
Stage Directions:

Set up several small groups (3 or 4 in a group) to set up the stage, make stage props, and write script. The students may want to rewrite script.

The classroom is set up to represent the inside of a train. The mother, father, their ten children, the passengers, the conductor, the businessman, the fat lady, and the little boy are in the train.

SCOPE	ACTIVITIES	RESOURCES

The engineer and firemen occupy chairs at the head of the train. The brakeman is in the caboose.



Mother: Where's Rachel?

Father: She fell off.

Mother: Oh, my! Another youngster gone.

Conductor: Tickets, tickets

Father: Here you are; two adults and nine children.

Conductor: I counted ten children.

Father: That one over there belongs to somebody else. (Points to Roger.)

Conductor: Who?

Father: I don't know. That fat lady, I think.

Conductor: Lady, is this your kid?

Fat Lady: How dare you! I don't have any children. (She hits him over the head with her umbrella.)

Conductor: (Goes to the businessman) Say, mister. You didn't pay for your child.

Businessman: My child?

Businessman's Wife: Whose child?

Conductor: That kid belongs to you, doesn't he?

SCOPE	ACTIVITIES	RESOURCES

Businessman: Oh, no. Our little Leroy is at home.

Wife: Oh, yes, our child is at home.

Conductor: (Talking to the child) Who is your father, son?

Child: You are!

Conductor: I am not.

Child: Yes, you are. Daddy, daddy.

Conductor: No, No (Runs off stage.)

Child: Hi, Dad! (To the father) Can we buy ice cream with the money we saved?

Conductor: (Returns) You can pay for your ticket with the money you saved.

Policeman: (Chases boy from stage.)

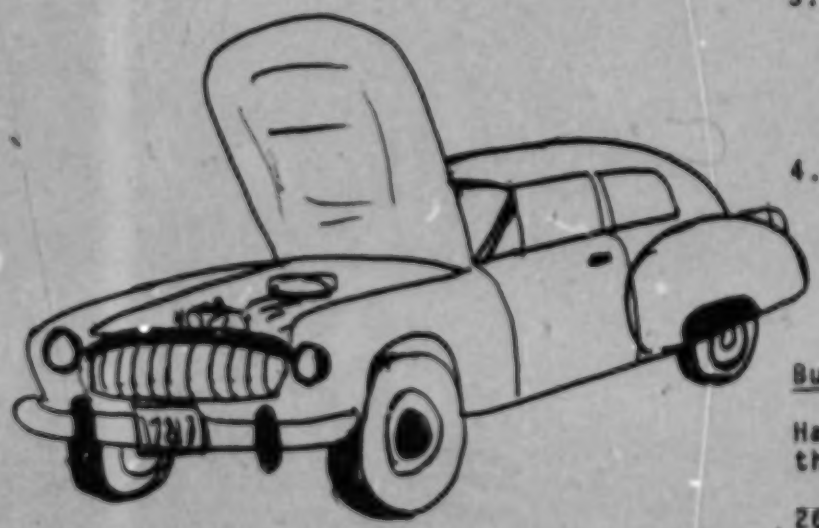
SCOPE	ACTIVITIES	RESOURCES
	This skit should be staged with the two concepts in mind. The teacher should be able to learn a good deal about her students from observing them preparing and performing this skit. Furthermore, the students should be able to learn a good deal about each other. When the skit is over, let the students complete the following form indicating the three most cooperative persons in class: Most Cooperative 1. _____ Second 2. _____ Third 3. _____	

SCOPE	ACTIVITIES	RESOURCES
	After the teacher (or student) has collected and tallied the votes, she may want to indicate the three most cooperative students in class. This would be a good time to discuss cooperativeness and why it is important. The students may explain why they chose the persons they did. The teacher should make a list on the board or on poster board of the positive characteristics of the three winners. This will give the other students a good opportunity to see what is involved in getting along with others. The teacher may wish to leave these posted for some time for the sake of those who are learning about themselves and how to cooperate.	

SCOPE	ACTIVITIES	RESOURCES

VI. Concept: Jobs in transportation are of a wide variety.

A. There are many jobs that may be listed with careers in transportation that are only indirectly associated with transportation. At K-2 the students can begin to identify some jobs that are related to transportation.



Where Would You Take Your Car?

Give the students time to answer before giving the answer indicated below.

1. Mr. Brown's car broke down. What should he do?

   Ans. take it to a garage
   Ans. to a mechanic

2. Mr. Jone's car ran out of gas. Where should he go?

   Ans. to a service station

3. Mr. Mason banged up a fender on his car. Where should he take it?

   Ans. body shop

4. Mr. Blue needs a new part for his car. Where can he go to get it?

   Ans. to a dealer
   Ans. to a parts store

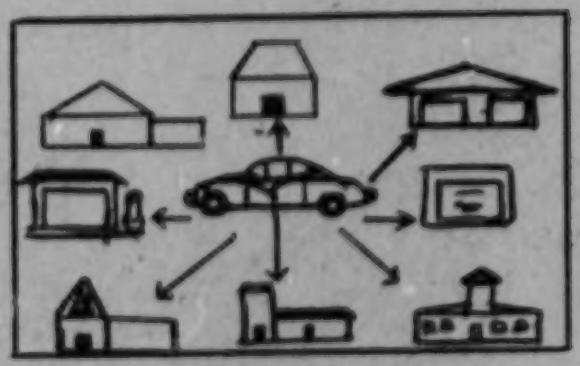
Bulletin Board

Have a car in the center of the bulletin board.

Art Activity

Let all those who want to participate in a designing contest sign up. The instructions are to design the car of the future. The students could use any and all media in making their drawing. The drawings could be judged by the principal, car dealer or someone else familiar with cars.

Have strings going from a part of the car such as the tire or fender to the place that will fix that part of the car. The workers who work in each place could be listed. Much of this information can be obtained from the Yellow Pages of the telephone book.



Students might like to identify other workers involved in Transportation by looking through magazines and cutting out pictures and placing them on the bulletin board. This could include:

1. cars
2. trucks
3. trains
4. buses
5. boats

S.P.I.C.E. has some old Time and Life magazines.

Activity

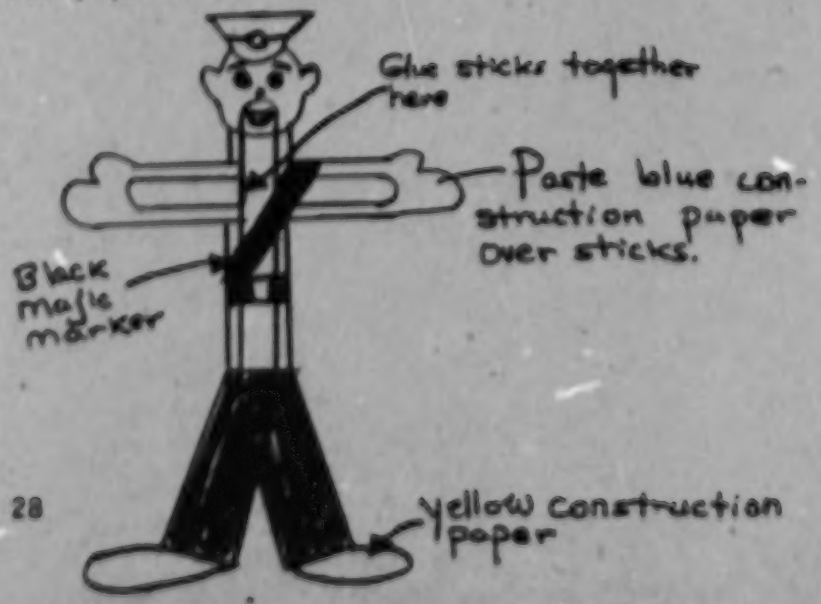
Let those who have toy cars and trucks bring them to class to show the others. This could also include boats, helicopters, trains. The teacher could set up a display of these toys for one day in the room. Be sure all students take them home at the end of the day.

6. planes
7. bicycles
8. motorcycles
9. balloons
10. gliders
11. race cars
12. horses
13. wagons
14. tanks

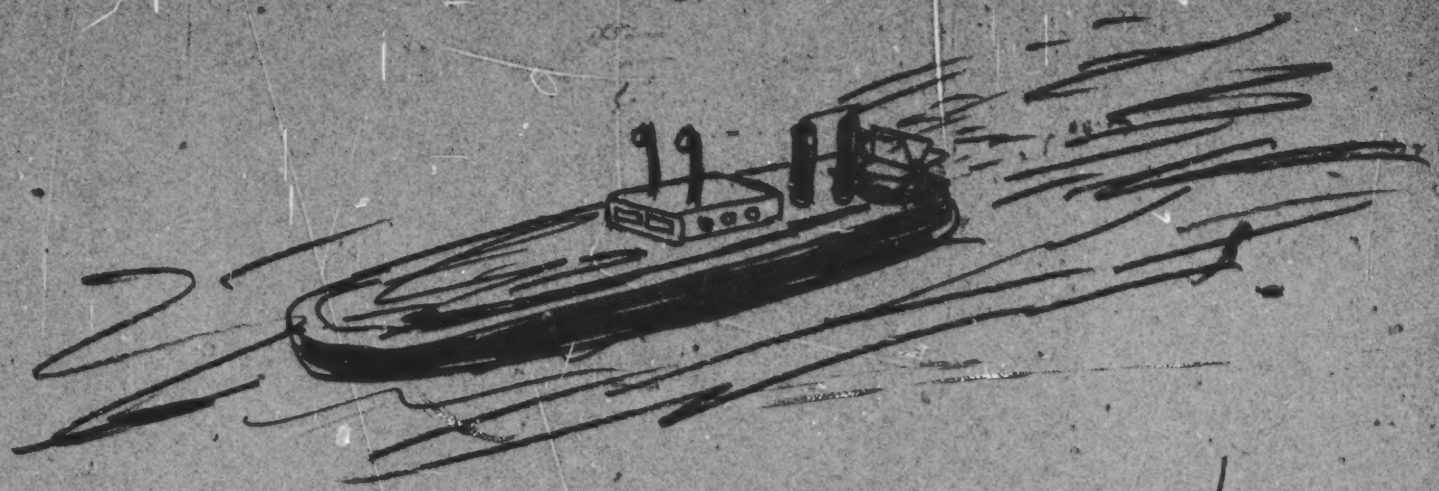
Let students role-play. Let them pretend that they are operating one of the above. Let the others guess which one it is.

Let students make stick figures of the various transportation workers. See instructions below.

Use popsicle sticks:



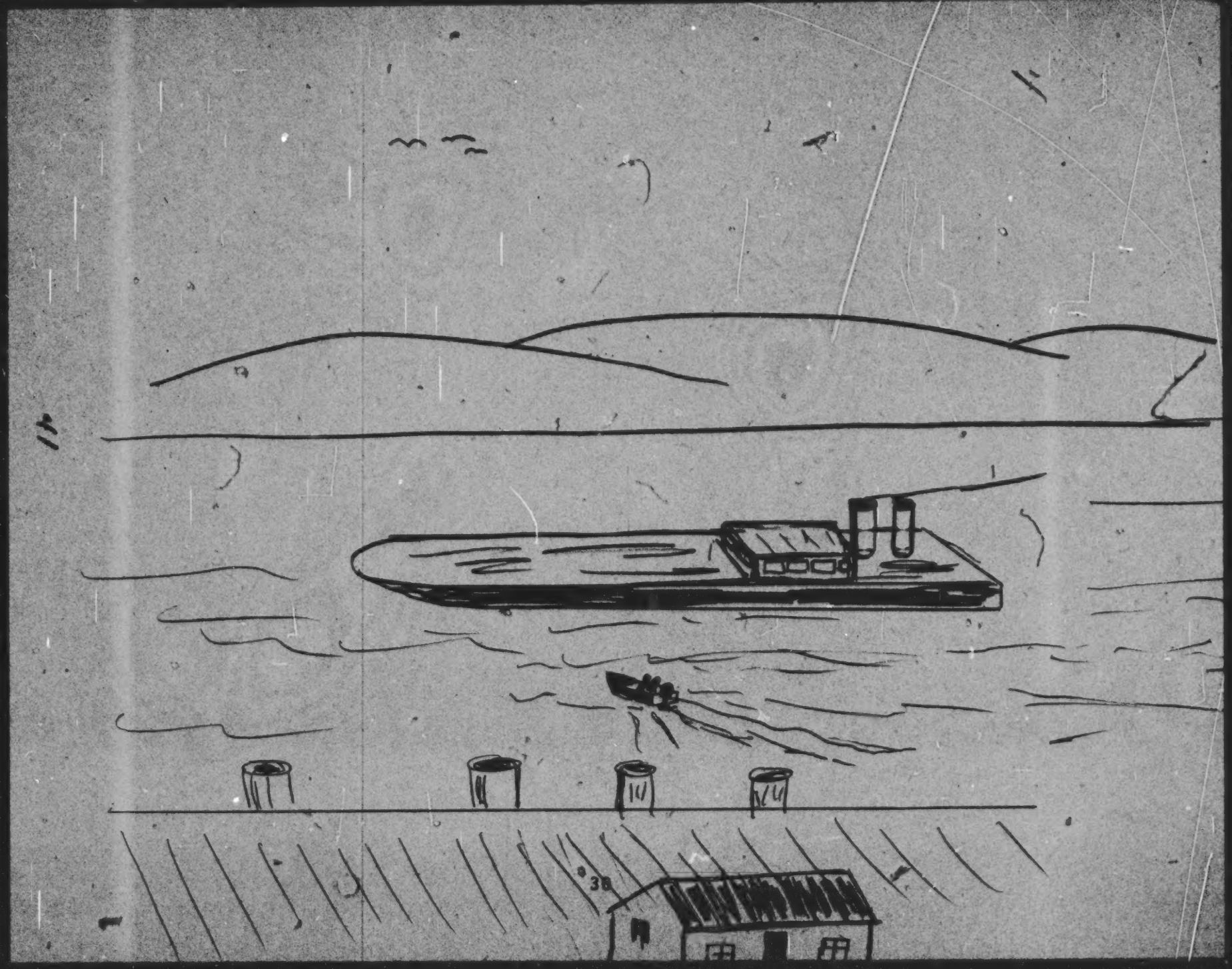
Young Pilot Wilson
on the Mississippi



Sam Betty Jack and Jane lived by the bit river. Just about everyone knows its name. The name begins with M . What river is it?

Sammy Wilson's father was a captain on a flatboat which hauled cotton down the Mississippi. Each Monday morning the family would gather on the pier to see Sammy's father off to work for the week. He would get into a small rowboat which would take him out to the huge flatboat that was waiting out in deep water. (Why do you think the big boat did not come into shore to pick up Sammy's father?)

Sammy's father was a pilot and he relieved the pilot on board who had been piloting the boat all the way from St. Louis, Missouri. They all waved and said good-bye as Mr. Wilson got into the rowboat. A little while later they saw him climb up the ladder of the flatboat.


38

After the boat had disappeared down the river, the family got into the car and drove back home. Sammy was sad because he knew that his father would be gone all week. It would be Saturday before he would return on another boat.

Sammy wanted to be a flatboat pilot. He would often go out to the garage and practice. He had borrowed one of his father's pilot caps, which was much too large for him, and he had also found one of his father's blue jackets.

In the attic of the garage Sammy had nailed an old wagon wheel to a table. He would stand behind the table and pretend that the whole garage was his ship and that he was piloting his ship down the dangerous Mississippi. Sammy would look out of the attic window and pretend that it was the window of his cabin on the flatboat. He pretended that he was looking out on the wide river and he would lean this way and that as he steared his flatboat through the shoals. He made noises like a diesel engine, and he snapped commands to his make-believe crew. "Get that rope! Tie her up! Don't leave any slack!"

One day Sammy was piloting his ship down the long Mississippi when he heard strange voices in the garage below. He ran to the trap door in the floor and looked through. There were three of his friends: Betty, Jack and Jane.

"Come on down, Sammy," Betty called to him.

"We are going to build a flatboat," Jack added.

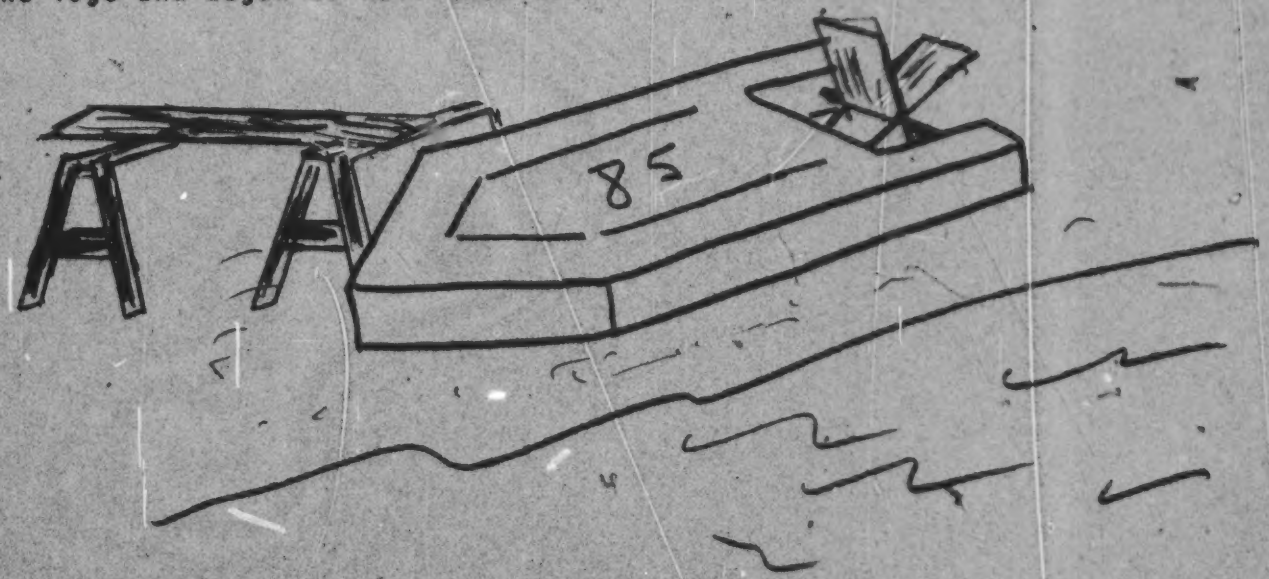
"Build a flatboat," Sammy yelled, coming down the ladder. "I want to see it."

"Well, we haven't really started building it yet," Betty said. "That's why we came to get you. You can help us. We are going to build it down by the river."

All four youngsters broke into a gallop as they headed for the river bank. "We have some boards and a couple of logs," Jack explained, catching his breath. We thought that you might have an idea how to make a boat out of these things."

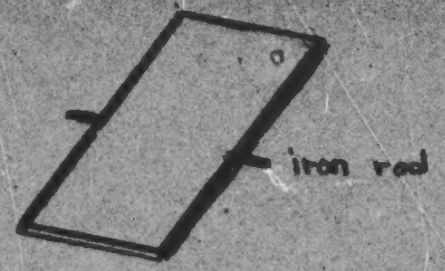
Sammy thought for a few minutes and then smiled. "Why don't we make a paddle boat like the ones that used to be on the river years ago?"

Everyone pitched in and helped move the logs. Jack and Sammy placed the boards across the logs and began to nail them down.



Soon the boat was taking shape. "How will we make it go?" Betty asked.

"Well, a paddle boat had a paddle," Sammy replied. "We will have to put a paddle on our boat, too." Sammy took a board and made a wide paddle. He put an iron rod through it, and soon he had it on the boat.



)

"Let's try it out," Jane yelled, climbing on board. Soon they all had their life jackets and were on board ready to try out their new boat. (No one goes into the water without a life jacket.)

"Wait," said Betty "We had better not go out without telling someone." "I'll go tell my brother Bill," Betty said and away she ran. In a few minutes Betty was back with her older brother Bill and they all climbed on board. Betty and Sammy turned the paddle with their hands while Jane and Jack steered the boat with paddles. Even Sammy's dog "Linus" managed to get on board for the maiden voyage (first voyage). They made a big circle out into the river and came back.

"That's terrific," Jack exclaimed. "We have our own flatboat now. We can take turns being pilot."

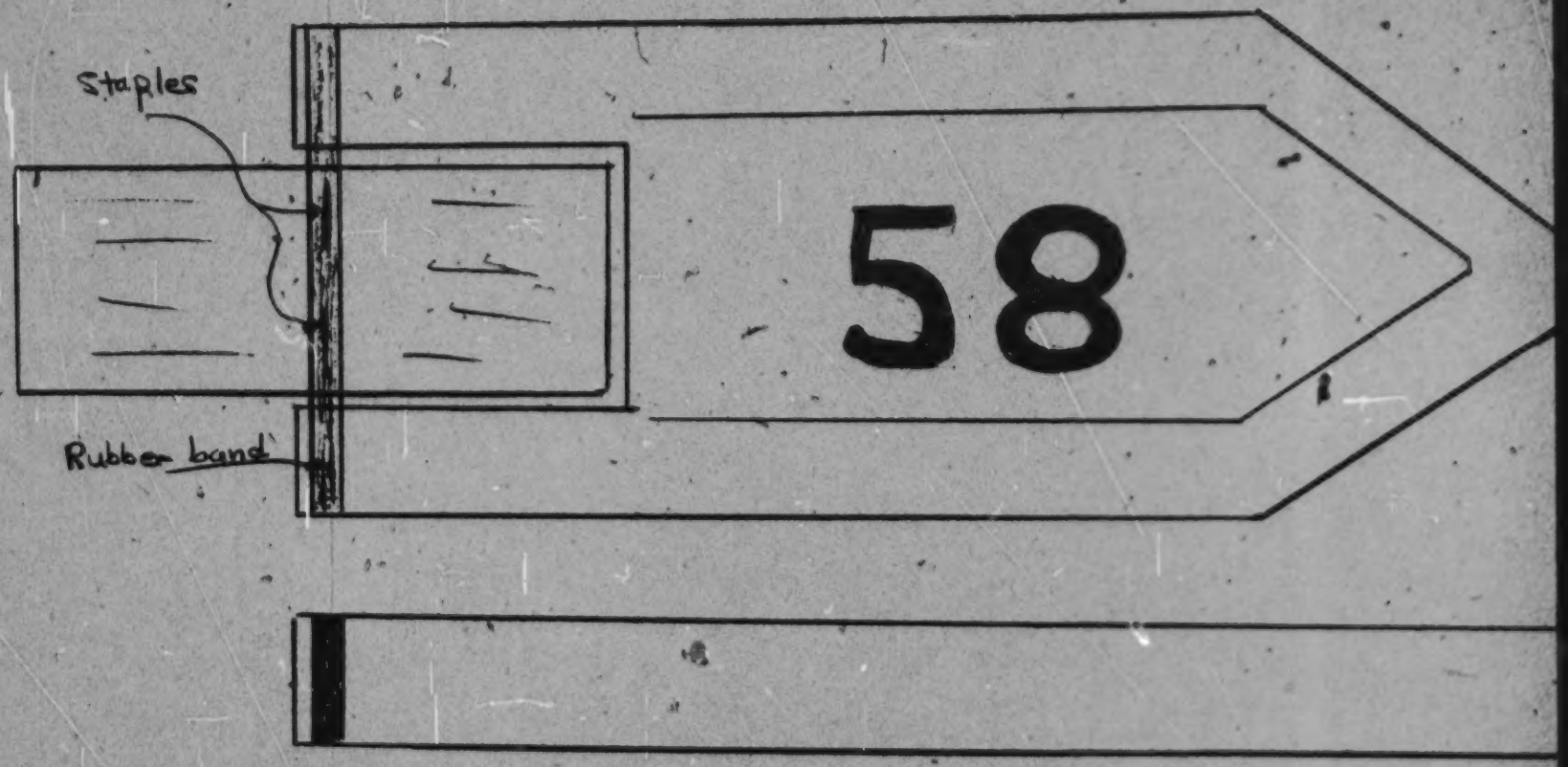
"I know what we can do," Sammy said. "When Dad comes home this Saturday, we can all paddle out and pick him up."

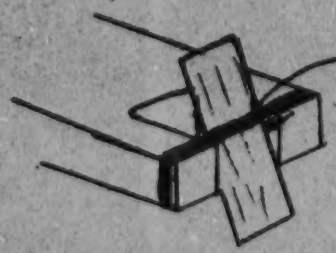
"That's a great idea," Betty said, "and you can be the pilot that day, Sammy." All of the others agreed.

On Saturday that week, Sammy, Jack, Betty and Jane (and Linus too), all paddled out to pick up Mr. Wilson. Sammy got to be a real pilot that day.

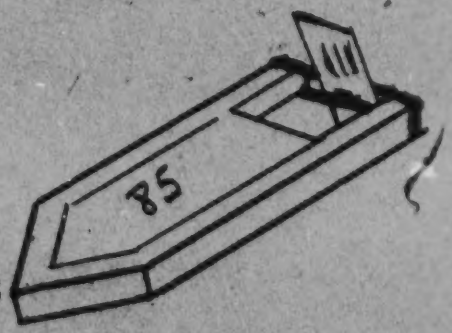
After reading this story, the teacher should let each student make a flatboat according to the design on the next page. Each child can decorate (magic markers) his boat differently in order to give it personality and character.

FLATBOAT





Paddle goes through rubber band and is stapled to it on both sides.



APPENDIX

Contents

1. List of Transportation Careers and Jobs ---------- 38
2. Bulletin Board Ideas ---------- 39
3. Poem "Driver Dan" ---------- 42
4. Book List ---------- 43
5. Film List ---------- 45
6. Evaluation ---------- 46
7. Activity Kits ---------- 47
8. S.P.I.C.E. Checklist ---------- 49
9. Yearly Record of Units Covered ---------- 50
10. Self-Concept Assessment ---------- 51
11. Ideas for Integrating the Skills ---------- 52
12. Vocabulary ---------- 59

Careers In Transportation

K-1-2

1. Bus driver
2. Taxi driver
3. Truck driver
4. Airplane pilot
5. Mechanic
6. Car parts store operator
7. Used car dealer
8. Train engineer
9. Stewardess (bus and airline)
10. Ship captain
11. Cook (on ship)
12. Clerk
13. Secretary
14. New car dealer
15. Junk dealer
16. Motorcycle rider
17. Small boat operator
18. Car factory worker
19. Airplane factory worker

49

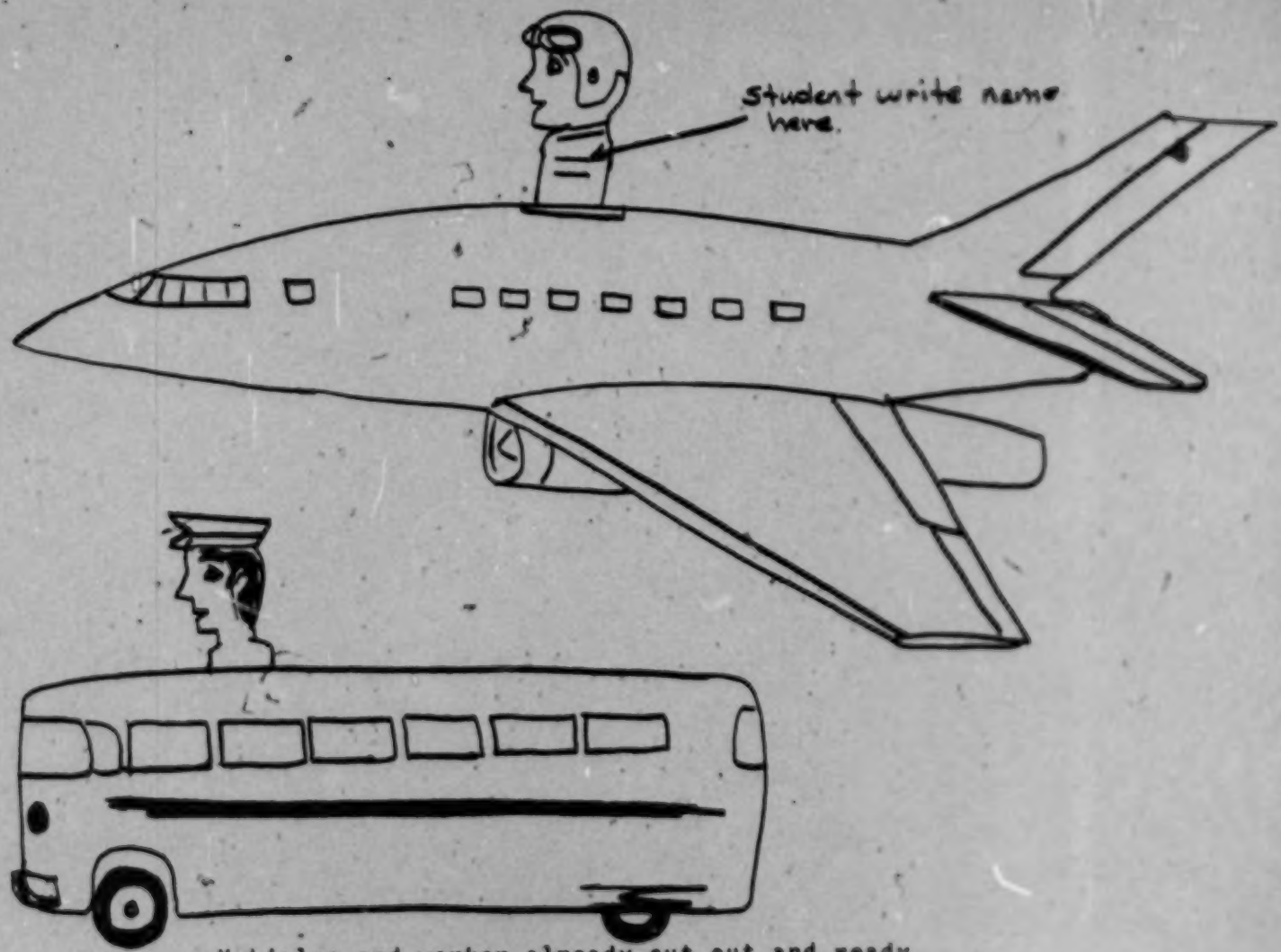
Bulletin Board Ideas for Transportation

1. Different kinds of wheels
2. Animals that have served for transportation
3. Types of airplanes showing progress from the past to the present
4. Buses - past and present
5. Cars - past and present
6. Different types of power plants
7. Large drawing of gas engine
8. Pictures of various transportation workers
9. Chart showing auto assembly line
10. Posters or other material provided by auto companies
11. Posters provided by airlines
12. Posters provided by buslines
13. Other free materials from S.P.I.C.E.
14. Photos of different businesses in local area related to transportation (parts stores, tire store, etc.)
15. Pictures of workers from various transportation clusters

16. Photos of parents who work in transportation

17. New car brochures could be turned into bulletin board

18. The new 1974 cars could be used. Drawings by students of what these cars will look like could also make a bulletin board.



Vehicles and worker already cut out and ready to use, may be obtained through your S.P.I.C.E. coordinator.
Phone: 525-7686

Driver Dan

He started his rig with a
terrible roar.

He gave it more gas and
blew off the door!

The tires went flat and the
horn wouldn't blow;

The fenders fell off right
there in the snow!

Old Dan he routed and
stomped the ground!

He and that mechanic went
round and around!

Old Dan wouldn't wait;
he was already late;

He crammed her in gear
and flew out of the gate!

His rig went straight
while the road went right;

He turned the wheel with
all of his might;

The road was wet and
slippery too;

Don't call Dan;
he'll call you!

Book List for Transportation

Alexander	ABC OF CARS AND TRUCKS
Anderson	FIRST UNDER THE NORTH POLE
Chester	LET'S GO ON A SPACE TRIP
Colonius	AT THE AIRPORT
Coombs	WHEELS, WINGS AND WATER
Flack	BOATS ON THE RIVER
Gramatky	LITTLE TOOT ON THE THAMES
Greene	A TRIP ON A BUS
Greene	A TRIP ON A JET
Greene	I WANT TO BE AN AIRPLANE HOSTESS
Greene	I WANT TO BE A BUS DRIVER
Greene	I WANT TO BE A SHIP CAPTAIN
Greene	I WANT TO BE A TAXI DRIVER
Greene	I WANT TO BE A TRAIN ENGINEER
Haywood	HERE COMES THE BUS
Lenski	DAVY GOES PLACES
Lenski	LITTLE AUTO
Lenski	LITTLE SAILBOAT
Lenski	LITTLE TRAIN

Lewellen	HELICOPTERS
Meeks	ONE IS THE ENGINE
Nelson	MY BOOK OF TRANSPORTATION
Olds	RIDING THE RAILS
Petersham	STORY OF SHIPS AND TRAINS
Petersham	THE STORY OF WHEELS
Pitt	LET'S FIND OUT ABOUT STREETS
Posell	THE TRUE BOOK OF TRANSPORTATION
Radlauer	MOTORCYCLES
Slobodkin	CLEAR THE TRACK
Stevens	TRUCKS THAT HAUL BY NIGHT
Talmadge	LET'S GO TO A TRUCK TERMINAL
Wilkinson	COME TO WORK WITH US IN AN AIRPORT
Wooley	I LIKE TRAINS
Young	IF I DROVE A TRUCK
Zaffo	THE GIANT NURSERY BOOK OF THINGS THAT GO
Zaffo	THE GREAT BIG BOOK OF REAL TRUCKS

Film List

Airplane Trip by Jet
No. 440 - 5036

Airplane Trip to Mexico
No. 504

Busy Airport
No. 1115

Development of Transportation
No. 595 - 921

Flatboatman of the Frontier
No. 632 - 633

Gasoline Age
No. 67

Great Lakes - Highway of Commerce
No. 117

How We Explore Space
No. 298

Life Along the Waterways
No. 716

Pony Express in America's Growth
No. 1113

Research by Rocket
No. 402

Safety on the Street
No. 5042

Story of Petroleum
No. 649

Suez Canal
No. 339

Steam Age
No. 137

Trip to the Moon
No. 175 - 176

What is Space?
No. 1066

Design
No. 1202

Transportation Around the World
No. 1205

Evaluation

K-1-2

1. The student will be able to give two reasons why transportation workers are important and necessary.

2. Students will be able to give three important things he should do as a passenger to help the driver.

3. Students will be able to name three transportation workers and tell what they like about their job.

4. Students will be able to name two transportation workers he has come in contact with and name three other workers these workers must work with.

5. Students will be able to name two workers and tell why it is important for them to cooperate with others.

6. Students will be able to name ten careers in transportation.

Transportation Kits
K-1-2

1. Purpose: To help students become familiar with the many jobs related to transportation.

   Materials:
   1. Old magazines
   2. Scissors
   3. Elmer's glue
   4. 3X11 1/2 sheets of construction paper with holes punched
   5. Brads
   6. Pencil or pen

   Procedure:
   1. Let students cut out pictures of cars, trucks, trains, etc.
   2. Tack these on bulletin board or paste them in scrapbook.
   3. The teacher can help the students write the name of each vehicle and the name of the worker who operates it.

2. Purpose: To help students learn to use their hands and to familiarize them with different forms of transportation.

   Materials:
   1. Posterboard of various colors
   2. Scissors

   Procedure:
   1. Cut from poster board drawings of various types of transportation such as:
      a. bus
      b. airplane
      c. bicycle
      d. train
      e. boat
      f. wagon
   2. For each vehicle cut out the picture of a worker from the same color of posterboard.
   3. The students match worker and vehicle by colors.
   4. The operator of the vehicle fits into a slot in the vehicle.

3. Purpose: To familiarize students with the many different forms of transportation.

Materials:
1. Construction paper of various colors
2. Scissors
3. Elmer's glue
4. White posterboard or butcher paper

Procedure:
1. Draw pictures of various forms of vehicles. These could be run on ditto, cut out and then pasted to construction paper.
2. Cut them out and cut them into pieces as a puzzle.
3. Each vehicle is on different colored paper.
4. Mix pieces together in box.
5. Student reassembles the various vehicles.

The above materials may be obtained by calling S.P.I.C.E.
Phone: 525-7686

S.P.I.C.E. UNIT CHECKLIST

Below check the column ✓ that best expresses the degree to which you have taught the specific concepts set forth in your career education manuals:

	Very Little	Some	Extensively
1. Integrated career education into the total curriculum.			
2. Helped students recognize their abilities, ambitions, and limitations as they relate to a career.			
3. Helped each student see himself as important and necessary.			
4. Helped students develop an appreciation for all jobs.			
5. Helped students understand why work is desirable.			
6. Helped students understand why work is necessary.			
7. Helped students understand the changing nature of the world of work.			
8. Helped students relate their school work to the world of work outside the classroom.			
9. Helped the students see the importance of getting along with others.			
10. Helped students participate in hands-on activities that broaden their knowledge and increase their awareness of jobs.			

S.P.I.C.E.
YEARLY RECORD OF UNITS COVERED

1. Check the box for each cluster you have taught
2. Write the page number for the page of the unit taught.

Student _____
Grade _____

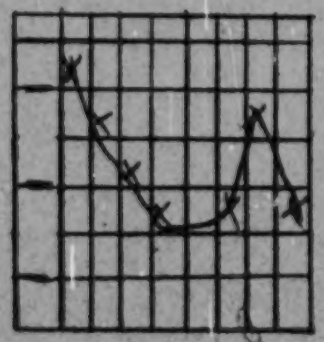
Cluster	Teacher	Page	Teacher	Page	Teacher	Page	Teacher	Page	Teacher	Page	Teacher	Page	Teacher	Page
Transportation	K		1		2		3		4		5		6	
Personal Services														
Health														
Construction														
Communications														
Homemaking and Consumer Education														
Environment														
Manufacturing														
Business and Office														
Marketing and Distribution														
Agri-Business														
Hospitality and Recreation														
Public Service														
Fine Arts and Humanities														
Marine Science														

*Place in CR-2 file

Chart of Abilities

To complete this evaluation on each student at the end of the year, mark an x in the appropriate boxes and join them with a straight line.

Sample:



Student's Name _____

	Decision Making	Manual Skills	Planning and Organization Skills	Creativity and Inventive Skills	Academic Skills	Self-Concept	Career Maturity	Artistic Ability
Excellent								
Average								
Poor								

To be placed in the CR-2 folder

Activities for Integrating the Skills into the Transportation Cluster

MATH

1. Let the students count all the different workers they can think of that belong to the transportation cluster. The teacher could write these on a tablet.

2. Let the students count all the makes of cars they can think of. The teacher could write the name of each on a posterboard. The students could find cars of this make in old magazines and paste them on.

3. The class could do work on sets by separating cars and trucks, bicycles and motorcycles, etc. The class may want to continue this by separating coupes from sedans - from convertibles, etc.

4. Practice simple addition and subtraction by letting the students count the cars, trucks, motorcycles, bicycles, buses and then determining whether there were more cars or trucks. How many more cars than trucks, than motorcycles, than bicycles, than buses, etc.?

5. Let students count the number of tires, lights, windows, seats, door handles, etc. (kindergarten)

6. Let students bring containers such as the following for measuring practice:

   1. Oil can

{This is the quart can found at most Service stations.

   2. A gallon anti-freeze can

   3. An air gauge

7. Brownsville is 3 miles from Calhoon; Calhoon is 5 miles from Ceaderhill; and Ceaderhill is 4 miles from Pondsdale. How far is it from

Brownsville to Ceaderhill?
Brownsville to Pondsdale?
Calhoon to Pondsdale?

8. Let students list what certain automotive commodities cost:

Gas 40¢ per gallon
Oil 90¢ a quart

LANGUAGE ARTS

1. Incorporate new vocabulary words into class activity.

2. On a large tablet write the new words as they are introduced.

3. Let students write these words in their own special notebook. Some may be sent to the board to practice writing the new words. The teacher should be careful to explain what each word means.

4. Check the unit entitled Games and Activities for Career Education for ideas on using these words in learning activities.

5. Use sequential pictures as in the "river boat story" to help the children develop their skills in telling stories.

6. Let students make up their own story on transportation using words from old newspapers to spell the words. The story could be illustrated with art work.

7. Plan different writing lessons based upon the unit topic - transportation. The students could look through their readers and other textbooks for ideas related to transportation.

8. Students could gather stories from the news related to transportation (gas, highways, airlines, car safety, etc.) and present them to the class orally.

9. Read stories to the students related to transportation.

10. Provide books on the subject for students to read on their own.

11. Involve youngsters in role-playing activities (airline pilot, boat captain, bulldozer operator, motorcycle cop) that allow them to express their feelings and ideas as concerns transportation. Encourage them to verbalize these feelings and reactions to the activities in a "talk it over" session afterward.

12. Use puppets made in other activities to practice story-telling and oral communication skills. Youngsters could use puppets they have made as visual aids and as props in acting out stories they have made up about transportation.

One way to make a puppet is the simple act of wrapping a handkerchief around the fist, leaving the curled up thumb exposed to serve as the mouth of the puppet. Make eyes with magic marker.

13. Read poems related to traveling.

14. Sing songs related to traveling and jobs in the transportation industry: "I've Been Working on the Railroad," "Casey Jones," "A Bicycle Built for Two," "I'm Leaving on a Jet Plane," etc.

15. Let the class complete the following two lines by adding two that rhyme and that have to do with transportation:

The wheels are round
and the road is straight

SCIENCE AND SOCIAL STUDIES

1. Plan an introductory discussion of transportation and how we are all dependent upon these workers. Talk about the history of transportation over the years. The class should also take a look into the future - into the world of science fiction - and discuss some of the things that may be coming in transportation.

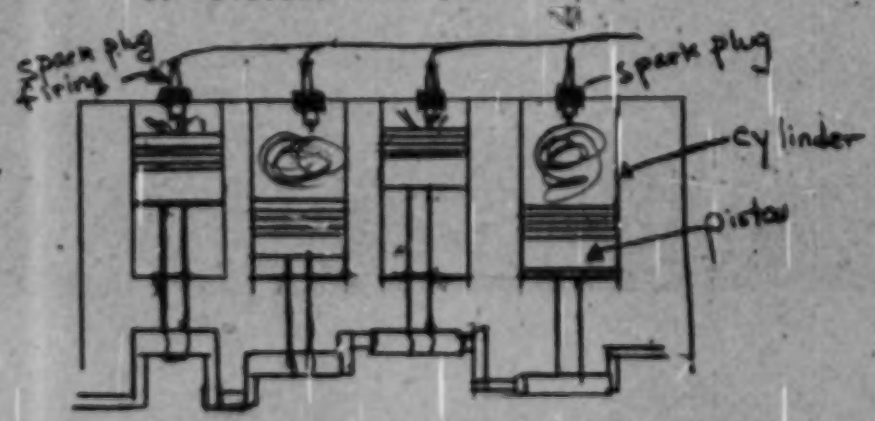
2. It is recommended that the teacher direct students to look up "transportation" in the encyclopedia and make a report on their findings.

3. The students could discuss the different materials used in making and operating automobiles and where these materials come from.

4. Talk about cars and how they are made to operate in all types of weather. Discuss the parts of the car that control the temperature inside the car. Talk about the parts of the car that help overcome problems of weather outside the car (windshield, windshield wipers, windows, air vents, snow tires, chains).

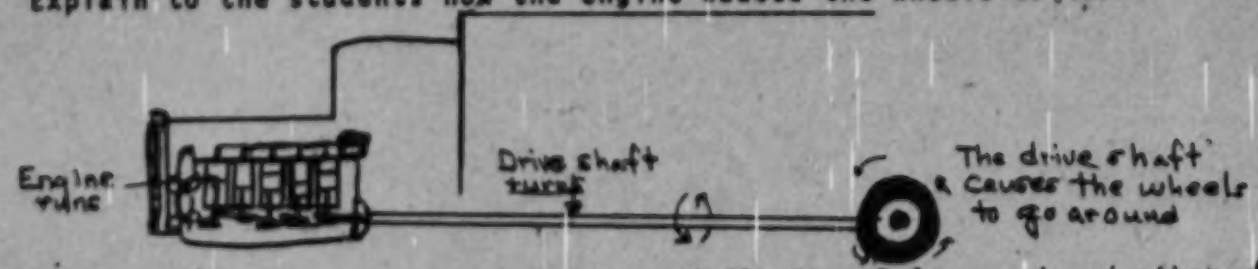
5. Let the students list the different ways their families use the family car as compared to other forms of transportation.

6. Discuss with class how an internal combustion engine works.

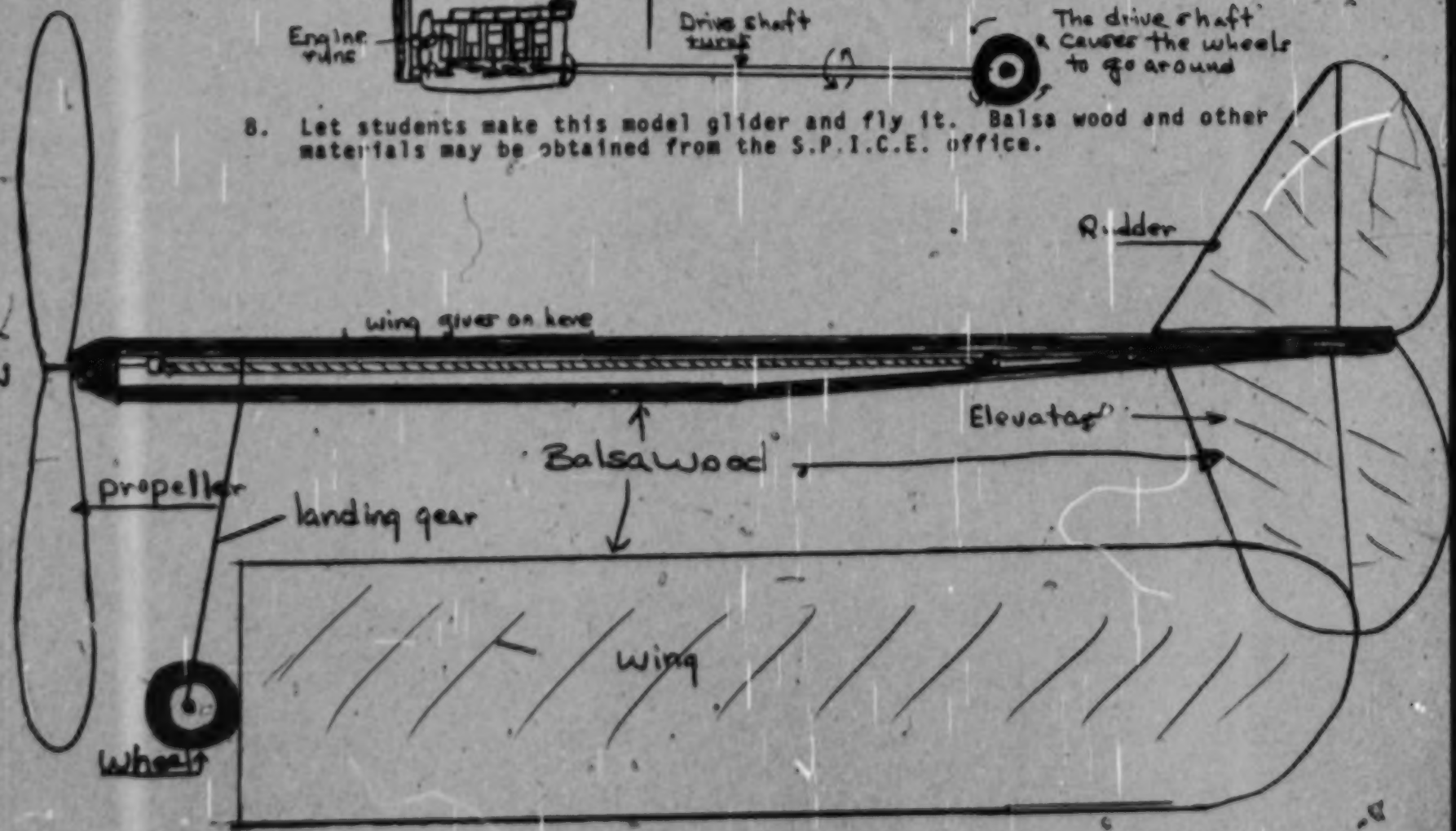


The pistons go up and down inside the cylinder. Every time the piston gets to the top of the cylinder, the spark plug goes off causing an explosion inside the cylinder and causing the piston to go down. As the piston goes down, it causes other pistons to come up.

7. Explain to the students how the engine causes the wheels to turn.



8. Let students make this model glider and fly it. Balsa wood and other materials may be obtained from the S.P.I.C.E. office.



ART

1. Let each student draw and color a picture of the family car.

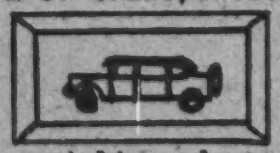
2. Let each student draw himself on something he has ridden (horse, go cart, bus train, taxi, etc.)

3. Let the class use a piece of butcher paper and do a mural of all the forms of transportation they can think of.

4. When students decorate their flatboat, the teacher should encourage originality.

5. Making the flatboat and model airplane constitutes crafts projects which involve certain aspects of art.

6. Make a plaque (wood from pine board) of a car, airplane, horse, or other form of transportation. Use wood chisels or paint on.



S.P.I.C.E. can help provide materials for this project.

7. Use modeling clay or play-dough and shape different cars, airplanes, boats, animals. The students could make similar objects from paper mache.

8. Design and color placemats with transportation theme.

9. Design a vinyl or wallpaper pattern with transportation as the theme.

10. Let students, who have ridden on an airline jet, describe how it was decorated and appointed.

11. Let students discuss the use of different colors, fabrics and materials in automobiles.

12. Let students gather samples of upholstery used in cars and make a poster by pasting these samples on and writing a short sentence to describe their use. Upholstery shops are usually glad to give away scraps.

13. Have a new car day. On this day have students bring brochures advertising new cars. Let students work in groups of three to prepare a poster for their favorite. After all posters are completed, let each group tell about its car and why they recommend it.

Transportation Vocabulary List

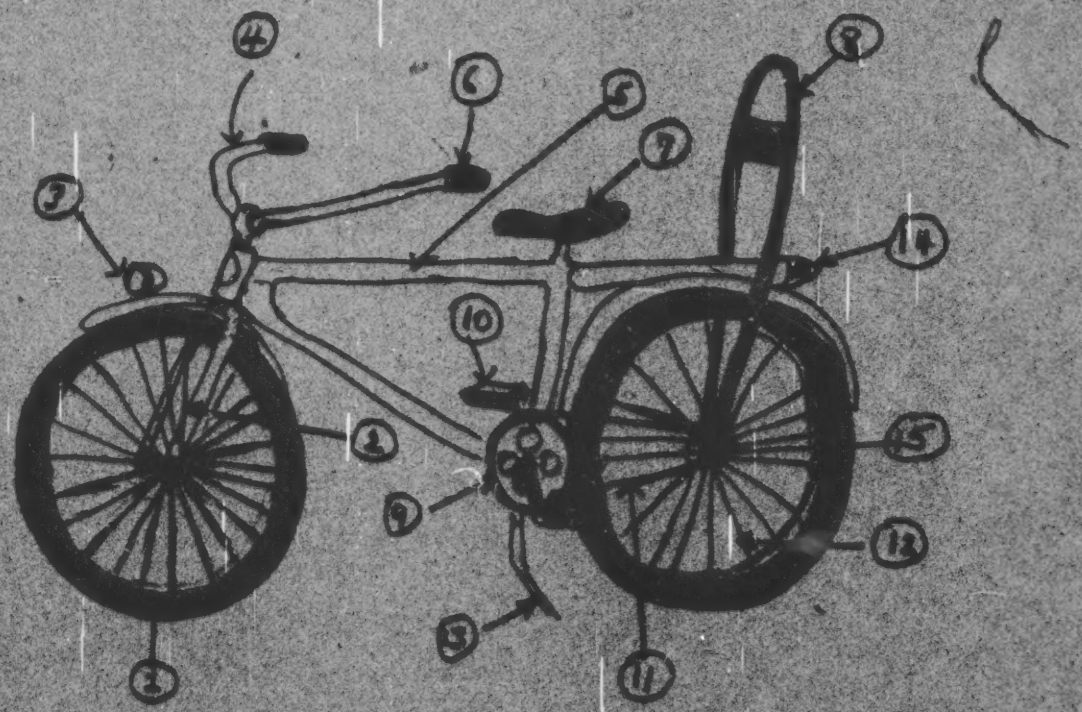
Let the studunts arrange these words alphabetically and illustrate each where possible.

1. Car
2. Truck
3. Wheel
4. Trailer
5. Hub cap
6. Starter
7. Gear
8. Tire
9. Tube
10. Tubeless
11. Wrench
12. Rim
13. Lug wrench
14. Spark plug
15. Fender
16. Spring
17. Turnpike
18. Interstate
19. Gas
20. Oil
21. Lube
22. Innertube
23. Vowl
24. Piston
25. Crankshaft
26. Head lamp
27. Speedometer
28. Gas gauge
29. Anti-freeze
30. Battery
31. Gas cap
32. Bumper
33. License plate
34. Windshield
35. Dashboard
36. Glove pocket
37. Trunk
38. Brake
39. Grease
40. Disk brakes
41. Power steering
42. Heater
43. Motorcycle
44. Handlebars
45. Bicycle
46. Motor boat
47. Airplane
48. Wing
49. Propeller
50. Tail
51. Landing gear
52. Under coating
53. Radiator
54. Hose
55. Tred
56. White walls
57. Price per gallon
58. Miles per gallon
59. Diesel
60. Steam engine
61. Railroad tracks
62. Runway
63. Control tower
64. Helmet
65. Goggles
66. Garage
67. Engine
68. Motor
69. Fan belt
70. Fuel pump
71. Spare tire
72. Rearview mirror
73. Gas feed
74. Lighter
75. Grill
76. Bumper guards
77. Hood
78. Antenna
79. Stabilizer
80. Rudder
81. Aleroion
82. Jet engine
83. Fuselage
84. Insignia
85. Elevator
86. Cockpit
87. Pilot
88. Sissy bar
89. Frame
90. Seat
91. Chain
92. Spoke
93. Fork
94. Light
95. Handle grips
96. Reflector
97. Sprocket whuel
98. Peddle
99. Hub
100. Kickstand
101. Door
102. Top

103. Back window
104. Tail light
105. Fender skirt
106. Parking light
107. Windshield wiper
108. Radio antenna
109. Door handle
110. Head rest

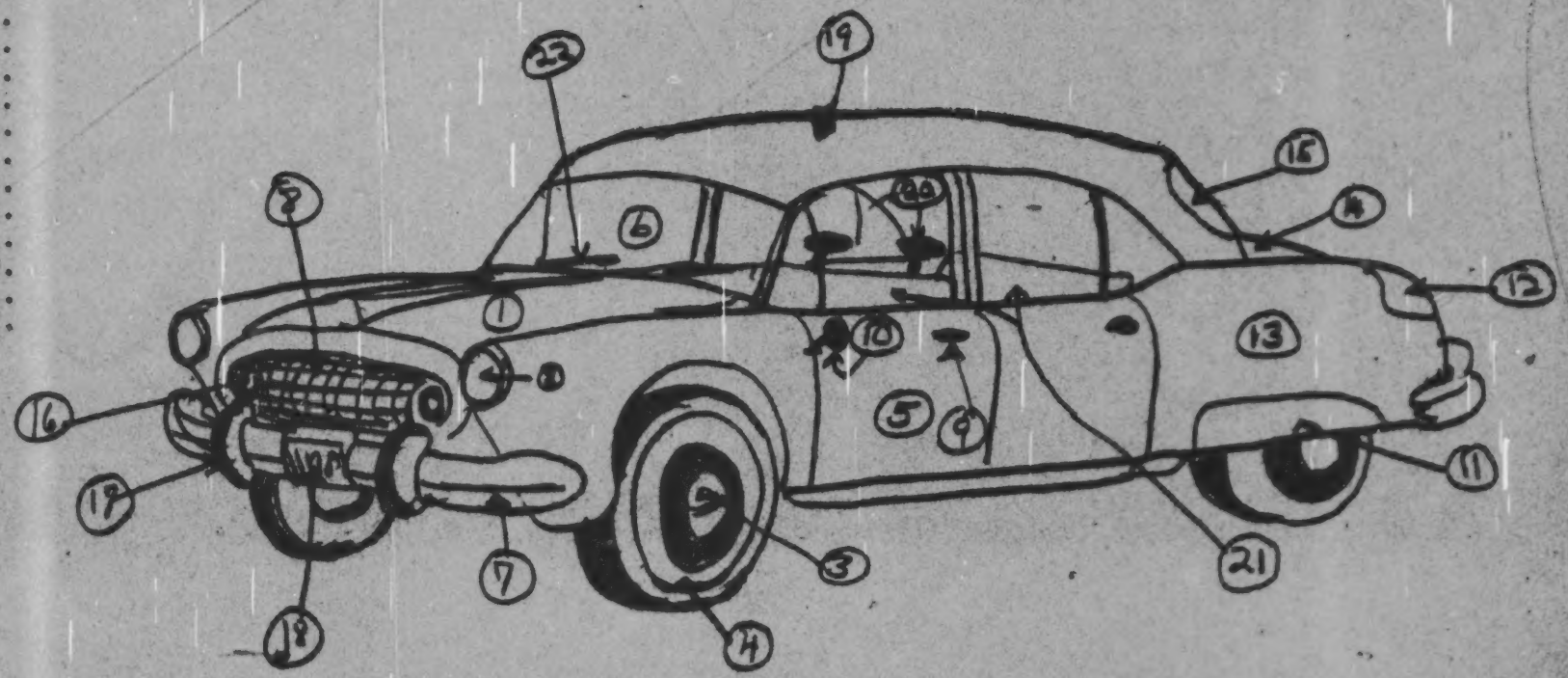
Identify each part. The words are contained in the vocabulary list. It is suggested that the teacher give the students the opportunity of identifying each part before looking it up in the vocabulary list. Students will often know the names of things but will not be able to recognize the word.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.



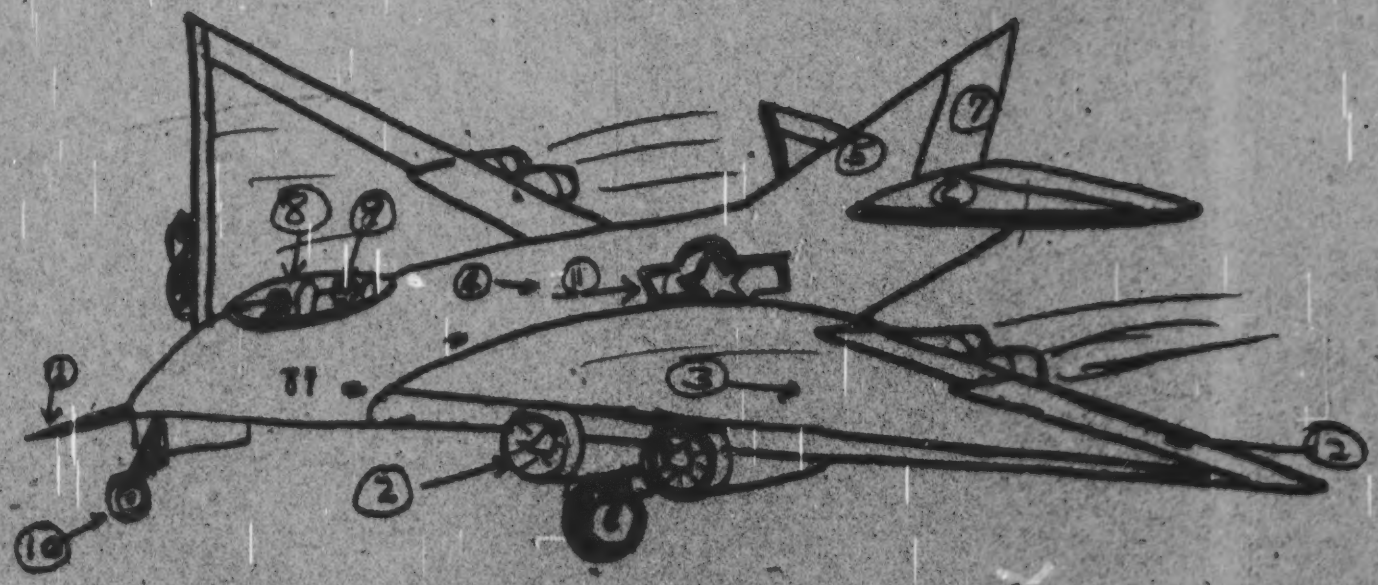
Identify each part. The words are contained in the vocabulary list. It is suggested that the teacher give the students the chance to identify each part before looking at the vocabulary list. They may recognize the part but not the word.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.



Identify each part. The words are contained in the vocabulary list. It is suggested that the teacher allow students to identify each part before looking at the vocabulary list.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.



ACCESSION NUMBER: VT101998

PUBLICATION DATE: 73

TITLE: CAPES. A GUIDELINE FOR THE CAREER AWARENESS PROGRAM FOR THE ELEMENTARY SCHOOLS.

DESCRIPTOR: *CAREER AWARENESS; *PROGRAM DEVELOPMENT; *ELEMENTARY GRADES; TEACHING GUIDES; LEARNING ACTIVITIES

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 166P.

ABSTRACT: THIS GUIDE IS DESIGNED TO ASSIST THE ELEMENTARY SCHOOL TEACHER, COORDINATOR, COUNSELOR, PRINCIPAL AND OTHERS WHO WILL BE DEVELOPING A CAREER AWARENESS PROGRAM FOR THEIR PARTICULAR SCHOOL. THE GUIDE IS LIMITED TO THE ELEMENTARY SCHOOL LEVEL. ITS PRIMARY PURPOSE IS TO PRESENT SOME BASIC ELEMENTS OF CAREER AWARENESS PROGRAM DEVELOPMENT AND TO OFFER SUGGESTED APPROACHES OR ACTIVITIES THAT HAVE BEEN USED EFFECTIVELY BY OTHER ELEMENTARY TEACHERS. THE FRAMEWORK USED FOR DEVELOPING THE GUIDE HAD FIVE MAJOR COMPONENTS: GOALS, CONCEPTS, OBJECTIVES, SUGGESTED ACTIVITIES, AND LEARNER EXPECTATIONS. A LISTING OF RESOURCES FOR A CAREER AWARENESS PROGRAM IS APPENDED. (AUTHOR/VA)

INSTITUTION NAME: WASHINGTON OFFICE OF THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, OLYMPIA.; WASHINGTON STATE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION, OLYMPIA.

VT 101 998

#57567
SP1

A guideline for

Career Awareness Programs for the Elementary Schools

Part 3
What about VOCATIONAL education?
Revised 1973

VT 102 998

State Superintendent of Public Instruction and

Coordinating Council for Occupational Education

Self support with Self Respect

For most of our young people their entrance into the world of work is a point in life that will soon be reached. The decisions that are made to prepare for this new life dimension should not be left to chance. A major direction of the schooling process should be directed toward helping all students to be ready to meet the challenges that are necessary to achieve self-support with self-respect.

This office is happy to participate in a partnership arrangement with the Coordinating Council for Occupational Education in the development of this curriculum guideline that is designed to implement state goals for career education. These guidelines are the result of a rather extensive participation of professional educators from many schools and institutions. They have utilized the experiences of teachers and school districts. Their first publication was pilot tested in the spring of 1972 in 31 elementary schools. A revision committee has incorporated the results in this revised edition. We are extremely grateful to all teachers and administrators for their contribution to this fine endeavor.

The investment in creating these guidelines represents testimony that career education, and more specifically career awareness, has significant priority in this state's system of education. While elementary instruction has traditionally dealt with some aspects of career education, new and more important goals and objectives have been developed to meet contemporary needs. In short, a stronger emphasis is needed, providing a new opportunity to initiate educationally significant curriculum.

Dr. Frank B. Brouillet
State Superintendent of Public Instruction

Arthur Binnie
Director, Coordinating Council for Occupational Education

All of education is addressing itself to career education—a philosophic concept that education is incomplete and man is not whole unless an integral part of his education is the inclusion of career information and information about the world of work.

This document "CAPES" provides a guideline for career awareness programs in the elementary school. The total thrust is a philosophy, not a certain curriculum or a course. The document offers concepts and activities to be adapted as most appropriate by teachers in classes. If career education is to be successful, it will provide the axis that brings relevancy to all of education, and therefore will exist in all courses and all curriculums.

We are grateful for the partnership with the Superintendent of Public Instruction and the State Board of Education in the promotion of career education. I envision all segments of education continuing to work as a team to help each student develop an awareness of himself, the world of work and a belief in the dignity of man and his work.

Contents

	Page
Purpose	4
An introduction to career education	5
A message to the principal	7
A message to the teacher	8
Planning the program	10
The guide	11
Goals	23
Suggested activities	27
Appendix	58
Acknowledgements	65

Purpose

This is a resource book, primarily to provide suggestions for classroom teachers who look ahead somewhat fearfully in developing career awareness programs. Allowance is made for the individualism of the teacher. Teachers, however, must be aware of the fact that if career awareness is to be meaningful, the program must be flexible to provide for differences in students and differences in communities.

The information supplied in this guide is offered as an inspiration to develop the type of program that best suits the objectives of children. However, it must be pointed out that a guide is necessarily limited as a means of improving instruction. It needs to be supplemented by every resource the teacher individually or collectively can supply. Additional reading, field trips, and resource people working with functional programs in career awareness should prove helpful.

Parts 1 and 2
What about VOCATIONAL education?

An introduction to career education

What's the problem?

One of the major goals of education is to provide each student the opportunity to acquire the skills and attitudes necessary for him to make a livelihood regardless at which level of the educational system he leaves. The public school has a unique role to play in the development of these skills and to assist in the process of career decision-making for each individual.

Unfortunately, our schools have not been entirely successful in attaining this goal for significant numbers of our young people. Learning for the world of work occurs on a piecemeal and fragmented basis. Only recently have educational leaders expressed serious concern for the opportunity afforded young people to learn about and prepare for the real world of work.

The major question that must be resolved is:

"Shall we persevere in the traditional practices that are obviously not properly equipping fully half or more of our young people or shall we immediately undertake the reformation of our entire education system in order to position it properly for maximum contribution to our individual and national life?"

To make education more relevant, the entire school program must be restructured focusing on the theme of career development. The urgency in bringing about this change is reflected in a recent decision by the U. S. Office of Education to make CAREER EDUCATION a major program priority. Career education, according to Dr. Sidney P. Marland, former U. S. Commissioner of Education, "will be one of a very few major emphases of the U. S. Office priority areas in which we intend to place maximum weight of our concentrated resources to effect a thorough and permanent improvement."

What is career education?

Career education is a term currently used to describe a sequentially developed education program offering career orientation, exploration, and job preparation for all students. Programs begin in the first grade, or earlier, and continue through adult life.

In the elementary school, children are informed about the wide range of occupations in our society, the role of each worker, and the interdependence of one job upon another. Psychomotor activities are utilized to bring about understanding. Special attention is given toward the development of positive attitudes toward work. Students also learn about the general requirements for each occupation studied.

Junior high school students explore specific clusters of occupations through "hands-on" type of experiences, observations in the field, and through related classroom instruction. Assistance is provided in helping each student select an area for further specialization in the senior high school.

In the senior high school, students pursue the occupational area they have selected. All students will exercise one of three options:

1. Intensive job preparation for entry into the world of work immediately upon graduating from high school.
2. Preparation for post-secondary occupational education.
3. Preparation for 4 year college or university.

Students preparing for post-secondary occupational education or four year college programs continue to receive occupational cluster experiences including work experience wherever and whenever this is possible. "Academic" subject areas are designed to relate to the professional area for which they are preparing. Students planning careers in specialized areas will be provided with basic skills in academic subjects which will further qualify them for advanced study in their selected field. Consequently, each student will leave the school with at least entry level job skills and the facility in basic academic subjects to enable him entry into further education.

to enter

In summary, career education . . .

- provides job information
- develops job entry skills
- helps students develop attitudes about the personal, psychological, social, and economic significance of work
- develops self-awareness in each individual
- matches student interests and abilities with potential careers
- guarantees placement into an entry level job or further education for every student

Figure 1 illustrates graphically the career development programs (page 12).

What is career awareness?

Career awareness describes that part of the career education program designed for the elementary grades, K-6. Specifically, the objectives of the K-6 career awareness program are to:

- develop in each student positive attitudes about the personal and social significance of work
- develop each pupil's self-awareness
- develop and expand the pupil's knowledge about a wide variety of occupations
- assist students in developing their career aspirations
- improve overall student performance in the basic subjects by relating them around a career development theme

close up

A message to the principal

The success of any program in the elementary school depends to a large measure on you, the principal. The teacher needs your assistance and cooperation to carry on a successful program in Career Awareness — a program which can be of immense value to the children, staff and school as well as your community.

It is hoped that this GUIDE will prove helpful to you in one way or another to become aware of the responsibilities your classroom teachers face in effectively promoting career awareness in the elementary school. Furthermore, it is hoped that your role in providing the atmosphere and encouragement as well as the physical environment needed for these programs will become evident.

You are encouraged to become cognizant of the following contributing factors of a good program in career awareness:

- Recognition and understanding of the value of career awareness and its lasting contribution to the lives of children.
- Provision of adequate facilities for carrying on an effective career awareness program.
- Provision of adequate equipment and supplies.
- Allocation of adequate time in the existing elementary curriculum for career awareness programs.
- Leadership in encouraging a career awareness program in your school.
- Recognition of the need for the inservice preparation of teachers of career awareness programs.
- Arrangement for release time for teachers to attend state and regional conferences related to career awareness programs.

As principal and curriculum director of your school, you have the difficult task of seeing that a truly balanced program is provided for all children. Career awareness, an integral part of the total career education program, should not be neglected. As you evaluate your school program, the criteria listed above should help you check the adequacy of the provision for a successful career awareness program in your school.

The future of each child is dependent largely on the commitment you will make to the program.

A message to the teacher

Implementing goals

It is the classroom teachers who carry the responsibility for the actual implementation of the goals for the common schools. In order to move from the goals to actual implementation, a sequence of curriculum development events should logically transpire, providing essential intermediate steps. These guidelines provide the frame of reference many professionals feel is necessary for curriculum implementation in a school as well as a statewide basis.

There is a sequence to the career awareness curriculum of which the teacher should be aware. First, the state, through its educational agencies, has indicated that preparing students for the world of work is a major goal. The curriculum to reach this goal has been divided into several phases, career awareness being that part of the program designed for elementary students (see page 13).

In turn, career awareness has been refined into a group of interdisciplinary objectives, each of which makes a small contribution to the major goal.

As teachers examine these guidelines, they will discover that career awareness is an objective-based curricular plan. Although these objectives are teacher designed and have already been put into practice in some school districts, all schools and teachers have options of how they can organize their curriculum. These guidelines are intended to serve as an aid to the decision-making process for putting career awareness into practice.

Teaching strategies

New ideas in education have sometimes been difficult to implement. The problem is usually resolved with time and resources, both of which are necessary for providing inservice education and the appropriate instructional tools. Appropriate guidelines can do a great deal to speed up the process.

These guidelines are more oriented to suggesting teaching strategies than is usually the case. This is not intended to imply any lack of professional skill on the part of teachers. It is simply a recognition that for most teachers, career education is a dimension of a child's education for which teachers are not professionally prepared. Guideline suggestions can be of help to teachers in feeling comfortable in initiating career

awareness instruction. As teacher familiarity builds, it is anticipated that new or additional objectives will be added and better learning activities developed. The choice of simulating, modifying, substituting or replacing the activities stated in the guidelines are options of all teachers. There has been no attempt to make suggested activities complete nor to encourage teacher dependence upon those that are included. Since it is the teacher who is most accountable for learning, the selection of instructional methods is entirely the teacher's prerogative.

Successful teaching

The role of the teacher can be summarized by the following performance analysis:

1. All teaching should be based upon an identifiable objective. The clearer the understanding of the teacher of what is to be accomplished, the more direct and effective instruction will be. It eliminates wasting time on irrelevant matters. Children are more secure and are more free to participate in decision making. Accurate assessment of student progress is possible. The objective provides the teacher with the proper base from which to select and design the most appropriate learning activities for the students.
2. The objectives that are taught should be appropriate for all children in the class. A pilot project tested the appropriateness of these objectives in 31 elementary schools. Some adjustments have been made in these revised guidelines. There is no reason to assume, however, that classroom teachers will not have to continue to make adjustments. Teachers are encouraged to continue using methods already developed in dealing with such conditions found in all other curricular areas, such as modifying the objective if appropriate or allowing for individual problems in learning activities selected.
3. The essence of teaching is in the results. Did the learner reach or accomplish the objective? What evidence has been secured to show that he did? For those who did not, what new experiences must be provided and what new assessments developed? It is in the area of assessment, both pre- and post-instruction, that assistance is offered in these guidelines, under learner expectations. It is recommended that student assessment be made a part of the school's inservice program in career education for those teachers who need to improve their skills in this area.
4. The teaching strategies employed must be compatible with the learner and the objective to be reached. Such being the case, no single method is necessarily preferred over another. Since it is the instructor who carries the responsibility of assuring that the child achieves the objective, the determination of the strategy is paramount.

   For teacher and student, career awareness offers opportunities for activities which are unique. The "hands-on experience" generally is considered to be a highly desirable process. Few school objectives have as many opportunities to use parents as teaching "partners." Field trips, committee investigations, bulletin boards, reading newspapers, using community resource people, conducting interviews, etc., all have tremendous possibilities.

   It is the large number of alternative learning activities that are possible to use in reaching career awareness objectives that has made this program extremely popular in the schools where it has been introduced.
5. The final element in successful teaching is the elimination of the things that a teacher does that interfere with learning. Obviously, the lack of attention to any of the above four steps will contribute to diminished success. These steps could be regarded as dimensions of science in teaching. They can be measured and therefore their value can be determined. This fifth step implies the idea that there is an art to teaching, too. Artistic teaching performance relates to sensitivities to other people, perceptions of the learning environment. Certainly, with children especially, the pacing of learning experiences is based upon sensitive observation.

To a large degree, the teacher's ability to communicate is part of the artistic teacher performance.

Planning the program

Whose responsibility?

Career awareness programs in the elementary school require a united effort on the part of the teachers and the administration. The individual teacher may develop a program for her own class, but the real impact will come about when the teachers, collectively, along with the counselor and principal, work together in the development of a total program.

One of the major problems to be resolved by the "team" is to avoid unnecessary redundancy. Usually this is evidenced by a lack of coordination between grades. For example, the first grade teacher may have her class visit the grocery store; the following year the second grade class visits the same store; and possibly the third grade teacher, unaware of the previous visitations, will carry out still another visit. This lack of coordinated effort can lead to several serious problems. Identifying the occupations to be studied at each grade level, therefore, becomes quite important in the overall planning.

In summary, anyone can initiate a program in career awareness. But the truly successful program should involve all the teachers, the principal, the counselor and other education specialists. One individual should be given the responsibility to coordinate the planning activities. This is usually the principal, although the counselor may assume the responsibility. In some instances the planning "leader" has been selected democratically from the teaching ranks.

Once the leader has been identified, a schedule should be established for planning the program. The suggestions contained in this guide should prove helpful.

12

This GUIDE is designed to assist the elementary school teacher, coordinator, counselor, principal and others who will be working independently, or as a team, developing the career awareness program for their particular school. The GUIDE is limited to the elementary school, grades kindergarten through six. It is not to be construed as being the ultimate or final work in career awareness programs. Its primary purpose is to present some basic elements of career awareness program development and to offer a few suggested approaches or activities that have been used effectively by other elementary teachers. It is hoped that these suggested approaches will stimulate your thinking and result in a better and more comprehensive type program for your particular school.

A cookbook-style guide provides no guarantee that it will be used in the way it was intended. The objective of career awareness programs can only be achieved when there is total commitment to the program by the teacher and the administration and that all get involved in the development of a program for their own school. The GUIDE, therefore, is to be used as a starting point for the development of "total" programs of career education.

How to use this guide

Guides may be organized in a number of ways. This guide was developed around a framework having five major elements:

goals
concepts
objectives
suggested activities
learner expectations

In planning and developing your own program, study carefully the three major goals that have been identified. Under each goal you will find listed several concepts. These are not all inclusive but should serve as a starting point for your deliberations.

You will also note that objectives corresponding to the goals and specific concepts have been established by grade level. This should prove helpful to you as you work toward the development of a total K through 6 program.

The suggested activities that follow are activities that have been successfully used by teachers in the field. For the busy teacher, it will not be difficult to select the appropriate activity or activities to meet the stated objectives. The energetic teacher or the team that desires greater sophistication will need to modify the activities or add new approaches that better meet the stated objectives.

Included with the suggested approaches and activities are the required materials, references and notes to teachers. Although brief, these statements will be of considerable value to teachers in preparing their term or lesson plan.

Finally, under the heading learner expectations are included performance statements, that is, what is expected of the students after they have completed a particular activity.

These are competency-based objectives and should assist the teacher in evaluating the performance of each student.

Resource materials

The last pages of the GUIDE include a listing of films, filmstrips, books and other materials that the teacher will find useful. The listing of resources is not complete, but should serve as a starter in the development of a more comprehensive list.

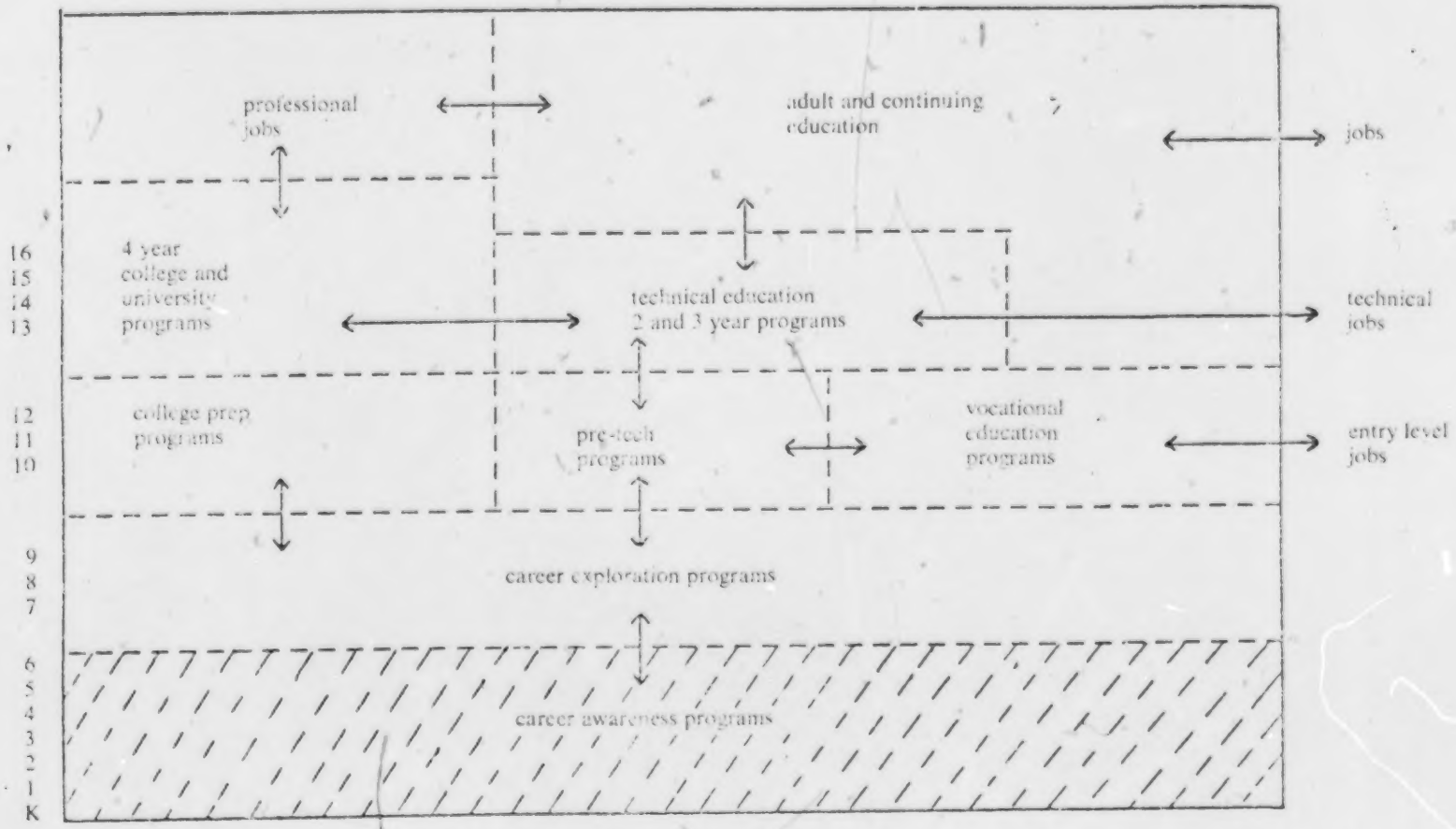


Figure 1
Career Development Programs

14

Selecting activities

As you begin planning activities for each grade level, it would be well to consider what types of activities you should select. To assist you in your selection process, the information in this unit should prove of some help.

First, all activities have been grouped into three general classifications:

1. self-perception
2. integration of occupational information into the curriculum
3. integration of occupational information into co-curricular activities

Under each of these classifications are a number of suggested activities. These in turn are grouped by grade levels; that is, lower elementary grades, middle elementary grades and upper elementary grades.

Lower elementary grades

Self-perception

As a child enlarges his perceptual world, he must learn to accept all of himself. The development of his self-concept is basic to understanding his importance in the adult world. Before a child can visualize himself as an adult, he must acquire an acceptable self-image and see himself as a person. The following paragraphs suggest activities teachers have used to help create this awareness.

Self-portraits

A teacher is able to get some information about how a child perceives himself when she asks each member of the class to draw a picture of himself and then tell about the picture. A related assignment is to draw a picture of the family and to tell about the family.

Child's name

A child's name is important to him. The teacher should use his name when responding to the child.

Facial expressions

The way a teacher looks at a child conveys the message that she is aware of him, that she approves or disapproves of him or his behavior, and that she knows he is in the group and knows what he is doing. She should look at a child when conversing with him or helping him with the understanding of a lesson.

Display child's work

The teacher can assist the child in acquiring a sense of adequacy by displaying his work where it can be seen. Each child is entitled to equal consideration from the teacher.

Mirrors

Mirrors in the classroom help a child visualize himself. A full-length mirror may offer the first opportunity some children have had to see themselves fully. Whenever possible, the teacher may have a hand mirror or a second mirror of some type so that a child can see both back and side reflections of himself.

Photographs

Since many children have never seen a rear view or a side view of themselves, the teacher may decide to photograph a child from these angles as well as from the front. Helping a child learn to recognize himself from other views increases his awareness of himself as a person.

Classroom environment

The classroom environment should provide security for the child while allowing him an opportunity for self-expression.

Integration of occupational information into the curriculum

Art

The art period provides the teacher with an excellent opportunity to guide younger children into a learning experience involving occupational information. The primary age child may draw a picture representing a specific topic assigned by the teacher. Such topics might be similar to the following:

"People Who Work in Our Schools"
"People Who Work in Our Community"
"People Who Work in . . . . . ."
"What I Would Like to be When I Grow Up"

Occupations presented in the art lesson can stimulate the children to collect information about the world of work. As children become involved in gathering information, other related areas of employment may be brought to their attention.

Primary age children can be requested to look for people who work in "our school." As they become aware of the teachers, the librarian, the custodian, the cafeteria workers and others, the teacher may assign an art lesson in which they will draw these people at work.

Reading

Vocational information is readily included in the reading program of the primary grades. The basic reader presents topics that may suggest areas for discussions about workers and what their jobs involve. As adult work roles are included in the stories, the children should be encouraged to see these people as workers in a community. To develop a realistic picture of the occupations, the students can compare these roles to those of workers in the local community.

Social studies

The social studies curriculum in the primary grades encourages a child to become aware of the different jobs available in the community. Since a study of Community Helpers has long been the main area of emphasis in social studies, it is very easy to shift the attention to Community Workers and help children become aware that the helpers are workers who are making a living to support themselves and their families. The teacher should request that the pupils observe the fireman, policeman, the clerk in the department store, the plumber and other workers and report to the class the different things they saw the workers doing as part of their jobs.

Math

As the younger child becomes aware of numbers and counting, he can also become aware of the people who use numbers in their jobs. For example, a child accompanying a parent to the supermarket should notice the man who uses numbers to weigh vegetables, or the meat cutter who weighs and prices the meat, as well as the person operating the cash register at the checkout stand. Similarly, a study of time could start with discussions on the clockmaker and include such areas as airlines, trains, and other occupations where scheduling is an important phase of the business.

Science

Each unit of study suggests a related group of "job families." The study of plants, for instance, could begin with the gardener or farmer and include the forest ranger, the mill operator, the carpenter and the person who has studied horticulture or forestry at the college level.

Integration of occupational information into cocurricular activities

Interviews

Class members may select an adult they know to interview about his job. A class project such as this requires that the teacher use class time discussing the proper way to interview an adult. The teacher, during a class discussion, can help the children phrase questions to be used during the interview. Such questions might be the following:

1. What is the name of your job?
2. Where do you do your work?
3. What hours do you work?
4. How does your work help our community? Our families?
5. What do you like or dislike about your work?

After children have interviewed an adult, they must be given the opportunity to discuss the results.

Class visitors

Various community workers can be invited to visit the class. During such a visit, the children should be given information on the duties of the job, the working hours, similar or related occupations and any other information that is requested by the students. It is probably better not to discuss the qualifications or training necessary unless it is requested. The purpose at this level is to create an awareness of the ways in which people make a living. Discussions can reinforce the concept that the visitor is an adult who works for a living as well as a person who contributes to the community by doing his job well.

Observation

Class discussions or other vocational development experiences could lead into an assignment where children are instructed to "look for people working as you are coming to school." An observant child will notice jobs such as truck drivers, service station attendants, breadmen, shoe repairmen, taxi drivers, and many others. The emphasis should again be on creating an awareness of adults at work, performing a needed service for the community as well as earning a living for their families.

Role playing

The younger the child, the greater the interest in actual job performance. Role playing gives the child an opportunity to see how it feels to be a ball player, a policeman, or a brick layer. As children become more aware of the different types of jobs available, they may enjoy letting two workers meet. The policeman needs to have his shoes repaired; thus he visits the shoe repairman. Several children may act out their version of this encounter.

As a greater awareness of a wide variety of occupations develops, the class may try making up a play which involves several different occupations. Teacher or students may select a title such as "The Journey of a Dollar." The dollar could go for a make-believe journey which might include a visit to the grocer. The grocer uses it at the doctor's office. The doctor needs a haircut. The barber uses the same dollar at the clothing store. The clothing store owner must pay his employees. Role playing of this type stresses the interdependence of occupations.

Storytime

A great number of books are available which tell the primary children about different occupations. Books of this nature may be read aloud at storytime and retold by the children. Parts of the books can be acted out if they are of particular interest to the pupils.

Plays

Commercial plays are available that include many of the familiar workers. A class may choose to make up its own play and perform it for others.

Field trips

Many places (factories, industries, businesses, construction projects, etc.) are located in or accessible to most communities which can be visited by class. Before going, the children should have an understanding of what to look for during the trip. After taking a trip, other activities previously suggested can provide reinforcement of the learning that has taken place during the trip.

Scrapbooks

Making scrapbooks can be used as an individual or as a class project. Scrapbooks can be as varied as the imagination of the children involved.

Scrapbooks can be made of the children's drawings showing people at work or maga-

zine pictures collected about one or many occupations. Poems or stories in books and periodicals may also be included in the scrapbook. This type of project may span the entire school year or be limited to a specific time that is suitable for the teacher.

Experience charts

Charts may be the results of class discussions, interviews, stories, pictures, and other projects. These charts can aid initial learning experiences and reinforce previous concepts. A class book can be made from a collection of charts prepared by the class concerning various occupations studied in class.

Individual booklets

Children in the lower grades are capable of making individual booklets of stories they have written about various occupations. Such stories may be a few lines long and illustrated as the student desires.

A sample page could be as follows:

Title
(The Fireman)

Illustration
(Short Story)

A similar project would involve small groups rather than individuals. Each child should be permitted to work with a group that is interesting to him. Titles such as "Community Workers" or "Workers at the Assembly Plant" may be selected by each group. After completion, the booklets can be bound for class use. Such collections of booklets provide not only occupational information, but also sources of material for independent reading.

Puzzles

Pictures of people working can be glued on posterboard, labeled, and cut into simple puzzles. Pictures or drawings of tools identified with specific occupations can be used in the same way. Names of the tools printed below the picture can be used to increase the students' vocabularies of work terms. For example, the teacher draws the carpenter's tools (hammer, saw, nails, etc.) on a sheet of paper and labels each tool so that the children are able to associate the words and pictures.

Posters

Commercial posters showing different people at work are available. A brief description of the job is on the back of each poster for teacher use. Posters of this type may be used as information for creating class experience charts, stories, and copy work for teaching manuscript writing. Similar posters can be made by the teacher or by the class for use in the same ways.

Visual aids

Many films and filmstrips about different vocational opportunities are available for use with primary age children.

Manufacturers' advertisements

Different manufacturers and industries publish booklets and cardboard displays that are related to the world of work and suitable for use by the young children. The alert teacher may find many of these aids helpful for motivating children in their adventure into the adult's world of work.

Games

Teacher-made matching games teach a child to read the names of familiar workers. A picture of each worker is glued to a card. The name of the worker is printed on a different card. Children are then instructed to match the name with the correct worker. Groups of workers can be used to make a set (six to eight different pictures and matching names). The same type of activity may be used with names and pictures of tools.

Seasons and holidays

Each season can be related to what jobs men perform. cotton, wool, and warm clothing are seasonal topics that involve the work of the farmer, sheepshearer and cotton mills. For example, Christmas can be related to the toymaking industry, thanksgiving to turkey farming.

Middle elementary grades

Self perception

Children in the middle elementary grades are gaining a greater awareness of themselves as individuals. During the lower grades, the teacher can help children develop positive attitudes about themselves as people.

Photographs, self-portraits, poems, and stories about themselves contribute to their self-concept. The teacher's attitude toward a child is reflected in the attitudes other children form toward that child. All students should be recognized as important members of a class. If a child has a particular talent, such as drawing, writing poems, or working with his hands, he should be recognized for this talent. The class can be taught to appreciate an individual's ability when the individual is allowed to use his own special skill for class advancement. Each child should be valued for his unique contribution to the class, just as each worker should be valued for his contribution to society.

Integration of occupational

Students at this level are ready for broadening previously developed information about available jobs. Many teachers are unaware of the variety of jobs available to the skilled or semi-skilled laborer. Teachers might like to survey the local community to become aware of the types of work available for boys and girls when they enter the work force.

Reading

The basic reader tends to rely heavily on managerial and professional men for picturing adults at work. The emphasis might be on the jobs related to the areas of employment mentioned in the basic reader. For instance, who works in the doctor's office besides the doctor? ~~Immediate~~ Reports, role playing, and interviews are useful in supplying this additional information.

Mathematics

Occupations which are related to math may be presented. At this level, emphasis should continue to be on the creation of an awareness of the many jobs in this area, as well as technical information about job qualifications and training. Units on weights, measures, area, and decimals readily suggest areas of employment the teacher can lead her students to discover. Every effort should be made to relate mathematics to work people do.

English

Units on letter writing, reference work, and poetry suggest jobs related to these topics such as the secretary, the poet, the author, and others. Children should be provided with opportunities to describe in written form jobs they perform or others perform. Learning how to write instructions and following instructions is another type of activity that should prove of interest.

Creative writing

Creative writing is an excellent way to help children realize the interdependence of all occupations. The use of such topics as "What if everyone in town is a grocer?" can aid in developing the understanding that each working adult contributes to the needs of the entire community. If more specific understanding is desired, a topic such as "A day in the life of a fireman" can focus attention on the tasks of a particular occupation. Creative writing provides the teacher with a check on attitudes and understandings that are being developed by students.

Reports

The reports prepared by students in a classroom can result from interviews, an class projects, or any significant learning experience. Oral reports offer an opportunity for the class to become familiar with a wide range of occupations. When students are able to report on their respective interests, motivation will be great.

Reference work

After pupils have been encouraged to select an occupation of interest, the encyclopedias and other reference materials in the library are good sources of general or specific information. Students should be free to look for the type of information they are most interested in at the time.

Interviews

Before students interview adults about their jobs, the information being sought must be established. The class can formulate questions to be used as a guide during the interview. Questions should pertain to job performance, working hours, advantages and disadvantages of the job and working conditions, so that the child can gain a realistic concept of the working world. Students may interview parents, friends, local businessmen, or anyone available having the information they are seeking.

Plays

Writing and producing plays concerning occupations is an enrichment activity that gives the teacher an opportunity to observe the kinds of attitudes that students have developed. Plays are enjoyable activities that allow pupils to share their main interests and ideas with others in the class.

Displays

Displays of tools and products related to a specific occupation or several occupations are another way to motivate interest in the world of work.

Parents are a good source to consult for such displays. Carpenters, plumbers, and painters might be invited to bring tools to the classroom and describe how the tools are used in their work. If tools are left on display for a day or two, they should be labeled and a description of their use included in the display. Local industries or factories may be willing to supply samples of their products at various stages of production. Whenever applicable, students can use tools to make class projects or displays. Child-made models of industries or factories also make meaningful displays.

Scrapbooks

Whether they are individual or class projects, scrapbooks provide a method of collecting information that has been gathered by the group. Separate scrapbooks may be made for different job families studied, or one scrapbook may contain the year's study of vocations. Scrapbooks should reflect the

way individual needs of the students have been met.

Puppets

Class-made puppets and puppet shows related to vocational development give the children an opportunity to tell other class members what they have learned about employment. Such shows also open the door to a study of occupations in the entertainment field.

Field trips

Field trips should be designed to introduce students to jobs of which they have previously been unaware. Factories and industries have many jobs available that teachers and students might learn about as they observe adults performing these tasks.

Before the trip is made, a discussion on the types of activities that should be observed can greatly increase the effectiveness of the learning situation. Emphasis should be on the way one job relates to the other jobs in the factory or industry. Students need to be aware of the interdependence of the jobs performed; no one job can be fully effective without the adequate performance of the related jobs. All work is valuable when it is properly performed.

Participation in practical activities

Activities such as cardboard carpentry may be offered at this level. It can be a part of the school program or an after school activity. Through this activity it will be possible to integrate practically all of the curricular areas. This activity, if properly organized, stimulates considerable interest among the children. Discussion of related jobs includes the several levels of employment.

Utilizing existing school resources

"Hands-on" activities for children play an important part in career awareness. A wide variety of these activities may be arranged with junior and senior high school instructors of industrial arts, home economics, business education, agriculture and distributive education. Arrangements may be made to utilize senior students as "instructors." Activities may take place in the junior or senior high school facilities or in the regular elementary school classroom.

An important hands-on type activity should include line production techniques. Involvement in such things as design, production, marketing and distribution contribute to career awareness.

Home responsibilities and activities

Class discussions of the children's responsibilities at home help develop awareness of occupations that utilize similar skills. Students should again realize that these tasks are important and should be accomplished with pride. A broadening of this topic can develop knowledge of the hospitals, schools, businesses and other places that hire professional housekeepers, dietitians and other related personnel.

Upper elementary grades

Self perception

At the upper elementary grades pupils become more interested in the world of work. At this point they need to gain a better understanding of themselves in relation to the adult world. The attitudes they develop are highly important and will affect their role as a future worker. It is important, therefore, that teachers help their pupils to:

1. Develop a more accepting attitude toward themselves
2. Learn to accept success as rewarding and failure as inevitable
3. Learn to accept assets and liabilities and develop wholesome attitudes toward ~~himself~~ themselves as a worthwhile individual
4. Improve their work habits
5. Develop a tolerant attitude toward others, to desire success for them and to be aware that it is important for others to succeed
6. Develop a desirable attitude toward work in general; no occupation should be degraded

Teachers in the classroom can structure group activities so that a child who needs to gain social status can demonstrate a particular skill before his fellow students. The teacher should remember that students identify with the instructor's attitude in the appraisal of a particular child. A student who goes unnoticed by the teacher is likely to be unnoticed by his peers.

Integration of occupational information into the curriculum

Pupils in the upper elementary grades are interested in general job requirements. Information related to training and educational requirements, demands of the job itself, and salary will help a student determine if he has an interest in a particular field. No student should feel pressed to make a decision. During high school, emphasis is toward information that will help the student decide what courses he thinks will be most advantageous. A student should realize that the high school courses he chooses can aid him in obtaining future employment of his choice.

Sixth graders, especially, need help in becoming aware of their potentials and limitations. Teachers must encourage students to discover their strengths and also recognize weaknesses. Discussions and other activities that focus on the abilities needed for the performance of particular jobs help motivate a child to find out the qualifications required in his area of interest.

As stated previously, teachers should not push a child into making a vocational choice, but should give him information that he will need in the future and motivate him to investigate further the vocational area in which he may become interested.

Vocational development is most meaningful when correlated with one of the subject areas studied in this grade level; however, situations may arise where such information is presented to the student without being related to a present unit of study. The following activities suggest ways to facilitate correlation of vocational information with curriculum development.

Reference work

Encyclopedias furnish valuable information about occupations. Many books of interest that provide realistic information about a variety of occupations are available. A close inspection of the school library often reveals a wealth of information that provides answers to the questions of this age group.

Poems

Poems about occupations can be enjoyable and create interest in vocations. A recent book by Agnes Cochran Brambiett entitled **People at Work and Other Poems** is an excellent source for use by elementary students. Booklets of poems written by members of the class can also be an interesting project.

Publishing class paper

Publishing a class paper serves as a direct learning situation about the variety of jobs available at the local newspaper. Students learn the titles of the positions and something about the ability required for the actual performance of the job. If interest develops and more information is desired by the class, reports concerning necessary training and qualifications could be made in class.

Famous people

A class project which involves tracing the lives of famous people, television personalities, and local leaders would aid in helping students understand how decisions are made concerning one's life occupation. Students will realize that some people have been involved in several occupations before settling on their final vocational field.

Speakers

Adults representing different occupations can be invited to talk to the class. However, inviting speakers without giving the students an opportunity to express their desires indicates that teachers are not taking into consideration the needs of their pupils. Speakers should be requested to present facts and not to distort advantages or disadvantages.

Assembly programs

Visitors from local businesses and industries provide students with first-hand information. These programs should be geared to the interests expressed by the class.

Career days

A block of time, usually about two hours, may be set aside for several adult visitors to discuss their respective occupations. If the length of a discussion is held to forty-five or fifty minutes, the students will be able to attend sessions relating to several fields of interests.

Audio-visual aids

Films and filmstrips are useful reference sources. Some of these materials provide general information; others are more specific.

Bulletin boards

Bulletin board displays are as versatile as the teacher and the students in the class. Information displayed in an interesting way could be a class project, with special groups being responsible for making a bulletin board on their particular interests.

Study of local industries

The local community usually has a variety of employment opportunities. Teachers should study or obtain information from the industries concerning types of jobs available, training required, and number of people employed. The local chamber of commerce will be helpful to the teacher in getting this type of information.

School employment service

The school has numerous jobs that students normally perform, such as school patrol, audio-visual aides, and library helpers.

The school should design an application blank to be used by interested students that will include information such as the following: name, grade, address and telephone, birthday and birth place, person to notify in case of emergency, job applying for, student's qualifications, prior job experience, references, grades on last report card, and finally the child's signature. Also, a committee of students could be trained to interview job applicants, with final approval by the faculty. Notification of jobs available can be made by posters, school paper, or announcements. Notices should tell how and when to apply for the desired school job.

After a school has a workable system in operation, probationary and dismissal forms may need to be added. Emphasis should be placed on the fact that the student has total

23

responsibility for keeping or losing the job. If a student must be dismissed, he should be told the reason for termination. Rewards for outstanding performance may be given in the form of reports or badges.

Part-time jobs

Students at this level often have part-time jobs. Reports and oral discussions concerning their responsibilities and the responsibilities of those with whom they work broaden the general vocational information of the class. Advantages and disadvantages of these jobs should be openly discussed.

Field trips

Field trips to companies or industries employing people in occupations in which children have expressed a keen interest will enable the child to observe adults actually performing the job and help him establish a true picture of the world of work. Students should be instructed to observe the many types of positions available in each place visited. Follow-up activities may include reports, posters, discussions, and bulletin boards.

Individual field trips

If a parent is employed in a situation that permits the child to visit him on the job for a day, such a visit could be planned with the class benefiting from a report on the trip. Before such a visit, a class discussion on what the child should observe will enable others to obtain information of specific interest to them.

Participation in "hands-on" activities

Students in the upper elementary grades have a keen interest in hands-on type of activities. A more sophisticated approach to the suggestions made for the middle grades will prove effective. (See "utilizing existing resources," page 19.) Individual or group projects may be used.

Involvement in "hands-on" type of activities which result in an individual or group project is another activity that creates considerable interest. Teachers may have their own woodworking tools, or may coordinate this activity with the industrial arts instructor. The use of senior industrial arts students as tutors has also proven to be quite successful.

Private lessons

Students involved in private lessons, such as piano, dance, guitar, and art, should be motivated to discover further information about related job opportunities in these fields. Reports and bulletin boards will enable the entire class to profit from the information gained.

Clubs

When several students become interested in the same general employment field, a club can provide an opportunity to obtain further information of interest. These clubs enable pupils to study employment opportunities, qualifications, training and education, or other areas of interest.

Goals

Goals, concepts and objectives grades K-6

Goal A

Explore and assess personal attitudes, aptitudes, attributes and interests.

Concepts:

1. Jobs are often related to an individual's interest and abilities.
2. Individual is influenced in the choice of work by many factors, including the need for work, availability of work, experiential background, interests, aptitudes, capabilities, need for security and the rewards available.
3. Satisfaction with one's occupation is facilitated by the selection of an occupation which is consistent with one's personal aptitudes, attitudes and interests.

GRADE K OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate.
2. Choose work projects in room.
3. Talk about occupations in which interested.
4. Recognize that people do not have the same interests or abilities.

GRADE 1 OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate.
2. Identify an occupational choice and evaluate
3. Recognize that all people do not have the same interests or abilities.
4. Discuss "attitudes" about work in which we participate at home and school.
5. Identify several occupations which a person may choose.
6. Identify how attitude, abilities and experiences affect performances.

GRADE 2 OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate
2. Choose occupation in which interested.
3. Recognize that all people do not have the same interests or abilities.
4. Discuss attitudes or feelings about work at home, school and in the community.

GRADE 3 OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate.
2. Select a career in which interested.
3. Analyze attitudes toward work.
4. Analyze and compare reasons why people prefer certain occupations.
5. Evaluate personal attributes related to employability.

GRADE 4 OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate performance.
2. Evaluate personal attributes related to employability.

GRADE 5 OBJECTIVES

1. Assume responsibility for classroom jobs and evaluate.
2. Relate identified interests and abilities to occupational choice and to degree of satisfaction.
3. Explore interrelationship between attitude, ability, experiences and performance.

GRADE 6 OBJECTIVES

1. Assume responsibility for classroom and school jobs and evaluate performance.
2. Analyze personal interests and aptitudes.
3. Examine occupations with respect to interest and aptitudes.

Goal B

Examine the concepts of work and work roles and the multiple occupational possibilities.

Concepts:

1. Family members perform a variety of jobs.
2. There are many kinds of work.
3. The performance of work results in products and/or services.
4. Supply and demand influence the kinds of occupations found in a community.
5. Occupations can be grouped into clusters.
6. Geography influences the kinds of occupations found in an area.
7. Technological and sociological changes eliminate and create jobs.
8. Workers are interdependent.

GRADE K OBJECTIVES

1. Recognize that there is work to be done in a home.
2. Recognize that family members also work outside the home.
3. Recognize that there is work to be done within the school.
4. Identify the jobs which people do within a school.
5. Explore one or more occupational areas.

GRADE 1 OBJECTIVES

1. Recognize that parents in their occupations are also community helpers.
2. Recognize that being a student is his present career.
3. Identify the goods and services produced in the community.
4. Identify and investigate some of the occupations.
5. Examine various rewards for performing work.
6. Define and identify the difference between the terms "work" and "occupation."
7. Recognize that people have more than one job.

GRADE 2 OBJECTIVES

1. Recognize that being a student is his present career.
2. Identify and investigate some occupations in community.
3. Identify the many occupations, and the interdependency of each.
4. Recognize that career selection may be based on hobby.

GRADE 3 OBJECTIVES

1. Study and identify businesses and occupations.
2. Identify the many occupations, and the interdependency of each.
3. Explore potential careers that develop from hobbies.
4. Contrast job opportunities in communities.
5. Analyze the changing nature of career opportunities.

GRADE 4 OBJECTIVES

1. Identify and evaluate rewards that are received from jobs.
2. Analyze variety of career possibilities in communities.
3. Analyze the changing nature of job opportunities in terms of technology and the needs of people.

GRADE 5 OBJECTIVES

1. Identify the many kinds of work and occupations, and the interdependence of each.
2. Explore several occupational areas.

3. Recognize that career selection may be based on a hobby.
4. Identify similar and contrasting job opportunities.
5. Analyze the changing nature of career opportunities.
6. Name and examine a variety of occupations.

GRADE 6 OBJECTIVES

1. Analyze the changing nature of occupations.
2. Explore occupations which are familiar.

Goal C

Develop attitudes, knowledge, and understandings of basic skills related to effective employment.

Concepts:

1. Workers use tools.
2. Family members have specialized knowledge and skills.
3. Basic skills are necessary for most of our jobs.
4. In a functioning society, people need to be aware of communication skills, behavior patterns, interdependence and understand job responsibilities.

GRADE K OBJECTIVES

1. Name, use, maintain, and store all tools and materials necessary to perform required classwork at any grade level.
2. Comply with school standards of behavior and tell the reasons why.
3. Practice communication skills with fellow students to solve a task.
4. Listen and follow directions for doing various jobs in the classroom.

GRADE 1 OBJECTIVES

1. Name, use, maintain and store all tools and materials necessary to perform required classroom work at any grade level.
2. Practice communication skills with fellow students to solve a task.
3. Relate basic skills of computation and communication to familiar occupations.
4. Recognize that learning is a continuing process.
5. Name and use some tools and materials used by workers.
6. Evaluate the interdependency of workers in a work situation when everyone has an assigned job.

GRADE 2 OBJECTIVES

1. Name, use, maintain and store all tools and materials necessary to perform required classwork at any grade level.
2. Comply with school standards of behavior and tell the reasons why.
3. Relate basic skills of computation and communication to familiar occupation.
4. Recognize that learning is a continuing process.
5. Recognize that health habits may affect job performance.
6. Identify some of the attitudes, knowledge and skills needed to perform an occupation.
7. Evaluate the interdependency of workers in a work situation when everyone has an assigned job.
8. Know the factors contributing to a worker's success.

GRADE 3 OBJECTIVES

1. Name, use, maintain and store all tools and materials necessary to perform required classwork.
2. Demonstrate acceptance of responsibility for self by moving within school facility without supervision.
3. Practice communication skills with fellow students.
4. Relate basic skills of computation and communication to familiar occupations.
5. Evaluate competence in vocabulary studies.
6. Plan and follow a weekly schedule which will promote good performance in school.
7. Examine the health and safety standards for workers in various occupations.
8. Examine qualifications needed by people in different jobs.

9. Identify how a job may change.
10. Recognize that similar jobs can be done in different businesses.
11. Analyze how specialization and division of labor affects the quality or quantity of goods produced.
12. Analyze the contribution each worker makes to a given industry or business.
13. Analyze factors relating to attaining and maintaining job.

GRADE 4 OBJECTIVES

1. Utilize mathematical knowledge to produce an item.
2. Analyze the need for good communication skills.
3. Recognize that a given skill or knowledge may be applied in a number of work situations.
4. Identify how a job may change.
5. Recognize that jobs require interdependency among workers.
6. Recognize that experience brings greater efficiency and skill to a job or related work activity.
7. Realize that health is a factor contributing to a worker's success.

GRADE 5 OBJECTIVES

1. Analyze need for knowledge of good communication skills.
2. Examine attributes needed by people in a number of different occupations.
3. Identify how industry may change because of resources.
4. Recognize that similar jobs can be done in several businesses.
5. Analyze and evaluate the contribution and interdependency of industries or businesses.
6. Examine the process of getting and keeping a job.

GRADE 6 OBJECTIVES

1. Examine qualifications needed by workers in various jobs.
2. Recognize that occupations have vocabularies unique to them.
3. Relate the value of personality traits to doing a job.
4. Describe tools and equipment needed in various occupations.
5. Integrate computation skills and design capabilities with production skills.
6. Examine and work with tools.
7. Use and store AV equipment.
8. Become aware that most jobs are not so simple as they seem.

Suggested activities

The following pages contain suggested activities for each grade level. Please note the format used. It includes:

grade level
goal
general concept
objectives
suggested subject area
suggested activity
learner expectations
notes to teacher

By utilizing this format, or a similar one, it will be possible for the planning task force to develop materials that are logically organized.

Grade level Kindergarten

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: jobs are often related to an individual's interests and/or abilities.

Objectives:

1. Assume responsibility for classroom jobs and evaluate.
2. Choose work projects in room.
3. Talk about occupations in which interested.
4. Recognize that people do not have the same interests or abilities.

Suggested subject area: multidisciplinary

SUGGESTED ACTIVITY NO. 1:

Paint a mural of the workers in your own school.

Orally discuss the responsibilities and roles of each of the school workers.

Invite an "artist" to discuss painting as an occupation and an interest.

In their discussion, have children orally identify the school jobs they perceive to be either the most or least fun.

LEARNER EXPECTATIONS:

That every child will help in the creation of the "school workers" mural.

The children will be able to orally discuss their perceptions of the various school jobs.

NOTE TO TEACHER:

Activities to meet the objectives under goal A can be varied and many Kindergarten teachers must be ever ready to capitalize on the spontaneous responses and comments of her children and explore with them their own ideas and thoughts. Example: In a discussion on school helpers, the teacher must capitalize on the student's comments concerning the various roles played by school personnel.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: there are many kinds of work.

Objectives:

1. Recognize that there is work to be done in a home.
2. Recognize that family members also work outside the home.
3. Recognize that there is work to be done within the school.
4. Identify the jobs which people do within a school.
5. Explore one or more occupational areas.

Suggested subject area: multidisciplinary

SUGGESTED ACTIVITY NO. 1:

Children shall discuss with their parents the various jobs that must be done around their own homes.

LEARNER EXPECTATIONS:

Students will be able to identify the many work tasks at home.

SUGGESTED ACTIVITY NO. 2:

Have children discuss with their parents the occupations they are involved in outside the home.

a

29

A follow-up discussion where children discuss their parents' jobs outside the home.

LEARNER EXPECTATIONS:

Children will be able to understand the many jobs in which their parents are involved.

SUGGESTED ACTIVITY NO. 3:

Invite school personnel to the classroom to discuss with students their various school responsibilities.

LEARNER EXPECTATIONS:

Students will be cognizant that though jobs differ greatly, all workers contribute to the operation of the school.

SUGGESTED ACTIVITY NO. 4:

Using a tape recorder, the children will record all the occupations they can think of and in replays discuss what they know about each job.

Using magazines, newspapers, etc., children will create a collage of occupations and jobs.

LEARNER EXPECTATIONS:

Students will become familiar with a variety of jobs.

Goal C: develop attitudes, knowledge and understandings of basic skills related to effective employment.

General concept: in a functioning society, people need to be aware of communication skills, behavior patterns, interdependence, and understand job responsibilities.

Objectives:

1. Name, use, maintain and store all tools and materials necessary to perform required classwork at any grade level.
2. Comply with school standards of behavior and tell the reasons why.
3. Practice communication skills with fellow students.
4. Listen and follow directions for doing various jobs in the classroom.
5. Practice some health habits.
6. Recognize that food is related to health.
7. Describe the work done, clothes worn and tools used.

SUGGESTED ACTIVITY NO. 1:

Have children discuss maintenance and care of school and personal equipment.

LEARNER EXPECTATIONS:

The children will learn how to maintain materials in their room.

SUGGESTED ACTIVITY NO. 2:

Invite the principal to discuss acceptable school behavior. In addition, the administrator could discuss school and bus rules and the school patrol.

LEARNER EXPECTATIONS:

The child, at the conclusion of this discussion, will be cognizant of what is acceptable school behavior.

SUGGESTED ACTIVITY NO. 3:

The children will be paired and given a problem to solve. They are encouraged to discuss the problem and eventually agree upon a solution. Example: A "problem" might concern itself with how to make a new student feel welcome.

LEARNER EXPECTATIONS:

Children will have an understanding of verbal communication and its use as one means of problem solving.

SUGGESTED ACTIVITY NO. 4:

Children will be asked to complete a classroom project which will depend upon each student listening, following instructions and solving problems for the satisfactory completion of that task.

LEARNER EXPECTATIONS:

After several of these activities, students will, over a period of time, learn that listening is essential for following directions.

Grade level 1

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: most activities are satisfying. They can be work or play.

Objectives:

1. Assume responsibility for classroom jobs and evaluate.
2. Identify an occupational choice and evaluate.
3. Recognize that all people do not have the same interests or abilities.
4. Discuss "attitudes" about work in which we participate at home and school.
5. Identify several occupations which a person may choose.
6. Identify how attitude, abilities and experiences affect performances.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Ask students to bring two magazine pictures from home that show activities around the home.

Attempt to guide them to bring pictures that are related to "work" and "recreation!" Have available some pictures that are clearly "work" and others that are clearly "play" and some that could be in both areas.

Divide chalkboard into three columns, headed WORK: PLAY: BOTH.

Have the students place their picture in the column that they think is appropriate.

Discuss pictures that are clearly "work." Ask: Does your mother or daddy like to do these jobs? How do you know?

Discuss pictures that are "play."

Discuss pictures that are "either." How do we know which activities are "work" and which are "play?"

LEARNER EXPECTATIONS:

1. Students will classify home activity into the appropriate column.
2. Student will be able to name three kinds of work performed around the house.
3. The student will be able to name three kinds of play.

NOTE TO TEACHER:

A note to the parents describing what you are attempting may help in the kinds of pictures you get.

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: there is dignity in work.

Objectives: see previous goal "A."

Suggested subject area: general

SUGGESTED ACTIVITY NO. 1:

Ask students to try a new task in the home that they generally don't perform. After a trial period of a week, ask students questions like the following:

a. Do you like the new task?
b. Were you able to do it successfully?
c. What did you use, or learn?
d. Are you willing to try new jobs at home?

LEARNER EXPECTATIONS:

Student will report orally on the satisfaction he received from the new job.

NOTE TO TEACHER:

1. Sample letter to parents:

Dear Parents,

Your child is learning about the world of work. Will you help him select a task in the home which he normally does not do but which would be helpful to the family?

_____

Teacher

2. This activity takes two periods:
   Period 1: Assignment
   Period 2: Discussion

line up.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities

General concept: family members perform a variety of jobs.

Objectives:

1. Recognize that parents in their occupations are also community helpers.
2. Recognize that being a student is his present career.
3. Identify the goods and services produced in the community.
4. Identify and investigate some of the occupations.
5. Examine various rewards for performing work.
6. Define and identify the difference between the terms "work" and "occupation."
7. Recognize that people have more than one job.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Tell students to close their eyes for a minute and think about jobs that must be done in the home. Then tell them to make a picture of one job that is done in the home.

LEARNER EXPECTATIONS:

Student will draw a picture of one job performed in his home.

NOTE TO TEACHER:

Paper
Crayons

SUGGESTED ACTIVITY NO. 2:

Prepare a bulletin board display of pictures. (See Activity 1.) Tell student to come to the bulletin board when his name is called to tell about his picture.

LEARNER EXPECTATIONS:

Each student will be able to describe his own picture.

NOTE TO TEACHER:

References, materials, etc.
Bulletin board
Students collect pictures.

SUGGESTED ACTIVITY NO. 3:

Point at a picture on bulletin board display and ask students to decide if the job is generally performed by:

a. Mother
b. Dad
c. Children
d. Everyone

After the class reaches a consensus as to who generally performs the job, write this choice on a label and pin it to the picture. Do this for each picture on display.

LEARNER EXPECTATIONS:

Students will be able to name family member or members who generally do a specific job in the home.

(See Activity 1.)

NOTE TO TEACHER:

Prepare the following labels:

Labels
Felt pen
Pins

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: there are many kinds of work.

Objectives: See previous goal "B."

SUGGESTED ACTIVITY NO. 1:

Review the list of school workers. Have children paint a picture showing one of the school workers doing a task.

LEARNER EXPECTATIONS:

Student will paint a picture of a school worker.

MATERIALS:

1. Paper
2. Paint
3. Brushes

NOTE TO TEACHER:

Arrange pictures on bulletin board. Label as to job title and perhaps the name of the worker in your school, e.g.,

Secretary
Mrs. Smith

SUGGESTED ACTIVITY NO. 2:

Tell class that you will invite some school workers to the classroom to tell about their jobs. Add questions to chart of things students wish to know. The chart may read:

a. Why did you choose this job?
b. What do you like or dislike about your job?
c. Do you work mostly indoors or outdoors?
d. Do you work mostly with people or things?
e. Do you talk and listen much?
f. Do you read and write much?
g. Do you use math much?

LEARNER EXPECTATIONS:

Students will suggest questions to be asked of school workers.

MATERIALS:

1. Chart
2. Felt pen

SUGGESTED ACTIVITY NO. 3:

Ask the following school workers to come to your class for a ten minute interview:

a. Principal
b. Secretary
c. Janitor
d. Nurse
e. Cook
f. Librarian
g. Bus driver
h. Teacher (you or cohort)

You may schedule one a day. Sing song after each visit.

LEARNER EXPECTATIONS:

Students will listen to school worker and ask questions concerning duties, skills needed, etc.

MATERIALS:

"Rig-a Jig-Jig"

MUSIC FOR YOUNG AMERICANS:

Book One 1963, American Book Co.

(Substitute name of worker for words "a pretty girl.")

NOTE TO TEACHER:

When arranging for resource speakers, you should give them a list of questions which they can use as a guide or at least be prepared to answer.

SUGGESTED ACTIVITY NO. 4:

Using a "Nifty" flip chart to record sentences as children dictate what they learned about the school worker who spoke the day before. This experience chart may be read the next day before another worker is brought in to speak.

LEARNER EXPECTATIONS:

Students will make statements about a school worker's job.

MATERIALS:

"Nifty" flip chart

NOTE TO TEACHER:

The complete chart may be as follows:

School Cook

> Our school cook came to our room. She told us about her job. She must clean food, cook food, and serve food. She must read recipes, count tickets, write reports, work the stove and work the dishwasher. She likes her job and we like her!

SUGGESTED ACTIVITY NO. 5:

Show film. Then discuss characteristics of the student's job which are similar to school worker's jobs, e.g.,

a. Being on time
b. Observing rules
c. Doing one's best
d. Accepting responsibility

LEARNER EXPECTATIONS:

Student will state how his job is similar to school worker's jobs.

MATERIALS:

Film: **Going to School is Your Job** (col.) (P) Journal Films, 1964.

SUGGESTED ACTIVITY NO. 6:

Take students on a tour of the school building to look for places where people work and also to look for as many workers as they can.

Include:

List places and workers on board as children name them upon return to classroom.	1. Office 2. Health room 3. Cafeteria and kitchen 4. Library 5. Speech room 6. Janitor's workroom 7. Playground 8. Other classrooms

LEARNER EXPECTATIONS:

After observing places where school workers work, students will be able to name at least five workers in the school.

MATERIALS:

1. Chalkboard
2. Chalk

NOTE TO TEACHER:

Before tour, discuss behavior. You may want to arrange for a parent to go along to help supervise.

SUGGESTED ACTIVITY NO. 7:

Divide class into groups of 8. Give each group a picture of a school worker. Give them time to study the picture and discuss among themselves . . . .

a. Who is the worker?
b. What is he doing in the picture?
c. What might he like about the job?
d. Does he work mostly with people or things?
e. Would any of you like the job and why?

Call on each group to come forward and tell about the picture.

LEARNER EXPECTATIONS:

Student will be able to identify a school worker and tell whether he works mostly with people or things.

MATERIALS:

SUE Flat pictures
"School Helpers"

NOTE TO TEACHERS:

Point out that people have different likes and dislikes. These may affect their choice of a job. Make a bulletin board using these pictures.

SUGGESTED ACTIVITY NO. 8:

Show filmstrip. List on chart workers seen in filmstrip as children name them.

Ask:

a. Why do you suppose each worker chose his job?
b. How could we find out why our school workers chose their jobs?

Begin a list on another chart of questions we want to ask our school workers.

LEARNER EXPECTATIONS:

1. Students will name school workers seen in film.
2. Students will list at least two questions to ask each school worker.

FILMSTRIP:

School Helpers

Goal C: develop attitudes, knowledge and skills needed for effective employment.

General concept: workers use tools.

Objectives:

1. Name, use, maintain and store all tools and materials necessary to perform required classwork at any grade level.
2. Practice communication skills with fellow students.
3. Relate basic skills of computation and communication to familiar occupations.
4. Recognize that learning is a continuing process.
5. Name and use some tools and materials used by workers.
6. Evaluate the interdependency of workers in a work situation when everyone has an assigned job.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Ask students to bring from home some of the common tools used in the home:

a. Hammers and nails
b. Screw drivers and screws
c. Pliers and wrenches
d. Hand drill and wood bits
e. Can opener
f. Electric iron (for play iron)
g. Broom
h. Mop
i. Portable vacuum cleaner

Hold up each tool and ask questions: e.g.,

1. What is this?
2. Who uses this?

Demonstrate use of tools.

LEARNER EXPECTATIONS:

Student will be able to name each tool and explain briefly what it is used for.

MATERIALS:

Tools
Tin cans
Wood scraps (soft wood)
Nails
Screws
Cloth
Bolts and Nuts

NOTE TO TEACHER:

The demonstrations may be done over a period of several days.

REFERENCE MATERIALS:

1. **New York City Industrial Arts Guide,** 1969.
2. **Teaching Elementary Industrial Arts.** Goodheart-Wilcox, 1970.

SUGGESTED ACTIVITY NO. 2:

Ask a small group of students to use tools at activity center as directed by adult supervisor.

LEARNER EXPECTATIONS:

Student will use at least two common household tools.

MATERIALS:

1. Tools
2. Soft wood scraps in a variety of sizes and shapes
3. Nails, nuts, bolts
4. Cloth, burlap
5. Cardboard (may be triboard boxes, etc.)
6. Glue

NOTE TO TEACHER:

Have a teacher aide or parent available for help at activity center. Industrial arts students from the senior high school are another good bet.

REFERENCE MATERIALS:

1. **New York City Industrial Arts Guide,** 1969.
2. **Teaching Elementary Industrial Arts.** Goodheart-Wilcox, 1970.

follow previous margins + indentations

Goal C: develop attitudes, knowledge and skills needed for effective employment.

General concept: family members have specialized knowledge and skill.

Objectives: See previous goal "C."

Suggested subject area: math

SUGGESTED ACTIVITY NO. 1:

After working with money in the math program, have youngsters play the role of school secretary and students buying lunch tickets. Using play money, have half the class role play and half the class observe. Then switch. Note other skills used such as counting correct number of lunch tickets. Close by singing song.

LEARNER EXPECTATIONS:

Students will count play money when role playing.

REFERENCE:

Song "Ten Little Pennies"

Music for Young Americans, Book 1, 1965, American Book Company.

NOTE TO TEACHER:

Discussion may follow as to what would happen if the secretary didn't listen, speak, count, or write well.

SUGGESTED ACTIVITY NO. 2:

Write a recipe for cookies on a chart.

34

Have children take turns coming to activity center, reading directions from a recipe and following it. After cookies are mixed, discuss skills used while cooks also use to prepare school lunches. (Reading, measuring.)

MATERIALS:
Chart
Ingredients for cookies
Bowl
Mixer
Sifter
Wooden Spoon
Cookie Sheet

NOTE TO TEACHER:
To involve more children at once, arrange for volunteer parents to help and divide class into units.

SUGGESTED ACTIVITY NO. 3:
Have children role play the principal, teacher, and janitor to see if oral skills of speaking and listening are used.
Lead group discussion on what would happen if these workers could not speak or listen well.

LEARNER EXPECTATIONS:
Student will play part of principal asking janitor to mop and wax floor.

NOTE TO TEACHER:
You may play one part to get the idea across.

Grade level 2

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

Goal of concept: the performance of work results in products and/or services. (3)

Objectives:
1. Recognize that being a student is his present career.
2. Identify and investigate some occupations in community.
3. Identify the many occupations, and the interdependency of each.
4. Recognize that career selection may be based on hobby.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:
Use samples or pictures of several products to motivate a discussion of questions.
a. Could you use these goods?
b. Are these goods free?
c. What did someone have to do to make these goods?
d. How many producers of goods can you name?
(Wash. State Economics Guide)

LEARNER EXPECTATIONS:
Student will name at least three occupations that produce goods.

MATERIALS:
Magazine pictures showing a variety of products.
Actual products: e.g., bread, mittens, ball, eraser, bookcase, pencil.

REFERENCE MATERIALS:
Washington State Economics Guide

SUGGESTED ACTIVITY NO. 2:
Ask the students to name workers who do not produce goods. Then ask what they do produce. After the workers have been named, have each student make an illustration of a worker, headed by the caption:
"This Worker Produces Services."

LEARNER EXPECTATIONS:
Students will name at least three producers of services.

MATERIALS:
Paper
Crayons

SUGGESTED ACTIVITY NO. 3:
Ask students to tell about their parents' occupations. Then have them paint or draw a picture illustrating their parents at work.

LEARNER EXPECTATIONS:
Student will name parent's job and explain orally what he does.

MATERIALS:
Paper
Paint
Crayons, etc.

NOTE:
If parents are unemployed, have them select a job that the parent used to have or that a friend has.

SUGGESTED ACTIVITY NO. 4:
Prepare headings for bulletin board.
Producers of Goods
Producers of Services
Use pictures from Activity No. 3. Ask children to place pictures on bulletin under correct headings.

LEARNER EXPECTATIONS:

Student can differentiate between a producer of goods or servies.

Goal C: develop attitudes, knowledges and skills needed for effective employment.

General concept: basic skills are necessary for most of our jobs. (3)

Objectives:

1. Name, use, maintain and store all tools and materials necessary to perform required classwork at any grade level.
2. Comply with school standards of behavior and tell the reasons why.
3. Relate basic skills of computation and communication to familiar occupation.
4. Recognize that learning is a continuing process.
5. Recognize that health habits may affect job performance.
6. Identify some of the attitudes, knowledge and skills needed to perform an occupation.
7. Evaluate the interdependency of workers in a work situation when everyone has an assigned job.
8. Know the factors contributing to a worker's success.

Suggested subject area: language arts

SUGGESTED ACTIVITY NO. 1:

Begin one school day by pantomiming all activities for 5 to 10 minutes. Discuss the importance of the ability to speak well to the job of being a teacher. Ask students to name other jobs that require the facility of speech. List on a chart.

LEARNER EXPECTATIONS:

Students will name at least three jobs that require speaking skills.

MATERIALS:

Chart: "Workers Who Must Speak Well"

SUGGESTED ACTIVITY NO. 2:

Suggest to the students that they watch television for one hour after school one day and count how many different voices they heard. Discuss how the ability to speak well helped the television workers.

LEARNER EXPECTATIONS:

Student will name five different workers seen on TV who must speak well to do their jobs.

NOTE TO TEACHER:

Send note to parents explaining the project and what the students are required to do.

SUGGESTED ACTIVITY NO. 3:

Arrange for a person such as a waitress to come to class and explain why listening is important to her job. Ask the students to name other jobs where listening is an important skill. Prepare a chart with the class listing the jobs where listening is important. Label the chart "Workers Who Must Listen Well."

LEARNER EXPECTATIONS:

Students will name at least five other occupations where listening is important.

MATERIALS:

Tagboard
Crayons

SUGGESTED ACTIVITY NO. 4:

Take students to community library. Ask librarian to tell students about her work and other workers employed in the library. Ask her to point out the importance of reading in library jobs.

After the visit:

Discuss with the class workers who need to read well, post names on chart.

LEARNER EXPECTATIONS:

Student will be able to list five occupations where reading is important to a job.

NOTE TO TEACHER:

Prepare a chart on tagboard with this caption:

"Workers Who Must Read Well"

SUGGESTED ACTIVITY NO. 5:

Ask students to write a set of directions for individuals who have assigned tasks in the classroom. Collect directions prepared by students.

LEARNER EXPECTATIONS:

Students will write a set of directions for a room responsibility.

MATERIALS:

Paper
Pencil

SUGGESTED ACTIVITY NO. 6:

See Activity No. 5. Exchange directions so that each student has someone else's directions. Ask each student to follow the set of directions. Upon completion of this task, discuss the importance of clearly written directions. Point out how written directions prepared by students may be improved to bring out better results.

LEARNER EXPECTATIONS:

Student will be able to identify weaknesses in a set of directions.

SUGGESTED ACTIVITY NO. 7:

Ask students to think about different occupations that require writing. List these occupations that require writing on a chart.

LEARNER EXPECTATIONS:

Student is able to list five occupations that require writing skills.

NOTE TO TEACHER:

Prepare chart with this caption:

"Workers Who Must Write"

SUGGESTED ACTIVITY NO. 8:

Show filmstrip **Our Neighborhood Workers.** Make a chart that the students can use to record on as they watch the filmstrip.

Name of Worker	Speaking	Listening	Reading	Writing

LEARNER EXPECTATIONS:

Student will name five communication skills needed by each worker seen in the filmstrip.

FILMSTRIP:

Our Neighborhood Workers, Eye Gate House.

Grade level 5

Goal A: explore and assess personal attitudes, aptitudes, and interests.

General concept: there is dignity in all work. (2)

Objectives:

1. Assume responsibility for classroom jobs and evaluate.
2. Select a career in which interested.
3. Analyze attitudes toward work.
4. Analyze and compare reasons why people prefer certain occupations.
5. Evaluate personal attributes related to employability.

Suggested subject area: language arts, social studies.

SUGGESTED ACTIVITY NO. 1:

Ask the class to think back to the last time they were assigned a job to do at home in which they were interested.

Discuss with the class:

a. How they felt when they were working.
b. How they felt when they were finished.

LEARNER EXPECTATIONS:

The student will be able to relate verbally his feelings about work.

NOTE TO TEACHER:

Help the children understand that there is dignity in work by pointing out that the worker can take pride in a job well done.

SUGGESTED ACTIVITY NO. 2:

Conduct class discussion about the workers who clean our streets, collect the garbage and deliver milk to the home.

LEARNER EXPECTATIONS:

The student will be able to write one paragraph about the importance of the services provided by the workers.

NOTE TO TEACHER:

Show that there is dignity in all work as long as it is honest labor and meaningful to the worker.

REFERENCE MATERIALS:

Flotte, Louis Lee. **Cowboy on the Ranch.** Scribner, 1959.

Hayes, Will. **Biggest Pig.** Melmont, 1958.

Lifring, Joan. **Dee and Curtis on a Dairy Farm.** Follett, 1957.

Bate, Norman. **Who Built the Highway?** Scribner, 1953.

Goodspeed, J. H. **Let's Go to Watch a Building Go Up.** Putnam, 1956.

Schlein, Miriam. **A Fisherman's Day.** Whitman, 1954.

SUGGESTED ACTIVITY NO. 3:

Develop a bulletin board around the idea "People Communicate in Their Work." Each child may place a picture of a worker on the bulletin board and tell how the ability to communicate effectively helps him in his work.

LEARNER EXPECTATIONS:

Student will be able to relate 4 examples in which the ability to communicate effectively helps a person work well with others.

NOTE TO TEACHER:

Pictures of various workers.

SUGGESTED ACTIVITY NO. 4:

Have class visit a radio station or TV station to find out all the workers involved in

the production of radio programs. Ask the guide before the visit to explain the duties of each worker and the importance of effective communication in the field of radio during the class visit.

LEARNER EXPECTATIONS:

Students will be able to illustrate through the role playing process the duties of each worker observed during the class visit.

REFERENCES:

Local radio or TV station.

Come To Work With Us Series: TV station.

Jean & Ned Wilkinson. Sextant Systems, Inc., 1970.

Television Works Like This. Jeanne Bendick; McGraw-Hill, 1965.

Television (A First Book.) Edward Stoddard; F. Watts, 1970.

SUGGESTED ACTIVITY NO. 5:

Have children read related books to find workers communicating effectively.

LEARNER EXPECTATIONS:

Student will read recommended books and will be able to answer oral questions pertaining to the books he has read.

REFERENCES:

1. Reichert, Edwin, and Bracken, Dorothy K. **Bucky's Friends.** Lippincott, 1957.
2. Miner, Opal, and Sevrey, Irene. **True Book of Communication.** Children's Press, 1960.
3. **What Happens at a Television Station.** Arthur Shay; Reilly & Lee, 1969.

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: self-understanding is important in making career decisions. (3)

Objectives: See previous goal "A."

Suggested subject area: language arts, social studies

SUGGESTED ACTIVITY NO. 1:

Play a guessing game. One child describes someone in the room and the others try to guess who it is. After several rounds in the game, the teacher asks, "How did you know it was Susy or Ben?" Through the responses of the children the teacher may help them understand that everyone is alike in some ways and different in some ways, and it is important to know ourselves.

LEARNER EXPECTATIONS:

Student will be able to state verbally one characteristic that is different about himself from other members of the class.

REFERENCES:

1. Darby, Gene. **Like You, Like You.** Benefic Press, 1971.
2. Cannon, Calvin. **What I Like To Do.** Coward-McCann, Inc., 1971.
3. Ise, Margaret. **When I grow Up.** Golden Press, 1968.

up

SUGGESTED ACTIVITY NO. 2:

Use a checklist inventory as a means of helping students begin understanding themselves.

Examples of items to be used on the checklist:

I like to:
__be outdoors
__be indoors
__draw pictures
__talk to people
__be by myself
__help people
__work with machines
__do things where I can move around
__work with my hands
__try new things
__make up songs
__build things
__collect things

Compare the results of their checklist with others in their class to discover likenesses and differences.

LEARNER EXPECTATIONS:

Student will be able to identify those settings and types of work that he is most interested in doing.

REFERENCES:

1. Lifton, Walter M. **What Could I Be?** Science Research Associates, pp. 28-29.
2. Lenski, Lois. **When I Grow Up.** Lippincott, 1960.
3. Maddox, Edith F. **When I Grow Up.** National Dairy Council, 1957.

SUGGESTED ACTIVITY NO. 3:

Invite workers from widely varying occupations to visit the class and explain why they enjoy their work.

LEARNER EXPECTATIONS:

Students will be able to list eight reasons why workers enjoy their occupations.

NOTE TO TEACHER:

Careful screening and planning will need to be done by the teacher and the invited workers before the visit.

straighten

38

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: the performance of work results in products and/or services. (3)

Objectives:

1. Study and identify businesses and occupations.
2. Identify the many occupations, and the interdependency of each.
3. Explore potential careers that develop from hobbies.
4. Contrast job opportunities in communities.
5. Analyze the changing nature of career opportunities.

Suggested subject area: social studies; mathematics

SUGGESTED ACTIVITY NO. 1:

Present film to class on how team work can produce a product.

Discuss with the class how people in school work together. For example:

What happens when one room goes to lunch too early or too late?

What happens when a class stays in a gym too long?

LEARNER EXPECTATIONS:

The student will be able to describe in one written paragraph the importance of working together.

FILMS:

We Want Goods and Services

How is Clothing Made: A Story of Mass Production

Film Associates, Los Angeles.

SUGGESTED ACTIVITY NO. 2:

Have class construct clock faces. Coordinate activities with mathematics activities.

There are three steps in constructing a clock:

a. Make a cardboard circle
b. Make two hands of different lengths
c. Number the clock face
d. Assemble parts with paper fastener

Discuss with class that some jobs result in a product that is produced.

Discuss assembly-line techniques with class.

Divide class into 4 groups and develop assembly-line procedures.

LEARNER EXPECTATIONS:

1. Student will be able to verbally state the steps involved in producing a clock face.
2. Student will be able to orally explain the difference between "production of goods" and the "production of services."

MATERIALS:

Colored construction paper
Tagboard
Felt pens
Paper fasteners
Scissors

NOTE TO TEACHER:

Construct patterns for each component so that quality of product can be maintained.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: supply and demand influence the kinds of occupations found in a community. (4)

Objectives: See previous goal "B."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Ask the students what they think supply and demand mean.

LEARNER EXPECTATIONS:

The student will be able to orally discuss the relationship between supply and demand.

NOTES TO TEACHER:

Introduce the concept of supply and demand in the following manner:

1. Place a large amount of stickers (or other undesirable item) and a small amount of flowers (or other desirable items) on a table. Ask the children which they would rather have.
2. Alter the objects so that there is a large amount of flowers and a small amount of stickers. Ask the children which they would rather have.

SUGGESTED ACTIVITY NO. 2:

Ask the children to look for empty store buildings in the community and try to find out:

a. What kind of store was in the building?
b. Why did it go out of business?

Have the children report their findings to the class and discuss how a community changes because of supply and demand.

LEARNER EXPECTATIONS:

The student will compile a list of three businesses in the community which they know are directly dependent upon supply and demand.

Goal C: develop attitudes, knowledge and skills needed for effective employment.

General concept: basic skills are necessary for most of our jobs. (3)

Objectives:

1. Name, use, maintain and store all tools and materials necessary to perform required classwork.
2. Demonstrate acceptance of responsibility for self by moving within school facility without supervision.
3. Practice communication skills with fellow students.
4. Relate basic skills of computation and communication to familiar occupations.
5. Evaluate competence in vocabulary studies.
6. Plan and follow a weekly schedule which will promote good performance in school.
7. Examine the health and safety standards for workers in various occupations.
8. Examine qualifications needed by people in different jobs.
9. Identify how a job may change.
10. Recognize that similar jobs can be done in different businesses.
11. Analyze how specialization and division of labor affects the quality or quantity of goods produced.
12. Analyze the contribution each worker makes to a given industry or business.
13. Analyze factors relating to attaining and maintaining job.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Have the teacher initiate a discussion of education requirements vital to many occupations by asking the children to imagine that they were grown and wanted to be a bricklayer. How would they go about the business of becoming a bricklayer? After some discussion the teacher may suggest to the children that many occupations require some type of special education either in school or out of school.

LEARNER EXPECTATIONS:

Student will list at least three skills for an occupation and indicate where he might acquire the skill.

NOTE TO TEACHER:

Emphasize that people acquire skills at home, at school and on the job. Most people do need special skills to secure a job.

SUGGESTED ACTIVITY NO. 2:

Each child will select an occupation in which he is currently interested and investigate the education requirements of that occupation, both general and specific.

Students may acquire this information through filmstrips, pamphlets, books, interviews with workers.

LEARNER EXPECTATIONS:

Student will be able to write a paragraph listing at least three educational requirements of a specific occupation.

NOTE TO TEACHER:

Suggested headings of occupational education:

a. High school diploma required.
b. On-the-job education required.
c. College degree required.
d. Special schooling required (such as barber college).
e. No education required.

Grade level 4

Goal A: explore and assess personal attitudes, aptitudes and interests.

General concept: most activities are satisfying. They can be work or play. (1)

Objectives:

1. Assume responsibility for classroom jobs and evaluate performance.
2. Evaluate personal attributes related to employability.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Discuss with the class the reasons people work by answering these questions.

a. What is the difference between work and play?
b. What is the difference between work and a hobby?
c. When is work interesting and a pleasure?
d. What would it be like at home if your father never worked?
e. What are some of the reasons people work?

LEARNER EXPECTATIONS:

1. Student will be able to orally state example of the difference between work, play and hobbies.
2. Student will be able to orally state several reasons why people work.

NOTE TO TEACHER:

As students respond to questions, write their answers on the chalkboard.

Goal A: explore and assess personal attitudes, aptitudes, attributes, and interests.

General concept: (a) finding areas of interest can aid self-understanding. (b) self-understanding can point to occupational interests.

Objectives: See previous goal "A"

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Have the teacher administer the interest inventory "What I Like to Do." The children under the guidance of the teacher score their own responses and complete the profile sheet. The teacher will want to duplicate the profile charts so that one copy may be kept for later reference and evaluation. The teacher will need to explain what is meant by interest areas on the inventory.

LEARNER EXPECTATIONS:

Student will be able to list, in writing, several of his interest areas.

REFERENCE:

Thorpe, Louis P., and others. **What I Like To Do.** Science Research Associates, 1954.

SUGGESTED ACTIVITY NO. 2:

Have the children investigate vocational interests associated with their strong interest areas. Use of reference materials can be encouraged by the teacher to provide the student with accurate and realistic views of the occupations under investigation.

LEARNER EXPECTATIONS:

Student will be able to associate an interest area with a vocational interest area.

NOTE TO TEACHER:

Refer to the following books for sources of information:

1. Tennyson, W. Wesley and others. **The Teacher's Role in Career Development.** National Vocational Guidance Association, Washington, D. C.
2. Forrester, Gertrude. **Occupational Literature.** H. W. Wilson Co., New York, 1964.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: occupations can be grouped into clusters. (5)

Objectives:

1. Identify and evaluate rewards that are received from jobs.
2. Analyze variety of career possibilities in communities.
3. Analyze the changing nature of job opportunities in terms of technology and the needs of people.

SUGGESTED ACTIVITY NO. 1:

Have the teacher review the meaning of job families by asking the children to discuss:

a. What is a family?
b. What is a job?
c. What, then, is a job family?

LEARNER EXPECTATIONS:

Student will be able to orally or in written form describe the term "job family."

NOTE TO TEACHER:

Refer to the book **Occupational Information: The Dynamics of Its Nature and Use,** by Max F. Baer and Edward C. Roeber, Science Research Associates, Inc., Chicago, 1964, pp. 167-173.

SUGGESTED ACTIVITY NO. 2:

Have the teacher introduce broad groups of occupations and explain briefly what is included and meant by each of the groups. The class may divide into groups, each committee using one of the groups as a basis for developing job families. The committees may include locally found occupations as well as those outside of the immediate community. Atypical as well as typical occupations should be considered.

LEARNER EXPECTATIONS:

The student will be able to develop a list of occupations that make up a job family.

NOTE TO TEACHER:

Refer to book, **Occupational Information: The Dynamics of Its Nature and Use,** by Max F. Baer and Edward C. Roeber. Science Research Associates, Inc., Chicago, 1964.

SUGGESTED ACTIVITY NO. 3:

Have children examine the want ads of newspaper to find out:

a. How many job opportunities require education?
b. How many job opportunities require high school diplomas?
c. How many job opportunities require college degrees?

LEARNER EXPECTATIONS:

Students will be able to orally describe several occupations which require diplomas or degrees.

NOTE TO TEACHER:

Have students bring newspaper from home.

Goal B: examine the concept of work and work roles and the multiple occupational possibilities.

General concept: geography influences the kinds of occupations found in an area. (6)

Objectives: See previous goal "B."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Show filmstrip which depicts work in different geographical areas. At the conclusion of the filmstrip, the class may discuss:

a. What occupations were shown?
b. What geographical areas were shown?
c. What effect does geographical location have on occupations?

LEARNER EXPECTATIONS:

1. Student will list 12 occupations.
2. Student will list the geographical areas corresponding to the 12 occupations entered in expectation No. 1.
3. Student will orally describe importance of geographic areas in terms of availability of occupations.

FILMSTRIP.

Pierce, Mary Lusk. **The Community Where You Live.** Allyn, 1958.

NOTE TO TEACHER:

Write occupations and geographical areas where these occupations are found on chalkboard.

SUGGESTED ACTIVITY NO. 2:

Have students compare the want ad sections of newspapers from small towns and large cities to find the occupations that are the same and those that are different.

Have student investigate whether or not an occupation in which he is interested would likely be found in any area of the United States. He will write a paragraph showing his findings.

LEARNER EXPECTATIONS:

1. Student will be able to orally realize different occupations in different areas.
2. Student will report in writing where he is most likely to find work in an occupation he is interested in.

NOTE TO TEACHER:

Arrange to have students bring in want ads sections from newspapers from several cities.

SUGGESTED ACTIVITY NO. 3:

Have class correspond with children in other areas of the United States describing their communities and work and workers found there. Descriptive booklets of the communities could be written and illustrated with photographs and exchanged by the children.

LEARNER EXPECTATIONS:

1. Student will orally report the occupations in different areas.
2. Student will complete booklet describing work and workers in communities.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: technological and sociological changes eliminate and create jobs.(7)

Objectives: See previous goal "B."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Explain that due to scientific advances fewer people are involved in producing goods and more workers produce services. The county agricultural agent will be invited to visit the class and explain how farming is changing because of science. He may discuss the differences in (a) the number of farmers now and fifty years ago, and (b) the amount of production now and fifty years ago.

Have students investigate vocations in which they are interested as to the evolution of that occupation. The teacher will suggest that they read reference materials in the library.

LEARNER EXPECTATIONS:

Students will orally report in class the reasons jobs change.

FILMSTRIP:

"Then and Now in the United States Series," filmstrips, Encyclopedia Britannica Films.

NOTE TO TEACHER:

Contact agricultural agent and arrange for visit.

Goal C: develop attitudes, knowledge and skills needed for effective employment.

General concept a: workers are interdependent (4)

Objectives:

1. Utilize mathematical knowledge to produce an item.
2. Analyze the need for good communication skills.
3. Recognize that a given skill or knowledge may be applied in a number of work situations.
4. Identify how a job may change.
5. Recognize that jobs require interdependency among workers.
6. Recognize that experience brings greater efficiency and skill to a job or related work activity.
7. Realize that health is a factor contributing to a worker's success.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Have the children dramatize the following situation:

Johnny doesn't feel well so his mother takes him to the doctor (general practitioner) but the doctor can't find out what is wrong with Johnny so he sends Johnny to another doctor who specializes in children's illnesses (pediatrician). The pediatrician is not sure what is wrong with Johnny so he sends him to another doctor who specializes in bones and joints (orthopedic surgeon) who also can't discover what is wrong with Johnny. The orthopedic surgeon sends Johnny to a doctor who specializes in skin diseases (dermatologist). The dermatologist looks at Johnny and says, "Johnny, I know what your trouble is. You don't feel well because your belt is too tight and it is hurting your stomach."

Discuss with the class:

a. Why health workers need to specialize.
b. How specialization leads to interdependency.
c. Student will be able to orally state several examples of workers who need to specialize.

General concept b: specialization leads to interdependency.

SUGGESTED ACTIVITY NO. 2:

Have the children work in committees to develop circular graphs showing the interdependency of health occupations.

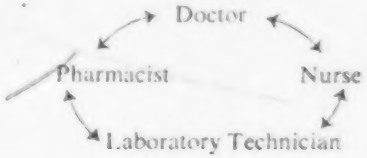
LEARNER EXPECTATIONS:

Student will be able to draw a graph showing the relationship of health occupations and the interdependency of these occupations.

NOTE TO TEACHER:

Write the following example on chalkboard for students to view.

Example of a circular graph:



43

Grade level 5

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: individuals vary in their interests and abilities. (4)

Objectives:

1. Assume responsibility for classroom jobs and evaluate.
2. Relate identified interests and abilities to occupational choice and to degree of satisfaction.
3. Explore interrelationship between attitude, ability, experiences and performance.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Put a silhouette of a human figure on the bulletin board along with three captions: abilities, interests and occupations. The class may develop a hypothetical person, making up his interest and abilities and listing them under the appropriate captions. Then the class can make a list of occupations the individual could do well because of his interests and abilities.

Help the class see that people can perform (work) in many different occupations because of their interest and abilities.

LEARNER EXPECTATIONS:

Given a set of interests and abilities, the student will be able to identify at least three appropriate careers for an individual.

MATERIALS:

Sample bulletin board:

Interests	Abilities	Possible Occupations
. . . . .		. . . . .
. . . . .		. . . . .
. . . . .		. . . . .

LISTS AND REFERENCES FOR THE TEACHER:

Interests	Abilities
Outdoor	Verbal comprehension
Mechanical	Reasoning
Computational	Number ability
Scientific	Space ability
Persuasive	Mechanical comprehension
Artistic	Clerical speed and accuracy
Literary	Physical skills
Musical	Manual dexterity
Social Service	Creative ability
Clerical	Artistic ability
	Writing ability
	Musical ability
	Dramatic ability
	Persuasive ability

Science Research Associates. Byrne, John and Katherine.

(1) **You and Your Abilities.**
(2) Paulson, Blanche B. **Discovering Your Real Interests.**
(3) Kuder, Frederic and Paulson, Blanche. **Exploring Children's Interests.**
(4) Bailard, Virginia. **Your Abilities.**
(5) **Career-Planning Guide.** The World Book Encyclopedia, Merchandise Mart Plaza, Chicago, Illinois.

SUGGESTED ACTIVITY NO. 2:

Have class list on a chalkboard what aptitudes, or abilities, they think it would take to be successful in careers associated with physical education. Beside this, list the occupations related to physical education. Then, the class will draw arrows from each one of the abilities to several of the careers. (Physical education is used here only as a suggestion.)

LEARNER EXPECTATIONS:

Students will be able to list at least five careers that can be associated with physical education.

NOTE TO TEACHER:

A sample of possible student's list:

(1) Abilities
Physical skills
Manual dexterity
Artistic abilities
Music ability
Writing ability
Reasoning

(2) P.E. careers
Dancer
Athlete
Sports cartoonist
Umpire
Lifeguard
Timekeeper

The above list is from Tennyson, Wesley. **The Teacher's Role in Career Development,** p. 82. National Vocational Guidance Association.

SUGGESTED ACTIVITY NO. 3:

Have each child choose one career associated with physical education and write a short report relating the interests and abilities necessary to be successful in that career. These reports can be added to the career notebooks which were begun earlier in the year.

MATERIALS:

Individual career notebooks

SUGGESTED ACTIVITY NO. 4:

Invite a person working in some health and/or physical education related career to visit the class and discuss:

a. His work.
b. His interests and abilities that helped him decide on this career.
c. Necessity of good health and physical exercise to everyone regardless of differences in abilities and interests.

LEARNER EXPECTATIONS:

Student should be able to discuss what the speaker's job is and what functions he performs.

SUGGESTED ACTIVITY NO. 5:

Have students list those things of a physical nature which they can do well, i.e., running, jumping, throwing, etc. He may make a second list of possible occupations for which these skills would be necessary. You should help the students see that every individual has a unique set of abilities, the combination of which presents many occupational possibilities.

LEARNER EXPECTATIONS:

1. The student will be able to list at least three physical skills that he possesses.
2. The student will be able to identify two occupations that require such skill.

SUGGESTED ACTIVITY NO. 6:

Have the class play "Concentration" using occupation and tool cards turned upside down on the floor or table. To get one point, the student must:

a. match the appropriate tool and occupation card
b. state the name of the occupation

c. tell how the worker uses that particular tool in his work.

LEARNER EXPECTATIONS:

The student will be able to list at least five tools used by three different workers.

MATERIALS:

Occupation and tool cards from Peabody Language Development Kit, Level No. 2.

SUGGESTED ACTIVITY NO. 7:

Have students examine their career notebooks to find out what careers they learned about, which they knew little or nothing of at the beginning of the school year. Have them relate what they have learned in informal sharing periods—

a. what they have learned about the world of work in general, and
b. various occupations in particular.

MATERIALS:

Individual career notebooks

NOTE TO TEACHER:

This activity should be a culminating activity and should be concluded with a test.

SAMPLE EVALUATION FORM:

Evaluative procedures for the fifth grade will, of necessity, be a continuous process using both objective and subjective data. Teacher will find it helpful to keep a daily log including her observations and anecdotes of class and individual behavior during the various activities. By making notes periodically indicating especially effective or ineffective methods, activities, and materials, the program will constantly be improved.

Evaluation of the growth of each individual child is germane to the evaluation of the total program. The following methods are suggested as means of determining the development of the child's understanding of the nature of work.

Give children a list of open-ended sentences regarding the concepts they have learned during the year. How they respond will determine the gain in understanding and what is important to them.

1. People need to cooperate in many occupations because . . . . . .
2. A worker needs to know about supply and demand because . . . . . .
3. Some people move because . . . . . .
4. I see myself twenty years from now as a . . . . . .
5. I am going to school because . . . . . .
6. One of the things I need to know about the world of work is . . . . . .
7. People work because . . . . . .

Have children match brief descriptions of various occupations studies throughout the year with occupational titles. This technique will evaluate factual knowledge gained by the students.

(1) Auto Mechanic
(2) Auto Salesman
(3) T.V. Announcer
(4) Math Teacher
(5) Stewardess
(6) Co-Pilot
(7) Purser
(8) T.V. News Director
(9) Riveter
(10) Roustabout
(11) Lumberjack
(12) Sports Cartoonist
(13) Lifeguard
(14) Athletic Trainer
(15) Camp Director

a. Saves swimmer from drowning and gives first aid.
b. Repairs oil field equipment, unscrews pump rods.
c. Uses a hammer and a machine to fasten pieces of metal together.
d. Works in the forest and cuts down trees.
e. Draws cartoons to show important sports news.
f. Serves meals, sandwiches to passengers riding on an airplane.
g. Tells about different programs, interviews guests, and tells people about news.
h. Sells cars to people.
i. Fixes cars so people can drive them.
j. Shows students how to use numbers.
k. Aids the pilot in all flying activity, keeps flight records, instrument readings, and relieves pilot.
l. The number-one flight attendant who keeps records and sees that passengers are comfortable.
m. Massages parts of players' bodies to relieve soreness, strain and bruises.
n. Plans recreational activities for recreational program, hires and supervises camp staff.
o. Plans and prepares news for T.V. announcers.

Present short paragraphs depicting problem situations which the students are

straighter

46

asked to solve on the basis of what they have learned throughout the year. The evaluation of the children's responses will necessarily be subjective, but indicative of the ability to apply those concepts learned throughout the year.

EXAMPLE:

John Jones and his family live in a small town. John is a shoe repairman and has built up a fine business. However, two more shoe repairmen move to town and John Jones' business drops off. What shall John do about it?

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: workers may produce goods or provide services. (5)

Objectives: See previous goal "A."

Suggested subject area: social studies, math

SUGGESTED ACTIVITY NO. 1:

Have class list the occupations associated with mathematics under headings "Producer of Services" and "Producer of Goods." The children will need to explore the occupations under consideration to some depth in order to determine what, exactly, the worker produces.

LEARNER EXPECTATIONS:

Students will be able to write a short paragraph explaining the difference between goods and services.

MATERIALS:

1. Norris, Willa and Manheimer, Wallace. **What Good is Math?** S.R.A., pp. 40-43.
2. Tennyson, W. W. et al. **The Teacher's Role in Career Development.** Minnesota Dept. of Education, pp. 78-80.
3. Widening Occupational Roles Kit, S.R.A.

NOTE TO TEACHER:

Have class review the meaning of the terms goods and services. Make sure the children have clear understanding of these terms before proceeding to next activity.

SUGGESTED ACTIVITY NO. 2:

Have each student select a career associated with mathematics and find out, by reading and/or interviewing, information to answer questions in the column to the right. Brief oral reports can be given to the class by each student if time permits. Written report can be included in each student's career notebook.

LEARNER EXPECTATIONS:

1. Students will present an oral report on a career associated with mathematics.
2. Students will write a report on a career associated with mathematics and include it in their career notebook.

NOTE TO TEACHER:

Sample report form:

a. Nature of work
   (1) What does the worker actually do on the job?
   (2) Does he produce goods or services?
   (3) What tools does he use?
   (4) What are the working conditions?
   (5) Hours?
   (6) Surroundings?
b. Qualifications
   (1) What special abilities are required?
   (2) Age?
   (3) Physical characteristics of the worker?
c. Do you think you would like to do this type of work? Why or why not?

SUGGESTED ACTIVITY NO. 3

Have class develop a pie graph depicting percentage of workers explored in previous activity or approach No. 1, who produce (a) goods, (b) services, (c) both goods and services, and (d) unknown.

LEARNER EXPECTATIONS:

Student should be able to explain in written or oral form the difference between producers of goods and producers of services and the percentage of people employed in each category.

NOTE TO TEACHER:

Sample pie graph—mathematic careers

NOTE: The percentages should be based on the children's findings.

SUGGESTED ACTIVITY NO. 4:

Review concept with class: some worlds produce goods; others produce services (inasmuch as this is the last time this concept will be discussed at any length). Hopefully, the children can begin generalizing this concept to all areas of the world of work. The teacher may aid this process of generalization by asking the following questions:

a. Why do we need producers of goods?
b. Why do we need producers of services?
c. How do producers of services and goods help our community or nation?
d. How many producers of goods can you think of?
e. How many producers of services can you think of?

LEARNER EXPECTATIONS:

Student should be able to orally or in written form answer the five questions posed above.

REFERENCES:

1. Fenton, Caroll Lane and Kitchen, Hermunie. **Fruits We Eat.** Doubleday, 1961.
2. Foster, Joanna. **Pages, Pictures, and Print! A Book in the Making.** Harcourt, 1958.
3. Billings, Henry. **Construction Ahead.** Viking, 1951.
4. Coombs, Charles H.. **High Timber: The Story of American Forestry.** World, 1960.
5. Brooks, Anita. **The Picture Book of Tea and Coffee.** Day, 1961.

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests.

General concept: basic skills are necessary for most jobs. (6)

Objectives: See previous goal "A."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Discuss with children answers to the following questions:

a. Why do we have schools?
b. Why is school important to people?
c. How can school help people prepare for work?
d. What should we expect to gain from school experiences?
e. What can we do to get the most out of school?

LEARNER EXPECTATIONS:

Children will discuss questions that will lead to generalizations about importance of school leading to a career.

NOTE TO TEACHER:

List children's suggestions on chalkboard. These ideas can be reconsidered and regrouped to formulate generalizations regarding school as a preparation for a career. This list can be saved for further additions.

SUGGESTED ACTIVITY NO. 2:

Have children explore various occupations (by reading or interviewing) to discover:

a. Level of education needed
b. Facility in particular school subjects needed

LEARNER EXPECTATIONS:

Children will discover that certain skills are needed for various occupations.

MATERIALS:

Occupational Charts, F. A. Owen Publishing Co., Dansville, N. Y.

SUGGESTED ACTIVITY NO. 3:

Have children begin making career notebooks with short paragraphs included regarding activities No. 1 and 2 (see above). These notebooks can be kept and added to during entire school year.

LEARNER EXPECTATIONS:

Children will plan and start developing a career notebook.

MATERIALS:

Spiral notebooks or manila folders — enough for each child in classroom to have his own.

NOTE TO TEACHER:

These notebooks can serve as basis for review during month of May and evaluation of progress.

SUGGESTED ACTIVITY NO. 4:

Show filmstrip relating importance of school to work. At the conclusion of film, the class may discuss the following question:

How should a person decide on the amount of education he would like to have?

LEARNER EXPECTATIONS:

Students will be able to list three reasons why school is important in getting and keeping a job.

FILMSTRIP:

What Good is School? Walter M. Lifton, Society for Visual Education, Inc., Chicago, Illinois.

SUGGESTED ACTIVITY NO. 5:

Direct students in the class to visit three

people in the community. See what they do on their job during an eight-hour day. How often do they need to know the things you learn in school? Pick one of the people they have interviewed and list the subjects he or she took in school. What other jobs could they get?

LEARNER EXPECTATIONS:

Students will fill out questionnaire on the three people they have interviewed.

NOTE TO TEACHER:

Develop with your class a simple questionnaire to help students accomplish activity.

SUGGESTED ACTIVITY NO. 6:

Direct children to read related books.

LEARNER EXPECTATIONS:

Students will write a short summary of at least two books they have read.

STUDENT REFERENCES:

1. MacMann, Elaine. **Risky Business.** Putnam, 1956.
2. **Tommy Looks at Farming.** B. F. Goodrich Co., Akron, Ohio.
3. Colby, Carrol Burleight. **Police: The Work, Equipment, and Training of Our Finest.** Coward, 1954.
4. Flaherty, John Joseph. **Our F.B.I. An Inside Story.** Lippincott.
5. Gibson, Michael Dana. **Rescue from the Air.** Abelard, 1960.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: workers are interdependent. (8)

Objectives:

1. Identify the many kinds of work and occupations, and the interdependence of each.
2. Explore several occupational areas.
3. Recognize that career selection may be based on a hobby.
4. Identify similar and contrasting job opportunities.
5. Analyze the changing nature of career opportunities.
6. Name and examine a variety of occupations.

Suggested subject area: social studies, language arts

SUGGESTED ACTIVITY NO. 1:

Have children "brainstorm" the word "cooperation." Ask each child to name the first thing that pops into his head when the word "cooperation" is used. Carry on a divergent discussion about their responses. Be careful not to indicate judgment of quality of answers from students.

LEARNER EXPECTATIONS:

Student will be able to list at least two examples which will demonstrate their understanding of the word "cooperation."

NOTE TO TEACHER:

Develop a list of questions for use in carrying on the discussion with the class.

SUGGESTED ACTIVITY NO. 2:

Direct students to find definition(s) of the word "cooperation" in the dictionary. Discuss the importance of cooperation in:

a. the home
b. school
c. world of work

Direct discussions that illustrate the student's role in both the home and school with regard to cooperation.

Using this background, encourage discussion concerning cooperation in the world of work.

LEARNER EXPECTATIONS:

Students will have a working understanding of "cooperation" in home, school and world of work as evidenced by their ability to write or verbalize at least two synonyms for the word "cooperation."

REFERENCE MATERIALS:

Supply of dictionaries
Pocket thesaurus

NOTE TO TEACHER:

Questions should be prepared by the teacher prior to the discussion period.

SUGGESTED ACTIVITY NO. 3:

Invite representative of local business firm to discuss the need for cooperation among workers in completing a product.

Questions to be discussed by the speaker:

a. Can a business firm exist without cooperation?
b. Why are types of cooperation required for a business to be successful?
c. How important is cooperation between labor and management?

LEARNER EXPECTATIONS:

Students will be able to list at least five examples of cooperation within a business firm.

NOTE TO TEACHER:

Contact representative from business firm well in advance of his appearance in the class. Advise him of the class make-up and what he is expected to talk about.

SUGGESTED ACTIVITY NO. 4:

Take class on a field trip to a local business firm.

Ask students to observe evidence of cooperation among workers. Have students show lines of authority and responsibility of workers.

After the field trip, discuss with the class their observations.

LEARNER EXPECTATIONS:

1. Students should be able to cite four examples of cooperation among workers.
2. Students should be able to state in written form or orally what would happen if one worker in the business firm failed to cooperate.

NOTE TO TEACHER:

Prepare for the trip in advance. Locate key workers and prepare information sheet of various occupations in the firm for students.

SUGGESTED ACTIVITY NO. 5:

Assign a writing activity relating to observations and understandings of "cooperation" among workers. This will initiate a "Career Awareness notebook." Include pictures.

LEARNER EXPECTATIONS:

Students will, through their notebook, illustrate with a written paragraph or art project, their understanding of cooperation among workers.

MATERIALS:

Notebooks
Magazines
Art Supplies
a. paper
b. crayons
c. scotch tape
d. scissors
e. rulers

NOTE TO TEACHER:

Have students bring magazines or pictures relating to the topic "Cooperation Among Workers is Important."

SUGGESTED ACTIVITY NO. 6:

Ask students to prepare a list(s) of the people with whom they work. Discuss with class why cooperation with these individuals is important.

Ask students to prepare a list of their parents' social friends. Instruct students on interview strategies that could be employed when interviewing parents.

Compare and contrast the two lists. Discuss the need for cooperation between white collar and blue collar workers.

LEARNER EXPECTATIONS:

Students should be able to explain the need for cooperation between blue collar and white collar workers, and evaluate the number of friends that appear on both lists; and synthesize about the socialization and cooperation aspects of work.

Grade level 6

Goal A: explore and assess personal attitudes, aptitudes, attributes and interests

General concept: individuals vary in their interests and abilities.

Objectives:

1. Assume responsibility for classroom and school jobs and evaluate performance.
2. Analyze personal interests and aptitudes.
3. Examine occupations with respect to interest and aptitudes.

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Introduce the activity with a bulletin board showing the proportion of time per day an individual spends doing different things. The class will discuss how much time per day they sleep and how much time they work or go to school. The teacher will ask the students what happens during the remainder of the time. Through class discussion, the children can be led to see that the activities done in the remaining one-third of the day are labeled **leisure time activities.**

The teacher will remove the third of the pie graph labeled with a question mark to reveal underneath the last one-third of the graph — **leisure time.**

LEARNER EXPECTATIONS:

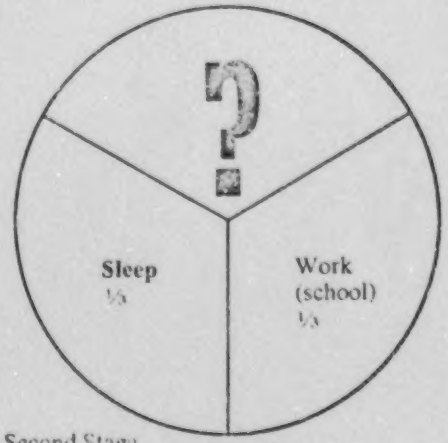
The student will be able to, in written form, explain the difference between the term leisure and work.

MATERIALS:

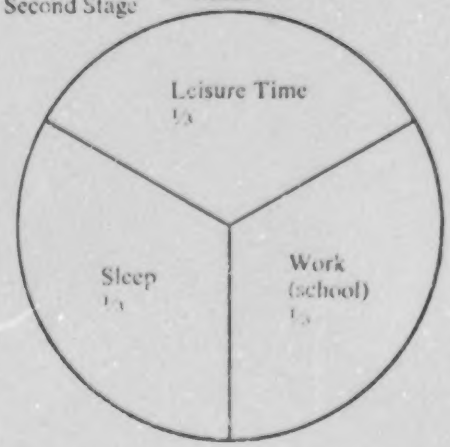
1. Sample bulletin board:

What do you do with your day?

First Stage



Second Stage



SUGGESTED ACTIVITY NO. 2:

Have the class make a list of activities they do when they are not in school or asleep. This list should be kept for future reference.

Have the class circle those activities that might come under the heading, **Hobbies,** for further exploration.

The teacher will want to help the class see the relationship between hobbies and occupations.

Through discussion the teacher can help the students see that you choose a hobby in something that interests you. You like to work at it and plan it out by yourself. You choose an occupation similarly in a field that interests you. You hope to succeed in it, even though you very likely must carry out somebody else's ideas and plans. The chief difference between a hobby and an occupation is this: A hobby is something you carry on in your own spare time without any thought of pay or reward, but an occupation is something in which you exchange your services during regular hours for money.

LEARNING EXPECTATIONS:

Same as for activity No. 1.

To help the students understand that sometimes hobbies or leisure time activities influence career choice, they may interview their parents or other workers.

Have class discuss and summarize the results of their survey.

LEARNER EXPECTATIONS:

The student will interview his parents and others regarding their hobbies and report to the class orally his findings.

SUGGESTED ACTIVITY NO 3:

51

NOTE TO TEACHER:

Sample questionnaire form:

1. Name of occupation . . . . . .
2. What did you like to do when you were my age? . . . . . .
   . . . . . .
3. What hobbies did you have when you were young? . . . . . .
   . . . . . .
4. Do you think that the hobbies and interest you had when you were my age had any influence on your choice of an occupation? . . . . . .
   . . . . . .

SUGGESTED ACTIVITY NO. 4:

Have the class define **fine arts** by looking in a dictionary. Then they can list hobbies associated with the fine arts (music, drama, dance, painting, drawing, sculpture, and architecture). The students can locate hobbies in the accompanying chart and discuss career possibilities associated with each hobby.

LEARNER EXPECTATIONS:

The student will be able to explain verbally what career possibilities there are in the fields listed on **Note to Teacher.**

NOTE TO TEACHER:

Entry Classifications Indicated by Leisure-Time Activities (From Part IV of the Dictionary ~~of DOT Directory~~ of Occupational Titles).

1. Artificial-flower making
2. Dancing
3. Dramatics
4. Drawing; sketching; cartooning
5. Etching
6. Handcrafts (beadwork, basketry, carving, crocheting, jewelry making, knitting, needlework, rug making)
7. Interior decorating
8. Linoleum-block printing
9. Leather working
10. Literature
11. Mechanical drawings
12. Model making (ships, planes, etc.)
13. Modeling (clay, papier mache)
14. Music
15. Oil painting
16. Painting, decorative
17. Photography
18. Pottery
19. Public speaking
20. Toy making

SUGGESTED ACTIVITY NO. 5:

Show filmstrip **What do you like to do?** Have the class discuss the following questions after the filmstrip:

a. How can hobbies help you learn more about yourself?
b. How can hobbies help you develop new skills?
c. Why is it important to try new hobbies?

Make children aware of other resource references.

LEARNER EXPECTATIONS:

Student will be able in written form to answer the three questions posed above.

FILMSTRIP:

What Do You Like to Do? Society for Visual Education.

OTHER FILMSTRIPS:

1. **The Boy Mechanic.** Popular Mechanics Press, Chicago, 1945, p. 224.
2. **A Business of My Own.** Arthur E. Morgan, Community Service, Inc., Yellow Springs, Ohio, 1946, p. 184.
3. **Director of Hobbies.** Charles B. Amrich, Amrich Press, Bridgeport, Conn., 1949, p. 79.
4. **Here's Your Hobby.** Harry Zarchy. Alfred A. Knopf, Inc., New York, 1950, p. 233.
5. **Hobby-House Ideas.** Celia M. Wright. The author, Sulphur Springs, Texas, 1950, p. 242.
6. **Hobby Publications.** U. S. Government Printing Office, Washington, D. C., 1954, p. 24 (free).
7. **Money-Making Hobbies.** Joseph Leeming, J. B. Lippincott Co., Philadelphia, 1948, p. 194.
8. **Money-Making Hobbies.** Popular Mechanics Press, Chicago, 1949, p. 158.
9. **101 Things for Girls to Do.** L. B. and A. C. Horth, J. B. Lippincott Co., Philadelphia, 1954, p. 80.

Goal B: examine the concepts of work and work roles and the multiple possibilities.

General concept: there are many kinds of work.

Objectives:

1. Analyze the changing nature of occupations.
2. Explore occupations which are familiar.

Suggested subject area: social studies, language arts

SUGGESTED ACTIVITY NO. 1:

Ask the class to name all the ways that they can remember, which they have used, to

learn about careers. Suggest to students that one important way to get a "feel" of an occupation is by careful observation of the worker actually working.

LEARNER EXPECTATIONS:

Students will be able to list at least five examples of ways to learn about careers from past experiences.

NOTE TO TEACHER:

The list might look something like this:

1. Reading
2. Interviewing
3. Visitations
4. Filmstrips
5. Discussions
6. Role playing

You may have to prompt students through a line of questioning to help them remember ways of learning about careers.

SUGGESTED ACTIVITY NO. 2:

Direct the class to set up some standards for careful observation. These standards are written on tagboard and placed within visible range of the whole class for frequent reference.

LEARNER EXPECTATIONS:

Students will, with direction of the teacher, list standards for careful observation.

MATERIALS:

Tagboard and magic markers

Sample of observation standards which may be developed by a class

STANDARDS

1. Keep in mind the purpose for the observations.
2. Record accurately what you see.
3. Have something specific to look for.
4. Observe the worker in total work surroundings.
5. Stand or sit where good observation of the worker can be made.
6. Be interested and pay attention.

SUGGESTED ACTIVITY NO. 3:

Direct students to devise or write a letter of introduction before actual observation(s) of worker(s) in the field. This can be done by each individual as an assignment or as a class project.

LEARNER EXPECTATIONS:

Students will, at the end of this activity, have prepared a letter to use as a means of introduction to workers who will be helping them to better understand an occupation.

NOTE TO TEACHER: Sample of an Introduction Letter:

My name is ..... I am in the sixth grade. We are learning about careers in our social studies class. One important way to learn about careers is through careful observation. I would like to observe you at work for one hour and ask some questions which will help me understand your occupation better.

.....

signed

REFERENCE NOTES:

Suggested Activities Nos. 1 and 2 should precede this activity.

Before beginning this activity, it may be advisable to obtain parental approval for students to make observations after school or on Saturdays.

SUGGESTED ACTIVITY NO. 4:

Work with class in developing an observation rating sheet to take with them during the observation phases. This can be duplicated or handwritten.

LEARNER EXPECTATIONS:

Students will, with the help of the teacher and class discussion, devise a rating sheet for observation of workers.

NOTE TO TEACHER:

Sample of an Observation Rating Sheet:

Date observed ..... Time observed .....

1. Name of occupation .....
2. Worker uses hands .... Yes ....No .....Undecided
3. Worker uses eyes .... Yes ....No
4. Worker works with people .....
5. Worker works with ideas .....
6. Worker works with things .....
7. Worker works outside .....
8. Worker works inside .....
9. Is his work dangerous? .....
10. What kinds of equipment or tools does he use? .....
11. What is the worker's attitude towards his job? .... good .... bad .... indifferent (doesn't care) .....
12. What physical demands are placed on the worker by his occupation?
    a. lifts heavy things .....
    b. lifts light things .....
    c. lifts very little .....
    d. walks a great deal .....
    e. walks a little .....
    f. sits most of the time .....
13. Summary of observations .....

SUGGESTED ACTIVITY NO. 5:

Plan a field trip to selected local businesses and industries. Solicit parental aid and divide your class into groups of no more than 4 per parent and per car.

Selected firms for investigation may include banks, grocery stores, plumbing firms, telephone company, etc.

Each group will be required to observe, record and report back to the class on its findings.

LEARNER EXPECTATIONS:

The students will, utilizing tape recorders, photos and signs, create a collage that illustrates their findings of business firms and occupations.

MATERIALS:

Cameras

Tape recorders

NOTE TO TEACHER:

Teacher must give children basic instruction in "hardware" use and manipulation.

SUGGESTED ACTIVITY NO. 6:

Each individual will want to report to the class a summary of his observations and his reaction to the career he investigated (Activity No. 5). The summary and observation report form may be added to the students' career notebooks.

LEARNER EXPECTATIONS:

Students will gain greater insights and depth of understanding through students' reports to class as measured by a teacher-developed test.

MATERIALS:

Individual students' career notebooks.

NOTE TO TEACHER:

Develop a test that is representative of career fields visited and which determines how observant the student was during the field trip.

Goal B: examine the concepts of work and work roles and the multiple occupational possibilities.

General concept: geography influences the kinds of occupations found in an area.

Objectives: See previous goal "B."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Present occupation word cards to the class and ask the following questions:

a. From what you've learned about our United States, where might this occupation be found?
b. Could this occupation be found in more than one area of the United States? Why or why not?
c. "....." (name of child) would you like to pin the occupation card in an appropriate region on the map?

LEARNER EXPECTATIONS:

The student will be able to identify at least one major occupation for each of the eight regions of the United States.

MATERIALS:

1. Large blank outline map of the United States on a bulletin board.
2. Word card strips with following occupational titles written on the cards:
   a. New England states
      Textile—
         bag and sack sewer
      Metal—riveter
      Fishing—net puller
      Quarrying—dynamiter
   b. Middle Atlantic states
      Coal mining—
         coal-pulverizing operator
      Manufacturing—
         doll-eye setter
      (1) Electrical wares — picture tube installer
      (2) Iron and steel — mixer operator — hot metal
      (3) Photographic equipment — color printer operator
      (4) Canning — can patcher
      (5) Shipbuilding — wood caulker
   c. South Atlantic States
      Tobacco—
         leaf conditioner helper
      Cotton—
         hoe sharpener
   d. South Central states
      Petroleum—roustabouts
      Cattle raising—drover
      Farming
      (1) Dairy—cow washer
      (2) Corn—corn picker
   f. West Central states
      Flour milling—
         mixer operator
      Sheep raising—herder
      Wheat—wheat grower
   g. Mountain states
      Mining
      (1) Gold—prospector
      (2) Silver—blaster
      (3) Copper—shuttle car operator
      Smelting—furnace operator
      Vegetable growing—truck farmer
   h. Pacific states

Fruit grower—apricot packer
Lumbering — lumberjack
Airplane manufacturing—
airplane designer

SUGGESTED ACTIVITY NO. 2:

Review with the class the various regions of the United States and the principal industries. The teacher will want to help the class understand that some occupations can be found anywhere and some can be found in only particular areas of our nation.

Make two lists on the chalkboard or overhead projector:

a. Occupations found in most regions.
b. Occupations found in only particular regions.

LEARNER EXPECTATIONS:

The students will be able to list at least five occupations which prevail in most regions of the United States.

SUGGESTED ACTIVITY NO. 3:

Divide the class into eight committees to explore occupations found in an assigned region of the country. They may be encouraged to read textbooks and supplementary books, view filmstrips, interview people in the community who have traveled rather extensively, and write letters to get information from chambers of commerce and state capitals.

Committees will give a summary report of their findings to the entire class. They may want to collect and arrange on bulletin boards or charts some pictures on certain industries found in particular regions. The outline map used in Activity No. 1 can be utilized here, if desired.

LEARNER EXPECTATIONS:

The student will be able to identify at least three major occupations for each region of the United States.

FILMSTRIPS:

1. **The U. S. Great Plains**
2. **The U. S. South**
3. **The U. S. Northeast**
4. **Far Western States**
5. **Southwestern States**

Encyclopedia Britannica Films, Inc., 1150 Wilmette Avenue, Wilmette, Ill.

FILMS:

The Central Farming Region.

Food for the Nation. McGraw-Hill Text Film, New York.

Forest Murmurs. Interlude Films, Glendale, California.

The Great Plains. McGraw-Hill, New York.

The Gulf Coast Region: The South's Land of Opportunity. McGraw-Hill, New York.

SUGGESTED ACTIVITY NO. 4:

Ask the children how many times they have moved in their lives. Ask them, of those moves, how many moves were due to job changes in the family. These may be tabulated and developed into bar graphs, either individually or collectively.

Suggest to students that people live frequently where a particular kind of work is found.

LEARNER EXPECTATIONS:

The student will be able to state in writing at least two reasons (related to occupations) why people move.

MATERIALS:

Graph paper and thin line magic markers

Goal B: examine the concept of work and work roles and the multiple occupational possibilities.

General concept: technological and sociological changes eliminate and create jobs.

Objectives: See previous goal "B."

Suggested subject area: social studies

SUGGESTED ACTIVITY NO. 1:

Present the following cause and effect relationships and ask the students to make suggestions as to the missing part. (If the term "cause and effect" is unfamiliar to the students, the teacher may need to explain briefly the term at this point.)

Cause and effect discussion problems.

a. Effect — Bill Brown has been an elevator operator for twenty years. He takes great pride in his work. His elevator is always spotless and he tries not to stop the elevator suddenly so the people he takes up and down will not be jarred. But one day, Bill Brown doesn't have a job anymore. What could be the cause for this?
b. Cause — A scientist discovers a way to harness and use the tremendous electrical power generated in a bolt of lightening. To do this, he had to develop a different kind of machinery which has thousands of separate parts which have to be carefully assembled. What is likely to be the effect on occupations?
c. Cause — A scientist discovers a new use for a chemical that will preserve food without having to can or freeze it. By spraying the food with the chemical, it is indefinitely preserved

55

and is not harmful to people. What might be the effect?

d. Effect — Susan Brown became interested in computers when she was in school. Since her interest and abilities were in this area, she decided to go to a technical school to become a computer operator. When she finished her training, she found that instead of only a few jobs available, there were many companies who wanted her to work for them. What was the cause?

Through discussion the class should be able to see that science frequently is a cause which affects work and workers.

LEARNER EXPECTATIONS:

The student will be able to state at least three scientific developments and identify the resulting effect to work and workers.

SUGGESTED ACTIVITY NO. 2:

View a film or filmstrip depicting some of the changes that have occurred in our society. The class may discuss the scientific causes resulting in change and its influence on careers.

LEARNER EXPECTATIONS:

The student will be able to identify one recent development in society and state the probable scientific cause.

FILMSTRIP:

Our Changing World, Department of Education, San Diego County, Audio-Visual Service, Henry R. McCarty, Director, San Diego, California.

SUGGESTED ACTIVITY NO. 3:

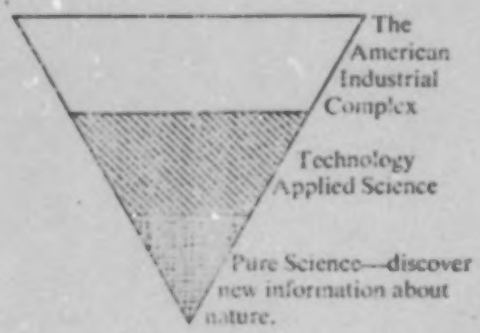
Develop a transparency of the accompanying diagram. The class can discuss how discoveries in science affect technology. The class will want to note how an increase in pure science results in a widening of the entire triangle. Further, an increase in scientific information requires more scientists and engineers to apply the knowledge resulting in greater industrial expansion.

LEARNER EXPECTATIONS:

The student will be able to state in writing how scientific advancements create additional needs for more scientific information.

NOTE TO TEACHER:

The Relationship of Science to Industry*



SUGGESTED ACTIVITY NO. 4:

Discuss the projected need for scientists and what the likely reasons are in this cause and effect relationship.

LEARNER EXPECTATIONS:

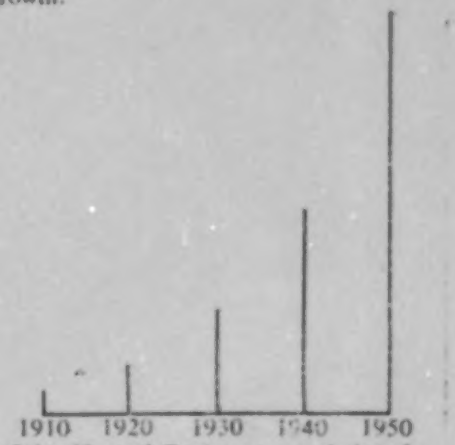
The student will be able to describe in writing the anticipated need for scientists and engineers.

*From **Teaching Science by ~~Inquiring~~ in the Secondary School**, Sund, Robert B., et al., Charles E. Merrill Books, 1967, p. 14.

Inquiry

NOTE TO TEACHER:

Make a transparency that illustrates the growth.



Scientific and Engineers population doubles every ten years.

TEACHER REFERENCE:

Teaching Science by Inquiry in the Secondary School; Robert B. Sund, pp. 14-16. Charles E. Merrill, 1967.

SUGGESTED ACTIVITY NO. 5:

Read a variety of books on scientists and inventors who have had an impact on our lives. Brief oral reports will want to be given to the class by each student with an emphasis on the impact of the scientists' contribution(s) on the world of work.

LEARNER EXPECTATIONS:

The student will select a scientist or inventor and describe in writing the effect his invention has had on our lives.

SUGGESTED ACTIVITY NO. 6:

Have each student interview one worker

who has been in his occupation at least ten years to find out how technology and scientists have changed his work.

The children will want to share the results of their interviews with each other. They then may be able to draw some conclusions as to the effects that science and technology have on work and the worker.

LEARNER EXPECTATIONS:

The student will be able to describe in writing the effects of science on a worker that he has interviewed.

SAMPLE INTERVIEW FORM:

1. Interviewer . . . . . .
2. Date . . . . . .
3. Name of occupation . . . . . .
4. Number of years in present occupation . . . . . .
5. Duties . . . . . .
6. Working conditions . . . . . .
7. Is your work any different than it was ten years ago? . . . . . .
8. How is it different? . . . . . .
9. Do you use equipment or tools that are different from what you used ten years ago? . . . . . .
10. What has made the difference?. . . .
    a. inventions . . . . . .
    b. Scientific discoveries . . . . . .
    c. technological improvements . . .
11. Is your work easier for you to do than it was ten years ago? . . . . . .
12. Why or why not? . . . . . .

SUGGESTED ACTIVITY NO. 7:

Review the term supply and demand with the class and relate its influence upon career choice. Guide the discussion by using the following questions:

a. What does supply mean?
b. What does demand mean?
c. What does the term supply and demand mean?
d. How can the idea of supply and demand influence the career a person goes into when he is grown?
e. Why should a person find out about the supply of the demand for jobs in the occupation he is considering?

LEARNER EXPECTATIONS:

The student will identify at least three specific occupations and state its present supply of workers and its current demand.

NOTE TO TEACHER:

You may wish to gain some information on supply and demand from your local employment security office. They have projected employment needs for a variety of occupations. You may also look at your own field of teaching to illustrate how supply and demand changes.

SUGGESTED ACTIVITY NO. 8:
(optional)

Prepare a transparency of the accompanying information and discuss it with the class. The chart can be made in a two-stage overlay transparency — part one showing the format and 1964 information, and part two showing the projected 1975 information.

The class will want to discuss:

a. 1964 levels of numbers of jobs in various industries.
b. 1975 projected levels of number of jobs in various industries.
c. Projected growth of various industries.
d. Significance of growth patterns to prospective workers.
e. Possible scientific and technological causes which are affecting occupational growth rates in various industries.
f. Possible supply and demand influences on growth or lack of growth in various industries.

NOTE TO TEACHER:

If you were able to gain recent information from the Employment Security Department, you may wish to expand on supply and demand in more detail. Students may be able to do the legwork for you.

SUGGESTED ACTIVITY NO. 9

Divide the class into three committees and investigate the kinds of (a) scientists, (b) engineers, (c) technicians. Each committee may read resource materials and write letters to the various foundations for information regarding careers related to assigned topic.

The committees will want to report their findings to the class. This may be done in the form of charts or murals.

LEARNER EXPECTATIONS:

The student will select one scientific field and collect career information related to the field. He will report his findings to the class.

STUDENT REFERENCES:

1. **Occupational Brief Widening Occupational Role Kit.** Grades 6-9. SRA.
2. **Career Index. 1967-68.** Chronicle Guidance Publications, Inc., Moravia, New York.
3. **Handbook of Job Facts.** SRA.

4. **Should I Study Engineering Career Crossroads.** (Free) The Engineering Foundation, Taylor Hall 159, The University of Texas, Austin, Texas 78712.
5. Buehr, Walter. **Underground Riches: The Story of Mining.** Morrow, 1958.
6. Bergaust, Erik. **Rockets of the Army.** Putnam, 1960.
7. Boardman, Ron Wyman. **Roads.** Baleh, H. A., 1958.
8. Buehr, Walter. **Oil—Today's Black Magic.** Morrow, 1957.

Buehr

Goal C: develop attitudes, knowledge and skills needed for effective employment.

General concept: basic skills are necessary for most jobs.

Objectives:

1. Examine qualifications needed by workers in various jobs.
2. Recognize that occupations have vocabularies unique to them.
3. Relate the value of personality traits to doing a job.
4. Describe tools and equipment needed in various occupations.
5. Integrate computation skills and design capabilities with production skills.
6. Examine and work with tools.
7. Use and store AV equipment.
8. Become aware that most jobs are not so simple as they seem.

Suggested subject area: language arts

SUGGESTED ACTIVITY NO. 1:

Relate the following story using a transparency or a bulletin board.

Pete has been going to school a number of years. He has learned many things in school — how to read and write, how to multiply and divide, what makes the world tick, and how to stay healthy (remove cloud a). He knows all about himself — what his interests and abilities are.

He is interested in football, music, and making things (remove cloud b). He knows he has mechanical ability and musical ability (remove cloud c).

Pete is now ready to go to work — he thinks. But wait a minute, there is something wrong here. Something is missing! What is it?

Through class discussion and speculation the students should be able to arrive at the conclusion that Pete needs information about careers (at which time the teacher may remove cloud d).

LEARNER EXPECTATIONS:

The student will be able to state in writing why he needs career information.

MATERIALS:

Sample bulletin board or overlay transparency (next column):

Each of the "thinking clouds" can be removed at the appropriate time to reveal the following terms:

a. School preparation
b. Interests
c. Abilities
d. Career information

SUGGESTED ACTIVITY NO. 2:

Review the four main areas of the language arts program — listening, speaking, reading, and writing — and ask the students to relate how these tools can be used to obtain information regarding careers. The class may list ways of gathering career information under the appropriate language arts headings. These lists will need to be saved for future reference.

LEARNER EXPECTATIONS:

The student will be able to identify at least four specific ways he can obtain career information.

NOTE TO TEACHER:

Develop with the class a list that looks something like the following:

1. Listening
   a. Tape recordings
   b. Records
   c. Work sounds
   d. Films
   e. Filmstrips
   f. Workers' talk

2. Speaking
   a. Interviews
   b. Role playing
   c. Skits
   d. Debates
   e. Discussion
   f. Oral reports

3. Reading
   a. Career books
   b. Work kits
   c. Library books
   d. Magazines
   e. Textbooks
   f. Pamphlets
   g. Occupational briefs
   h. Newspapers

4. Writing
   a. Letter
   b. Write newspaper articles
   c. Write want ads
   d. Career notebooks
   e. Preparing graphs and charts
   f. Making scrapbooks

SUGGESTED ACTIVITY NO. 3:

Select one of the techniques listed in Activity No. 2 and employ said technique in investigating one of the careers associated with language arts. Have each student find out as much as he can about the selected occupation through use of the technique he chose.

LEARNER EXPECTATIONS:

The student will select one language arts career, secure information about it, and prepare a written or oral report on the occupation.

NOTE TO TEACHER:

Sample informational form:

1. Name of investigator . . . . . .
2. Language arts skill used to obtain information . . . . . .
3. Was the technique used in gathering information effective? . . . . . .
4. Would it have been helpful to use more than one language arts technique? . . . . . .
5. Name of occupation investigated . .
6. Usual duties of occupation . . . . .
7. Preparation necessary for occupation
8. Working conditions . . . . . .
9. Advantages of occupation . . . . . .
10. Disadvantages of occupation . . . . .

Language arts careers:

1. Speech therapist
2. Writer
3. Lawyer
4. Clergyman
5. Journalist
6. Radio announcer
7. Actor
8. Telephone operator
9. Proofreader
10. Reading specialist
11. Tutor
12. Auctioneer
13. Floorwalker
14. Usher

REFERENCE FOR TEACHERS:

Tennyson, West W., **Teacher's Role in Career Development,** page 69. National Vocational Guidance Association.

SUGGESTED ACTIVITY NO. 4:

Have each student add the completed informational form (activity 3) to his career folder along with two short paragraphs on the following topics:

a. People Need Information About Careers Because . . . . . .
b. People Need to (Speak, Write, Read, Listen) Well Because . . . . . .
   (choose one)

LEARNER EXPECTATIONS:

The student will state his conclusions for this unit by writing the two paragraphs as stated above.

NOTE TO TEACHER:

You should point out the major points the student should include in the two short paragraphs.

59

Appendix

resources for career awareness program

code:

goals

A. Explore and Assess Personal Attitudes, Aptitudes, Attributes, and Interests

B. Examine the Concepts of Work and Work Roles and the Multiple Occupational Possibilities

C. Develop Attitudes, Knowledge and Skills Needed for Effective Employment

curriculum area:

A	—	Art
LA	—	Language Arts
SS	—	Social Studies
SC	—	Science
MU	—	Music
H	—	Health
IA	—	Industrial Arts
WA	—	Work
G	—	General
*	—	Illustrated

BOOKS	Suggested grade level	goal	curriculum area
ABC OF SUBS* Dorothy Shuttleworth. Doubleday & Co. 1961	K-3	G	LA
THE ABC OF CARS AND TRUCKS* Alice Alexander. Doubleday & Co. 1956	K-3	P	LA, SS
ABC'S OF THE OCEAN [illegible] Walker & Co. 1970	1-3	S	SC
ABC RAINBOW* Carl Hanford. Golden Press 1970	P	A	LA
ABOUT THAT AWATING POTTLAND [illegible]* [illegible] Taylor. Walnuts Publishing Co. 1971	K-6	C	SS, SC
ABRACADABRA BOOK* Charles Coombs. W. Morrow & Co. 1958	K-6	S-C	SS, SC
AIR FORCE ACADEMY* C. B. Colby. Coward McCann Inc. 1962	5-6	G	SS, LA
AIRPLANES AND TRUCKS AND TRAINS AND ENGINES BOATS AND SHIPS AND BUILDING AND UNDERGROUND MACHINES* Charles Zolotow. Crowell & Dunlap 1963	P-4	S-C	SS, SC
AIRPORTS U.S.A.* Alice Dalgliesh. Elk Grove Press 1967	3-6	G	SS, SC
ANIMAL DOCTORS WHAT THEY DO* Cecily Greene. Meagher & Flow Publishing Co. 1967	1-4	S	SS
ANIMALS, CARGO, TRAINING AND EQUIPMENT* C. B. Colby. Coward McCann 1964	4-6	G	LA
A PLACE TO LIVE* [illegible] Roberts. Phoenix Magic Lane Press 1970	K-7	A-G	LA
THE ALGONQUINS* Arthur Shumkin. Coward McCann 1970	3-6	S	SC
THE TATARTIETS* [illegible] E. Fisher. F. Watts Inc. 1970	3-6	S	SS
AT THE CARGO* William Coleman. Melmont 1967	K-3	S-C	SS
AT THE AIRPORT* William Coleman. Melmont 1967	1-3	S	SS, SC
A THIS AWAY WENT! F. F. Gilbert. E. W. Sargent. Rand McNally Inc. 1967	2-4	S	MU
ATOMIC EXPERIMENTS FOR BOYS Raymond F. Yates. Meagher & Flow	5-6	S-C	SC
AUTOMATION: THE CHALLENGE OF MAN AND MACHINES. IMPACT OF AUTOMATION ON LABOR AND INDUSTRY* [illegible] Coward McCann 1961	4-6	S-C	SS
BEHIND THE SCENES AT AN AIR PORT* Bruce C. Cooper. Dodd, Mead & Co. 1968	3-6	S-C	SS, SC
BEHIND THE SCENES IN THE KITCHEN* Bruce C. Cooper. Dodd, Mead & Co. 1967	4-6	S-C	SS, VF
BENJAMIN FUR QUAKER* Robert B. Tallcott. Henry Z. Walck 1959	4-6	S	LA, SC
THE BIG BOOK OF BIRDS* Fritz Kumler. Crowell & Dunlap 1957	K-3	S	SS
BIG BUGS'S BIRD BOOK Bill Wagner. Golden Press 1969	K-3	P	SS
THE BOY'S BOOK OF CHEMICAL CRAFTS* Raymond F. Yates. Meagher & Flow	4-6	S-C	SC
A BOY AND A MICROSCOPE* Raymond F. Yates. Meagher & Flow	4-6	C	SC
THE BOYS COMPLETE BOOK OF RADIO AND ELECTRONICS* Alfred Morgan. Thomas Y. Crowell Co. 1969	5-up	A	SC
THE BOY'S BOOK OF FOODS* Raymond F. Yates. Meagher & Flow 1967	3-6	C	SS, [illegible]
THE BRIDGE BOOK* Carolyn Weber. Melmont Press. Sandmark Inc. 1970	4-5	S-C	M, SS
A BUILDING FITS UP* Ely Jacques Kelly. Scribner & Sons 1967	4-6	A-S	LA
BUILDING WITH BRICK AND WOOD* John [illegible] Van Nostrand 1967	4-6	C	A
BUILDING WITH LANDSCAPE* John [illegible] Van Nostrand 1970	4-6	C	A
BUILT ONLY BETTER (BUILT MAN)* Robert M. Gurney	K-up	C	SS, SC
BULLDOZERS IN ACTION* Harold S. Kincaid. Whitman 1967	5-up	S-C	SS, MA
THE CABINET MAKER* Samuel E. Ziegler. F. Watts Inc. 1966	4-6	S-C	SS, A
THE CAR BOOK* William Simon. Golden Press 1968	K-3	S-C	SS
CARPENTRY FOR CHILDREN* Mario E. Fasoli. Sterling Publishing Co. 1969	1-6	A-S-C	LA, MA
CHEMISTRY BY THE KITCHEN* Sheila Stephens. The Viking Press 1970	K-up	C	M, SC
CHILDREN AS FLOW WATERS* [illegible] Meagher & Flow. Inc. Flow Publishing 1970	2-6	A-S	LA, A
THE CITY: LET'S FIND OUT ABOUT* Walter Pitt. F. Watts Inc. 1968	2-4	S	SS
THE CITY AND ITS PEOPLE* Alice Fleming. E. P. Dutton & Co. 1967	2-4	S	SS
CITY SCHOOLS* Jeanne P. Allen. F. Watts Inc. 1969	2-4	A-S	SS
COME, LET WORK WITH US AN IMPRESSIBLE AIRCRAFT [illegible] FROM WOOD CONSTRUCTION BUILT FROM THE STATIONS SERVICE* Joseph Ray Wilkinson. Sentinel Printing Inc. 1970	K-5	S-C	LA, SS
COMPUTER* Tom Thomas. F. Watts Inc. 1970	K-up	S-C	MA, SC
CONSTRUCTION CRAFTSMEN AND THE BEGINNINGS OF AMERICAN INDUSTRY* Edwin Tunis. World 1965	K-up	S	SS
COOKERY AND CONSTRUCTION* Marjorie Hawes. Young Scott Books 1970	K-up	C	A
THE BOXCARS* Alfred E. Fisher. F. Watts Inc. 1964	4-6	S	LA, SC
DOCTORS AND WHAT THEY DO* Mildred Cole. F. Watts Inc. 1968	1-up	S-C	SC, LA
EARLY AMERICAN CRAFTS* C. B. Colby. Coward McCann Inc. 1967	K-up	S-C	SS
EARNING WORKS* Frederick Rosenkranz. F. Watts Inc. 1967	3-6	S-C	SS
EXTENDER CRANES UP* Mary Kilbourne Green. F. Watts Inc. 1969	1-3	A-S	SS
EXCAVATING MACHINES AND HOW THEY WORK* Alexander Schneider. McGraw-Hill 1970	K-up	S-C	SC
EXPLORING THE WORLD OF OCEANS* Dorothy Sucher. Doubleday Press 1968	5-up	S-C	SC
FARMERS AND FORESTERS* Esther K. Weiss. Rand 1969	K-3	A-S	SS
FOR LIVING AND WE FOUGHT* [illegible] Scribner 1970	K-3	S-C	SS
THE HOW OF WORK OF JOBS AS ARMS TO OTHERS AS WEAPONS TO OTHERS* C. B. Colby. Coward McCann Inc.	K-up	S-C	SS, SC
THE AIR TODAY* Ron Wakefield. Random House 1967	K-up	A-S-C	LA, SS

BOOKS	Suggested grade level	goal	curriculum area
FIRE ALARM! THE STORY OF A FIRE DEPARTMENT* Paul C. Dizel, Van Nostrand-Reinhold	3-up	B	SS
THE FIRST BOOK OF COMMERCIAL FISHING* C. William Harrison; F. Watts, Inc. 1964	4-up	A-B	SS
FIRST BOOK OF HOSPITALS* Harold Coy. F. Watts, Inc. 1964	3-6	B-C	SC
FISH AND WILDLIFE, THE STORY OF THE WORK OF THE FISH AND WILDLIFE SERVICE* C. B. Colby; Coward-McCann 1955	4-up	B-C	SC, SS
THE FIRST BOOK OF NURSES* Eleanor Kay. F. Watts, Inc. 1968	3-6	A-B-C	SC, SS
THE FIRST BOOK OF SUPERMARKETS* Jerome Bendick, F. Watts, Inc. 1954	2-5	B-C	SS, MA
FORESTS ARE FOR PEOPLE* Frances and Dorothy Wood. Dodd, Mead & Co. 1971	4-6	B	LA, SC
THE GIANT BOOK OF THINGS IN SPACE* George J. Zaffo, Doubleday 1971	K-4	B	SC
GREAT BIG AIR BOOK* Richard Scarry; Random House Book 1971	K-3	B	SC
GROWING WITH MUSIC* Harry Wilson	K-3	A	MU
THE HAT BOOK* Leonard Shortall, Western Publishing Co., Inc. 1965	K-3	C	SS
HELICOPTERS IN ACTION* James Adwill. Meredith Press 1969	4-up	B	LA, SS
HOW A HOUSE IS BUILT* Laurence Bergman, Criterion Books 1965	3-6	B-C	IA
HOW BOOKS ARE MADE* David C. Cooke. Dodd, Mead & Co. 1963	4-6	B-C	A, LA
HOW HIGHWAYS ARE MADE* David C. Cooke. Dodd, Mead & Co. 1958	2-6	B-C	SS, SC
HOW TO DRAW PEOPLE AT WORK* Zaidenberg; Abelard Schuman 1970	2-6	A-B-C	A, SS
IDEAS ABOUT CHOOSING* John E. Maher, F. Watts, Inc. 1969	2-6	A-B-C	MA, SS
I KNOW A FIREMAN* Barbara Williams. Putnam 1967	K-3	B-C	SS
I KNOW AN AIRLINE PILOT* Muriel Stanek. Putnam 1969	1-4	B-C	SS
I KNOW A MAYOR* Barbara Williams. Putnam 1967	2-5	B-C	SS
I KNOW AN ANIMAL DOCTOR* Chiko A. Intoshi, G. P. Putnam's Sons 1970	K-3	C	SS
I KNOW A TELEPHONE OPERATOR* J. A. Evans, G. P. Putnam's Sons 1971	K-3	B	SS
I KNOW A WEATHERMAN* Barbara Williams; G. P. Putnam's Sons 1970	K-3	B	SS, SC
I WANT TO BE (SERIES)* Eugene M. Baker; Childrens Press 1969			
Architect			
Beauty Operator			
Forester			
Sales Clerk			
Secretary			
Taxi Driver	K-4	A-B-C	General Areas
I WANT TO BE (SERIES)* Carla Greene, Childrens Press 1956-1969			
Airplane Hostess			
Animal Doctor			
Baker			
Ballet Dancer			
Baseball Player			
Bus Driver			
Carpenter			
Coal Miner			
Cowboy			
Dairy Farmer			
Dentist	K-5	A-B-C	General Areas
Doctor			
Farmer			
Fireman			
Fisherman			
Homemaker			
Librarian			
Mechanic			
Musician			
News Reporter			
Nurse			
Orange Grower			
Pilot			
Policeman			
Postman			
Restaurant Owner			
Road Builder			
Scientist			
Ship Captain			
Space Pilot			
Storekeeper			
Teacher			
Telephone			
Train Engineer			
Truck Driver			
Zoo Keeper	K-5	A-B-C	General Areas
INVESTIGATING SCIENCE WITH NAILS* L. B. White, Jr.; Addison Wesley Pub. Co. 1970	5-up	B-C	SC
I SEE I SEE* Gene Darby; Benefic Press 1971	K-3	C	SS
JUST ONE ME* Aileen Brothers & Com Holyslow, Follett Publishing Co. 1970	K-2	A	SS
LABOR ON THE MARCH* Joseph Gordon. American Heritage 1969	4-up	B-C	SS
LEARNING ABOUT PEOPLE WORKING FOR YOU* John E. Maher, F. Watts, Inc. 1969	3-up	A-B-C	SS
LEARNING SCIENCE THROUGH COOKING* Barbara Davis. Sterling Publishing Co. 1964	4-up	B-C	HE, SC
LEARN TO SAIL* Theodore A. Jones. Rand McNally 1971	4-6	B-C	LA, SC
LET'S FIND OUT ABOUT BREAD* Olive Burt; F. Watts, Inc. 1966	K-4	B-C	SS
LET'S FIND OUT ABOUT MILK* David C. Whitney; F. Watts, Inc. 1967	K-4	B-C	SS
LET'S FIND OUT ABOUT THE CITY* Valerie Pitt. F. Watts, Inc. 1968	K-3	A-B	SS
LET'S FIND OUT ABOUT TOOLS* Eleanor Wiesenthal, F. Watts, Inc. 1969	K-4	B-C	IA
LET'S GO TO THE AUTOMOBILE FACTORY* Roger Butler. G. P. Putnam's Sons 1961	1-4	B-C	SS
LET'S GO TO THE TRUCK TERMINAL* Marian Talmadge & Ina Gilmore; Putnam 1964	K-4	B-C	SS
LET'S FIND OUT ABOUT THE FAMILY* Valerie Pitt, F. Watts, Inc. 1970	K-3	A-B-C	SS
LET'S FIND OUT ABOUT NEIGHBORS* Valerie Pitt, F. Watts, Inc. 1970	K-3	B	SS
LET'S FIND OUT ABOUT POLICEMEN* Martha & Charles Shapp; F. Watts, Inc. 1967	K-3	B	SS
LET'S FIND OUT ABOUT SCHOOL* Martha & Charles Shapp; F. Watts, Inc. 1961	K-3	A-B	LA, SS
LET'S FIND OUT ABOUT TOOLS* Eleanor & Ted Wiesenthal; F. Watts, Inc. 1969	1-3	C	IA
LET'S GO TO BUILD A HIGHWAY* Margo McWilliams; G. P. Putnam's Sons 1971	3-6	B-C	SS
LIKE YOU, LIKE YOU* Gene Darby. Benefic Press 1971	K-3	A-B	LA, SS
THE LITTLE FARM* Lois Lenski; H. Walck (Van Nostrand Reinhold) 1942	K-2	C	SS
THE LITTLE OWLS (series)* Holt Rinehart & Winston 1963	K-2	C	MA, IA
MACHINE TOOLS* Herbert S. Zim & J. R. Skelly; Morrow 1969	4-up	B-C	IA
MAKING YOUR OWN MOVIES* Harry Hallman. Wm. Morrow & Co. 1970	4-up	A-B-C	A, IA

BOOKS	Suggested grade level	goal	curriculum area
MAKING SENSE OF MONEY* Vicki Cobb; Parents Magazine Press 1971	3-up	B	MA, SS
THE MAKING OF A PILOT* Ed Rutter; E. M. Hale Co. 1966	4-6	B	SS
MEAT FROM RANCH TO TABLE* Walter Buehr; Wm. Morrow & Co. 1956	3-6	C	H, SS
MEN AT WORK—THE GREAT PLAINS STATES* Harry C. Robison, Jr.; G. P. Putnam's Sons 1968	4-6	B-C	SS
MEN AT WORK ON THE WEST COAST* Henry B. Lent; G. P. Putnam's Sons 1968	4-6	B-C	SS
MY DADDY LOST HIS JOB* Edith G. Stutz; L. W. Singer Co / Random House 1967	1-4	B	LA, SS
NEW BOYS AND GIRLS COOKBOOK* Betty Crocker; Golden Press 1965	2-6	A-B-C	HE, SC
THE NEWSPAPER—ITS PLACE IN A DEMOCRACY* Duane Bradley; Van Nostrand 1965	5-up	B-C	LA
THE NEW WORLD OF ALUMINUM* Edward Tracy; Dodd Mead & Co. 1967	4-up	B-C	SC
THE NEW WORLD OF FABRICS* Irmengarde Eberle; Dodd-Mead & Co. 1964	4-up	B-C	HE, A
THE NEW WORLD OF IRON AND STEEL* Edward B. Tracy; Dodd-Mead & Co. 1971	4-6	B-C	SC, SS
THE NIGHT WORKERS* Alvin Schwartz; Dutton & Co. 1966	1-4	A-B-C	SS
OIL—TODAY'S BLACK MAGIC* Walter Buehr; Morrow 1957	4-6	B-C	SS, SC
OUR SPACE AGE NAVY, CARRIERS, AIRCRAFT, SUBS AND MISSILES* C. B. Colby; Coward-McCann 1962	4-6	B-C	SS
OUTPOST OF ADVENTURE—THE STORY OF THE FOREIGN SERVICE* David Lavine; Doubleday 1966	5-up	B-C	LA, SS
PARK RANGERS AND GAME WARDENS THE WORLD OVER* Floyd James Torbert; Hastings 1968	4-6	B-C	SS
THE PAPERMAKERS* Leonard Fisher; F. Watts, Inc. 1965	4-up	B-C	A, LA
PERFORMING TOYS* Alice White; Taplinger Publishing Co. 1970	4-up	B-C	Crafts, SC
POLICE—THE WORK, EQUIPMENT AND TRAINING OF OUR FINEST* C. B. Colby; Coward-McCann 1954	3-6	B-C	SS
THE POLICEMAN—AN INSIDE LOOK AT HIS ROLE IN MODERN SOCIETY* Walter Arm; E. P. Dutton Co. 1969	4-6	B	SS
POLITICS IN AMERICA* Joseph A. Alvarez; Creative Ed. Press 1971	5-up	B-C	SS
PORT OF ENTRY—WHAT THE U.S. BUREAU OF CUSTOMS DOES* Marjorie Fribourg; Little-Brown 1962	4-up	B-C	SS
THE POTTERS* Leonard Fisher; F. Watts, Inc. 1969	4-6	B-C	SS, A
RAILROADS, U.S.A.* C. B. Colby; Coward-McCann 1970	4-up	B-C	SS
READING ABOUT THE TEACHER* Francine Klagsbrun; F. Watts, Inc. 1970	K-4	B-C	LA, SS
READ ABOUT THE POLICE* Louis Sloboduin; F. Watts, Inc. 1966	1-4	B	SS
THE ROBOTS ARE HERE* D. S. Halacy; Norton (Grosset & Dunlap) 1965	4-up	B-C	SS, SC
ROUND THINGS EVERYWHERE* Seymour Reit; McGraw-Hill 1969	K-6	A-C	MA, SC
SECRET SERVICE—HISTORY, DUTIES AND EQUIPMENT* C. B. Colby; Coward-McCann 1966	4-up	A-B-C	SS
SERVICEWOMEN AND WHAT THEY DO* Karl Schwan; F. Watts, Inc. 1964	4-up	A-B-C	LA, SS
SEWING EASY, FOR THE YOUNG BEGINNER* Peggy Hoffmann; Dutton Co. 1963	2-up	C	HE, A
SHIPS THAT EXPLORE THE DEEP* Louis Wolfe; G. P. Putnam's Sons 1971	3-up	B	SC
THE SHOEMAKERS* Leonard E. Fisher; F. Watts, Inc. 1967	2-6	B-C	SS
THE SIGN BOOK* William Duguin	K	B	LA, SS
SING A SONG* K. McLaughlin—L. Wood; Prentice Hall, Inc. 1960	K-3	B	MU
SINGING FUN* Lucille Wood & Louise Scott	K-3	B	MU
SKIN DIVERS IN ACTION* Eric Bergquist & W. O. Foss; Putnam 1965	3-up	B	SC
THE SKYSCRAPER* Yen Liang	K-3	B	SC
SPACE ALPHABET* Irene Zacks; Prentice-Hall	K-3	B	SS
SPENDING MONEY* Frederick Rossomando; F. Watts, Inc. 1967	3-up	B-C	MA, SS
SPOOLCRAFT* Arden Newsome; Lothrop, Lee & Shepard Co. 1970	2-6	C	A
STITCHERY FOR CHILDREN* Jacqueline Enthoven; Van Nostrand-Reinhold 1968	2-6	C	A
THE STORY OF THE SECRET-SERVICE* Ferdinand Kuhn; Random House 1965	4-6	B	SS
SOLDIERS AND SAILORS; WHAT THEY DO* Carla Greene; Harper-Row 1963	1-3	B-C	SS
TEAR DOWN TO BUILD UP, THE STORY OF BUILDING WRECKING* Jean Colby; Hasting House 1960	3-up	B-C	MA, SC
TELEVISION WORKS LIKE THIS* Jeanne Bendick; McGraw-Hill 1965	2-6	B-C	MA, SC, SS
TELEVISION (A FIRST BOOK)* Edward Stoddard; F. Watts, Inc. 1970	4-6	B-C	LA, SC, SS
TEN BIG FARMS* Dahlov Ipcar; Alfred A. Knopf 1958	K-3	B-C	SS
THINGS TO MAKE FOR CHILDREN* A Sunset Book; Lane Books 1970	K-3	C	A
THIS IS AUTOMATION* S. Carl Hirsch; Viking Press 1964	4-6	B-C	SS, MA, SC
TOYS FOR FUN AND HOW TO MAKE THEM* Walter E. Schultz; Bruce Publishing Co. 1966	K-6	C	A, SS
THE TRAIN BOOK* R. Miller; Golden Press 1970	K-3	B	SS
A TRIP THROUGH A SCHOOL* Jean A. Rowe; F. Watts, Inc. 1969	K-3	B	SS
TRUCK DRIVERS—WHAT THEY DO* Carla Greene; Harper-Row 1967	K-4	B-C	SS
TYPING COURSE FOR CHILDREN* Edward Fry; Dreier Educational System 1969	3-6	B-C	MA, LA
UP ABOVE AND DOWN BELOW* Irma E. Webber; Wm. R. Scott, Inc.	K-3	C	SC
A VISIT TO THE FIREHOUSE* James L. Collier; W. W. Norton & Co. 1968	K-2	A	SS
VISTA, CHALLENGE TO POVERTY* Susan Whitelaw; Cowand McCann, Inc. 1970	4-up	B-C	SS
THE WAY THINGS WORK, AN ILLUSTRATED ENCYCLOPEDIA OF TECHNOLOGY Simon & Schuster 1967	5-up	B-C	SC

BOOKS	Suggested grade level	goal	curriculum area
WHAT DADDIES DO* Eileen Rosenblum, Hallmark Children's Press 1968	K-2	B-C	LA, SS
WHAT DO PEOPLE DO ALL DAY* Richard Scarry, Random House 1968	K-3	B	LA, SS
WHAT DOES A FOREST RANGER DO?* Wayne Hyde, Dodd Mead 1964	K-6	B-C	SS, SC
WHAT DOES AN AIRLINE CREW DO?* F. Roy Ray, Dodd-Mead & Co 1968	3-6	B-C	SS, SC
WHAT DOES A VETERINARIAN DO?* Grant Compton, Dodd Mead & Co 1964	4-6	B	SC
WHAT DO THEY DO? POLICEMEN AND FIREMEN* Carla Greene, Harper 1962	K-4	B-C	SS
WHAT HAPPENS WHEN YOU GO TO THE HOSPITAL?* Arthur Shay, Reilly & Lee 1969	K-4	C	SS, SC
WHAT HAPPENS AT A TELEVISION STATION?* Arthur Shay, Reilly & Lee 1969	1-4	C	SS, LA
WHAT HAPPENS WHEN YOU PUT MONEY IN THE BANK?* Arthur Shay, Reilly & Lee 1967	1-5	A-B	MA, SS
WHAT HAPPENS WHEN YOU TRAVEL BY PLANE?* Arthur Shay, Reilly & Lee 1968	3-6	B	SC, SS
WHAT I LIKE TO DO* Connie Colvin & Wilkens, Coward McCann, Inc. 1971	2-5	A	LA, SS
WHAT IS A COMMUNITY?* Edward Pinkauer, Fitt Grove Press 1967	K-5	B	SS
WHAT MAKES A CLOCK TICK?* Chester Johnson, Little Brown 1969	3-6	B-C	MA SC, SS
WHAT'S INSIDE OF ENGINES?* Herbert S. Zim, Morrow 1953	3-6	B	SC, MA
WHAT PEOPLE DO ALL DAY* Richard Scarry, Random House 1968	K-4	B-C	SS
WHAT WILL I BE FROM A TO Z?* D. L. Cuth, National Dairy Council 1959	K-3	A	SS
WHEELS, SCOOPS, AND BUCKETS* Elizabeth S. Helfman, Lothrop Lee & Shepard 1968	3-6	C	SS, SC
WHERE DOES A LETTER GO?* Carla Greene, Harvey House 1966	K-3	B-C	SS
WEST POINT CADETS TRAINING AND EQUIPMENT* C. B. Colby, Coward-McCann 1963	4-6	B	LA, SS
WHEN I GROW UP* Margaret Vogel Ilse, Golden Press 1958	K-3	A	LA, SS
WHO BUILT THE BRIDGE?* Norman Bate, Scribner 1954	K-3	B	SS, SC
WHO BUILT THE DAM?* Norman Bate, Scribner 1954	K-3	B	SS, SC
WHO BUILT THE HIGHWAYS?* Norman Bate, Scribner 1953	K-3	B	SS, SC
WHO FISHES FOR OIL?* Norman Bate, Scribner 1955	1-5	B	SS
WHY YOU GET SICK & HOW YOU GET WELL* Ilse Goldsmith, Sterling Publishing Co. 1970	4-6	A	H, SS
THE WIGMAKERS* Leonard Fisher, F. Watts, Inc 1965	1-4	B	SS
THE WONDERFUL WORLD OF ENGINEERING* Devin Jackson, Doubleday & Co 1969	4-up	B	SS, MA, SC
WONDER BOOK OF TRAINS* Norman Carlisle, Holt Rinehart and Winston 1967	K-4	B-C	SS
WORK AROUND THE WORLD* Kathryn Jackson, Silver-Burdett 1957	K-3	B-C	SS
WORK IN ART* Barbara Shissler, Lerner Publishing 1970	4-up	C	A
WORK LONG AGO* Eugene Baker & John Downing, Childrens Press 1968	K-up	B-C	SS
YOUNG SCIENTIST AND DENTIST* George Barr, McGraw-Hill 1970	4-6	C	SC
YOU AND YOUR CAMERA* Lou Jacobs, Jr. Lothrop Lee & Shepard 1971	4-up	B	SS, SC
YOU CAN WORK IN THE HEALTH SERVICE* Elizabeth Dietz, Day Co. 1958	4-up	B-C	H, SC
YOUR FUTURE AS A MODEL* Gilly MacGill, Rand McNally 1964	4-up	A-B	LA, SS
YOU VISIT A DAIRY CLOTHING FACTORY* Leonard Meshover, Berkley Candy 1965	1-5	B-C	SS
YOU VISIT A FIRE STATION, POLICE STATION* Leonard Meshover, Berkley Candy 1965	2-4	B-C	SS
YOU VISIT A NEWSPAPER, TELEVISION STATION* Leonard Meshover, Benefic Press 1965	3-6	B-C	LA, SS

FILMS (F)			
ABC of Hand Tools, Part I & II	25 min	C	K-12
About the Human Body	15 min	C	4-6
Airplanes: How They Fly	11 min	B/W	2-6
Amazon Family	29 min	C	5
American Cowboy	30 min	C	4
American Road	43 min	B/W	4-6
Am I Trustworthy	11 min	B/W	4-6
Are Manners Important?	11 min	B/W	4-6
Art Paints the Way	10 min	C	4-6
Beginning Responsibility (Series)			
Being on Time	11 min	B/W	1-3
Doing Things for Ourselves in School	11 min	B/W	1-3
Learning to Follow Instructions	11 min	C	1-3
Taking Care of Things at Home and School	11 min	B/W	1-3
Beef Kings A Bell	25 min	C	4-6
Behind the Scenes at the Supermarket	11 min	C	K-3
Boats and Ships	11 min	C	2
The Boeing Jet Fleet	20 min	C	4-6
A Bone for Shirty	17 min	B/W	2-4
Bounty of the Forest	21 min	C	4-6
Bread	11 min	B/W	K-3
Bridges	10 min	B/W	4-6
Building A House	10 min	B/W	2-6
Busy Harbor	10 min	C	2-3
Candle Making	11 min	B/W	5-9
Career Awareness: The Alternative	13 min	C	K-9
Cattle and the Corn Belt	20 min	B/W	4
Cattleman, A Ranchman's Story	22 min	C	4
Circus Animals	10 min	C	K-6
Circus Wakes Up	11 min	B/W	K-6
Cities and Manufacturing	9 min	C	2-3
City Highways	12 min	C	3-4
Colonial Shipbuilding	11 min	B/W	5-6
Communication Westward	30 min	B/W	5-6
A Community Keeps Healthy	10 min	B/W	K-3
A Community Keeps House	10 min	B/W	K-3
The Cotton Farmer	14 min	C	4
Dams	10 min	B/W	4
Eagle Has Landed	28 min	C	5-6
Eggs to Market	11 min	C	2-4
Exercise for Happy Living	10 min	B/W	3-6
Family Farm and Its Barnyard Babies	10 min	C	2-4
Farmer Dan and the City	11 min	C	K-3
Fishing for A Living	11 min	B/W	4
Fortification of the Frontier	10 min	B/W	5-6
Folk Songs of American History	13 min	C	5-6
Food, Clothing, Shelter	15 min	C	1-6
Forests	10 min	B/W	1-6
Forests at Work	13 min	C	4-6
Four Minutes A Bank	13 min	B/W	5-6
Freight Train	11 min	C	1-3
Frontier Boy on the Early Midwest	14 min	C	5
Give Me Second Station	26 min	C	5-6
Good Sportsmanship	11 min	B/W	4-6
Growing Up: Growing Older	8 min	C	1-3
Hammering Is Important	10 min	C	3-6
Health: You and Your Helpers	11 min	C	1-6
Here Comes the Circus	10 min	B/W	K-6
How to Make Potato Prints	12 min	C	3-6
How A Seismist Works	15 min	C	6
How Weather Is Forecast	10 min	B/W	4-6
Iron Ore Mining	13 min	B/W	4
It's the Mayne Sensine	18 min	C	4
Let's Build A House	11 min	B/W	K-3
Let's Share With Others	11 min	B/W	4
The Lighthouse	11 min	C	K-3
The Lumberman	15 min	C	4-6
The Lumberyard	11 min	C	1-2

Machines That Move the Earth	15 min.	B/W	4-6
Mailman	10 min.	B/W	K-3
Making Hay	10 min.	C	4
Meat From Range to Market	11 min.	B/W	4
Mexican Olla Makers	9 min.	C	5
Mexico: Central and Gulf Region	18 min.	C	5
Mexico, Northern and Southern Region	17 min.	C	5
Mexico, Land and the People	20 min.	C	3-5
New Look in Potatoes	30 min.	C	4-6
Oceanography, Science of the Sea	11 min.	C	5-6
Ocean Voyage	13 min.	B/W	2-3
Pacific Neighbor States: Space Age Cities	19 min.	C	4-5
Policeman	11 min.	B/W	K-6
Profit, Money and Banking		C	3-5
Robert McCloskey	13 min.	C	3-6
Safe Use of Tools	6 min.	B/W	K-6
Spinning Wheel	10 min.	B/W	4-6
Steel and America	27 min.	C	4-6
Story of A Book	11 min.	C	4-6
Tugboats and Harbors	11 min.	C	K-3
Uncle Jim's Dairy Farm	14 min.	C	K-4
Van Gogh: Darkness Into Light	20 min.	C	6
Visit With Cowboys	11 min.	B/W	1-4
Washington State, Appleland	25 min.	C	4-6
Watermen of Chesapeake Bay	28 min.	C	4-6
We Want Goods and Services	10 min.	C	1-3
What Do Fathers Do?	11 min.	C	K-3
You and Your Five Senses	8 min.	C	3-6
You the Living Machine	8 min.	C	4-6
Zoo Animals Part I	11 min.	C	K-3

FILMSTRIPS (FS)

Betsy Ross			
Community Helpers (Series)		C	K-3
The Baker			
The Fireman			
The Grocer			
The Policeman			
The Postman			
Community Helpers (Series)		Sound	K-3
Fireman on Guard			
Health: You and Your Helpers			
Policeman: Day and Night			
Postman: Rain or Shine			
Conservation for Todays America		Records	3-6
Forest			
Land			
Mineral			
Soil			
Urban			
Water			
Wildlife			
Eli Whitney			
George Washington			
Health Adventures			
Health and Safety			
Learning About Conservation		Record	3-6
Our Forests			
Our Grasslands			
Our Minerals and Energy Sources			
Our Soil			
Our Water and Air			
Some Problems We Face			
Living and Working Together (Series)		C	K-2
A Boy Morning			
The Family at Home			
Living Together		C	K-1
Family Helpers			

Living in Mexico Today		Sound	
Models for All		C	5-6
Easy Ways—Inexpensive Ways			
New Experiments With Melted Bottle Glass			
Great Richness Through Variety in Tesselle and Cement			
Mother Works Too (Series)			
Bank			
Dental Assistant			
Drugstore			
Home			
Office			
Waitress			
Picture Stories for Reading Readiness		Color	K-
Let's Go to the Zoo			
Plymouth Girl			
Robert Fulton			
The School Community (Series)			
The New Pupil			
Our School			
School Helpers			
Our Job in School			
Part of the Team			
School Courtesy			
Stanley Tools			
Thomas Edison			
Understanding Citizenship			

PRINTS, CHARTS, POSTERS (PCP)

Bank Street Pictures
Community Helper Picture Packet
The Four Food Groups—Dairy Council
School and School Helpers
Social Development Teaching Pictures
What Do We Do Day by Day

KITS, MODELS, REALIA (KMR)

Action Garage
Career Game
Community Helper Crossword Puzzles
Deluxe Farm Set
DUSO (Developing Understanding of Self and Others)
Electric Fry Pan
Featherweight Portable Sewing Machine
Game of States
Harbor Tug Puzzle
Industrial Arts Cart
Jack Straws
People and Their Jobs (Puzzle)
Plastic Brick Sets
Playschool Neighborhood Village
Project Table
Rotisserie Oven
Supermarket
Toaster Oven
Toy Metal Truck
Wood Toy Builder Set
The World About Us Lotto

TEACHER DEVELOPED MATERIAL

Aircraft Production Unit
Charlie Brown Looks at Careers
Chef Hat Instructions
Christmas Boot Project
Color Discrimination Chart
Ditto Form for Listing Goods and Services
Grocery Store Poem
Kindergarten Career Rating Sheet
Know Yourself Inventory
Milk Carton Village—Patterns
Mounted Pictures Showing Ways Fruits and Vegetables Are Served
Pocket Chart of Jobs and Work
Puppets—Made From Whitman Sticker Posters
Seed Chart
Sentence Strips—Little Red Hen
Silent Film Directions
Tools and Careers—Transparencies
Truck Project Unit
Work Picture Concept Cards

59

Acknowledgments

Curriculum activities found both in the pilot model and revised guide of the career awareness phase of career education known as Career Awareness Programs for the Elementary School — CAPES — are examples of exemplary experiences currently on-going in many of the common school districts of the State of Washington. The following school districts participated in the development of the curriculum model:

Aberdeen	Renton
Auburn	Richland
Kennewick	Seattle
Kent	Spokane
Kiona-Benton City	Vancouver
Pasco	Yakima
Puyallup	

A special debt of gratitude is owed to the 22 school districts that piloted the curriculum model in the spring of 1972:

Anacortes	Longview
Arlington	Marysville
Auburn	Monroe
Bethel	Oak Harbor
Brewster	Olympia
Central Kitsap	Pullman
Cheney	Reardan
Everett	Snohomish
Highline	Spokane
LaCenter	Stanwood
Lake Stevens	Woodland

A special thanks to the members of the 1973 CAPES Revision Committee:

~~Dr. William A. Bakamis, Professor of Education, Washington State University~~

Dr. Thomas Ruff, Assistant Professor of Education, Washington State University

Mr. Merle Locke, Principal, Captain Gray Elementary, Pasco

Mr. Morris Tonda, Teacher, Skyway Elementary, Renton

Mr. Walter Skalicky, Career Awareness Specialist, Vancouver School District

Dr. Richard Usitalo, Director of Curriculum, Olympia School District

~~Mr. Delbert Wagman — Coordinating Curriculum Development Division~~

Publication design, photography
Alex Crewdson and Emily Ray

Photo page 10 by John P. Foster

Project director
Dr. William Bakamis
Washington State University

Project coordinator for the State Superintendent of Public Instruction
Robert Groeschell
by Richard R. Lutz

Project coordinator for the Coordinating Council for Occupational Education
Ron Berg
for Delbert F. Wagman

per spacing

1/26/72
HWJohnson:p

KINDERGARTEN

-- OBJECTIVES --

Teacher:

During the week before the date for each column, observe especially the criterion behaviors and then enter check marks on Friday.

CHILD'S NAME -- DATE	K - A - 1 Assumes responsibility for classroom jobs.				K - A - 2 Chooses work projects in room.				K - A - 3 Talks about occupations in which interested.			
	3/3	4/7	5/5	6/2	3/3	4/7	5/5	6/2	3/3	4/7	6/5	6/2
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

Date _____

OBJECTIVE K - A - 4

Teacher, tell your class:

I want you to play a game with me. Sit facing me and listen carefully. I am going to read some statements. If you agree with the statement after I have read it, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement: --

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree? (check for apparent understanding)

Before I read the other statements, close your eyes very tightly, listen to each statement, and raise your hand if you agree.

Close your eyes. Statement 1: All men like to work outdoors.

How many agree? _____

How many disagree? _____* (a)

Close your eyes. Statement 2: Some women can type faster than others.

How many agree? _____* (b)

How many disagree? _____

Close your eyes. Statement 3: Some women like housework, others don't.

How many agree? _____* (c)

How many disagree? _____

etc.....

KINDERGARTEN

Date _____

OBJECTIVES K - B - 1, K - B - 2, & K - B - 3

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Children like to play.

How many agree? [Check for understanding.]
How many disagree?

Close your eyes. Statement 2: Some people live in your house.

How many agree? [Check for understanding.]
How many disagree?

Close your eyes. Statement 3. Some people work in your house.

How many agree? _____* (K - B - 1)
How many disagree? _____

Close your eyes. Statement 4: Some people live in your house and work in other places.

How many agree? _____* (K - B - 2)
How many disagree? _____

Close your eyes. Statement 5: Some people work in this school

How many agree? _____* (K - B - 3)
How many disagree? _____

1/28/72
HWJ:p

OBJECTIVE K - B - 4 [May be done a few children at a time, if necessary]

[Teacher, say to class:]

For the next few minutes, I want each of you to stay in your seat and work quietly until I call your name. [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (or chair, etc.)

[To each child as he comes to you, say:]

Tell me what jobs are done by grown-ups (or adults) in this school. Tell me as many as you can.

[If he identifies any of the employees below - by giving his/her name, title, or task or in any other way - put a check in the appropriate column.]

[If he stops without giving three or more jobs, say "What others can you think of?" until he clearly indicates that he doesn't know any more.]

Interview of 3/17/72

CHILD'S NAME	SCHOOL EMPLOYEES IDENTIFIED							
	Teacher	Principal	Librarian	Secretary	Cook (incl. food handlers)	Janitor (incl. groundskeeper)	Supervisor (any central office staff)	OTHER (Specify)
1.								
2.								
3.								
. . .								
20.								

Record sheets will also be needed for

Interview of 4/14/72

" " 5/12/72

" " 6/9/72

OBJECTIVE 1 - C - 4 (contd)

Close your eyes. Statement 6: Old people never learn.

How many agree? _____

How many disagree? _____*

OBJECTIVE K - B - 5

Teacher:

On each date under the statement of the objective, go down the column and check each child who has completed the objective.

Has explored one or more occupational areas.

CHILD'S NAME -- DATE	3/10	4/14	5/12	6/9
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
TOTALS				

HWJohnson:p

KINDERGARTEN

-- OBJECTIVES UNDER K - C - 1 --

Teacher:

On the date under each objective, go down the column and check each child who has reached the objective named.

CHILD'S NAME -- DATE	Can name and use tools and materials necessary to perform required classwork. 3/10	4/7	5/5	6/9	Takes care of and puts away tools and materials necessary to perform required classroom work. 3/10	4/7	5/5	6/9
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

Date _____

OBJECTIVE K - C - 2

Teacher:

Write, in the spaces below, three of the school's standards of behavior which you consider it most important for your children to learn. You may have agreed on these three with other teachers. Some examples might be:

1. Avoid fights (or "Do not fight.")
2. Walk in the halls (or "Do not run in the halls.")
3. Get permission before leaving the room.

Rule 1._____

Rule 2._____

Rule 3._____

Now, after each child's name, check the rules with which he ordinarily complies.

Now, interview individually each child who complies with all three rules or standards. Ask him, for each rule, if he complies ("Do you avoid fights in school?") If he confirms your record (you have made a check mark indicating that he does) say "Good! Why do you? What is the reason?"

[If he gives a satisfactory answer, go on to the next rule or standard - If he gives satisfactory answers to all three rules. So indicate by a check mark under "Gives reasons."]

Child's Name	Complies With Rule or Standard #1	#2	#3	Gives Reasons
1.				
2.				
3.				
. . . . .				
20.				

TOTAL NUMBER COMPLYING WITH ALL RULES OR STANDARDS AND GIVING SATISFACTORY REASONS _____.

HWJohnson:p
2/7/72

OBJECTIVES K - C - 3 & K - C - 5
(and record only of K - C - 7, q.v.)

Teacher:

On the date given under the objective, check the children who have completed the objective.

CHILD'S NAME -- DATE	K - C - 3 Gives evidence of communicating with fellow students by speaking, listening, and noticing some non-verbal messages.				K - C - 5 Practices at least two health habits regularly at home or school				K - C - 7 Objective achieved			
	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

Date _____

OBJECTIVE K - C - 4 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes I want each of you to stay in your seat and work quietly until I call your name. [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (or chair, etc.).

[To each child as he comes to you, assign one of the following tasks. Begin by saying:]

I want you to do something for me. I can tell you only <u>one time</u>, so <u>listen carefully</u>.

[Then read the assignment slowly and clearly. After that, answer his questions only by (1) nodding your head, (2) shaking your head (3) saying "I'm sorry, I can't tell you," or (4) saying "That's fine - Go back and sit down."]

Assignment 1: Put this pencil on that chair by the door (point) and bring me the book from that table (point).

Assignment 2: Put this paper in that waste basket (point) and open the door (point).

Assignment 3: Put this book on that table (point) and bring me the sheet of paper from that waste basket (point).

Assignment 4: Close (or shut) the door (point) and bring me that pencil from the chair (point).

[Record by tally marks - ~~IIII~~ 1 - how many complete or do not complete the task.]

Do complete _____ Do not complete _____

2/8/72
HWJohnson:p

Date _____

OBJECTIVE K - C - 6

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read two statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Everyone wants to be healthy and strong.

How many agree?

How many disagree?

) Discuss until all agree.

Close your eyes. Statement 2: It doesn't make any difference what you eat.

How many agree? _____

How many disagree? _____*

HWJohnson:p
2/7/72

OBJECTIVE K - C - 7

[Teacher, tell the children:]

For the next few minutes I want all of you to work quietly and stay in your places [Give them necessary assignments, materials, etc.]

[Then call them to you one at a time and ask:]

1. What is one kind of work that you know about? [If he(she) seems unable to name one, as him/her:]

   a. Tell me one man or woman you know.

   b. What does he/she do all day [night]?

[If this does not elicit a job identity, go on to next child. If it does, go to question 2.]

2. What does a person do in that kind of work?

3. What kinds of clothes does a person wear doing that kind of work?

4. What kinds of tools does the person use?

[If he/she gives a reasonable reply - for a five-year-old - to all four questions, check the objective as achieved on the sheet for records of K - C - 3, K - C - 5, and K - C - 7]

1/27/72
HWJohnson:ib

GRADE 1

-- OBJECTIVES --

Teacher:

During the week before the date for each column, observe especially the criterion behaviors and then enter check marks on Friday.

CHILD'S NAME -- DATE	1 - A - 1 (Usually) Assumes responsibility for classroom jobs.				1 - A - 4 (Usually) Discusses "attitudes" about work in which we participate at home and school.			
	3/3	4/7	5/5	6/10	3/3	4/7	5/5	6/10
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

O.K.

Date _____

OBJECTIVES

1 - A - 2 & 1 - A - 5 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes I want each of you to stay in your seat and work quietly until I call your name [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (chair, etc.).

[Of each child as he comes to your desk, chair, etc., ask:]

What do you want to do - what do you want to be - when you get big? [Record answer after name below or check "doesn't know" - "d.k." - if he shrugs or otherwise indicates lack of decision. If he later in the interview makes a choice, record it and cross out check mark.]

[Now ask child:]

Tell me the names of some kinds of jobs you don't want to do when you're big.

[Count the number he names. Then say]

Can you think of any more?

[Repeat until he says "No" or has named ten occupations. Record the total number he has named, after his name under "Named"]*

Child's Name	Occupation Chosen (1-A-2)	d.k.	Number of Occupations Named (1-A-5)
1.			
2.			
⋮			
20.			

*Objective is achieved when seven are named. Record up to ten.

24 C
24 C
++ + OK.

Date _____

OBJECTIVE 1 - A - 3

Teacher, tell your class:

I want you to play a game with me. Sit facing me and listen carefully. I am going to read five statements. If you agree with the statement after I have read it, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement: --

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree? (check for apparent understanding)

Before I read the other statements, close your eyes very tightly, listen to each statement, and raise your hand if you agree.

Close your eyes. Statement 1: All men like to work outdoors.

How many agree? _____

How many disagree? _____*

Close your eyes. Statement 2: Some women can type faster than others.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 3: Some women like housework, others don't.

How many agree? _____

How many disagree? _____

etc.....

OK.

Date _____

OBJECTIVE 1 - A - 6

Teacher, tell your class:

I want you to play a game with me for a little while. Sit in your chairs and face me. Now - here is a picture of a man (or "think of a man...") who is fixing a car.

I am going to name several things. As I name each thing, raise your hand if you think it would make his work better or faster. Let's try one first, just for fun.

- If I turned out the lights in his shop -

How many think that would make his work better? How many disagree?

While we play the rest of this game, close your eyes tightly until I tell you to open them.

[Before each, say:] Close your eyes tightly, remember.

[After each, say:] How many think that would make his work better? How many disagree?

[Record number agreeing, disagreeing, for each.]

	Number Who -- Agree	Disagree	
1. If he had fixed the same thing many times.	*		(a)
2. If the car was painted blue.		*	
3. If he loved to fix this kind of thing.	*		(b)
4. If he was very good at fixing things.	*		(c)
5. If his wife liked to cook.		*	

1/31/72
HWJohnson:ib

Date_____

GRADE 1

OBJECTIVES 1 - B - 1, 1 - B - 2, 1 - B - 6, & 1 - B - 7

O.K. Literacy? O.K. O.K.

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Being a doctor is an occupation.

How many agree?

How many disagree?

[Check for understanding. Discuss until children agree to these.]

Close your eyes. Statement 2: Driving a truck can be an occupation.

How many agree? _____*

How many disagree? _____

(1-B-6) (a)

Close your eyes. Statement 3: Some mothers and fathers have occupations away from their homes. Do you agree that they are community helpers?

How many agree? _____*

How many disagree? _____

(1-B-1)

Close your eyes. Statement 4: Being a student is an occupation.

How many agree? _____*

How many disagree? _____

(1-B-2)

OBJECTIVES 1 - B - 1, 1 - B - 2, 1 - B - 6, & 1 - B - 7 (contd.)

Close your eyes. Statement 5: The words "work" and "occupation" mean the same thing.

How many agree? _____

How many disagree? _____* (1-B-6)(b)

Close your eyes. Statement 6: If you do some work at home this afternoon, that is your occupation.

How many agree? _____

How many disagree? _____* (1-B-6) (c)

Close your eyes. Statement 7: Some people have two jobs.

How many agree? _____* (1-B-7)

How many disagree? _____

OK

OBJECTIVE 1 - B - 3 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes I want each of you to stay in your seat and work quietly until I call your name. [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (or chair, etc.)

[When he comes to your desk (chair, etc.) ask each child:]

What "goods" are made in...[name local community; i.e., town, suburb, neighborhood, etc., which child is most likely to recognize as his community].

What "services" are sold in...[name local community again. If child has now been able to name correctly at least one or two "goods" and one or two "services" produced in the community, put a check after his name below, under today's date.]

	Names goods and services produced in the community.			
CHILD'S NAME -- DATE	3/10	4/14	5/12	6/9
1.				
2.				
3.				
4.				
.				
.				
.				
.				
.				
20.				
TOTALS				

-- OBJECTIVES --

OK

Teacher:

On each date under the statements of the objectives, go down the column and check the children who have completed the objective.

CHILD'S NAME -- DATE	1 - B - 4 Has identified and investigated at least two occupations.				1 - B - 5 Has examined the various rewards for performing work.			
	3/10	4/14	5/12	6/17	3/10	4/14	5/12	6/17
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

HWJohnson:p
2/8/72

-- OBJECTIVES --

GRADE 1

--- 1 - C - 1 ---

1 - C - 2

Teacher:

On the date under each objective, go down the column and check each child who has completed the objective named.

(a) Can name and use tools and materials necessary to perform required classwork.

(b) Takes care of and puts away tools & materials necessary to perform required classroom work.

Gives evidence of communicating with fellow students by speaking, listening, and noticing some non-verbal messages.

CHILD'S NAME -- DATE	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

2/7/72
HWJohnson:p

OBJECTIVES 1 - C - 3, 1 - C - 5, and 1 - C - 6

[Teacher, tell the class:]

For the next little while I want you all to work quietly and stay in your places until I call your name.

[Call each one aside individually and ask:]

1. Do you like to do number work?

2. Do some adults have to do number work in their jobs? When?

3. Do some adults have to talk to people and listen to people on their jobs? When?

4. Do some adults have to read and write on their jobs? When?

[If child can give a valid answer to all of these questions, check Objective 1 - C - 3 as achieved on the attached record sheet.]

[Then, or in a later interview, after you have seen the child use some tools on appropriate materials, ask:]

Can you use any tools that adults use in their work? [Pursue this (1-C-5) question --"Any others?" -- until child names one you have seen him use.]

[Then, or in a later interview, say:]

Listen to this story. Once three children decided to build a play house out of boxes. Each one took one part of the job -- one kept bringing boxes, another kept tearing off the lids, and the other kept building the house. They were all very busy. Then one had to go home. What do you think happened next?.....What else might happen?

[If, at least after being prompted once, he has shown an appreciation of the fact that the work of the two remaining children would have to change, check Objective 1 - C - 6 as achieved by him/her.]

HWJohnson:p
2/9/72

1 - C - 3, 1 - C - 5 &
1 - C - 6 (contd)

CHILD'S NAME	1 - C - 3 Relates basic skills of computation and communication to familiar occupations. DATE OF TRIAL			1 - C - 5 Names & uses some tools and materials used by workers. DATE OF TRIAL			1 - C - 6 Evaluates the interdependency of workers in a work situation with labor divided. DATE OF TRIAL		
	#1	#2	#3	#1	#2	#3	#1	#2	#3
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
TOTALS									

2/8/72
HWJohnson:p

OBJECTIVE 1 - C - 4

Date_____

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree..

Close your eyes. Statement 1: We learn in school.

How many agree?

How many disagree?

Discuss until all agree.

Close your eyes. Statement 2: We learn at home.

How many agree? _____* (a)

How many disagree? _____

Close your eyes. Statement 3: We never learn outside.

How many agree? _____

How many disagree? _____* (b)

Close your eyes. Statement 4: Adults sometimes learn.

How many agree? _____* (c)

How many disagree? _____

Close your eyes. Statement 5: Babies learn.

How many agree? _____* (d)

How many disagree? _____

1/27/72
HWJohnson:ib

GRADE 2

Teacher:

During the week before the date for each column under Objectives 2-A-1 and 2-A-4, observe especially the criterion behaviors described for those objectives and then enter check marks on Friday.

-- OBJECTIVES --

2 - A - 1 (Usually) Assumes responsibility for classroom jobs.

2 - A - 4 (Usually) Discusses attitudes or feelings about work at home, school, and in the community.

CHILD'S NAME -- DATE	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

Date_____

OBJECTIVE 2 - A - 2 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes I want each of you to stay in your seat and work quietly until I callyour name [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (chair, etc.).

[Of each child as he comes to your desk, chair, etc., ask:]

What do you want to do - what do you want to be - when you get big? [Record answer after name below or check "doesn't know" - "d.k." - if he shrugs or otherwise indicates lack of decision. If he later in the interview makes a choice, record it and cross out check mark.]

[Now ask child:]

Tell me the names of some kinds of jobs you don't want to do when you're big.

[These need not be counted or recorded, except that - as long as he has named fewer than five occupations, when he stops in evident resignation, say:]

Tell me some (or "some more") jobs that people do.

[Be alert for - and record - any occupation he mentions as ones he would like to do, but do not ask for this again]

[Throughout this period, avoid letting other children hear or know what you are discussing with the individual children. Record here a comment if you are unable to observe this precaution.]

Date_____

OBJECTIVE 2 - A - 3

Teacher, tell your class:

I want you to play a game with me. Sit facing me and listen carefully. I am going to read some statements. If you agree with the statement after I have read it, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement: --

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree? (check for apparent understanding)

Before I read the other statements, close your eyes very tightly, listen to each statement, and raise your hand if you agree.

Close your eyes. Statement 1: All men like to work outdoors.

How many agree? _____

How many disagree? _____* (a)

Close your eyes. Statement 2: Some women can type faster than others.

How many agree? _____* (b)

How many disagree? _____

Close your eyes. Statement 3: Some women like housework, others don't.

How many agree? _____* (c)

How many disagree? _____

etc.....

1/31/72

GRADE 2

OBJECTIVES 2 - B - 1 & 2 - B - 4

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: A "career," or an "occupation" is what a person does with his time.

How many agree?

How many disagree?

) Discuss until children agree.

Close your eyes. Statement 2: Your "career" or "occupation" is being a student.

How many agree? _____ * (2-B-1)

How many disagree? _____

Close your eyes. Statement 3: A hobby is not a "career" or "occupation."

How many agree?

How many disagree?

) Discuss until children agree.

Close your eyes. Statement 4: A hobby may change into a "career" or "occupation."

How many agree? _____* (2-B-4)

How many disagree? _____

--- OBJECTIVES --

Teacher:

On each date under the statements of the objectives, go down the column and check the children who have completed the objective.

	OK 2 - B - 2 Has identified and investigated at least two occupations in the community.				OK 2 - B - 3 Has identified and noticed the interdependency of at least three interdependent occupations (e.g., doctor nurse, druggist).			
CHILD'S NAME --DATE	3/10	4/14	5/12	6/9	3/10	4/14	5/12	6/9
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

2/1/72
HWJohnson:p

Teacher:

On each date under the statements of the objectives, go down the column and check the children who have completed the objective.

-- OBJECTIVES UNDER 2 - C - 1 --

CHILD'S NAME -- DATE	(a) Can name and use tools and materials necessary to perform required classwork.				(b) Takes care of and puts away tools and materials necessary to perform required classroom work.			
	3/10	4/14	5/12	6/17	3/10	4/14	5/12	6/17
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

HWJohnson:p
2/7/72

Date _____

OBJECTIVE 2 - C - 2

Teacher:

Write in the spaces below three of the school's standards of behavior which you consider it most important for your children to learn. You may have agreed on these three with other teachers. Some examples might be:

1. Avoid fights (or "Do not fight.")
2. Walk in the halls (or "Do not run in the halls.")
3. Get permission before leaving the room.

Rule 1._____

Rule 2._____

Rule 3._____

Now, after each child's name, check the rules with which he ordinarily complies.

Now, interview individually each child who complies with all three rules or standards. Ask him, for each rule, if he complies ("Do you avoid fights in school?") If he confirms your record (you have made a check mark indicating that he does) say "Good! Why do you? What is the reason?"

[If he gives a satisfactory answer, go on to the next rule or standard - If he gives satisfactory answers to all three rules. So indicate by a check mark under "Gives reasons."]

Child's Name	Complies With Rule or Standard #1	#2	#3	Gives Reasons
1.				
2.				
3.				
⋮				
20.				

TOTAL NUMBER COMPLYING WITH ALL RULES OR STANDARDS AND GIVING SATISFACTORY REASONS _____.

OK

OBJECTIVE 2 - C - 3

[Teacher, tell the class:]

For the next little while I want you all to work quietly and stay in your places until I call your name.

[Call each one aside individually and ask:]

1. Do you like to do number work?
2. Do some adults have to do number work in their jobs? When?
3. Do some adults have to talk to people and listen to people on their jobs? When?
4. Do some adults have to read and write on their jobs.? When?

[If child can give a valid answer to all of these questions, check Objective 2-C-3 as achieved on the record sheet below.]

CHILD'S NAME	OBJECTIVE 2 - C - 3 Relates basic skills of computation and communication to familiar occupations. DATE OF TRIAL #1	#2	#3		CHILD'S NAME	OBJECTIVE 2 - C - 3 Relates basic skills of computation and communication to familiar occupations. DATE OF TRIAL #1	#2	#3
				11.				
				12.				
				13.				
				14.				
				15.				
				16.				
				17.				
				18.				
				19.				
				20.				
					TOTALS			

2/8/72
HWJohnson:p

Date_____

OBJECTIVES 2 - C - 4, 2 - C - 5 & 2 - C - 8

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: We learn in school.

How many agree?

How many disagree?

Discuss until all agree.

Close your eyes. Statement 2: We learn at home.

How many agree? _____ * (a)

How many disagree? _____

Close your eyes. Statement 3: We never learn outside.

How many agree? _____

How many disagree? _____ * (b)

Close your eyes. Statement 4: Adults sometimes learn.

How many agree? _____ * (c)

How many disagree? _____

Close your eyes. Statement 5: Babies learn.

How many agree? _____ * (d)

How many disagree? _____

Close your eyes. Statement 6: Old people never learn.

How many agree? _____

How many disagree? _____* (c) to here: (2-C-4)

Close your eyes. Statement 7: Some workers are better workers than others.

How many agree?)
)
How many disagree?)
)
)

Discuss until children agree. Emphasize "better worker does not mean better people.

Close your eyes. Statement 8: On some days, a worker will do better than on other days.

How many agree?)
)
How many disagree?)

Discuss until all agree.

Close your eyes. Statement 9: Good health habits will help a worker do better.

How many agree? _____* (2-C-5)

How many disagree? _____

Close your eyes. Statement 10: At first, all new workers do as well as all others.

How many agree? _____

How many disagree? _____* (a)

Close your eyes. Statement 11: Workers cannot be trained to do better.

How many agree: _____

How many disagree? _____* (b)

OBJECTIVES 2 - C - 4, 2 - C - 5 & 2 - C - 8 (contd)

Close your eyes. Statement 12: A worker who has done something many times can do it better than a worker who has never done it.

How many agree? _____ * (c)

How many disagree? _____

Close your eyes. Statement 13: A worker who was absent too much wouldn't be very good.

How many agree? _____ * (d)

How many disagree? _____

Close your eyes. Statement 14: A person who couldn't get along with others would probably be a good worker.

How many agree? _____

How many disagree? _____ * (e) to here: (2-C-8)

2/7/72
HWJohnson:p

OBJECTIVES 2 - C - 6 & 2 - C - 7

[Teacher, tell the class:]

For the next little while I want you all to work quietly and stay in your places until I call your name.

[Call each one aside individually and ask:]

1. What kind of adult work do you know most about? [Accept any reasonable answer - including "housework." To an "unreasonable" answer - like "Mowing the lawn" - say "O.K. What occupation do you know about?" Keep asking questions until he/she has named an occupation - with as little "leading" from you as possible.]

2. In that occupation, a person must like certain things. What are they?....What else must he/she like?

3. In that occupation, a person must know certain things. What must he/she know?....What else must he/she know?

4. In that occupation, a person must also be able to do certain things. What must he/she be able to do?...What else must he/she be able to do? [To demonstrate achieving this objective, he/she must name two attitudes, two kinds of knowledge, and two skills you can accept. Prompt him/her once, if necessary. The dots (...) above indicate pauses, for child to answer, before prompting as indicated.] (2-C-6)

Listen to this story. Once three children decided to build a play house out of boxes. Each one took one part of the job --one kept bringing boxes, another kept tearing off the lids, and the other kept building the house. They were all very busy. Then one had to go home. What do you think happened next?.....What else might happen?

[If, at least after being prompted once, he has shown an appreciation of the fact that the work of the two remaining children would have to change, check Objective 2 - C - 7 as achieved by him/her.] (2-C-7)

1/21/72
HWJohnson:ib

needs counters

GRADE 3

Teacher:

During the week before the date for each column, observe especially the criterion behavior and then enter check marks on Friday.

-- OBJECTIVES --

3 - A - 1

Assumes responsibility for classroom jobs.

CHILD'S NAME -- DATE	3/3	4/7	5/5	6/10
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
TOTALS				

OBJECTIVE 3 - A - 2 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes I want each of you to stay in your seat and work quietly until I callyour name [Give them necessary assignments, materials, etc.] When I call your name, come to my desk (chair, etc.).

[Of each child as he comes to your desk, chair, etc., ask:]

What do you want to do - what do you want to be - when you get big? [Record answer after name below or check "doesn't know" - "d.k." - if he shrugs or otherwise indicates lack of decision. If he later in the interview makes a choice, record it and cross out check mark.]

[Now ask child:]

Tell me the names of some kinds of jobs you don't want to do when you're big.

[These need not be counted or recorded, except that - as long as he has named fewer than five occupations, when he stops in evident resignation, say:]

Tell me some (or "some more") jobs that people do.

[Be alert for - and record - any occupation he mentions as ones he would like to do, but do not ask for this again]

[Throughout this period, avoid letting other children hear or know what you are discussing with the individual children. Record here a comment if you are unable to observe this precaution.]

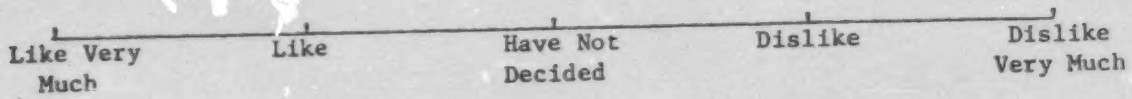
Child's Name	Occupation Chosen (3-A-2)	d.k.	Date Occupation Chosen
1.			
2.			
⋮			
20.			

OBJECTIVE 3 - A - 3 Date_____

[Teacher, tell the class:]

Today I would like you to play a game with me, for a while.

[Draw on a board or large piece of paper:]



[Then say:]

Show me, by raising your hand, how you feel about lettuce as a food. How many like it very much? [Record the number above "Like very much" on the drawing.] How many just "like" it? [If questioned, add "but not very much." Record the number of responses above "Like."] How many have not decided? [Record.] How many dislike it? [Record.] How many dislike it very much? [Record.]

For the next question, close your eyes and tell me (pause until all eyes closed) - How many have ever done something which would be called "work?" [Record number here _____. Record total number present, here _____.]

Open your eyes.

Now, close your eyes (pause) and show me by raising your hands - How many have liked very much most of the "work" they have ever done? [Record above previously recorded number at "Liked very much," and cross out previous number - referring to lettuce as a food.]

Keep your eyes closed and show me - How many have liked most of the work they have done? [Record as before.]

How many have not decided whether they liked or disliked most of the work they have done? [Record.]

How many have disliked most of the work they have done?

Keep your eyes closed. How many have disliked very much most of the work they have done? [Record.] Now open your eyes and look at the chart. [Discuss, if you wish.]

Date_____

OBJECTIVES 3 - A - 4 & 3 - A - 5

[Teacher, say to class:]

For a while, now, I want you to stay in your seats and work quietly until I call your name (Give them necessary assignments, materials, trips to lavatory and pencil sharpener, etc.). When I call your name, please come to my desk (or "chair." Choose a site such that other children cannot overhear your individual interviews. Likewise, prevent communication about interviews. If you are not able to do so - please note the reason in a comment here -)

[Then, to each child, as he comes to you, say:]

How would you finish this sentence - "Some people prefer certain kinds of work because they like to....."

[In the list below, check or write in each separate reason given. If they stop as if finished, say "Any more?" until they say "No," or until they have mentioned seven separate reasons. If they cannot get started, give "work with my hands" as an example and count it if they accept it for themselves.] (3-A-4)

___be outdoors
___be indoors
___draw pictures
___talk to people
___be by myself
___help people
___work with machines
___do things where I can move around
___work with my hands
___try new things
___make up songs
___build things
___collect things
___other (specify below)
_____
_____
_____

Consider five likes as passing and put tally here →

OBJECTIVES 3 - A - 4 & 3 - A - 5 (contd)

[Then say:]

Now how would you finish these sentences -- "A job would be perfect for me if it let me do all of the kinds of things I like to do. I like to....."

[In the list above, circle each separate liking given. If any are mentioned which are not in the list - including the "write-ins" from the previous question, list them below] (3-A-5)

_____ _____

_____ _____

_____ _____

Consider 3 likes as "passing" and put tally here ____.

1/31/72
HWJohnson:ib

GRADE 3

-- OBJECTIVES --

Teacher:

On each date under the statements of the objectives, go down the column and check the children who have completed the objective.

	3 - B - 1				3 - B - 2			
	Has identified and studied at least five businesses and occupations.				Has identified at least seven occupations and noticed their interdependency with others.			
CHILD'S NAME -- DATE	3/3	4/7	5/5	6/10	3/3	4/7	5/5	6/10
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

OK

Date_____

OBJECTIVE 3 - B - 3 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes, I want each of you to stay in your seat and work quietly until I call your name. [Give them necessary assignments, materials, trips to the lavatory and pencil sharpener, etc.] When I call your name, come to my desk (chair, etc.).

[Ask each child, as he comes to your desk:]

1. Tell me one hobby, especially one you like or think you might like.
2. Tell me one career which might grow out of that hobby.
3. Could you follow that career and be happy in it?
4. How did you decide that?
5. What training would you need for that career?
6. Where did you get that information?

If child is able to answer any question, go immediately to end of this form and put a tally (~~IIII~~ 1...) after "has not explored."

[Be sure your words and manner show you accept all of his/her answers.]

If you feel that he has explored that career, ask for another career from the same hobby, repeating questions 2 through 6.

If you now feel that he has explored two careers for that hobby adequately, i.e., that he/she has

(1) identified careers which truly might be said to grow from that hobby,

(2) has made a healthy, thoughtful decision about his own following those careers,

(3) has acquired a reasonable understanding -- for an eight-year-old -- of the job's training requirements,

and (4) has no urgent need for a new understanding which further exploration might yield,

then make a tally (~~IIII~~ 1...) below after "has explored [potential careers from two hobbies]."

has explored _____

has not explored _____

110

no date no date

Date_____

OBJECTIVES 3 - B - 4 & 3 - B - 5

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: There are some jobs open in [name local community in terms children most clearly understand].

How many agree?

How many disagree?

) Discuss until all children understand and agree -- or disagree.

Close your eyes. Statement 2: There are more jobs open in some communities than in others in Washington.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 3: The jobs open in this community are the same kinds as those open in the other communities in Washington.

How many agree? _____

How many disagree? _____*

to here (3-B-4)

Close your eyes. Statement 4: In 1982, some of you may be looking for jobs.

How many agree?

How many disagree?

) Discuss until children agree.

OBJECTIVES 3 - B - 4 & 3 - B - 5 (contd.)

Close your eyes. Statement 5: In 1982, there probably will be careers that don't exist now.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 6: All the careers which exist now will probably exist in 1982.

How many agree? _____

How many disagree? _____*

Close your eyes. Statement 7: After a teacher graduates from college he/she doesn't need any more training.

How many agree? _____

How many disagree? _____* to here (3-B-5)

HWJohnson:p
2/10/72

GRADE 3

-- 3 - C - 1 --

3 - C - 2

Teacher:

On the date under each objective, go down the column and check each child who has completed the objective named.

CHILD'S NAME -- DATE	Can name and use tools and materials necessary to perform required classwork.				Takes care of and puts away tools & materials necessary to perform required classroom work.				Moves within school facility without supervision.			
	3/3	4/7	5/5	6/2	3/3	4/7	5/5	6/2	3/3	4/7	5/5	6/2
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

HWJohnson:p
2/9/72

no data

* OK

no data

-- OBJECTIVES --

Teacher:

On each date under each objective, go down the column and check (✓) the names of children who have achieved the objective.

CHILD'S NAME -- DATE	3 - C - 3 Gives evidence of communicating with fellow students by speaking, listening and noticing some non-verbal messages.				3 - C - 5 Has evaluated competence in vocabulary studies.				3 - C - 6 Has made and followed for two weeks a schedule promoting good school performance			
	3/3	4/7	5/5	6/2	3/3	4/7	5/5	6/2	3/3	4/7	5/5	6/2
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

OBJECTIVE 3 - C - 4

[Teacher, tell the class:]

For the next little while I want you all to work quietly and stay in your places until I call your name.

[Call each one aside individually and ask:]

1. Do you like to do number work?
2. Do some adults have to do number work in their jobs? When?
3. Do some adults have to talk to people and listen to people on their jobs? When?
4. Do some adults have to read and write on their jobs.? When?

[If child can give a valid answer to all of these questions, enter Objective 3-C-4 as achieved on the record sheet below.]

CHILD'S NAME	OBJECTIVE 3 - C - 4 Relates basic skills of computation and communication to familiar occupations. DATE OF TRIAL #1	#2	#3

	CHILD'S NAME	OBJECTIVE 3 - C - 4 Relates basic skills of computation and communication to familiar occupations. DATE OF TRIAL #1	#2	#3
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
	TOTALS			

2/9/72

OBJECTIVE 3 - C - 7

Teacher:

As each child completes his examination of the health & safety standards of an occupation, write the name of the occupation in the first empty column after his name. Objective is to examine three.

CHILD'S NAME	OCCUPATIONS 1.	2.	3.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

NUMBER WHO HAVE COMPLETED ALL THREE BY --

3/3/72 _____

4/7/72 _____

5/5/72

HWJohnson:p
2/9/72

OBJECTIVE 3 - C - 8

[Teacher, tell the class:]

For the next several minutes, I want you to stay in your seats and work quietly until I call your name [Give necessary assignments, materials, trips to lavatory and pencil sharpener, etc.].

When I call your name, come to my desk (chair, etc.) and tell me what you have discovered about the qualifications needed for one job. You may bring a piece of paper with your notes on it if you like.

[As each child comes to your desk (chair, etc.) say:]

What job are you going to tell me about?....

All right. What are the qualifications needed by people in that job?

[If he/she has not already answered the following questions, ask each one.]

1. How old must a person be to get that kind of a job?
2. How many years of school must he/she have?
3. How much other education and training must he/she have?
4. What kinds of experience must he have? How much of each kind?
5. What tests or examinations must he pass, besides those in his school work and other education and training?
6. What other qualifications must he have?

[If student answers above questions to your satisfaction, write in the name of the job in the first empty column after his name on the next page.]

Number who have examined three jobs' qualifications by:

3/10/72 _____
4/14/72 _____
5/12/72 _____
6/10/72 _____

OBJECTIVE 3 - C - 8 (contd)

Teacher:

---- JOB NUMBER ----

After student satisfactorily describes the qualifications needed by one job, name that job in the first empty column following his name.

Objective is to have examined three.

CHILD'S NAME	1.	2.	3.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

OBJECTIVES 3 - C - 9, 3 - C - 12 & 3 - C - 13

[Teacher, tell the class:]

For the next some time I want you to work quietly and stay in your places until I call your names. [Give them necessary assignments, materials, trips to lavatory and pencil sharpener, etc.] When I call your name, come to my desk (chair, etc.).

[To each child as he comes to your desk, say:]

1. Tell me the name of one job you have been learning about.

2. Now, imagine that you are an adult and you have that job. Tell me three ways in which that job might change. (If he/she speaks of losing the job or getting transferred or promoted or tells how he/she might change, repeat the question. If he/she mentions kinds of change from three or more of the following categories, mark Objective 3 - C - 9 as achieved by him/her on the Record Sheet attached. If he/she gives two ways from the same category, say "Those are almost the same. (3-C-9) Give me another way." Give him/her all the time he/she needs in order to answer or say "I don't know."]

A job may change by--

1. Becoming unnecessary.
2. Moving to a new location (new shop, new city, etc.).
3. Going onto new hours.
4. Requiring new skills (inc. using new equipment).
5. Dropping old skill requirements.
6. Adding more work (inc. responsibility, territory, etc.).
7. Taking away some work.
8. Getting better pay, benefits and conditions.
9. Getting worse pay, benefits and conditions.
10. Working with different people.
11. Other.

[Then say:]

Now tell me all of the things you can think of which might help a person get that job....Can you think of any other things that might help?....

Now tell me all of the things that might help him do good work after he got the job....Can you think of anything else?

[On the Record Sheet attached, mark Objective 3 - C - 13 as achieved if he mentions two of the following types of factors for getting the job and two others for keeping it. If he/she has difficulty thinking of two factors for either getting the job or keeping it, ask, "What are some things that might keep him from getting the job?" or "What are some things that might get him fired?" Avoid this negative approach if not necessary.]

Types of Factors Affecting Getting or Keeping a Job

1. getting along with others
2. work habits
3. experience
4. training
5. native ability
6. health habits
7. other (specify) _____

(contd.-3)

Teacher:

Under 3 - C - 9 & 3 - C - 13, record successes in interviews described on preceding pages.

Under 3 - C - 12, record analyses completed, in your judgment.

CHILD'S NAME	3 - C - 9 Has identified three different ways in which jobs can change. (Check or write a job title.)	3 - C - 12 Has analyzed contribution of each worker in-- (Check, or name business or industry.)	3 - C - 13 Has analyzed factors relating to attaining and maintaining job. (Check, or write in job title.)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
NUMBER COMPLETING EACH OBJECTIVE BY --			
3/3/72.....			
4/7/72.....			
5/5/72.....			
6/9/72.....			

HWJohnson:p
2/10/72

OBJECTIVES 3 - C - 10 & 3 - C - 11

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Sometimes two people have the same kind of job.

How many agree?

How many disagree?

) Discuss until all agree.

Close your eyes. Statement 2: Sometimes people in different businesses have the same kind of job.

How many agree? _____*

How many disagree? _____

(3-C-10)

Now, listen to this story. Once there were five people who made all of the dishes used in a little kingdom. They were call "dish-makers." Every Monday, each dish maker went to a certain valley and dug up some clay and hauled it home. That was the hardest day in the week. On Tuesday and Wednesday they shaped the clay into different kinds of dishes. On Thursday they baked the dishes in big ovens and let them cool overnight. On Friday they painted the dishes and glazed them. Some of the dishes were pretty nice and some were not very good.

One Monday, out in Clay Valley, the dish-makers got to talking. They decided to get together and form a dish company. They built a factory in Clay Valley. One

big fellow agreed to dig all of the clay. Two people agreed to shape all of the dishes. One agreed to bake them all in a big oven. And one agreed to paint and glaze them all. Dishes made in the factory were called "New" dishes. Dishes made before the factory was built were called "Old" dishes.

Now, what do you suppose probably happened?

Close your eyes. Statement 3: The person who was best at painting and glazing got the job of painter and glazer in the factory.) Discuss until all agree.

Close your eyes. Statement 4: The five people in their factory didn't make as many dishes as they had working separately.

How many agree? _____

How many disagree? _____*

Close your eyes. Statement 5: The "New" dishes were more alike than the "Old" dishes.

How many agree? _____ *

How many disagree? _____

to here (3-C-11)

[Optional final question:]

Now - how do you think the five dishmakers felt about their work after the factory began? [Let them discuss this as long as you wish, but accept every comment uncritically and ask no further questions. Purposes: (1) Explore affective factors in work; (2) Make these evaluation sessions more fun."]

1/27/72
HWJohnson:ib

GRADE 4

Teacher:

During the week before the date for each column, observe especially the criterion behavior and then enter check marks on Friday.

-- OBJECTIVES --

4 - A - 1

Assumes responsibility for classroom jobs.

CHILD'S NAME -- DATE	3/3	4/7	5/5	6/10
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
TOTALS				

OBJECTIVE 4 - A - 2

[Teacher, say to class:]

For a while, now, I want you to stay in your seats and work quietly until I call your name (Give them necessary assignments, materials, trips to lavatory and pencil sharpener, etc.). When I call your name, please come to my desk (or "chair." Choose a site such that other children cannot overhear your individual interviews. Likewise, prevent communication about interviews. If you are not able to do so - please note the reason in a comment here - —)

[Then, to each child, as he comes to you, say:]

How would you finish this sentence - "Some people prefer certain kinds of work because they like to....."

[In the list below, check or write in each separate reason given. If they stop as if finished, say "Any more?" until they say "No," or until they have mentioned seven separate reasons. If they cannot get started, give "work with my hands" as an example] ~~and count it if they accept it for themselves.]~~

___be outdoors

___be indoors

___draw pictures

___talk to people

___be by myself

___help people

___work with machines

___do things where I can move around

___work with my hands

___try new things

___make up songs

___build things

___collect things

___other (specify below)

_____

_____

_____

OBJECTIVE 4 - A - 2 (contd)

[Then say:]

Now how would you finish these sentences -- "A job would be perfect for me if it let me do all of the kinds of things I like to do. I like to....."

[In the list above, circle each separate liking given. If any are mentioned which are not in the list - including the "write-ins" from the previous question, list them below]

_____ _____

_____ _____

_____ _____

Consider 5

Completed Objective 4-A-2

CHILD'S NAME	3/3	4/7	5/5	6/3	CHILD'S NAME	3/3	4/7	5/5	6/3
					11.				
					12.				
					13.				
					14.				
					15.				
					16.				
					17.				
					18.				
					19.				
					20.				
					TOTALS				

GRADE 4

OBJECTIVE 4 - B - 1

[Teacher, tell the children:]

Take out a pencil and a piece of paper. Put your name at the top. Below your name, write the name of a job or career you have thought about as one you might like to work towards.

Then on the paper make a list of the good things -- the rewards and benefits that you would get if you went into that job or career. You will have ten minutes.

[Allow ten minutes. This is not a creative activity but an opportunity to report previous thinking. Then say:]

Now, after each good thing you have listed, write one of these terms [put on chalk board]:

very important to me

important to me

or unimportant to me

[Allow exactly five more minutes, and collect the papers.]

[Go through the papers and put a check mark at the top of each one which has items from at least three of the following eight types and "very important," "important," or "unimportant" after each of the three.]

[Then record here:]

Number of papers with checks _____

Number of papers without checks _____

OBJECTIVE 4 - B - 1 (contd.)

Types of Benefits

1. money, or much money.
2. pleasure in the activities, themselves, including travel, meeting people, etal.
3. prestige: people thinking and saying nice things about the occupation, looking up to you.
4. pleasure in doing something important.
5. health, safety, security.
6. pleasure in following group or family tradition.
7. attractive working conditions or location, including outdoors, long vacations or other such benefits.
8. other

Number who achieved objective by:

3/3/72 _____

4/7/72 _____

5/5/72 _____

6/3/72 _____

OBJECTIVES 4 - B - 2 & 4 - B - 3

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: There are several different career possibilities for young people in this community.

How many agree?

How many disagree?

) Discus
) until
) childr
) agree.

Close your eyes. Statement 2: People in some of the careers produce, or will produce, services.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 3: People in some of the careers produce, or will produce, goods.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 4: People in some of the careers produce something else.

How many agree? _____

How many disagree? _____*

OBJECTIVES 4 - B - 2 & 4 - B - 3 (contd.)

Close your eyes. Statement 5: There are over a hundred career possibilities for young people in this community.

How many agree? _____* to here (4-B-2)

How many disagree? _____

Close your eyes. Statement 6: Some of you will probably have jobs by 1982.

How many agree?

How many disagree?

) Discuss until children agree.

Close your eyes. Statement 7: Some jobs that now exist will disappear by 1982.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 8: Some jobs that do not now exist will be open in 1982.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 9: Sometimes jobs are created because certain people need certain kinds of jobs.

How many agree? _____*

How many disagree? _____ to here (4-B-3)

GRADE 4

OBJECTIVES 4 - C - 1 & 4 - C - 4 and record only for 4 - C - 2

[Teacher, say to class:]

For a little while now I want you all to stay in your seats and work quietly until I call your name. [Give them necessary assignments, materials, trips to lavatory and pencil sharpener, etc.]

[Call students to your desk--chair, etc.--individually and ask:]

1. Have you made anything lately out of paper, wood, metal, plastic, cloth, or other material? When? Where? What did you make?

2. Did you have to use arithmetic or other mathematics to make it? How?

[If Objective 4-C-1 has been achieved, check off his/her name on next page. Now ask:]

3. Now, imagine that you are an adult and you have that job. Tell me three ways in which that job might change. (If he/she speaks of losing the job or getting transferred or promoted or tells how he/she might change, repeat the question. If he/she mentions kinds of change from three or more of the following categories, mark Objective 4-C-4 as achieved by him/her on the Record Sheet attached. If he/she gives two ways from the same category, say "Those are almost the same. (4-C-4) Give me another way." Give him/her all the time he/she needs in order to answer or say "I don't know."]

A job may change by--

1. Becoming unnecessary.
2. Moving to a new location (new shop, new city, etc.).
3. Going onto new hours.
4. Requiring new skills (inc. using new equipment).
5. Dropping old skill requirements.
6. Adding more work (inc. responsibility, territory, etc.
7. Taking away some work.
8. Getting better pay, benefits and conditions.
9. Getting worse pay, benefits and conditions.
10. Working with different people.
11. Other.

OBJECTIVES 4 - C - 1 & 4 - C - 4 (contd.)

CHILD'S NAME	4 - C - 1 Has utilized math knowledge to produce an item. (check)	4 - C - 2 Has analyzed the need for good communications skills. (check)	4 - C - 4 Has identified how a job may change. (check)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
TOTALS Number who have completed each objective by: 3/10/72			
4/14/72			
5/12/72			
6/10/72			

HWJohnson:p
2/16/72

OK

OBJECTIVE 4 - C - 2 (Instructions only. Record with 4 - C - 1.)

[Teacher, say to the class:]

For the next little while I want you to work quietly and stay in your seats until I call your name [Give necessary assignments, materials, trips to lavatory and pencil sharpener, etc.]

[As each one comes to your desk, ask:]

1. What are the communication skills? [Discuss until you have made it clear it includes:]

reading,
writing,
speaking,
listening,
use of non-verbal messages (like frowns, gestures, tone of voice)

2. What do adults use communications skills for?.....Anything else?

[If, with one prompting, as indicated, he/she has made an answer suggesting two of the following three uses of communications skills, go on to the next item:

a. in his/her work

b. in being a well informed citizen (inc. reading newspaper, etc.)

c. in personal life (inc. human relations, pleasure reading, personal communication, hobbies, etc.)

[If he/she <u>does</u> mention uses suggesting two of the foregoing categories, for each of the two say:]

3. Tell me two or more ways he/she would use communciations skills for _____[name whatever he named, using his terms.]

[If he/she can name at least two uses of communications skills for <u>each</u> of the two categories he has mentioned, check him off the Record Sheet as having achieved Objective 4-C-2. The record is on the Record Sheet for 4-C-1 and 4-C-4.]

HWJohnson:p
2/16/72

OBJECTIVES 4 - C - 3, 4 - C - 5, 4 - C - 6 & 4 - C - 7

[Teacher, say to the class:]

Today I'd like to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise you hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Some of the things you are learning now you will be able to use in your work as adults.

How many agree?

How many disagree?

) Discuss until all
) agree, at least by
) including out-of-sch
) learning in "now."

Close your eyes. Statement 2: If three of you learn the same thing, you may use it in three different kinds of work.

How many agree? _____*

How many disagree? _____

Close your eyes. Statement 3: If one worker does a poor job, this usually makes it harder for the others he works with to do their best job.

How many agree? _____*

How many disagree? _____

OBJECTIVES 4-C-3, 4-C-5, 4-C-6 & 4-C-7 (contd)

Close your eyes. Statement 4: Experience is no help in making a person's work better or faster.

How many agree? _____

How many disagree? _____*

Close your eyes. Statement 5: Usually, a healthy worker does a better job than an unhealthy worker.

How many agree? _____*

How many disagree? _____

1/27/72
HWJohnson:p

no data

GRADE 5

Teacher:

During the week before the date for each column under Objectives 5-A-1 and 5-A-3, observe especially the criterion behaviors described for those objectives and then enter check marks on Friday.

-- OBJECTIVES --

CHILD'S NAME -- DATE	5 - A - 1 Assumes responsibility for classroom jobs.				5 - A - 3 Has explored the interrelationship between attitude, ability, experiences, & performance.			
	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
TOTALS								

Date _____

OBJECTIVE 5 - A - 2

[Teacher, say to class:]

Please take a pencil and a piece of paper and write your name at the top.

[On the board or a large piece of paper write:]

I like to....

1.

2.

3.

Etc...

Some of your interests -- some of the things you like to do -- could be involved in your work, if you had the right job. On your piece of paper write "I like to.... and then make a list of the kinds of things you like to do (your interests). Be sure to number each item.

[Allow 5 minutes. Then say:]

At the top of your paper, just below your name, write the name of the kind of work you now think sounds most interesting to you. [Allow two minutes. Then say:]

Now, listen carefully. I want you to circle the number of every interest you have listed which would be served (used or satisfied to some extent) by the kind of work you have named.

[Allow two more minutes and then say:]

Now go back to your list of interests and cross out the numbers of the interests which would not be served by the kind of work you have named.

[Allow two minutes, then collect papers and record here _____ How many completed every step, so that every number is either circled or crossed out, _____ How many did not complete every step.

2/4/72
HWJohnson:ib

GRADE 5

-- OBJECTIVES --

Teacher:

On each of the dates under 5-B-1, go down the column and check the children who have completed the objective.

The columns under 5-B-2 are for dates (see next page).

CHILD'S NAME --DATE	5 - B - 1 Has identified at least five occupations from at least three job families and noticed their interdependency with others.				5 - B - 2 Reported exploring an occupation on--				
	3/3	4/7	5/5	6/10					
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
TOTALS									

OBJECTIVE 5 - B - 2 [May be done a few children at a time.]

[Teacher, tell the class:]

For the next few minutes, I want you to stay in your seats and work quietly, until I call your name. [Give them necessary assignments, materials, trips to the lavatory and pencil sharpener, etc.]

[Then call them to your desk, one at a time and ask the five questions below. Be sure your words and manner show you accept all of his/her answers.]

1. What is one of the occupations you have explored? [If they seem to need a definition of "explored," use "thought about."
2. Could you go into that occupation and be happy in it?
3. How did you decide that?
4. What training would you need for that occupation?
5. Where did you get that information?

[If pupil answers <u>all</u> <u>five</u> questions satisfactorily - as described below - put the day's date after his name on the preceding sheet. Ask about as many occupations as you wish in each interview. <u>Five</u> occupations explored satisfies the requirements of the objective.]

Consider his answers to your five questions satisfactory if they convince you that he/she has

(1) identified careers with adequate clarity,

(2) has made a healthy, thoughtful decision about his own following those careers,

(3) has acquired a reasonable understanding -- for a ten-year-old -- of the job's training requirements,

and (4) has no urgent need for a new understanding which further exploration might yield,.....

1913
30 5

OK 2213 OK
25 0

OBJECTIVES 5 - B - 3 & 5 - B - 5

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: A hobby is not a "career" or "occupation.") Discuss until all agree.

How many agree?)

How many disagree?)

Close your eyes. Statement 2: A hobby may change into a "career."

How many agree? _____*

How many disagree? _____ (5-B-3)

Close your eyes. Statement 3: In 1982, some of you will be looking for jobs.) Discuss until all agree.

How many agree?)

How many disagree?)

Close your eyes. Statement 4: All of the careers that will exist in 1982 do exist now.

How many agree? _____

How many disagree? _____*

OBJECTIVES 5 - B - 3 & 5 - B - 5 (contd.)

Close your eyes. Statement 5: All of the careers which now exist will probably exist in 1982.

How many agree? _____

How many disagree? _____*

Close your eyes. Statement 6: After an auto mechanic becomes a journeyman mechanic, he will not need any more training in auto mechanics.

How many agree? _____

How many disagree? _____ * to here (5-B-5)

OBJECTIVES 5 - B - 4 & 5 - B - 6

[Teacher, tell the class:]

For the next little while, I want you to stay in your seats and work quietly until I call your name. [Give them necessary assignments, materials, trips to the lavatory and pencil sharpener, etc.]

[Then call them aside individually and ask:]

1. What is meant by contrasting job opportunities? Give me two examples of contrasting job opportunities. [On the attached sheet, enter one tally for each example, up to two, under 5-B-4.]
2. What is meant by similar job opportunities? Give me two examples of similar job opportunities. [Enter one more tally for each example, up to two. Four tallies means achieving Objective 5-B-4.]

[At this time, or at a later interview say:]

1. Name five different job families and, for each one, give one job as an example and tell me how it is different from all other jobs in the job family. [On the attached sheet, put one tally mark for each time student successfully
   a. names a new job family
   b. names one job in the family
   c. tells how that job is different from all other jobs in the family.

   When he/she has performed those three steps for five job families on one interview, you will have five tallies in one column under 5-B-6 and he/she will have achieved the objective.]

-- OBJECTIVES --

Teacher:

See instructions on previous page.

CHILD'S NAME	5 - B - 4 Has defined "contrasting job opportunities" and "similar job opportunities" and given two examples of each.			5 - B - 6 Has named five job families, named one job in each, and defined it.		
	First Try	Second Try	Third Try	First Try	Second Try	Third Try
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						

Number who have completed objective by:

3/10/72 . . . . . _____ _____
4/14/72 . . . . . _____ _____
5/12/72 . . . . . _____ _____
6/10/72 . . . . . _____ _____

HWJohnson:p
2/16/72

OBJECTIVE 5 - C - 1 (Instructions only. Record on next page.)

[Teacher, say to the class:]

For the next little while I want you to work quietly and stay in your seats until I call your name [Give necessary assignments, materials, trips to lavatory and pencil sharpener, etc.]

[As each one comes to your desk, ask:]

1. What are the communication skills? [Discuss until you have made it clear it includes:]

reading,
writing,
speaking,
listening,
use of non-verbal messages (like frowns, gestures, tone of voice)

2. What do adults use communications skills for?.....Anything else?

[If, with one prompting, as indicated, he/she has made an answer suggesting two of the following three uses of communications skills, go on to the next item:

a. in his/her work
b. in being a well informed citizen (inc. reading newspaper, etc.)
c. in personal life (inc. human relations, pleasure reading, personal communication, hobbies, etc.)

[If he/she does mention uses suggesting two of the foregoing categories, for each of the two say:]

3. Tell me two or more ways he/she would use communications skills for _____[name whatever he named, using his terms.]

[If he/she can name at least two uses of communications skills for each of the two categories he has mentioned, check him off the Record Sheet as having achieved Objective 5 - C - 1. The record sheet is on the next page.]

OBJECTIVE 5 - C - 1 (contd.)

CHILD'S NAME	Has analyzed the need for good communications skills. (check)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Number who have achieved Objective 5-C-1 by:

3/10/72 _____
4/14/72 _____
5/12/72 _____
6/10/72 _____

HWJohnson:p
2/10/72

OBJECTIVES 5 - C - 2

[Teacher, say to your class:]

Today I want each of you to work alone and write something for me. So, take a piece of paper and write at the top your name, today's date, and the name of an occupation. Then, on the paper, list as many things as you can think of which a person must do, know, have, or be able to do in order to do a good job in that occupation. [On the board or large piece of paper write -- "a person must do--- know--- have--- be able to---"]

You may use one page of notes that you have made while studying that occupation. You will have fifteen minutes to finish the task.

[At the end of 15 minutes, collect the paper and record on the next page the occupations named by those who succeeded in naming attributes from three of the following six categories:

1. getting along with others
2. work habits
3. experience
4. training
5. inborn ability
6. health habits

HWJohnson:p
2/10/72

OBJECTIVE 5 - C - 2 (contd)

Teacher:

If child has given evidence of having examined an occupation for "attributes needed," as defined on the preceding page, write the name of the occupation in the first empty column after the child's name below.

Objective is to examine three occupations.

CHILD'S NAME	OCCUPATIONS 1.	2.	3.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Number who have achieved objectivity:

3/10/72_____ 5/12/72_____
4/14/72_____ 6/10/72_____

OBJECTIVE 5 - C - 3

[Teacher, say to class:]

Now I want you to write something for me. So, take a piece of paper and write your name and today's date at the top.

Please do not use any references or get help from anyone for this task.

On the paper, write --

[Put on board or chart paper and read aloud:

"An industry would move it's plant or make a major change in its method of production if --"]

Below that, list as many reasons as you can think of. You will have ten minutes.

[At the end of 10 minutes collect the papers and count the number who have named causes from two or more of the following three categories:

1. lack of one or more raw materials.
2. shortage of workers who don't cost too much.
3. shortage of power which doesn't cost too much.]

_____ mentioned two or more of above types of causes on _____.
(number) (date)

OBJECTIVES 3 - C - 4

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read two statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: Sometimes the same kind of job will be held by many different people.

How many agree?

How many disagree?

Discuss until all agree.

Close your eyes. Statement 2: Sometimes the same kind of job will be held by people in several different businesses.

How many agree? _____ *

How many disagree? _____

OBJECTIVE 5 - C - 5

[Teacher, say to class:]

Now I'd like each of you to work quietly in your place until I call your name. [Give necessary assignments, materials, trips to pencil sharpener and lavatory, etc.]

[Call them to your desk (chair, etc.) one by one and say:]

1. In or around almost every city or town there is at least one of these kinds of organizations serving the world, the nation, or at least a large region.

   [Show card saying:

   1. an industry which produces something.
   2. an industry which provides some kind of transportation.
   3. a business which buys and sells something to the world, nation or region.
   4. a seat of government where laws and legal decisions are made.
   5. an educational institution providing trained people.]

2. Which of these is around here? What does it provide?

   [Whatever his response, continue with:]

3. Does any one of these kinds of organizations have an effect on any other?

   [If he says "Yes," ask for an example. Then say:]

Give me another example. [Continue getting examples until he says he can think of no more or until he has shown relations involving all five kinds of organizations.

Avoid the question "Can you think of any more?" It suggests doubts, which discourage some.

If he gives examples involving all five kinds of organizations, check off his name below.]

OBJECTIVE 5 - C - 5 (contd.)

CHILD'S NAME	Check (✓)	CHILD'S NAME	Check (✓)
1.		11.	
2.		12.	
3.		13.	
4.		14.	
5.		15.	
6.		16.	
7.		17.	
8.		18.	
9.		19.	
10.		20.	

Number having completed objective 5-C-5 by:

3/10/72 _____

4/14/72 _____

5/12/72 _____

6/10/72 _____

OBJECTIVE 5 - C - 6

[Teacher, say to class:]

For the next little while, I'd like each of you to work quietly in your seat until I call your name. [Give necessary assignments, materials, trips to lavatory and pencil sharpener, etc.]

[Then call them to your desk - chair, etc. - one by one and say:]

1. What are the major steps in getting a job?..... Anything else?

[If with one prompting, as indicated, he/she gets all four of the steps listed below -- at least mentioning some aspect of each one -- go on to the second question. If he/she leaves out one or more steps, even after the prompting indicated, say "How about _____?", naming the step. Then send him back to his seat.]

Steps in getting a job:

1. Prepare and train
2. Apply
3. Interview
4. Satisfy entrance requirements.

2. What kinds of things determine whether you can do a job well enough to keep it? For example, your natural ability or talent would be one kind of thing. Name as many more as you can..... Any more?

[If, with the prompting and example indicated, he can name four or more, counting Number 1, check him off on the next page as having achieved the objective. If he mentions anything like "a depression," or "the company gets short of money," say "Name only things which determine how good a job you do." If, however, he says something like "The boss doesn't like me" or "I get into a fight with someone," count that under Number 6 -- getting along with others.]

1. Natural or inborn ability.
2. Training.
3. Experience.
4. Good work habits.
5. Good health habits (or good health).
6. Getting along with others.

OBJECTIVE 5 - C - 6 (contd.)

CHILD'S NAME	Has examined the process of (1) getting and (2) keeping a job (check).
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Number who have achieved Objective 5-C-6 by:

3/10/72 _____
4/14/72 _____
5/12/72 _____
6/10/72 _____

HWJohnson:p
1/27/72

GRADE 6

Teacher:

On the date under each objective, go down the column and check each child who has completed the objective named.

-- OBJECTIVES --

	6 - A - 1				6 - A - 2				6 - A - 3			
	Assumes responsibility for classroom & school jobs.				Analyzed personal interests and aptitudes.				Examined occupations with respect to interest & aptitudes (of self).			
CHILD'S NAME -- DATE	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9	3/10	4/7	5/5	6/9
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
TOTAL NUMBER												

2/14/72
HWJohnson:lb

Date _____

GRADE 6 Total number present today _____

OBJECTIVES 6 - B - 1

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: In 1982, some of you may be engaged in adult occupations.

How many agree?
How many disagree?

Discuss until all agree.

Close your eyes. Statement 2: By 1982, some of today's occupations will have disappeared.

How many agree? _____*
How many disagree? _____

Close your eyes. Statement 3: By 1982, there will be occupations no one in the world has ever heard of.

How many agree? _____*
How many disagree? _____

Close your eyes. Statement 4: A person who has finished secretarial school, received a diploma, and secured a good job will not have to get any more training.

How many agree? _____
How many disagree? _____*

GRADE 6

-- OBJECTIVES --

6 - B - 2

Reported exploring an occupation on--

Teacher:

The columns are for dates (see next page for instructions).

CHILD'S NAME					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
TOTALS					

OBJECTIVE 6 - B - 2 (contd)

[Teacher, tell the class:]

For the next few minutes, I want you to stay in your seats and work quietly, until I call your name. [Give them necessary assignments, materials, trips to the lavatory and pencil sharpener, etc.]

[Then call them to your desk, one at a time and ask the five questions below. Be sure your words and manner show you accept all of his/her answers.]

1. What is one of the occupations you have explored? [If they seem to need a definition of "explored," use "thought about."
2. Could you go into that occupation and be happy in it?
3. How did you decide that?
4. What training would you need for that occupation?
5. Where did you get that information?

[If pupil answers <u>all five</u> questions satisfactorily - as described below - put the day's date after his name on the preceding sheet. Ask about as many occupations as you wish in each interview. <u>Ten</u> occupations explored satisfies the requirements of the objective.]

Consider his answers to your five questions satisfactory if they convince you that he/she has

(1) identified careers with adequate clarity,

(2) has made a healthy, thoughtful decision about his own following those careers,

(3) has acquired a reasonable understanding -- for an eleven-year-old -- of the job's training requirements,

and (4) has no urgent need for a new understanding which further exploration might yield,.....

Date _____

OBJECTIVE 6 - C - 1

[Teacher, tell the class:]

For the next several minutes, I want you to stay in your seats and work quietly until I call your name [Give necessary assignments, materials, trips to lavatory and pencil sharpener, etc.].

When I call your name, come to my desk (chair, etc.) and tell me what you have discovered about the qualifications needed for one job. You may bring a piece of paper with your notes on it if you like.

[As each child comes to your desk (chair, etc.) say:]

What job are you going to tell me about?....

Allright. What are the qualifications needed by people in that job?

[If he/she has not already answered the following questions, ask each one.]

1. How old must a person be to get that kind of a job?
2. How many years of school must he/she have?
3. How much other education and training must he/she have?
4. What kinds of experience must he have? How much of each kind?
5. What tests or examinations must he pass, besides those in his school work and other education and training?
6. What other qualifications must he have?

[If student answers above questions to your satisfaction, write in the name of the job in the first empty column after his name on the next page.]

OBJECTIVE 6 - C - 1 (contd.)

Teacher:

After student satisfactorily describes the qualifications needed by one job, name that job in the first empty column following his name.

Objective is to have examined five.

CHILD'S NAME	---- JOB NUMBER ---- 1.	2.	3.	4.	5.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

Date _____

OBJECTIVES 6 - C - 2, 6 - C - 3 & 6 - C - 8

[Teacher, tell your class:]

Today I want to play a game with you. Sit facing me and listen carefully. I am going to read some statements. If you agree with what I say, raise your hand. Let's do one that doesn't count first, just for fun. Here's a statement.

"Dogs are nicer than cats."

How many agree? Raise your hand if you do. How many disagree?

(Check for apparent understanding.)

Before I read the other statements, close your eyes very tightly, listen to the statement, and raise your hand if you agree.

Close your eyes. Statement 1: When doctors talk to other doctors about their work and their tools and equipment, they use words most people don't understand.

How many agree?

How many disagree?

Discuss until all agree.

Close your eyes. Statement 2: The occupation of medicine has a vocabulary of its own.

How many agree?

How many disagree?

Discuss until all agree.

Close your eyes. Statement 3: Most occupations do not have vocabularies of their own.

How many agree? _____

How many disagree? _____

Close your eyes. Statement 4: Personality traits are ways of dealing with other people.

How many agree?

How many disagree?

Discuss until they accept this definition "personalit traits."*

* If necessary, resolve it by saying "this is how the term is used in the

OBJECTIVES 6 - C - 2, 6 - C - 3 & 6 - C - 8 (contd.)

Close your eyes. Statement 5: Personality traits are more important to doing a good job in some occupations than in others.

How many agree? _____

How many disagree _____

Close your eyes. Statement 6: Personality traits are not very important in most occupations.

How many agree? _____

How many disagree? _____

Close your eyes. Statement 7: Usually when a person takes a new job, like clerking in a store, he learns a lot he didn't know before.

How many agree?

How many disagree?

Discuss until <u>most</u> agree.

Close your eyes. Statement 8: Most jobs are simpler than they seem.

How many agree? _____

How many disagree? _____

OBJECTIVE 6 - C - 4

[Teacher, tell class:]

For a little while now I want you to work quietly without coming to my desk (chair, etc.) unless I call your name.

[Call them to your desk one at a time and say:]

1. What occupation have you been studying recently?
2. What basic tools and equipment are needed in that occupation?
3. Is that a complete list or a partial list of basic tools?
4. Where did you get that information?

[If he/she gives answers to all of these questions which you consider adequate, enter the name of the occupation in the first empty column after his/her name. The objective [illegible] three occupations.]

OBJECTIVE 6 - C - 4 (contd.)

Teacher:

See preceding page for instructions.

CHILD'S NAME	-- OCCUPATION -- #1	#2	#3
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Number who have satisfactorily described tools and equipment for three occupations by:

3/10/72 _____

4/14/72 _____

5/12/72 _____

6/10/72 _____

OK.

OBJECTIVE 6 - C - 6

Teacher:

Have children help you assemble and display around the room a variety of tools, each with (1) a label - giving its common name and (2) a small piece of work on which the tool may be used.

Examples:

a. a screwdriver, with a card beside it saying "screwdriver" and 2 pieces of wood with holes drilled and a few wood screws of appropriate size which can be used to screw the pieces of wood together. Screwdriver can also be used for taking apart boards screwed together, of course.

b. a pair of pliers, a card saying "pair of pliers" and a piece of wire which can be cut with the pliers.

Tell the class:

I want you today to examine and use some of the tools around the room and help others to get acquainted with some of these tools. First, make yourself a record sheet and then I'll tell you the rules for this activity.

For your record sheet, take a piece of paper and put your name and today's date at the top. Then divide the sheet of paper into four columns and head them like this [Illustrate on board or chart paper]:

Tool	Examined	Used	Witnessed
1.			
2.			
3.			
4.			
5.			

[When everyone is ready, continue:]

The rules of the activity are very simple. I'll read them to you and then you may ask questions.

ACTIVITY RULES

Rule 1. Examine and use as many tools as you have time for today, working with a partner.

Rule 2. With each tool, work with a different partner.

Be sure not to make your partner feel bad if he or she doesn't know much about the tool he is examining or using. You examine and use one tool, your partner examines and uses a different tool, and then you find a different partner.

Rule 3. Do not tell your partner what tool you want to use. Describe the tool, without using the words on the labels. If your partner can guess which tool you have described, he or she should write the name of the tool on your record sheet and put a check mark (✓) under "Examined."

Rule 4. After you have used the tool and your partner has watched you, he or she should put a check mark under "Used" on your record sheet and sign his or her name under "Witnessed." Write as neatly and carefully as you can and handle your partner's record sheet very carefully.

Rule 5. Put the tool, and the piece of work back exactly as you found them - or even more neatly arranged. If your partner does not put things back as he found them - or better - do not mark or sign his paper as "Used."

OBJECTIVE 6 - C - 6 (contd.-3)

Teacher:

Collect record sheets and check off below all who have examined and used five or more tools.

CHILD'S NAME	Has examined and used five or more tools.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Number who have completed objective by:

3/10/72 _____
4/14/72 _____
5/12/72 _____
6/10/72 _____

OBJECTIVES 6 - C - 5 & 6 - C - 7

Teacher:

You may wish to enter a date or a check mark (✓) as each student completes each of these objectives. In any case, each month (on the dates indicated*) bring these records up to date by checking off the objectives completed.

CHILD'S NAME	6 - C - 5 Has integrated computation skills and design capabilities with production skills.	6 - C - 7 Has used and put away AV equipment properly.
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

* 3/10/72
4/14/72
5/12/72
6/10/72

ACCESSION NUMBER: VT102003

TITLE: CAREER EDUCATION.

DESCRIPTOR: *CAREER EDUCATION; *RESOURCE GUIDES; *TEACHING GUIDES; *JUNIOR HIGH SCHOOL STUDENTS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 31P.

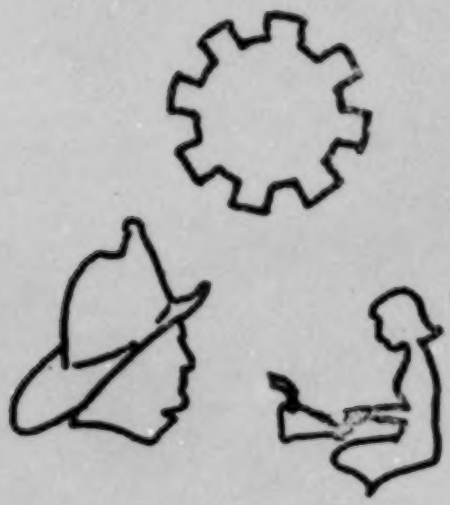
ABSTRACT: THE PURPOSE OF THIS RESOURCE GUIDE IS TO PROVIDE A GENERAL CONCEPTUAL FRAMEWORK AND SUGGESTED TECHNIQUES AND MATERIALS TO INTEGRATE CAREER DEVELOPMENT EXPERIENCES INTO THE JUNIOR HIGH CURRICULUM. THE MAJOR CONCEPTS AND STRATEGIES MOTIVATING THIS RESOURCE GUIDE ARE: (1) THE DEVELOPMENTAL NATURE OF K-12 CAREER EDUCATION, (2) THE INVOLVEMENT OF ALL CURRICULUM AREAS IN CAREER DEVELOPMENT, (3) THE UTILIZATION OF COMMUNITY RESOURCES IN A MORE COMPREHENSIVE AND DIRECTED FASHION AS ILLUSTRATED BY FIELD TRIPS FOCUSED ON THE WORLD OF WORKERS, AND COMMUNITY RESOURCE CENTERS PROVIDING INTERVIEW SUBJECTS AND IN-SCHOOL SPEAKERS, AND (4) THE APPLICATION OF TEACHING-LEARNING STRATEGIES FROM THE AREAS OF GROUP DYNAMICS, SIMULATION, AND SYSTEMS ANALYSIS. (AUTHOR)

INSTITUTION NAME: FOREST PARK JUNIOR HIGH SCHOOL, SPRINGFIELD, MASS. CAREER INFORMATION CENTER.

SPONSORING AGENCY NAME: SPRINGFIELD PUBLIC SCHOOLS, MASS.

VT 102 003

Career Education



CAREER INFORMATION CENTER

FOREST PARK
JUNIOR HIGH SCHOOL

SPRINGFIELD PUBLIC SCHOOLS

SPRINGFIELD, MASSACHUSETTS

NORMAN T. HALLS
SPRINGFIELD PUBLIC SCHOOLS
195 STATE STREET
SPRINGFIELD, MASS. 01103

VT 102 003

Forward

The purpose of this resource guide is to provide a general conceptual framework and suggested techniques and materials for making the junior high school curriculum more relevant by providing career development experience in all school subjects, as well as in general school experiences including co-curricular activities, student grading, student-teacher relationships, library activities, and school-community activities.

The major concepts and strategies motivating this resource guide are: (1) the developmental nature of K-12 career education, (2) the involvement of all curriculum areas in career development, (3) the utilization of community resources in a more comprehensive and directed fashion as illustrated by field trips focused on the world of workers and community resource centers providing interview subjects and in-school speakers, (4) the application of teaching-learning strategies from the areas of group dynamics, simulation, and systems analysis. Group dynamics has generated directed exercises in inter personal skill development for students and staff. The Life Career Game has added an element of reality to decision-making.

Joseph Ashe
Career Guidance Coordinator
Forest Park Junior High School

A FRAMEWORK OF STUDENT OUTCOME OBJECTIVES

I. To develop a positive attitude towards self through an awareness of his developing talents, values, and interests as they relate to work roles.

A. Describes how he and others perceive his strengths and areas for growth.

1. The student can describe his personal, social, and academic strengths and relate them to school and work related tasks.

2. The student can describe individual differences and identify some of the factors accounting for these differences.

B. Describes himself in terms of his developing abilities, values, and interests.

1. The student can describe his work related abilities.

2. The student can label his personal values and relate them to work situations.

3. The student can describe his interests and relate his interests to job clusters.

C. Describes his developing physical characteristics and relates them to job clusters.

1. The student relates physical characteristics in a realistic manner to the various requirements of occupational fields.

2. The student can describe his physical characteristics in terms of his present development, his relative strengths and weaknesses, and his goals for future development.

3. The student relates physical health to mental health and describes how both affect the work situation.

D. Describes work as valuable in terms of its potential intrinsic satisfactions for him.

1. The student can describe how several occupations would provide a means of expressing his personality and satisfying psychological needs.

2. The student can describe how several occupations would provide ways of satisfying his economic needs.

E. Describes ways in which he can express himself through work.

1. The student describes ways in which talents can be expressed through work and relates his own talents to work roles.

2. The student describes ways in which interests can be expressed through work and relates his own interests to work roles.

F. Identifies the value he places on personal endeavor and achievement as compared to societal values.

1. The student can describe his value system as it relates to his need to achieve.

2. The student can describe his needs to achieve in comparison with workers in various roles.

G. Describes how he can contribute to society now.

1. The student describes social organizations that he can contribute to.

2. The student describes ways by which he can personally contribute to social organizations.

H. Demonstrates developing vocational maturity through personal involvement in work tasks or related situations.

1. The student actively participates in task and work related situations.

2. The student evaluates his participation in task and work related situations.

II. To develop decision-making skills and an awareness of the results of decisions which gives him a sense of destiny control.

A. Describes the decision-making process.

1. The student identifies the major elements in the decision-making process.

2. The student identifies the sequential nature of the decision-making process.

B. The student can predict the probable outcomes of decisions before he makes the actual decision.

1. The student can describe the predictive nature of decision-making.

2. The student can give supportive evidence for the realistic nature of his decision-making.

C. Exhibits responsibility for the consequences of his decision-making.

1. The student demonstrates reasonable risk-taking by seeking choices in educational-vocational planning.

2. The student demonstrates commitment to his choice by persisting in personally challenging activities when his goals are attainable.

3. The student can describe the natural consequences of his actions.

D. Describes the interrelatedness of decisions made in different spheres of life and segments of time.

1. The student relates the decisions he makes in home, school, leisure time, and work.

2. The student describes how decisions made now can affect his future choice.

E. Exhibits planfulness in the way he manages his resources to achieve individual goals.

1. The student can describe how his use of time fits his goals.

2. The student demonstrates a commitment to planning by budgeting his resources for future goals.

F. Identifies and utilizes the major informational resources needed in educational-vocational decision making.

1. The student examines critically the career advice given by significant others.

2. The student identifies and utilizes appropriate criteria for evaluating occupational information.

3. The student can identify career stereotypes as presented in the mass media and occupational information sources.

G. Identifies those factors taken into consideration by an employer when choosing from several job applicants.

1. The student can describe the training or education required for entry into several job clusters.

2. The student can describe the personal qualifications for entry into several job clusters.

3. The student can describe the qualifications for promotions in several job clusters.

III. To develop the student's awareness of occupational areas in terms of work roles, related life styles, and potential satisfactions and dissatisfactions.

A. Identifies and explores broad occupational areas.

1. The student can describe the worker role requirements in various occupational areas.

2. The student can describe how social and economic changes and trends affect worker roles and employment opportunities.

B. Identifies and utilizes non-technical resources available for gathering information about occupations.

1. The student is able to assess the uneven distribution of work and authority in task situations.

2. The student is able to analyze conflicts with authority.

3. The student copes with the different expectations of significant others in task situations.

C. Elicits and considers suggestions and evaluations regarding a given task or work-related performance.

1. The student evaluates his own work behavior or school performance in terms of relevant factors.

2. The student seeks feedback and suggestions when performing a task.

D. Demonstrates the ability to depend on others and to be depended upon in task situations.

1. The student shows an awareness and trust of others in task situations.

2. The student shows a sensitivity and obligation to others in group task situations.

E. Displays an awareness of the dynamics of group behavior by successfully functioning as a contributing member of a task-oriented group.

1. The student describes various elements of group dynamics.

2. The student is a productive member of task groups.

F. Demonstrative effective work habits in the area of giving or evaluating instructions.

1. The student communicates instructions affectively in work-related situations.

2. The student evaluates the instructions of others so he can proceed in task situations.

V. To develop a respect for workers and the place of work in our society.

A. Explains how work-related experiences make his leisure time more enjoyable.

1. The student identifies ways in which careers develop personal growth and independence.

2. The student describes ways in which careers allow him to move between work, play and creative leisure.

B. Describes the social worth of work by identifying the contributions of a wide range of workers to the well being of society.

1. The student identifies people who have made contributions to society through their work.

2. The student describes the contributions made through work.

C. Describes how work can help ameliorate social problems.

1. The student can identify several ways in which work has changed man's environment in the past.

2. The student can describe social problems of today which future workers might help alleviate.

D. Understands the important and changing contribution of women to the world of work.

1. The student can cite examples of changes in society which are affecting the traditional division of labor by sex.

2. The student can describe the effects on men and women of stereotyped career roles for women.

E. Debates the ethic of individual success versus the ethic of collective striving for community well being.

1. The student identifies and relates goals and purposes to personal as well as to social well being.

2. The student describes instances of conflict situations between personal and social well being.

Community Resources Utilized by Program

Mrs. Jane Yolen - Children's Book Writer

Meyers Brothers, Inc. - Accounting

IBM Corporation - Computers

Springfield Technical Community College - Medical and Secretary

Springfield Police Department - Law Enforcement

WHYN - Communications - Radio and Disc Jockey

United Technical School, Inc. - Automotive

M.S.P.C.A. - Veterinarian

Forbes and Wallace Department Store - Fashion and Retailing

Bachiochi Design - Interior Decoration and Design

Home Builders Association of Greater Springfield - Building Trades

Spectrum Communications, Inc. - Electronics

Springfield Municipal Hospital - Nursing

Springfield School Department - Secretarial

Chamberlain, Thomas Inc. - Architect

Carroll Russell School of Charm and Modeling

Mr. Fred Garber - Photographer

Attorney Stuart Meyers - Lawyer

U.S. Naval Recruiting Office

Pan American Airlines

Digital Equipment Corporation - Computers

University of Massachusetts, School of Engineering

Films Presented in School

October 1973 - Mr. Golen Comes To Town	140 students
October 1973 - Computer Language	124 students
October 1973 - The Journalists	173 students
November 1973 - Careers: Making a Choice	74 students
November 1973 - Careers: Opportunities for Training	71 students
November 1973 - Careers: Communications	65 students
November 1973 - Careers: Technicians	83 students
November 1973 - Careers: Health Services	92 students
April 1974 - Career Awareness - Construction Industry	115 students
April 1974 - The World of Work	64 students
April 1974 - Is a Career as a Technician For You?	113 students
April 1974 - Is a Career In Restaurant Business For You?	49 students
April 1974 - Is a Career In Electronics Money For You?	69 students

Film exposure on Careers - 1,229 students

Pilot Program - English

A Career Education program was the focus of an English program at Forest Park Junior High School. This was affected for low achieving groups in the eighth and ninth grade to increase their school readiness and make the material for the student more relevant. In the two classes chosen for the program, the students were low in reading readiness, intelligence testing scores, Iowa Test Scores, and generally exhibited behavioral problems. There were 110 students involved in the program which was made up of:

Boys - 48	Girls - 62
White - 32	White - 42
Black - 16	Black - 20

These students were introduced to the subject of Career Education through the film - "Careers: Making a Choice" - Doubleday Multimedia. The students were given the Kuder Preference Test and charted their own profiles. Each student then made out an individual appraisal sheet. Each student was also given the Differential Aptitude Tests. The student was then told of areas of strengths, and weaknesses indicated by the tests and was made aware of the purpose and meaning of the test itself. All the students then took part in a Career Exploration program conducted by the Career Coordinator. The students were shown film strips with cassettes on the twelve areas of concentration using the Guidance Associates series on "Preparing for Jobs of the 70's." The students next were to select an occupation within a cluster which was in keeping with his strengths exhibited in the Kuder and Differential Aptitude Tests. The next step was to have the student get information pertinent to his chosen occupation utilizing occupational briefs published by Science Research Associates and "Careers" published by the Institute for Research. The student was then given an opportunity to use Skill Kits from Science Research Associates which gave them an opportunity for a "hands-on" experience.

The student then constructed a notebook and had to read and bring in three articles from a newspaper on the occupation which he chose. Each student then went to the Career Information Center for a personal interview. They were shown how to use the "Dictionary of Occupational Titles" and the "Occupational Outlook Handbook." The student was given the direction needed to find all of the information pertinent to his area of interest. The library section of the Career Information Center was utilized for student reference and places of further information were obtained through "Occupational Literature." The student wrote the letter requesting information. The student gathered all the information concerning his interest into his notebook.

Students next were given a real situation to work with The teacher assigned them a role e.g. - a graduate of Commerce High School who is looking for a secretarial position to help support the family. Her father had recently died and there were two younger sisters at home so the mother couldn't go to work. The role was by chance rather than choice. Each student was given the role by the use of a wheel of chance. Each of the 32 numbers on the wheel had a situation assigned and the wheel selected the student to accomplish the task.

During this experience the student had to write a letter of interest requesting a personal interview. The interview was conducted by the Career Coordinator in a one-to-one basis. The student then had to make out a job application. Before these were conducted a unit was accomplished on writing letters - personal and business form - and how to take part in an interview from film strip and cassette series by Guidance Associates - "Job Hunting"; and Eye Gate House Series - "The ABC's of Getting and Keeping a Job" and "Preparing for the Job You Want." The students then wrote prospective employers to inquire about positions and follow-up materials which they put into their notebooks. Each student in keeping with their employment role, was to figure their own income taxes and budgeting of money. The students were given play money to spend as they wished. A bank, loan officer, city council, welfare worker, and social worker were involved in this preparation. The film strip, "Budgeting Your Money" was shown and discussed to aid in consumer education.

Science classes and math classes were involved to assist in these units. Biology was emphasized for those given roles in the health services areas and after class help was given on an individual basis for those interested in the nursing field.

In math classes, the computation and completion of income tax forms was implemented for consumer education. Budgeting was an intergrated portion of the math classes offered to the students. All students were offered individual aid after school to meet the requirements of the course.

The related classes required a tremendous amount of coordination to insure a joint effort for the accomplishment of the course. The students felt that the effort was well worthwhile, and the teachers involved were able to achieve more in their classes through the use of this approach in instruction. The instructors were given all of the materials necessary by the Career Information Center through the Career Coordinator.

Students who expressed an interest in vocational training were given an opportunity to see first hand the various shops at Putnam Voc. Tech. High School. The students chose the area of interest to them which were:

1.	nursing	-	15 students
2.	sheet metal	-	4 students
3.	welding	-	4 students
4.	wood working	-	13 students
5.	automotive	-	18 students
6.	pattern design	-	5 students
7.	cosmotology	-	12 students
8.	radio & television	-	3 students
9.	auto body repair	-	6 students
			80 students

These students spent an entire morning in these shops and were criticqued on return to Forest Park Junior High School. Generally, all of the students were favorable in response to the experience.

Career Information Center

The Career Information Center at Forest Park Junior High School is presently conceived of as an integral part of the resources available to all students and faculty. Each student is encouraged to come and utilize materials on an individual basis. Film strip viewers and cassette tape players allow each student to utilize the material of his/her interest without interfering with or being distracted by other pupils.

All the handouts and literature on careers which we have in the Career Information Center was ordered through the "Occupational Literature and Annotated Bibliography." This edition is mandatory to complete any Career Education library. Most of the materials were free of charge and forwarded within three months, making them available during the school year.

On an average, thirteen students a day were utilizing the Career Information Center to gain information and materials to complete their assignments in class. The program on Career Information has been expanded with four English instructors using the materials in the Career Information Center to develop a program on writing for Career Information and letters of application. Over two-hundred (200) students have received materials from the Career Information Center or have been counseled on Career Information. There is a widening utilization of the Career Information Center by both students and teachers at Forest Park Junior High School.

Forest Park Junior High School
Joseph Ashe, Counselor
Career Education

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Students were to construct a personal biography including what jobs they had held during the summer, after school, etc. The first day was spent on the biography. We then went to the school library to look at a variety of biographies which the librarian had set aside.

Materials: Pens, paper, and a 3-hole punch to construct a notebook.

Comments (date of use, effectiveness, etc.):

October 25, 1973. This took approximately 3 class periods for the students to complete. Most of them put a great deal of effort into the subject. The librarian gave a brief explanation on the library, the card system, and the Dewey system of cataloging.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Students selected a famous individual and began a biographical book report. The pupils centered their report on the career aspects of the individual they chose.

Materials: Library book, film strip on "Construction", book report and a dictionary.

Comments (date of use, effectiveness, etc.):

The students selected a character and a career which interested them. The students took a more active interest in present day individuals as well as famous individuals in history.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Each student constructed his/her own personal folder which would be kept in the classroom to build career awareness. The students were given class time to develop their biographies. During this period of time they utilized resources available in the school library and the Career Information Center.

Materials: Folder, clips, and pamphlets on the varieties of careers available.

Comments (date of use, effectiveness, etc.):

The art teacher was able to assist in the student folder during the art class. The social studies teacher aided by enumerating in class characters of interest for reports and also the careers these people followed.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Classes with approximately 25 students in each were given the Kuder Interest Inventory, which took an entire week.

Materials: Kuder Interest Inventory.

Comments (date of use, effectiveness, etc.):

After taking the test the students were allowed to plot out their own profiles. The students were very excited over the tests and their results. These were also put into their folders. This gave them an insight into their aptitudes.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

The students were given individual Career Guidance. They brought in a folder and a biography with Career Interest Kuder to the Career Information Center to gain additional reinforcement or elimination on the area of interest. They were instructed on the proper utilization of the D.O.T.

Materials: Career Information materials.

Comments (date of use, effectiveness, etc.):

Students reacted very well to the individual counseling and pamphlet material which they could use and keep.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Introduction of five groups to Success in Language and Literature - Book I. Each of the students took the personality index test from Book I. There was a discussion and a personal evaluation of the tests. Each student scored their own papers and placed them in their folders.

Materials: Success in Language and Literature - Book I and a reproduced test.

Comments (date of use, effectiveness, etc.):

The students exhibited a marked interest in the findings. Most evaluated themselves very honestly and open. There were some who cheated but this came out in the discussions. It was a positive experience.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Group discussions were developed around Occupational Clusters. Each student then wrote a composition on which one he/she would like to follow.

Materials: Eye Gate Series, film strip, and cassettes.

Comments (date of use, effectiveness, etc.):

The students were able to at this point see a meaning to the assignments after they had evaluated their own strengths and weaknesses.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Students were ready to be placed in a "real life" situation. A "Wheel of Chance" was brought in and each student was assigned a number. They were given a situation to solve elg. - a high school dropout who must seek employment because his parents were killed in an accident; a young woman who is on Welfare with two children and is not married. Each student had to research his situation and come up with a solution. Some had to find out the procedure for applying for Welfare such as what agencies were available and how much assistance could be received. Others utilized newspapers and employment agencies to send out letters requesting information concerning a job, forwarding a letter of application, and requests for interviews. Each of the students were given play money and they had to manage their own finances.

Materials: Film strips - "Trouble on the Job"; "Finding a Job", cassette, play money, tape player, wheel of fortune, newspapers, services of the Department of Employment Security, projector, dictionary, and handout materials.

Comments (date of use, effectiveness, etc.):

Each of the students were able to carry out his/her own research. They were also given some information on consumer education. They didn't realize the many facets which make up our own complex society. The social studies teachers co-operated with the Consumer Education program.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Students who had selected a career in a technical area were given an opportunity to spend a day observing a particular shop at Putnam Voc. Tech. High School. After this period of observation, the students had to write a report and orally present it to the class and each heard his presentation played back.

Materials: Tape recorder, permission slips, and transportation.

Comments (date of use, effectiveness, etc.):

The instructors at Putnam Voc. Tech. High School were more than co-operative in this program. More than 150 students would have had an opportunity to view the programs available.

Subject Area: English

Grade Level: 8 & 9

Instructional Activity:

Students were given Scholastic Aptitude Tests - Princeton, New Jersey and the results were placed in the students folders.

Materials: Both S & T Forms of Scholastic Aptitude Tests.

Comments (date of use, effectiveness, etc.):

Students were made aware of their own strengths and weaknesses when they evaluated the test scores in each of the nine occupational skill areas measured. They became more realistic in occupational and educational areas.

Subject Area: Guidance

Instructional Activity:

The classes were given instruction on job interviews, writing applications, forms of tests usually given, and how to prepare a resume. This was a two-week unit in which each of the students were given a practical application period and all of the exercises were included in their folders. The interviews were graded by their peers.

Materials: Success in Language and Literature - Book 8, film strips - "How to Prepare for An Interview"; "The Resume Guidance Series", and a tape recorder.

Comments (date of use, effectiveness, etc.):

Students were highly motivated during critique sessions when they evaluated each other and heard their presentations played back.

Subject Area: Guidance

Instructional Activity:

During this entire unit students were given individual counseling by the Career Coordinator. They were allowed to use all of the materials in the Career Information Center to complete their basic requirements.

Materials: Dictionary, and a grammar book.

Comments (date of use, effectiveness, etc.):

Very effective utilization of grammar books and dictionary work for the completion of assignments. Students also had to utilize library skills and books (literature) within the frame work of the course.

Subject Area: Guidance

Instructional Activity:

Career Information Program established at Forest Park Junior High School. The teachers were provided with an awareness to show the relevance of school materials to achieve student objectives. This was to be accomplished through career exploration. A two-day teacher workshop involving all teachers and counselors was held. A complete listing of all Career Information materials was handed out to the teachers.

Materials: Career Education film strip on "Career Education - What It Is and How to Use It."

Comments (date of use, effectiveness, etc.):

Teachers were not given the workshop but I had to approach each on an individual basis showing the importance of Career Education in the curriculum and how I could assist them in utilizing materials on hand. All the teachers seemed very enthusiastic.

Subject Area: Guidance

Instructional Activity:

Students were made aware of the program through the utilization of a class presentation conducted in all 8th and 9th grade classes. This was accomplished with the handout on Career Education and the film - "Career Choice" with 10 minutes for discussion.

Materials: Film projector 16 mm.

Comments (date of use, effectiveness, etc.):

This took approximately 3 weeks to accomplish. The students exhibited a favorable response to the concepts presented. Group discussions developed and teachers utilized this for units for job interviews and applying for a job.

Subject Area: Guidance

Instructional Activity:

Career Interest Survey sheets were handed out to each student to be taken home and signed by parents. They were to make the home aware of the program taking place in the school. Each student was to indicate his preference by putting down choice 1, 2, and 3. The survey forms were collected and interest areas were grouped. From this grouping there were 22 occupations chosen by the students. Speakers from the community representing each area were invited to speak to the students. A random survey was taken to determine the effectiveness of the program. The same survey was distributed to the students and was compared to see if interests were the same. Those that had the same interest area were further exposed to that occupation with field trips within the community. Those who showed an interest in the trade areas went to Putnam Voc. Tech. High School for a field trip. The students began to utilize the C.I.C. more often asking for books and materials on a particular occupational area. Plans for the facilities have been made and equipment has been ordered.

Comments (date of use, effectiveness, etc.):

The first survey forms were distributed in early September. Effectiveness would have been better if the orientation was given first to make sounder judgments on selection of areas of interest. The teachers were not completely clear on the use and objectives of the survey forms. They didn't completely follow-up on the collection of forms so a large number were missing. The results of the second were much better (in number of response) with a cleaner understanding after an orientation to the program. The students who took part in these field trips expressed an enthusiasm for their choices and there was a positive reinforcement to the exploration phase of the project.

Subject Area: Guidance

Instructional Activity:

Students have utilized the SRA Work Experience Kits allowing them an actual hands-on experience. Each unit is programed for the individual student and they can progress at their own pace.

Materials: Work Experience Kits from the Science Research Associates, Inc.

Comments (date of use, effectiveness, etc.):

There have been excellent results with this program used in conjunction with the field trips to Putnam Voc. Tech. High School followed by a field trip to an actual job. The drawback with the kit is that if more than one student is interested in an occupation they must wait for the other student to finish before he can begin.

Subject Area: Engineering & Science

Grade Level: 7, 8, & 9

Instructional Activity:

The use of computer and engineering experiments to gain and hold interest of students. A cross section of 8th grade students were selected with prime consideration given to: sex, race, and academic ability. These students were told that they were part of a select group and their parents were appraised of this. There was an attempt made to keep the lines of communications open between the school and home. The purpose of the program was to promote an increased awareness in the sciences to minority and low achiever groups, and to show the career possibilities in engineering and science to high and average achievers. To accomplish this, a broad approach was made on the community level and regional level. The students were brought on a series of trips to the University of Massachusetts where they were assigned to an underclass student for conference group work. These students accompanied the group on trips to the Computer Department, various engineering departments on campus, and conferences conducted at Forest Park Junior High School. After each experience, the students received a questionnaire to complete to ascertain interest levels. The University of Massachusetts devised a testing instrument to measure scientific and mathematical aptitudes. This was administered at the school by the Project Coordinator and the University of Massachusetts will tabulate and evaluate test results. Eighth grade students were selected in order that their progress and selection of major in high school may be closely monitored.

Materials: Computer terminals and laboratory equipment necessary to show one experiment in each engineering discipline.

Comments (date of use, effectiveness, etc.):

All facilities at the University of Massachusetts have been utilized to keep this program meaningful to students.

Subject Area: Sheetmetal

Grade Level: 7 & 9

Instructional Activity:

Behavioral Objectives to be utilized and implemented in a curriculum for 7th and 9th grade students. The first step was to separate the behavioral objectives by grade and then select those which could be accomplished with the equipment available. This curriculum guide will be forth coming at the conclusion of the work study.

FIELD TRIPS

Taken

1.	Springfield Armory - Skills for the 70's	80 students
2.	University of Massachusetts - Computer Science	40 students
3.	University of Massachusetts - Engineering School	40 students
4.	Digital Corporation - Computer and Science Skills	40 students
5.	Spectrum Communications - Communications	43 students
6.	United Technical School - Auto Mechanics	38 students
7.	Putnam Voc. Tech. High School - Shops of Interest	92 students
		373 students

Proposed

1.	Combustion Engineers - Windsor Locks	40 students
2.	Digital Corporation - Westfield	45 students
3.	Animal Rescue League, Veterinarian	40 students
4.	Springfield Tech. Community College - Secretary	30 students
5.	Springfield Tech. Community College - Nursing	30 students
		185 students
	Total -	558 students

Career Education at Forest Park Junior High

The purpose was an attempt to make learning in areas and at all levels realistic and relevant. The fundamental concept which I desired to engender was the concept that aspects of the educational experience such as curriculum, construction, and counseling should be geared to helping each individual to appreciate the worth and the diginity of work, to achieve economic independence, and to experience a sense of personal fulfillment.

Although the goals of Career Education match those of education in general, a focusing of some or all of the goals were made known and an attempt was made to relate to the central theme of careers, or the various ways in which people earn a living.

Career Education was therefore focused upon an in-depth exploration of self and three or more previously introduced career areas.

An interdisciplinary approach is employed at all levels. Language arts, mathematics, social studies, science, and other basic subjects are interrelated in order that the student learns at once the basics and their relationship to each other and to the world of work. From the beginning, through units developed around career themes, students participate in a variety of activities which may involve "hands-on" experiences, field trips, resource people, shadowing or part-time jobs very limited in number and scope due to age regulations in Child Labor Laws.

The goals of the program at Forest Park Junior High was to show a significant gain in self-awareness, to make the educational process more relevant, and to improve in the discipline and attendance records of the students.

The overall design for the achievement of Career Education at Forest Park Junior High includes a system for communication. In general terms, this system represents the effort to inform about and involve in Career Education as many individuals and agencies within the school district, the school, and total community as possible; to establish open lines of communications among these individuals and agencies; and to draw upon coordinate to make available valuable existing resources and information appropriate to Career Education.

Each student progressing through our Career Education program related to the eight elements should be able to operate in society in a manner consistent with the element outcomes. These eight elements are: Self-Identity, Educational Identity, Career Identity, Economic Understanding, Career Decisions, Employment Skills, Career Placement, and Self-Social Fulfillment.

The process of Career Education at Forest Park Junior High provides the structure for the development of the curriculum. The curriculum content is provided by the following twelve clusters defined by the U.S. Office of Education:

1. Natural Resources - involves management of environmental reserves in the production of goods and materials to satisfy needs and wants of the consumer.

2. Manufacturing - involves the design and the production of goods and materials in an effort to make a product suitable for the consumer's use.

3. Construction - involves the process of building all types of buildings, structures, and highways which aid the citizen in his manner of living, working, and other external life-style needs and desires.

4. Trade and Finance - involves the processes in exchange of goods and services as well as monetary services, including real estate and insurance, to aid both producer and consumer personally or professionally.

5. Transportation and Communication - involves the transference of goods and people by air, land, water, and the transmission of information throughout the community, nation, and world.

6. Government - involves developing and inforcing the system of community living at the local, state, and national levels as well as regulating quality standards for all goods and services.

7. Education - involves the application of knowledge in areas of research and ofter includes responsiblities to impart information to others as well as to aid these individuals in gaining skills and techniques necessary in the accomplishment of tasks.

8. Health and Welfare - involves maintaining the physical and mental well-being of humans as well as being active in the care of animals as they relate to the well-being of society.

9. Personal Services - involves aiding individuals in their daily life functions as related to their needs and desires.

10. Product Services - involves the repair and maintenance of goods currently in the possession and use of consumers.

11. Arts and Humanities - involve the skillful production of creations and/or presentations for aesthetic appreciation and recognition.

12. Recreation and Entertainment - involve the application for artistic skills and talents for an individual's own pleasure and/or pleasure of others.

A letter requesting Career Education related to materials developed by teachers is being prepared for system-wide distribution at the junior high level. In addition, the Coordinator is assisting in the development of a Career Education resource center to be a prototype for all junior highs.

Possibilities for inter-class and inter-school visitations have been carried out and is constantly being explored.

Teachers engaged in Project CAREER will be used as resource personnel for non-project personnel in in-service activities.

Attempts are being made to keep abreast of and be involved in the development of national Career Education models.

In-service

The model for in-service currently being developed is based upon the following set of assumptions:

1. In-service in Career Education involves knowledges, skills, and attitudes specific to Career Education as well as generic teaching competencies which produce desired behaviors in students.

2. In-service and pre-service education must be based on the same rationale and sequence of competencies.

3. In-service activities should be based upon the expressed needs and interests of the participants.

4. Learning activities for in-service should be planned with consideration of how people learn and should be based upon educational philosophy.

5. All agencies within the school system and the community need to be involved in a coordinated effort to assess in-service needs and to implement in-service programs.

A System of Communications

The coordinator of the program approached each English teacher on the faculty to reduce the possibility of duplication of effort and to insure maximum exposure in the school. The teachers were illicited their opinions of the importance of Career Education and its importance in a junior high school setting. Each instructor was found favorable to a Career Program and was willing to have a presentation made within his class. All 7th and 9th grade students were given the presentation which included a hand-out on Career Education, the film - "The World of Work" - Counselor Films, and a 15 minute presentation on what Career Education is and how it applied to them. The life line drawn on the board breaking it into its five categories. The realization that they each were going to have a period of forty-five (45) years of work was a very sobering prospect. In this manner, over six hundred and twenty-three (623) students were exposed to Career Education. The primary difficulty presented in this approach is allowing the Career Education Coordinator in their class for the presentation. Each of the teachers felt a sense of apprehension on trying something new.

After this introduction was accomplished, an interest survey form was given to each of the students in school to bring home.

University of Massachusetts Report

Forest Park Junior High School, working in conjunction with the University of Massachusetts School of Engineering, has an ongoing program which is meant to increase the Career Interest of students in the Engineering fields. Fourty (40) students have been selected as a control group, and fourty (40) as an experimental group. The composition of the experimental group was composed to guarantee a cross section of students. It is composed of low, middle, and high achievers. Its make-up is as follows:

1.	White boys	- 14
2.	White girls	- 10
3.	Black boys	- 8
4.	Black girls	- 6
5.	Puerto Rican boys	- 2
		40 students

Each member was given a personal questionnaire, which they filled out, and a locally prepared test to indicate any competency or interest in Engineering. The students have had two field trips to the Computer Center at the University of Massachusetts and the School of Engineering where they were given a hands-on experience in each area. During the course of the school year, field trips have been conducted to other areas of interest e.g. Digital Equipment Corporation, Spectrum Communications, and Combustion Engineers. Also the students were given an opportunity to have discussion sessions with students of the University of Massachusetts at Forest Park Junior High School. There was a meaningful exchange of information and all benefited from this experience.

The program will follow the progress of the experimental and control group to measure and evaluate the success of the program. The purpose for the University of Massachusetts is to increase the number of minority students in their School of Engineering. The purpose which Forest Park Junior High School was striving for was a greater awareness on the part of the students toward Engineering and the requirements and educational background needed for this particular area.

Evaluation

The method for evaluation of this program will be personal interviews, and also checking the students selection of courses or choice of high school coupled with their major area of concentration. In checking the student's files, it has been found that seven of the students have selected the option of attending Classical High School and intend to take the College Preparatory Course. Their progress will be monitored by the Career Coordinator. Thus far in the individual interview sessions, each of the students has stated an increased awareness in requirements needed for and opportunities available in the engineering field. In the discussion groups, the students generally agreed that they knew little of terminology related to engineering. Five of the students were well acquainted with computers and computer language. They were able to assimulate this information quite readily. Three of the students, two black boys and one black girl, indicated no interest in the engineering field, but they felt that this experience was beneficial to them learning about new material and all enjoyed the field trips throughly. Each of the students who remain at Forest Park Junior High School will be maintained in the program and their progress will be periodically checked. Other students will be added to the program to keep the number at forty (40).

Student Evaluations of Field Trip to the University of Massachusetts

Field trip taken to the University of Massachusetts on October 25, 1972, thirty-eight (38) students. The students were given an interest questionnaire to assertain continued interest. Of the thirty-eight (38) responses, thirty-six (36) indicated that they were more interested in the program and two responded that they were as interested.

The students indicated in their remarks that the groups should be smaller so each of them would have an opportunity to utilize the computers, and other have indicated a desire for more field trips in the future.

Name _____ Date _____

Home Address _____ Telephone _____

Instructions: Please write or print your answers as clearly and neatly as possible. Complete all of the blanks. Where no answer can be given, complete the blank with the word "NONE".

Section I: FAMILY BACKGROUND

1. With whom do you live? (check one)
   a. Father and mother _____ c. Father only _____
   b. Mother only _____ d. Guardian _____

2. Status of Parents(check those applying)
   a. married _____ c. divorced _____ e. separated _____
   b. father dead _____ d. mother dead _____

3. Name of Parents (or guardian) _____

4. Address _____ Telephone _____

5. Occupation of Father _____

6. Where does he work? _____

7. Occupation of Mother _____

8. Where does she work? _____

9. Education of Father (check the ones which apply)
   a. some grade school _____ b. finished grade school _____
   c. some high school _____ d. finished high school _____
   e. some college _____ f. finished college _____

10. Education of Mother (check the ones which apply)
    a. some grade school _____ b. finished grade school _____
    c. some high school _____ d. finished high school _____
    e. some college _____ f. finished college _____

11. How many brothers and sisters do you have? B _____ S _____

12. What are their names and ages?

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

13. What language do you speak at home?_____

Section II: PERSONAL BACKGROUND

1. What are your special interests or hobbies?_____

_____

2. What do you do with most of your leisure time?_____

_____

3. What lifestyle do you see yourself in?_____

_____

4. What kinds of books do you enjoy?_____

_____

5. What magazines do you read regularly?_____

_____

6. Do you read a daily paper?_____

What parts do you read (check)

a. Front page_____ f. Women's section_____

b. General news _____ g. Comics _____

c. Editorials_____ h. Advertisements _____

d. Entertainment news_____ i. Other_____

e. Sports section_____

7. Health condition (good, fair, poor) _____

Any physical defects _____

Have you ever had a serious illness? _____ If so, what? _____

8. Have you ever been in a serious accident?_____ If so, what?_____

_____

Section III : EDUCATIONAL BACKGROUND AND PLANS

1. Do you enjoy school? (check one)

always _____usually_____sometimes_____seldom_____never_____

2. What subjects do you enjoy the most? 1._____

2. _____3._____

3. What subjects do you enjoy the least? 1._____

2. _____3._____

4. What are your favorite school activities? 1._____

2._____ 3._____

5. Do you plan to continue your education after high school?_____ If so, at what kind of institution?_____

Section IV: CAREER OR OCCUPATIONAL BACKGROUND AND PLANS

1. Past work experience:

Type of work	Employer	Dates
1._____	_____	Frm_____ To_____
2._____	_____	Frm_____ To_____
3._____	_____	Frm_____ To_____

2. Check those occupations you are interested in:

Firefighter 373.884	_____	Sewing Mach. Oper. 787.782	_____
Service Station Attendant 915.867	_____	Welder combination 812.884	_____
Cashier 211.368	_____	Surveyor 18.188	_____
Secretary 201.368	_____	Dietitian 77.168	_____
Receptionist 237.368	_____	Dental Hygienist 78.368	_____
Draftperson 17.281	_____	Technician X-Ray 78.368	_____
Electrician 824.281	_____	Teacher 92.228	_____
Mechanic Auto. 620.281	_____	Designer Indust. 142.081	_____

Section V: CAREER APTITUDES

1. What school record shows.

A. Average grade in English_____

B. Average grade in Social Studies_____

C. Average grade in Science_____

D. Average grade in Math_____

E. Name your two favorite school subjects (Physical education, music, art, shop, etc.)

1._____ Grade_____

2._____ Grade_____

2. Counselors' Input

A. Attendance _____ No. of days absent _____

B. Record tests results

C. Personnel observation as to career interest for student.

ACCESSION NUMBER: VT102004

TITLE: VOCATIONAL TRAINING. PRINTING.

DESCRIPTOR: *INDUSTRIAL ARTS; *PRINTING; *CORRECTIONAL EDUCATION; *CURRICULUM GUIDES; INDIVIDUALIZED INSTRUCTION

IDENTIFIER: PENNSYLVANIA; IBM SELECTRIC COMPOSER OPERATOR

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 31P.

ABSTRACT: THE PURPOSE OF THIS PUBLICATION IS TO GIVE A BRIEF BUT COMPREHENSIVE CONCEPT OF VOCATIONAL TRAINING WITHIN THE INDUSTRIES DIVISION OF THE PENNSYLVANIA BUREAU OF CORRECTION. THE MESSAGE IS PRIMARILY INTENDED TO GIVE DIRECTION TO THE TRAINING STAFF, FACTORY FOREMEN AND/OR THE TRADESMAN INSTRUCTOR. THE CURRICULUM IS STRUCTURED TO GIVE THE RESIDENT A BALANCE BETWEEN THE REQUIRED THEORY AND ACTUAL HANDS-ON WORK APPLICATION. PERFORMANCE OBJECTIVES 1-10 FOR THE JOB IBM SELECTRIC COMPOSER OPERATOR ARE PROVIDED TO BE USED ON AN INDIVIDUALIZED BASIS. (AUTHOR/LJ)

INSTITUTION NAME: PENNSYLVANIA STATE DEPT. OF JUSTICE, HARRISBURG. BUREAU OF CORRECTION.

VT 102 004

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF JUSTICE

BUREAU OF CORRECTION

INDUSTRIES DIVISION

FRANK C. JOHNSTON
DIRECTOR

K. I. REED
ASSISTANT DIRECTOR

VOCATIONAL TRAINING

PRINTING

C. R. ESHLEMAN
VOCATIONAL TRAINING ADVISOR

VT 102 004

TABLE of CONTENTS

Preface..... i

Recognition..... ii

Factory Foreman.....iii

The Resident..... iv

Vocational Training Report..... v

Training Chart - Performance Objective..... vi

The Curriculum..... 1

Performance # 1..... 6

Performance # 2..... 7

Performance # 3..... 9

Performance # 4..... 10

Performance # 5..... 11

Performance # 6..... 12

Practice Form # 18..... 13

Practice Form # 19..... 14

Practice Form # 20..... 15

Practice Form # 20-A..... 16

Performance # 7..... 17

Performance # 8..... 18

Practice Form # 22..... 19

Practice Form # 22-A..... 20

Performance # 9..... 21

Performance # 10..... 22

PREFACE

The purpose of this publication is to give a brief but comprehensive concept of Vocational Training within the Industries Division of the Pennsylvania Bureau of Correction.

The message is primarily intended to give direction to the training staff, factory foreman and/or the tradesman instructor.

RECOGNITION

Recognition is hereby given to my colleagues in vocational education, both those as vocational instructors and directors of area vocational technical schools.

Also, the many craft advisory committee members who have contributed so freely of their time and talent to the tradesman instructor, the school curriculum, and the man who is learning the trade.

To the men from the Bureau of Vocational Education who have provided resources information for the development of this material.

FACTORY FOREMAN
or
TRADESMAN INSTRUCTOR

This vocational training program is operated under the direction of a factory foreman or tradesman instructor who has been a practicing journeyman with a wealth of practical work training and experience.

Trade knowledge is an essential ingredient of the factory foreman or the tradesman instructor, but in addition he must possess the ability to pass it on to the resident in a way that establishes trust, rapport, and confidence. In addition, the tradesman instructor must be imbued with a philosphical conviction that his method, his trainees, and his results are the best. The total package must create an attractive shop, a place of learning that impresses residents and visitors and leaves them with a feeling of having witnessed a unique, vocational training experience.

THE RESIDENT

Each resident is exposed to a broad spectrum of trade opportunities, practical problem solving, and decision making at the working level.

Following a short but intense orientation, the resident is directly involved in the vocational training process at the working level and from day one to the end of the training, the stress is on involvment, with a strong sense of accountability and responsibility as to his individual progress and ultimate achievement. The only valid training is to learn the correct way to perform the job and/or assignment, and practice, practice, practice. Ability comes only through practice and experience and for this there is no speedy shortcut.

Performancy skills can only be learned by degrees and by hard work and diligent practice.

Various projects via performance objectives are presented as a challenge to the resident that demonstrates the realities of the world of work.

VOCATIONAL TRAINING REPORT

Industry _____ S. C. I. ____

Name _____ Number _____ Period ending _____

Job Title _____ DOT. # _____

I. ATTENDANCE:
- ___1. Absent often
- ___2. Absent occasionally
- ___3. Occasionally, valid reason
- ___4. Seldom absent
- ___5. Never tardy

II. OBSERVANCE OF SAFETY RULES:
- ___1. Disregards rules openly
- ___2. When not watched
- ___3. Observes rules sometimes
- ___4. Observes rules at all times

III. INITIATIVE:
- ___1. Non-existing
- ___2. Very little
- ___3. Average
- ___4. Offers many suggestions
- ___5. Very original

IV. ACCURACY OF WORK:
- ___1. Makes many errors
- ___2. Is careless
- ___3. Is fairly accurate
- ___4. Is careful
- ___5. Is very accurate

V. CARE OF WORKING AREA:
- ___1. Very untidy
- ___2. Careless
- ___3. Just passable
- ___4. Keeps area clean
- ___5. Very clean and orderly

VI. HANDLING TOOLS & EQUIPMENT:
- ___1. Rough
- ___2. Careless
- ___3. Indifferent
- ___4. Careful
- ___5. Very careful

VII. QUANTITY OF WORK:
- ___1. Very slowly
- ___2. Slow
- ___3. Ordinary
- ___4. Fast
- ___5. Very fast

VIII. USE OF WORKING TIME:
- ___1. Very wasteful
- ___2. Loafs with others
- ___3. Passable
- ___4. Busy
- ___5. Very busy

IX. ACCIDENT RECORD:
- ___1. Many accidents
- ___2. Minor injuries, frequently
- ___3. Seldom injured
- ___4. Careful worker

X. USE OF MATERIALS:
- ___1. Wasteful
- ___2. Careless
- ___3. Fair
- ___4. Good
- ___5. Very careful

XI. ATTITUDE TOWARD COWORKERS:
- ___1. Does not get along
- ___2. Looks down at them
- ___3. Neutral
- ___4. Good
- ___5. Well liked, very cooperative

XII. ATTITUDE TOWARD FOREMAN:
- ___1. Disrespectful
- ___2. Does not cooperate
- ___3. Average
- ___4. Cooperates
- ___5. Very respectful, Helpful

XIII. RESPONSIBILITY:
- ___1. Buck-passer
- ___2. Evades responsibility
- ___3. Passable
- ___4. Likes it
- ___5. Seeks it and handles it well

XIV. PERSONAL APPEARANCE, CLEANLINESS:
- ___1. Very careless
- ___2. Untidy and dirty
- ___3. Fair
- ___4. Neat and clean
- ___5. Exceptionally neat and clean

Comments: _____

_____

(Please use other side for additional comments.) Signature _____

TRAINING CHART

BUREAU of CORRECTION

INDUSTRIES DIVISION

SCI at Huntingdon

INDUSTRY Printing

JOB TITLE: Selectric Composer

DOT NUMBER 203.582

PERFORMANCE OBJECTIVES

- WILL RECEIVE TRAINING
- PREVIOUSLY TRAINED
- RECEIVING TRAINING
- COMPLETED TRAINING

NAME	NUMBER	Performance # 1	Performance # 2	Performance # 3	Performance # 4	Performance # 5	Performance # 6	Performance # 7	Performance # 8	Performance # 9	Performance # 10

THE CURRICULUM

The curriculum is structured to give the resident a balance between the required theory and actual hands-on work application. Recognizing that different residents enter with a varying level of work experience and background, the training has been developed on an individualistic basis to present situations to stimulate and challenge each resident to operate at his plateau of proficiency.

Four areas of related study are utilized although not all are required for each performance objective. The areas are:

Related Information

Programmed Instruction

Resource Material

Trade Theory

A fifth instructional source is available in special education and remedial classes when a resident requires specialized remedial academic instruction to aid him in assimilating related information and instruction.

Related study has been analyzed carefully to eliminate extraneous material, thus limiting classroom instruction to the essentials required for efficient skill training in the affected performance objectives.

Although analysis of related study materials might appear to lessen the training load of the tradesman instructor, it provides for more individualized instruction for the trainees and provides for greater flexibility in the time spent by the trainee in the shop and in the classroom.

Commercially produced visual aids in some areas of vocational training apparently are very limited and, as the result, the tradesman instructor is engaged in designing transparencies for overhead projection with the assistance of the education department.

As each resident proceeds through the perfomance objectives in the training program, he is guided and assisted by the trainee who immediately preceded him in that operation. This plan provides assistance to the trainee and further training and learning for the resident who has completed the objective. This problem becomes increasingly more valuable as the more complex and intricate performance objectives are reached.

Each tradesman instructor or factory foreman records each resident's progress in his phase of training on his training progress report, by recording in the block indicating completion of the work required for the appropriate performance objective and/or module. He then completes the report referring to his phase of training and forwards it to the Vocational Training Program Coordinator who is responsible for disseminating this information to the other support team members and for its entry into the trainee's master training record, JBC-47A.

The trade or job is taught using the basic strategy to utilize various training methods as follows:

Lectures

Work Demonstrations

Films

Work Performance and Practice

Outside Resource People

Texts

Manuals

Trade Journals

Performance Tests

Graded Projects

Each resident is programmed as an individual and moves through the program as an entity, with attention and course structure to conform to the resident's aptitude and experience.

The training is open-ended. Each resident enters the training, moves through at a pace in line with his abilities and is completed when he achieves his basics. Advanced trainees are utilized as helpers and aids as they demonstrate proficiency, but all under the tutelage of the factory foreman or tradesman instructor.

As an additional training dimension, the graduate resident may be assigned to the institutional work detail for additional trade training and work experience if there is available space on the work detail.

The resident is faced with several important questions that require some careful thought and study. He must give valid, honest, and realistic answers to these questions, and his answers will be the guidelines for the training program:

1. What does he really want from the training program?
2. Where is he now?
3. What does he have to offer?
4. What skill level does he propose to reach?
5. Is this a realistic goal for him?
6. Is he willing to make the effort and sacrifices to achieve this goal?

The answers that the resident gives to these problems and the effort that you are willing to exert will determine what the resident derives from this training.

To make each performance meaningful and instructive, the following elements will be incorporated in each training plan:

Action: Physical movement will be a vital part of each training situation. This will develop motor-muscle coordination, stimulate and harden the body to prepare for prolonged periods of work, and will generate a sense of physical well being.

Variety: Basics need not be boring and the course will present a variety of projects to challenge the resident and present the training as real as actual construction or production situations permit.

Usefulness: Each learning experience will have a useful application in training. The resident will be doing work tasks that are relevant to the trade and will produce products that are real and functional.

Responsibilities: One of the additional functions of all training will be the development of responsibility. This will involve punctuality, getting to work on time, starting to work at once and stopping on time. Participation will mean full and active

involvement in meaningful production during the entire work period.

Safety: Safety in any training program is as essential and vitally important as breath is to life. To have a successful program without safety training would be like trying to sustain life without breathing. We are exhorted on all sides to practice safety, but safe work procedures are of such importance that they must be performed on a professional, full time basis, not just practiced in certain situations.

Each training segment has a factor of safety as an integral part so that the resident will learn how to think, act, and perform safely as a second nature and on a continuous basis. To achieve this high pleateau of awareness, it is necessary to stress safety at all times and insist that safe and correct practices are followed. I must emphasize the positive benefits of good work practices and the dangers that might occur if this vigilance is relaxed.

Volumes have been written about safety; these same books have been read, all the practices have been discussed, yet accidents continue to occur. The best work procedures can be developed and taught, but until we can get the resident to **THINK SAFETY** and to constantly be aware of this, we have not achieved our goal of producing a safe worker.

We hear about safey first, but in reality, safety must be first, second, third, and always. Safety will be taught until it becomes an inherent and constant part of the working resident's mental reaction and physical behavior, not just a thing that we talk about once a week or at some other specific instructional period. SAFETY ALWAYS!

Performance and Evaluation: The ultimate success of any vocational training program will be a measure that gives a sense of accountability so that each resident sees himself as being a success in the major portion of his educational achievements. This seems a reasonable expectation and is really what our training is all about.

While in the vocational training program, the resident will be regularly evaluated to determine his progress and work level. His work performance will be recorded and the success that he earns by this training, plus his general attitude in the program, are the elements that will be noted on the work report. This report will be made on a regular basis and discussed with the resident individually so that he will be aware of his work level. One copy of this report will go to classification, one to the Education Department and one will be kept in the shop file.

It is important that the resident do his best to learn all that he can about the trade and about good working habits.

The residents make the course what it is to become, for they determine both the content and the method of approach. They provide the force of continuing interest and the instructor who solves their problems and shares their success will make the course stimulating, educational and worthwhile.

After leaving this program, the resident as an employed citizen, will be in a position to demonstrate the value of vocational training. His actions, abilities, and performance will determine whether or not the employer and the community will accept vocational training as equally important as academic knowledge.

The resident's skills will be the product of this training course and the tradesman instructor's competence. However, the degree he chooses to apply this skill will be the measure of his success in the working world.

BUREAU OF CORRECTION

INDUSTRIES DIVISION

VOCATIONAL TRAINING

PRINTING

SELECTRIC COMPOSER OPERATOR

D. O. T. #203.582

PERFORMANCE OBJECTIVE

NOS. 1-10

C. R. ESHLEMAN

VOCATIONAL TRAINING ADVISOR

INDUSTRIES DIVISION

Vocational Training: Printing — Performance No. 1

Job Title: IBM Selectric Composer, Operator — DOT, #203.582

Performance: Operating Instructions - Procedures and Measurements

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 1 - 10 of the training guide.

2. Perform work exercise 1 and 2 from the training guide supplement

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is a font?
2. Describe the front lock lever.
3. Demonstrate the changing of the font.
4. Locate the paper release lever.
5. Locate the paper bail.
6. Describe the index key.
7. What is a pica?
8. What is a point?
9. How many picas to one inch?
10. How many points to a pica?
11. How many points to one inch?
12. Describe the base line.
13. Describe the descender.

    Describe the ascender.
14. Describe point size.
15. What is vertical line spacing?
16. Demonstrate vertical line spacing.
17. Demonstrate, Exercise 1 and 2 from training guide supplement.

INDUSTRIES DIVISION

Vocational Training: Printing — Performance No. 2

Job Title: IBM Selectric Composer, Operator — DOT, # 203.582

Performance: Operating Instructions - Basic Machine Adjustments

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 10 - 19 of the training guide.

2. Perform work exercise #3 from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. Describe leading.
2. What is the conversion scale?
3. What is a unit?
4. Demonstrate the use of a unit.
5. Describe type styles.
6. Why should you always cover your composer?
7. Locate the following:
   (1) On - Off control
   (2) Carrier
   (3) Scales
8. Explain how to set margin. Right and Left.
9. Locate and explain the following:
   (1) Tabulation Controls
   (2) Platen knob
   (3) Leading dial

INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 2

Job Title: IBM Selectric Composer, Operator | DOT, #203.582

Reply and/or demonstrate ability to:

10. Where is the escapement lever?
11. What does red, yellow, blue, mean?
12. How many units are there in red, yellow, blue?
13. How would you select a font?
14. What does the letter "L" mean?

    What does the letter "M" mean?

    What does the letter "B" mean?
15. What does the first abbreviation mean on a font?
16. What does the number mean?
17. Where is the impression control?
18. Why is it improtant to know how to use the impression control?
19. How many back space keys are there? Explain.
20. Where is the "O" index lever?
21. Where are the card holder alignment guides?
22. Explain the use of the ribbon life control.
23. Where is the space bar? How do you set it?
24. Demonstrate the keyboard to the foreman.
25. Where is number "1"?
26. Is there an underscore?
27. Explain the hyphen and dash.
28. Where are the question marks?

INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 3

Job Title: IBM Selectric Composer, Operator | DOT, # 203.582

Performance: Operating Instructions - Justification

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 19 - 27 of the training guide.

2. Perform work exercise #4, 5, and 6, from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is justification?
2. When do you justify?
3. How many picas are there in three inches?
4. How many windows are there on the justification tube?
5. Explain the triangle use on the justification tube.
6. What does "true up" mean?
7. If the tube is not true, what will happen?
8. How do you verify the accuracy of the trueing?
9. Where is the justification lever?
10. Explain blue 5, orange 8, green 4.
11. Explain how justification works.
12. What do you have to do when you go beyond your right margin?
13. How do you delete a word? Explain.
14. How do you add a word?
15. How do you make a correction?
16. What is parallel justification?
17. What is serial justification?

INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 4

Job Title: IBM Selectric Composer, Operator | DOT, # 203.582

Performance: Operating Instructions - Justification Varities

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 27 - 42 of the training guide.

2. Perform work exercise 7, 8, 9, 10, 11, 12, and 13 from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is the first step in starting slant margins?
2. What must you do before typing the second line?
3. Explain the final copy.
4. What are irregular patterns?
5. How do you find units per inch?
6. Show how you would justify short lines.
7. Show foreman interletter and interword spacing.
8. What is flush right? Demonstrate.
9. What is flush left? Demonstrate.

INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 5

Job Title: IBM Selectric Composer, Operator | DOT, # 203.582

Performance: Operating Instructions - Leader Lines

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 42 - 47 of the training guide.

2. Perform work exercises #14, 15, and 16 from the training guide.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What are leader lines?

2. When do you use the tab locate key?

3. How do you type leader on a half pica?

4. Demonstrate leader with justified right-hand columns. Submit copy to the foreman.

5. Demonstrate and submit copy to foreman on leaders aligned within justified copy.

INDUSTRIES DIVISION

Vocational Training: Printing* Performance No. 6

Job Title: IBM Selectric Composer, Operator DOT, # 203.582

Performance: Operating Instructions - Centering Aids

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 47 - 56 of the training guide.

2. Perform work exercises #17, 18, 19, and 20 from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is centering?

2. Explain visual centering.

3. What is horizontal centering?

4. What is the sliding centering scale?

5. Why do you use the no print key?

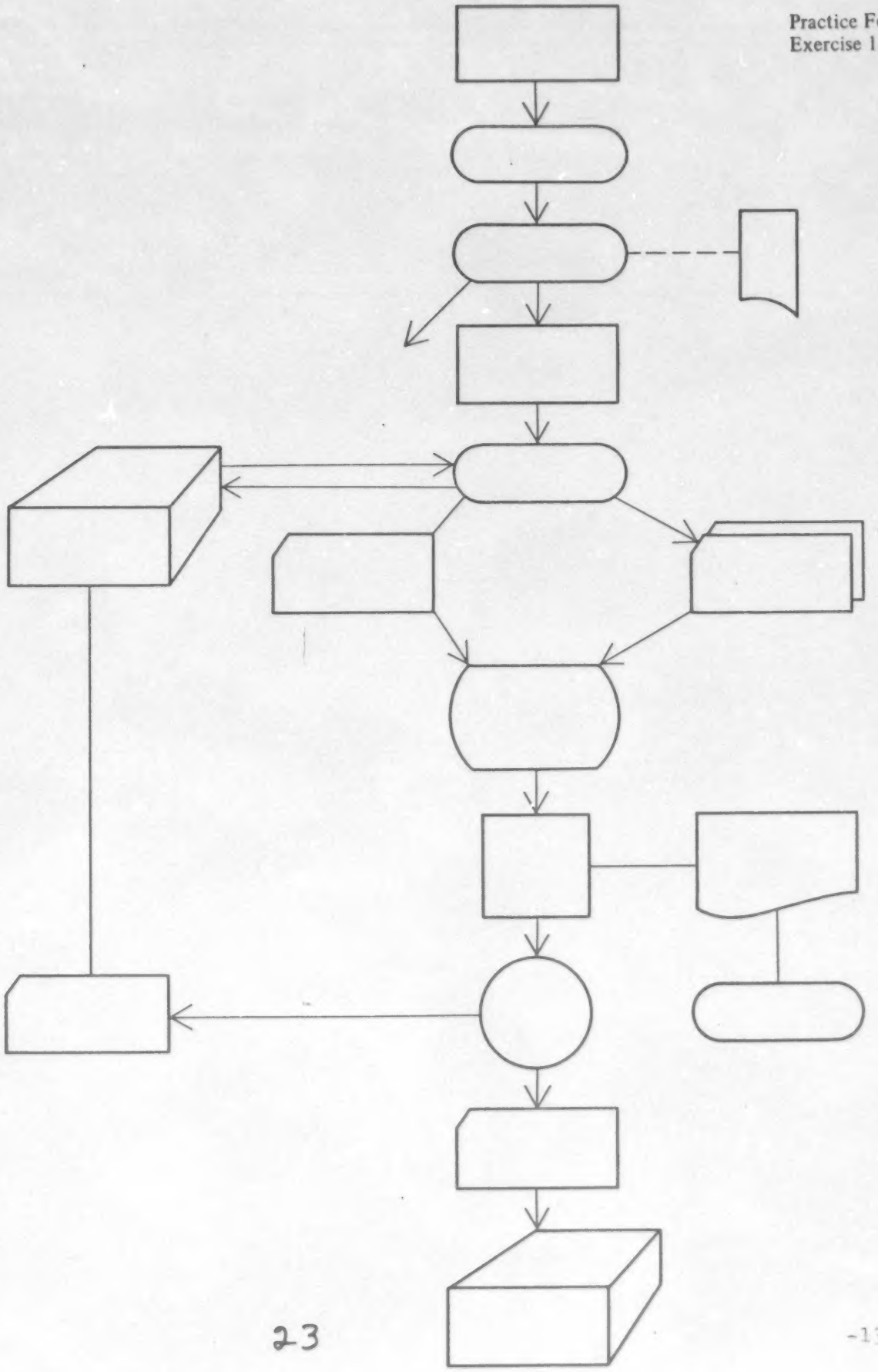
6. What is alternate method of centering?

7. What is vertical centering?

8. How do you find the base line to begin typing?

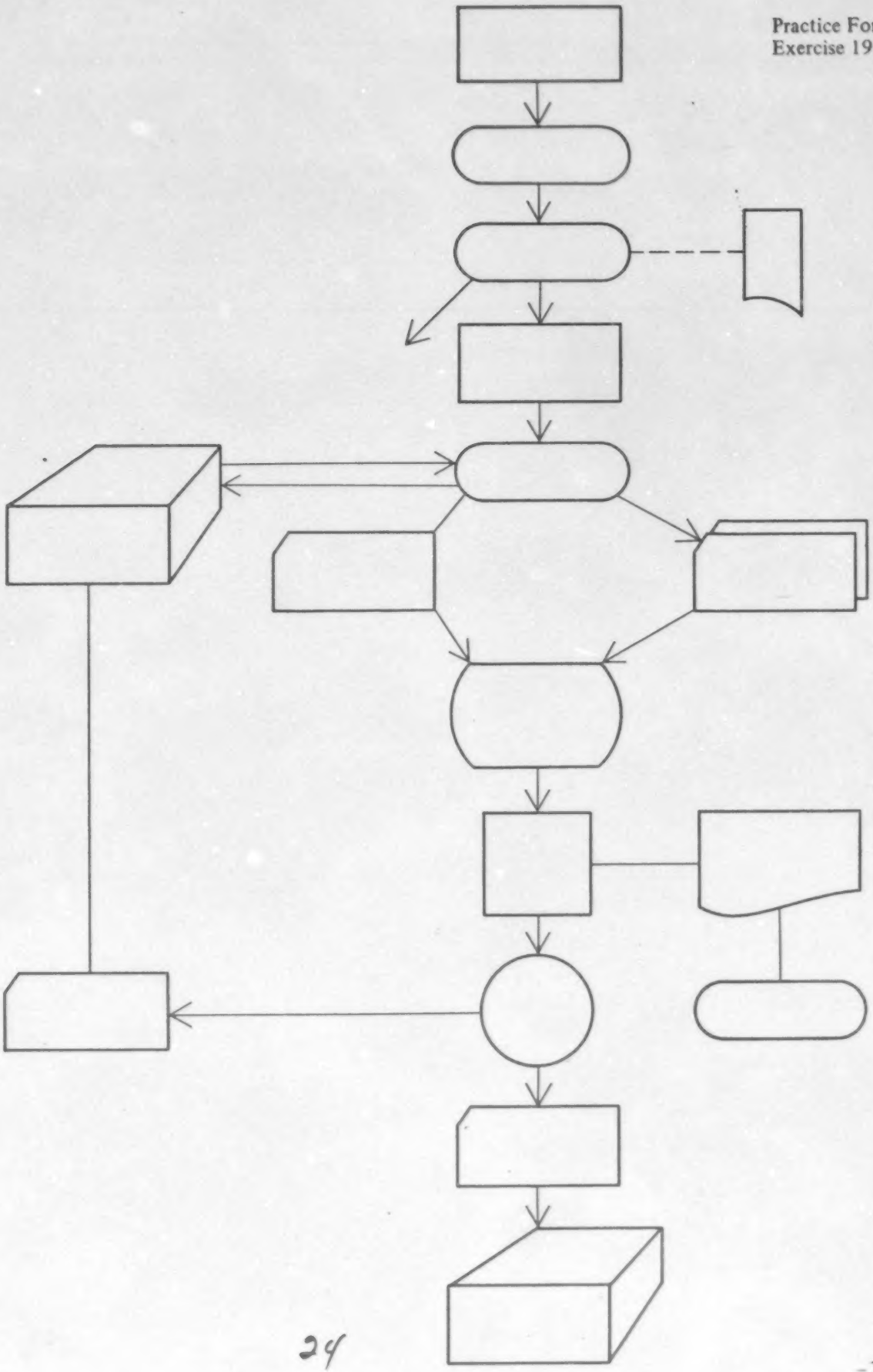
9. Demonstrate how you would center large areas. (Note: See practice form for exercise #18, 19, and 20 which is attached to Performance No. 6.)

Practice Form for
Exercise 18

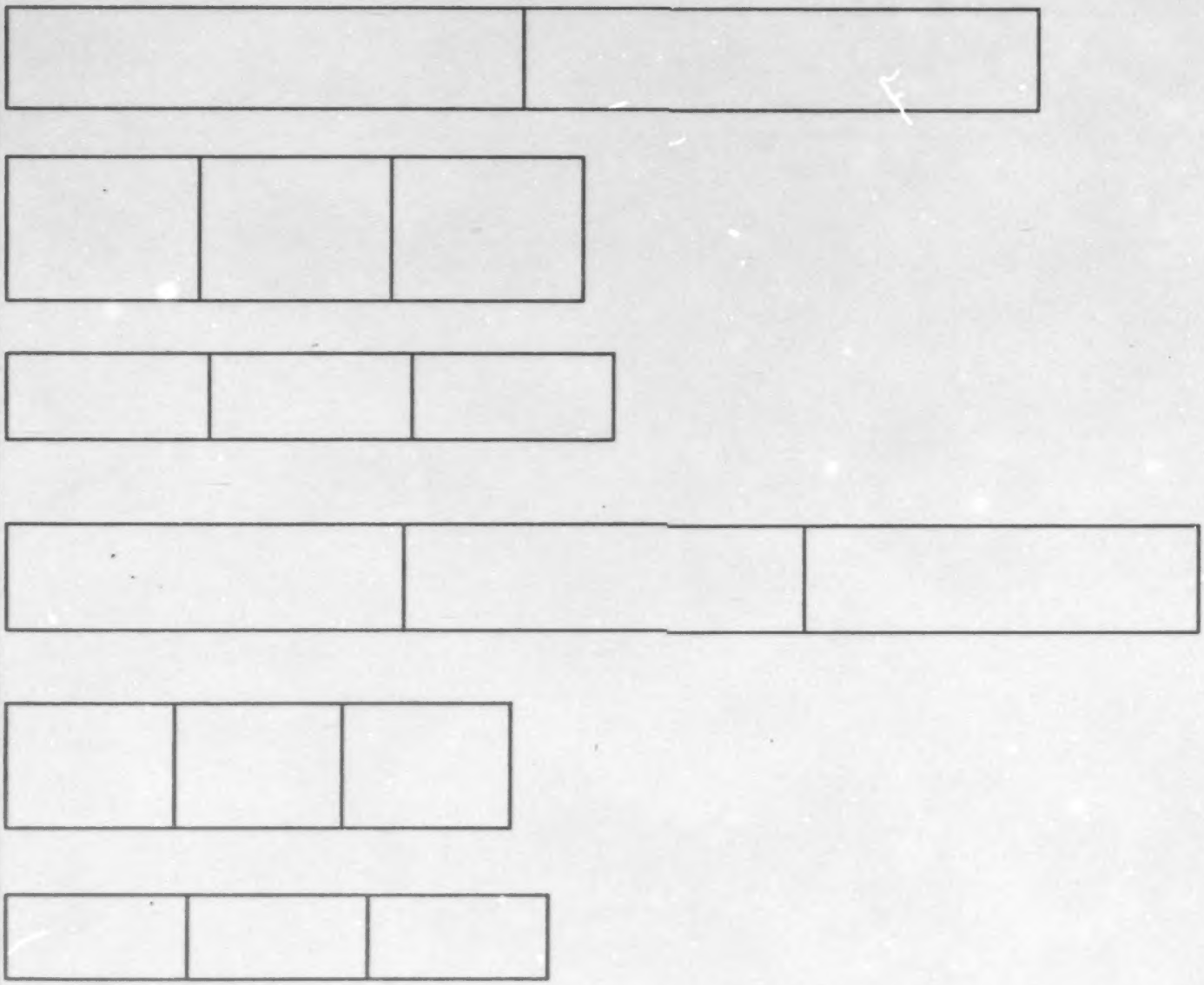


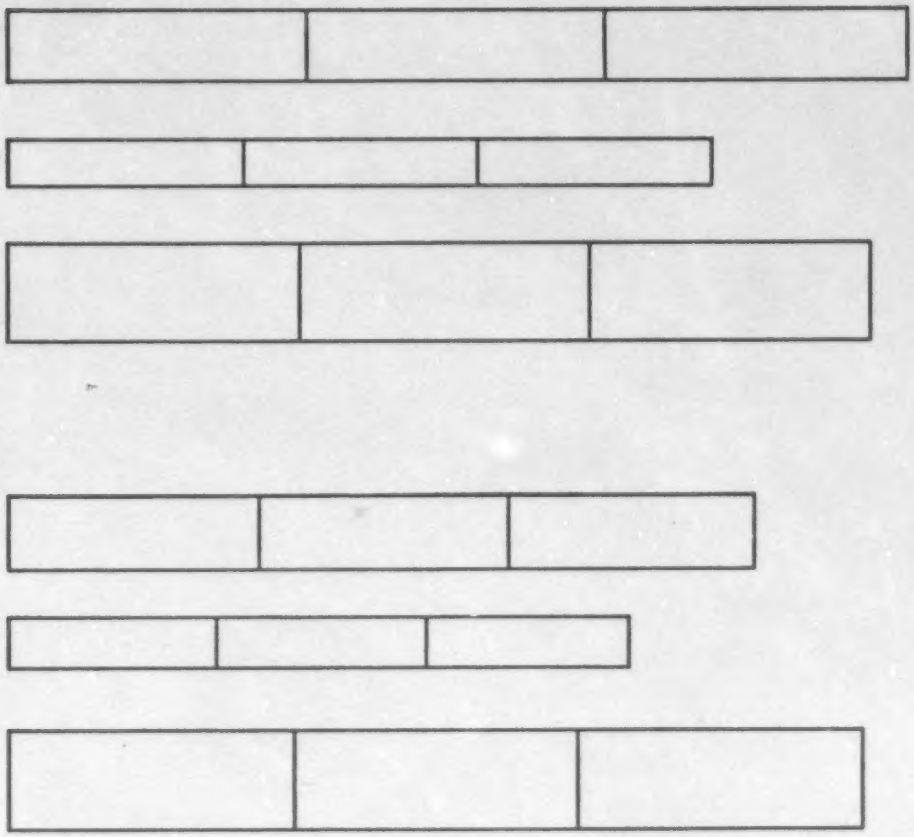
23

Practice Form for
Exercise 19



24





INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 7

Job Title: IBM Selectric Composer, Operator | DOT, # 203.582

Performance: Operating Instruction - Tabulation

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 56 - 59 of the training guide.

2. Perform work exercise #21 from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is tabulation?

2. How do you set tabs?

3. Demonstrate the first step and second step on tabulations. Submit copy to foreman.

4. Demonstrate the procedure for centering headings. Submit copy to foreman.

5. Demonstrate how you type columns of figures containing long and short numbers.
Submit copy to foreman.

INDUSTRIES DIVISION

Vocational Training: Printing | Performance No. 8

Job Title: IBM Selectric Composer, Operator | DOT. # 203.582

Performance: Operating Instructions - Forms Construction

Reference: 1. IBM Training Guide
2. IBM Training Guide Supplement

Tools & Equipment: IBM Composer - Type Font

Materials: Paper 8-1/2" x 11"

Procedure: 1. Read carefully pages 60 - 69 of the training guide.

2. Perform work exercise #22 from the training guide supplement.

3. Be prepared to reply or perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. What is copy fitting?

2. Explain fitting space to copy.

3. Explain fitting copy to space.

4. Explain how you determine character count. Prepare an example and submit to foreman.

5. How do you relate character count to composer copy? Prepare and submit cooy to the foreman.

6. What is specialized font?

7. What is velocity control dial?

8. How do you use a ruling font? Prepare and submit copy to the foreman. (Note: See practice form for exercise #22 attached to this performance #8.)

28

30

Vocational Training: Printing

Performance No. 9

Job Title: IBM Selectric Composer

DOT, # 203.582

Performance: Care of your Selectric Composer

Reference: IBM Training Guide

Tools & Equipment: IBM Composer - Type Font and clean rag.

Materials: Lubricating Oil for the Selectric Composer and a clean rag.

Procedure: 1. Read carefully pages 69 - 75 of the training guide.

2. In the presence of the foreman, be prepared to perform demonstrations listed below.

Demonstrate your ability to:

1. Remove a used ribbon.
2. Remove a partially used ribbon.
3. Install a new ribbon.
4. Clean the composer.
5. Lubricate the composer.
6. Clean the card holder.
7. Clean the platen and feed rollers.
8. Replace the platen and feed rolls.
9. Clean the justification tubes.

Vocational Training: Performance No. 10

Job Title: IBM Selectric Composer DOT, # 203.582

Performance: Care of your Selectric Composer

Reference: IBM Training Guide

Tools & Equipment: IBM Composer - Type Font and clean rag.

Materials: Lubricating Oil for the Selectric Composer and a clean rag.

Procedure: 1. Read carefully pages 76 - 89 of the training guide.

2. In the presence of the foreman, be prepared to perform demonstrations listed below.

Reply and/or demonstrate ability to:

1. Basic machine adjustments
2. Carrier positioning.
3. Keyboard arrangement.
4. Justification.
5. Justification varieties.
6. Leader lines.
7. Centering.
8. Forms construction.

BIBLIOGRAPHY

"Training Guide", I.B.M. Selectric Composer; 1969'
International Business Machine Corporation.

"Supplement", I.B.M Selectric Composer Training Guide; 1969;
International Business Machine Corporation.

ACCESSION NUMBER: VT102005

TITLE: PRE-VOCATIONAL EDUCATION WORKSHOP JULY 8-19, 1974. FINAL REPORT.

DESCRIPTOR: *PREVOCATIONAL EDUCATION; GRADE 7; GRADE 8; *MODELS; *TEACHER WORKSHOPS; EDUCATIONAL PLANNING; INTERDISCIPLINARY APPROACH; CAREER EDUCATION; VOCATIONAL EDUCATION

IDENTIFIER: TENNESSEE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 51P.

ABSTRACT: A PREVOCATIONAL EDUCATION WORKSHOP WAS CONDUCTED AT MIDDLE TENNESSEE STATE UNIVERSITY IN RESPONSE TO THE NEED FOR DEVELOPING AND IMPLEMENTING PREVOCATIONAL PROGRAMS FOR GRADES 7 AND 8 IN COMPLIANCE WITH STATE LEGISLATION. THIS REPORT SUMMARIZES THE ACTIVITIES RELATED TO THE PROJECT AND UTILIZES THE EXPERIENCES GAINED FROM THESE ACTIVITIES TO MAKE RECOMMENDATIONS FOR PREVOCATIONAL EDUCATION IN TENNESSEE. THE PROJECT WAS DESIGNED AS AN INTERDISCIPLINARY EFFORT, AS THE CONCEPT OF CAREER EDUCATION, INCLUDING PREVOCATIONAL EDUCATION, INVOLVES BOTH ACADEMIC AND VOCATIONAL SUBJECT AREAS. A MAJOR PURPOSE OF THE WORKSHOP WAS TO DEVELOP MATERIALS TO ASSIST SCHOOL PERSONNEL IN IMPLEMENTING THE MODEL PROGRAM AT CENTRAL MIDDLE SCHOOL, MURFREESBORO, AND TO SUGGEST CONTENT FOR FUTURE COURSES IN PREVOCATIONAL EDUCATION. THE PRODUCTS DEVELOPED BY THE WORKSHOP PARTICIPANTS INCLUDE STATEMENTS OF PHILOSOPHY AND GOALS, A PUBLIC RELATIONS PLAN, INSTRUCTIONAL UNITS, A SCHEDULE FOR THE MODEL PROGRAM, AND SUGGESTIONS FOR POTENTIAL UNIVERSITY COURSES IN PREVOCATIONAL EDUCATION. RECOMMENDATIONS FOR FUTURE WORKSHOPS AND PROGRAMS, LISTS OF WORKSHOP PARTICIPANTS, AND TWO PREVOCATIONAL UNITS ARE INCLUDED. (AUTHOR/MF)

INSTITUTION NAME: MIDDLE TENNESSEE STATE UNIV., MURFREESBORO.

SPONSORING AGENCY NAME: TENNESSEE STATE DEPT. OF EDUCATION, NASHVILLE. DIV. OF VOCATIONAL-TECHNICAL EDUCATION.

VT 102 005

001-00215
11-74-005C

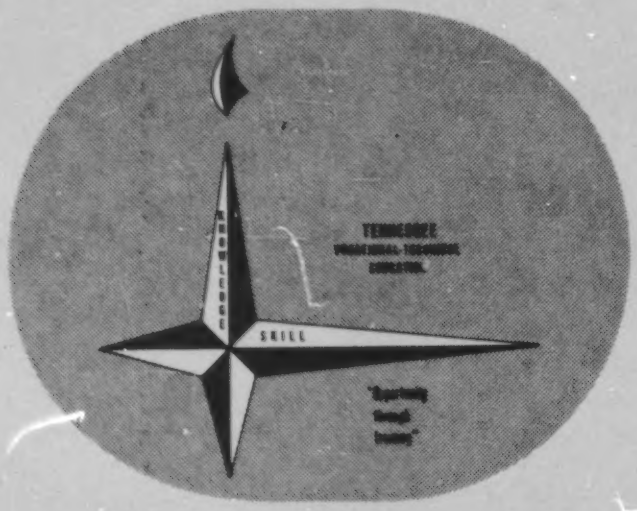
Final Report....

Pre-Vocational Education Workshop

July 8-19, 1974

Middle Tennessee State University

Murfreesboro, Tennessee



Sponsored by

Tennessee State Department of Education

Division of Vocational-Technical Education

in cooperation with

Middle Tennessee State University

VT 102 005

FINAL REPORT

PRE-VOCATIONAL EDUCATION WORKSHOP

JULY 8-19, 1974

Middle Tennessee State University

Murfreesboro, Tennessee

James Lorenz, Director

Margaret Putman, Assistant Director

Sponsored By

State Division of Vocational-Technical Education

Tennessee State Department of Education

in cooperation with

Middle Tennessee State University

Murfreesboro, Tennessee

TABLE OF CONTENTS

ACKNOWLEDGMENTS. i

INTRODUCTION, CONCEPT, GOALS AND OBJECTIVES. 1

Introduction. 1

Concept 2

Goals 3

Objectives. 3

PRE-WORKSHOP ACTIVITIES. 5

Introduction. 5

Gathering Appropriate Resource Materials. 5

Visitations to Existing Pre-Vocational and Career Education Programs. 6

Preparation of Resource Materials 7

Consultant Meetings 7

PRE-VOCATIONAL EDUCATION WORKSHOP. 9

Introduction. 9

Participants. 9

Facilities. 10

First Week (July 8-12). 11

Second Week (July 15-19). 13

Evaluation. 15

WORKSHOP PRODUCTS. 18

Introduction. 18

Central Middle School Philosophy and Goals. 18

Scheduling. 20

Instructional Units 21

Public Relations Plan 21

Potential MTSU Courses. 24

SUMMARY AND RECOMMENDATIONS. 27

Summary 27

Recommendations 28

APPENDIX 31

A. Workshop Participants 31

B. Consultants 33

C. Visitors Attending Workshop 37

D. Pre-Vocational English Unit 38

E. Pre-Vocational Office Occupations Unit. 43

ACKNOWLEDGMENTS

Appreciation is extended to each of the following individuals for their contributions during the initiation, pre-planning, and implementation stages of this project: William M. Harrison, Assistant Commissioner of Vocational-Technical Education, State Department of Education; Russell Smith, Director of Research, Program Services, Division of Vocational Education; Leo Hogan, Supervisor, Industrial Arts, Program Planning, Division of Vocational Education; Charlie M. Dunn, Director, Vocational-Technical Education, MTSU; Dr. E. S. Voorhies, Dean, School of Basic and Applied Sciences, MTSU; Dr. E. Linnell Gentry, Director of Institutional Research and Projects, MTSU; Dr. Neil G. Ellis, Chairman, Department of Industrial Arts and Technology, MTSU; Dr. Howard G. Kirksey, Vice-President for Academic Affairs, MTSU; Dr. M. G. Scarlett, President, MTSU; Raymond Nunley, Supervisor, Vocational Education, Rutherford County School System; Thomas Tenpenny, Principal, Central Middle School, Rutherford County School System; Miss Melissa Harrison, Secretary for the project; Mrs. Judy Trent, Secretary for Mr. Charlie M. Dunn; and Mrs. Zadie Key, Secretary for Dr. E. S. Voorhies.

James Lorenz
Project Director

Margaret Putman
Assistant Project Director

INTRODUCTION, CONCEPT, GOALS, AND OBJECTIVES

Introduction

A pre-vocational education workshop was conducted from July 8th through the 19th, 1974, at Middle Tennessee State University in response to the need for developing and implementing pre-vocational programs in compliance with legislation enacted by the Eighty-Seventh General Assembly of Tennessee. House Bill 1203 and Senate Bill 1090 state that "appropriate counseling and pre-vocational courses shall be made available by 1975 in grades seven and eight."

The workshop was the result of a proposal written by Charlie Dunn and James Lorenz of Middle Tennessee State University in consultation with personnel from the Division of Vocational-Technical Education at the state and regional levels, Rutherford County School System, and Middle Tennessee State University. The proposal was funded by the State Division of Vocational-Technical Education for a period of twelve weeks from May 13, 1974 to August 2, 1974, with Dr. James Lorenz, Director, and Margaret Putman, Assistant Director.

This report summarizes the activities related to this project and utilizes the experiences gained from these activities to make recommendations for pre-vocational education in Tennessee.

Concept

During the preliminary stages of this project, and long before the proposal was finalized, a concept of pre-vocational education aimed toward meeting the intent of pre-vocational education legislation in Tennessee evolved from a series of meetings with local, state, and university personnel. This concept asserts that the success of career education, including pre-vocational education, will depend upon a number of essential elements, some of which are outlined below.

There must be understanding of the goals and objectives of career education at all levels and acceptance of the need for change where such is necessary. Further, it should be realized that the goals and objectives may be achieved in a variety of ways.

Since career education seeks to bring all subject areas to bear in a meaningful and relevant way through unifying and focusing it around a career development theme, it is essential that all segments of the school be involved in the development, implementation, and operation of courses and programs. This would involve the administration and all subject matter and service areas.

Career education seeks further to develop ladders or steps toward higher levels of occupational achievement. Vocational educators who will be providing instruction to an increasing number of students from the tenth grade through two years of post-secondary education will need to

provide much of the input into the selection and development of materials and the identification of activities at the pre-vocational level. The same is true with regard to industrial arts educators since exploration within clusters should continue for most students in the tenth grade and for many in the eleventh and twelfth grades.

It was with this concept in mind that the following project goals and objectives were formulated.

Goals

1. To bring together selected individuals in a workshop setting to plan a model pre-vocational education program at the seventh and eighth grade level.
2. To develop a plan for personnel development for teachers, counselors, coordinators, and others responsible for pre-vocational education programs.

Objectives

1. To develop understanding of the Tennessee Legislation and the concept of career education including pre-vocational education.
2. To develop and produce instructional materials and activities for use in pre-vocational education programs.
3. To develop scheduling patterns and student rotation plans with alternatives for various size schools and situations.
4. To plan an approach to development of effective public relations within the school and community, including advisory committees.

5. To identify useful community and instructional resources.
6. To develop an instructional plan, including courses and instructional materials to prepare teachers, coordinators, and other personnel to function effectively in a pre-vocational education program.
7. To produce plans, including instructional areas, equipment and supply lists, instructional and reference materials, schedules and rotation plans, and other necessary essentials for a model pre-vocational education program.

PRE-WORKSHOP ACTIVITIES

Introduction

In an effort to adequately meet the goals and objectives as previously stated, both the director and assistant director were employed for a period of eight weeks prior to the workshop. Their efforts during this period were concentrated on gathering appropriate resource materials, visiting existing pre-vocational and career education programs, preparing reference materials, meeting with consultants, and consulting with representatives of the Rutherford County School System. A brief discussion of each of these activities follows.

Gathering Appropriate Resource Materials

The first step in this process was to conduct an ERIC search on both pre-vocational and career education. Appropriate resources from these searches were identified and examined in greater detail. These publications, along with others identified through traditional library research procedures, were included in an annotated bibliography which was prepared and distributed to the workshop participants. The second step in the process was to send over 165 letters to publishers of occupational materials, school systems which have implemented junior high school pre-vocational

programs, and public service organizations which provide career information on a variety of occupations. As a result, numerous curriculum guides, textbooks, audio visual catalogs, films, filmstrips, cassettes, publishers' catalogs, guidance materials and catalogs, career games, and additional types of career information were obtained and displayed at the workshop. In addition, bibliographies entitled "Job Information You Can Write For" and "Selected Lists of Suppliers of Pre-Vocational Materials" were prepared from these materials and distributed to the workshop participants. A complete card catalog of the names and addresses of each resource was also developed and has been turned over to the model pre-vocational program along with all the materials displayed at the workshop which were not received on an approval basis.

Visitations to Existing Pre-Vocational and Career Education Programs

The purpose of this phase of the project was to gather as much information about existing programs as possible with regard to such items as scheduling, curriculum, instructional resources, and attitudes of staff, and to locate potential resource persons who would be willing to participate in the workshop as consultants. As a result, visitations were made to Knoxville, Johnson City, and Memphis, Tennessee; and Athens, Georgia. These visitations proved to be invaluable as the visitation sites were able to provide the workshop directors with a great deal of information and were more than willing

to provide consultant services and to assist in any way possible. The knowledge gained during these visitations was put to good use while preparing for and conducting the workshop.

Preparation of Reference Materials

A number of handouts were developed and provided for the workshop participants. These included a description of House Bill 1203 and Senate Bill 1091, teacher and student film evaluation forms, a statement of sample goals for pre-vocational education, a list of vocational materials at the MTSU library, forms for classifying and evaluating field trips and resource persons, an annotated bibliography, a list of local industries, a glossary, and other similar materials. In addition, a program was prepared for each day of the workshop which stated the objectives for the day, the day's agenda, and the various resources that were to be utilized in meeting the day's objectives.

These materials were distributed to the participants in a three-ring binder which was organized with a separate division for each day of the workshop. The various materials described above were placed after the divider which represented the day on which they were to be utilized or in the introductory or appendix sections of the binder.

Consultant Meetings

Meetings were held with representatives of the state and regional offices of Vocational and Technical Education,

the District Planning Office, Middle Tennessee State University, and the Rutherford County School System in an effort to keep them informed with regard to the status of the project and to gain further insight and direction with respect to meeting the project's stated goals and objectives. In addition, planning sessions were held with representatives of the departments of Education (Curriculum and Instruction) and Psychology (Guidance and Counseling) of Middle Tennessee State University for the purpose of determining the role each of these areas could play in making the workshop a success. Sessions were also held with the Rutherford County School System in an effort to assist them in developing a proposal for a model pre-vocational education program. These sessions proved to be invaluable and contributed greatly toward making the workshop a success.

PRE-VOCATIONAL EDUCATION WORKSHOP

Introduction

From the very beginning, this project was designed as an interdisciplinary effort. This was not to minimize the need for a strong vocationally oriented program, but it was realized that such a program could not succeed without the support and understanding of the academic disciplines. To this end, individuals of varying backgrounds and representing the complete spectrum of Central Middle School course offerings were brought together in an effort to design a system of pre-vocational education which would meet the needs of all students. This meant that a great deal of workshop time would need to be spent in assisting the participants in developing an understanding of the concepts of vocational as well as pre-vocational education and in applying these concepts to the development of curriculum materials for their various disciplines. The strategies used toward these ends are described in this section of the report.

Participants

Since one purpose of the workshop was to develop plans for a pre-vocational education model, it was desirable to select a core of participants from the school system within

which the model was to be implemented. As a result, eighteen of the twenty-one participants were from the Rutherford County school system. Of these eighteen, fifteen were from the Central Middle School in Murfreesboro and represented the areas of agriculture, home economics, office occupations, trade and industrial education, industrial arts, language arts, social studies, science, art, special education, health and physical education, guidance, and math. The Middle School administration was represented by the principal and the pre-vocational education coordinator who was assigned the rank of assistant principal. The three additional personnel from Rutherford County were the high school health occupations and distributive education teachers and the county vocational supervisor. Two junior high school industrial arts teachers from Hamilton County and one from Lincoln County rounded out the list of workshop participants. The name, school, and instructional area of each participant may be found in appendix A.

Facilities

The University Center at Middle Tennessee State University was selected as the site for the workshop. The facilities included one large meeting room and a smaller resource room which housed the various materials which had been collected for the workshop. The center also houses a cafeteria, bookstore, and mail room which were used extensively by the participants. The nearby university library added greatly to the materials available for use by the participants. In addition to these facilities, every effort was made to utilize

the entire community of Murfreesboro in the form of field trips, guest speakers, and consultants.

First Week (July 8-12)

The morning of the first day was spent in getting acquainted, registering for university credit, and discussing the workshop guidelines. Special emphasis was given toward developing a basic understanding of pre-vocational education in relationship to the broader aspect of vocational education. Presentations were made on the afternoon of the first day by Mr. William M. Harrison, Assistant Commissioner, State Department of Education, and Mr. Charlie Dunn, Director of Vocational-Technical Education at Middle Tennessee State University. Emphasis was given to the Comprehensive Vocational Education Act in terms of its implications for pre-vocational education.

Consultants from the Tennessee school systems in Johnson City, Covington, and Memphis, and the University of Georgia worked with the participants on the second day in an effort to help identify desirable strategies for implementing pre-vocational education in the middle school. Each of the consultants gave a brief presentation during the morning session in which they discussed the programs in their respective school systems. The consultants and participants spent the remainder of the day working together in developing a tentative list of goals for the pre-vocational model, identifying desirable characteristics of the pre-vocational teacher, and developing a number of strategies for implementing

pre-vocational education and identifying appropriate pre-vocational resources and equipment.

Field trips were conducted to Oakland and Holloway High Schools in Murfreesboro on the third day for the purpose of familiarizing the participants with the vocational offerings and facilities. Mr. Raymond Nunley, Vocational Supervisor for Rutherford County and a workshop participant, conducted the tour of each school and explained the programs.

Consultive services were provided during the afternoon of the third day by curriculum specialists from the Middle Tennessee State University Education Department. The intent of their assistance was to assist participants in developing instructional units for the pre-vocational program.

The fourth day of the workshop was used to present a variety of commercial media that might be considered for use in pre-vocational education. Representatives from McKnight Publishing Company, Singer Education Systems, and Compulearn discussed their material with the group. Individual and small group instructional unit development occupied the remainder of the day.

Special education and guidance were given specific emphasis on the fifth day of the workshop. Middle Tennessee State University specialists in these areas made presentations to the total workshop group including effective suggestions for ways in which to work with the middle school student. Additional materials available from commercial companies were

presented by representatives of Multigraphs, Division of Addressograph Multigraph and Singer Company. At the end of the first week, the week's work was critiqued; and plans were discussed for the second week of the workshop.

Second Week (July 15-19)

The second week began with the total group developing a statement of philosophy and goals for the pre-vocational program at Central Middle School. Using this as a frame of reference, individuals and groups worked throughout the week during unscheduled time to develop final drafts of the products expected as a result of the workshop. These products are discussed in the next section of this report. The afternoon of the first day was occupied with presentations by representatives from Employment Security and Science Research Associates.

Tuesday began with a presentation by a Xerox Learning Systems representative. The remainder of the day was spent in individual and small group work except for a portion of the afternoon session which was devoted to a short presentation by the personnel director of State Farm Insurance. The purpose of the presentation was to explain the operation of State Farm and the qualifications expected of potential employees as well as to prepare the workshop participants for a field trip to State Farm Insurance on the following day.

On Wednesday Dr. Walter Cameron of the Tennessee Research Coordinating Unit explained Project INFOE to the group. He

also talked about the various other services available from the RCU and informed the participants as to how they might avail themselves of these services. The afternoon session was devoted to the previously mentioned field trip to State Farm Insurance Company.

The next to last day of the workshop began with field trips to the Samsonite Corporation and the White Stag Manufacturing Company with half the group visiting each industry. The morning session concluded with an informal meeting over coffee at the home of the assistant director where the morning visits were discussed. The afternoon session was occupied by a presentation from a sales representative who explained the purpose, use, and administration of the Ohio Vocational Interest Survey. The remainder of the day was spent in small and large group work.

On the tenth and last day of the workshop, the participants gave summary presentations of the instructional units they had developed for use in the pre-vocational education program. Scheduling patterns and student rotation plans with alternatives were discussed, and a plan for use in the development of effective public relations within the school and community was outlined. Small group work was utilized to make written suggestions related to planning the content of possible pre-vocational teacher education courses to be offered by the university and to evaluate the workshop. Their specific recommendations are discussed in the evaluation and course offerings section of this report. In addition, a representative

of the U.S. Armed Services gave a presentation on the Armed Services Vocational Aptitude Battery. This test will be administered to the Central Middle School students on an experimental basis during the 1974-75 school year. It is designed to predict success in occupational training. The workshop concluded with a luncheon attended by the participants and staff.

Evaluation

Several strategies were utilized in an effort to evaluate the workshop. These included a pre- and posttest, daily evaluation forms, and small group evaluations on the final day of the workshop. In addition, daily informal discussions were held with the workshop participants to ascertain their reactions to specific programs. A brief discussion of the results of these evaluations follows.

A modification of the Career Information Inventory[1] was administered on the first and final days of the workshop as the pre- and posttest. This test was designed to measure attitudes toward a variety of pre-vocational concepts. The participants rated their feelings on such statements as "School curricula should be oriented to relate to career development" and "Pre-Vocational Education is more appropriate for boys than girls" on a five point scale ranging from strongly agree to strongly disagree. A T-Test applied to

---

[1]Manneback, Alfred J., et al., Career Education Information Inventory, Kentucky Research Coordinating Unit for Vocational Education, Lexington, Kentucky, March, 1972.

the resulting data indicated that the participants scored significantly higher on the posttest at the .01 level of significance than on the pretest.

At the end of each day a form was distributed to each participant on which they were to indicate the day's activity which they thought was most valuable, as well as the activity they considered least valuable and to briefly evaluate the day's session. The reactions on these forms were then used to make last minute program changes in an effort to make optimal use of workshop time.

In general, the reactions on these forms were quite favorable to the programs with the least valuable section of the form often left blank. Presentations by Murfreesboro industrial representatives, field trips, time alloted for work on instructional units, selected company sales representatives, a tour of local high schools, films, and the consultants from school systems which had implemented pre-vocational programs were highly regarded by the participants. Some of the company sales representatives and a curriculum presentation received a less favorable reaction.

On the final day of the workshop the entire group was divided into four small groups for the purpose of discussing and recording their reactions to the workshop in the absence of the project director and assistant director. Favorable comments included the following:

* Preparation for workshop by the directors
* Consultant services given by those consultants who

have been involved in pre-vocational education to date

* Informal discussions highly favorable and enjoyable
* Materials and resources on display and for use very beneficial
* Field trips interesting exposure to the world of work
* Freedom of expression, good group interaction, and effective group work
* Exploratory involvement by participants
* Positive change in attitudes of participants

The less favorable comments were:

* Company representatives not well orientated to particular needs or interests of participants
* Presentations of salesman more selling than informing--too much sales pitch
* Time too limited for exploration of materials
* Presentations by some university personnel inappropriate and not well planned

WORKSHOP PRODUCTS

Introduction

A major thrust of the workshop was to develop materials which would assist the personnel at Central Middle School in implementing the model program and to suggest content for courses in pre-vocational education to be offered at Middle Tennessee State University at some future date. This section briefly discusses each of these products.

Central Middle School Philosophy and Goals

After several days of exposure to the concept of pre-vocational education, the participants were divided into two groups for the purpose of developing a pre-vocational education philosophy for the model. One group was composed entirely of academic teachers and the other, vocationally oriented personnel. Much to the surprise of almost everyone, when the philosophies of the two groups were presented to the group as a whole, they were remarkably similar. It was at this point that the group began to realize that pre-vocational education offered potential for the enrichment of all instructional areas and really began to pull together. The combined philosophy and goals of the two groups are stated as follows.

Philosophy

The Pre-Vocational Program at Central Middle School is a part of the total educational process of each individual. All school personnel work together to provide an awareness-exploratory program to orientate and implement hands-on experiences in the world of work. This program includes an exposure to laboratory experiences, occupational information, and developing decision making skill.

Goals

1. To provide students with hands-on activities in the various pre-vocational areas offered.
2. To provide adequate time in pre-vocational classes to develop basic skills, individual interest, and self awareness.
3. To aid students in the selection of high school courses by:
   a. Exploring occupational clusters as they relate to secondary vocational training (grades 9-12) at Oakland, Riverdale, and Holloway Schools.
   b. Exposing students to professional, paraprofessional, and nonprofessional occupations in order to give them a broader perspective of the world of work.
4. To correlate all the disciplines within the school in order to create a total educational experience.
5. To make the basic subject matter more meaningful and relevant through unifying and focusing it around a career awareness theme.

6. To give proper guidance and encouragement to all students within the school through a unified effort of guidance personnel and teacher-counselors.
7. To help develop in each student desirable attitudes and practices with respect to health and safety in the World of Work.

Scheduling

A major constraint was placed on the development of the model due to the fact that students had already been scheduled into classes for the 1974-75 school year. This schedule provided an average daily schedule of three seventh grade classes with rotation at nine week intervals and two eighth grade classes with rotation at eighteen week intervals for each vocationally orientated area. As a result, it was decided to fuse pre-vocational activities into the existing areas of home economics, industrial arts and business education and to develop new programs in agriculture, health occupations, and distributive education. The manner in which occupational information was to be introduced into the academic areas was left to the discretion of the individual departments with the restriction of channeling all activities through the director of pre-vocational education to avoid overlapping and provide for a coordinated effort. The entire program will be under continual review and evaluation, and consideration will be given to alternate schedules at the appropriate times.

Instructional Units

Each participant developed an instructional outline for his or her area of instruction based on the unit format. Each unit contained a rationale, objectives, resources, activities, and evaluations which were based on the previously discussed statements of philosophy and goals. It was left to the discretion of the teacher as to whether these units should stand alone or be fused into the existing curriculum. An English and an Office Occupations Unit has been included in the appendixes D and E. They provide an example of pre-vocational information fused into the existing curriculum. The units which were developed should not, however, be considered final products. This material will be field tested, evaluated, and revised at Central Middle School in Murfreesboro, Tennessee during the 1974-75 school year.

Public Relations Plan

From the beginning it was realized that the failure or success of the pre-vocational education model might well hinge on the ability of the participants to sell the concept to their fellow teachers and the community. With this in mind the following public relations plan was developed.

I. Promote the Program with Teachers

   A. Inservice Education: explain to teachers the program and answer any question they might have.

   B. Encourage departmental meetings with teachers and department heads.

C. Open-Door Policy: encourage teachers to come to the office and ask questions of the Coordinator and Guidance Counselor at any time.

D. Coordinator and Counselor will be available to work and help teachers at any time.

II. Parent-Teacher Groups

A. Talk with Parent-Teacher groups about the program explaining the importance and necessity of such a program.

B. Encourage parents to visit the school and see what is actually happening within the program.

C. Encourage parents to take an active part in helping to develop the entire program.

III. Industry and Business

A. Make contacts with local business and industry personnel.

B. Visit local business and industrial plants to see what they are doing.

C. Encourage these businesses and industrial plants to contribute to the program. These contributions may be made by providing materials and speakers, allowing field trips, etc.

D. Keep in contact with personnel and follow up activities with thank you notes.

IV. Student Recognition

A. Develop newspaper and magazine articles for the local news media showing students at work.

B. Allow students to make visits to groups and clubs within the community explaining their part within the program.

C. Encourage students to talk with parent groups about the program.

D. Give awards or other privileges of encouragement to students who may excel in their particular areas.

V. Departmental Publicity

A. Department leaders will submit written articles to the Coordinator explaining what is being done in their department relating it to the overall program. These articles should be submitted bi-monthly.

B. News articles from each department will be used to promote the program. These articles may be teacher written or student written.

C. Department leaders will work with Coordinator to obtain publicity within this area.

D. Department leaders will work with local business and industry personnel.

VI. Civic Clubs

A. Contacts will be made with local civic clubs asking for time to explain the program to their membership at one of their regular meetings.

B. Civic clubs will be visited after invitation.

C. Students, teachers, and other school personnel will visit these clubs.

D. Members of the civic clubs will be invited to visit the school and look at the program

VII. Field Trips

A. After contact with local businesses and industries, teachers, students, and school personnel may visit these places.

B. During inservice education teachers may visit local businesses and industries to see what may be offered by these places.

Potential MTSU Courses

On the final day of the workshop the participants were divided into small groups for the purpose of providing input for courses in pre-vocational education which might be offered at MTSU at some future date. Their suggestions included the following.

* Orientations to pre-vocational education for overview of occupations and world of work, rather than skill teaching.
* Special attention to ways for implementing pre-vocational education into all teaching areas.
* Counseling and guidance techniques and instruments appropriate for seventh and eighth graders.
* Exposure through study, observation, and contact to community services, agencies, industries, businesses, and job opportunities.

* Conscious and meaningful experiences to create an awareness of conditions and backgrounds from which all students may come.
* Use of resources and relevant activities to promote positive public acceptance of pre-vocational education.
* Visits by university faculty members to middle schools to see present day situations.
* Applied activities in pre-vocational education on-sight situations.

As a result of these suggestions and further study, the following two university courses are proposed.

ORIENTATION TO PRE-VOCATIONAL EDUCATION

I. Overview of vocational education

II. Review of state and federal legislation pertaining to vocational education with emphasis on implications for pre-vocational education

III. Role of pre-vocational education in vocational guidance

IV. Review of existing programs in pre-vocational education

V. Development of philosophy and goals of pre-vocational education

VI. Development of pre-vocational model

A. Scheduling

B. Program organization

C. Objectives

D. Integration of vocational and academic

E. Community resources

F. Advisory committees

G. Public relations

H. Evaluation

I. Etc.

ADMINISTRATION AND INSTRUCTION OF PRE-VOCATIONAL EDUCATION

I. Review of philosophy and goals of pre-vocational education

II. Administration and supervision of pre-vocational programs

A. Development and use of advisory committees

B. Integration of total staff

C. Planning public relations program

D. Utilizing community resources

1. Establishing resource files

2. Facilitating use of resources

E. Scheduling

III. Pre-Vocational instruction

A. Identifying student needs

B. Development of instructional units

1. Objectives

2. Activities

3. Resources

4. Evaluation

C. Instructional strategies

SUMMARY AND RECOMMENDATION

Summary

The two-week workshop resulted from a proposal submitted to the State Department of Education, Division of Vocational Education in response to legislation enacted by the Eighty-Seventh General Assembly which stated that "appropriate counseling and pre-vocational courses shall be made available by 1974 in grades seven and eight." As approved, the proposal provided for a director and assistant director to be employed for a period of twelve weeks in an effort to meet the following two major goals.

1. To bring together selected individuals in a workshop setting to plan a model pre-vocational education program at seventh and eighth grade level.
2. To develop a plan for personnel development for teachers, counselors, and others responsible for pre-vocational education programs.

The eight weeks prior to the workshop were spent in preparing for the workshop and in refining a pre-vocational concept consistent with both state and local needs. This involved gathering appropriate resource materials, visiting existing pre-vocational and career education programs, preparing resource materials, meeting with consultants and

consulting with representatives of the Rutherford County School System.

The workshop itself was held on the Middle Tennessee State University campus from July 8-19, 1974. Eighteen of the twenty-one participants were teachers and administrators from the Rutherford County School System. These teachers were predominantly department chairmen representing each discipline at the Central Middle School. The remaining three teachers were junior high industrial arts teachers from Lincoln and Hamilton Counties.

A very informal atmosphere prevailed at the workshop; and liberal use was made of consultants, small and large group work, audio-visual materials, and field trips. The participants produced several products including statements of philosophy and goals, a public relations plan, instructional units, a schedule for the model program, and suggestions for potential university courses in pre-vocational education. These products are presently being utilized and refined in the pre-vocational education model program in the Central Middle School in Murfreesboro, Tennessee.

Recommendations

In lieu of the experiences gained from the implementation of this project, the following recommendations are made.

1. A comprehensive set of guidelines be developed to ensure a degree of uniformity among pre-vocational programs within the State of Tennessee. These guide-

lines should allow for flexibility in meeting the needs of individual school systems.

2. Future pre-vocational workshops should involve experienced pre-vocational teachers, counselors, and administrators in the developmental, implementation and follow-up processes.
3. Funds be allocated to provide teachers, administrators, and counselors with the opportunity to visit other programs, exchange ideas, and materials.
4. Each pre-vocational program organize an advisory committee composed of teachers, administrators, parents, students, representatives of business and industry, and members of the community at large.
5. Pre-vocational education should be a comprehensive program involving the entire faculty and staff of the middle school. Appropriate funds should be made available to all instructional areas. This is particularly crucial due to the lack of any structured career orientation program in grades K-6 in Tennessee.
6. Future pre-vocational workshop dates should be set well in advance allowing time and funds for adequate preparation and the notification of potential participants.
7. Workshop staffs should involve representatives of guidance and counseling, curriculum and instruction, and vocational education to ensure a comprehensive

approach to pre-vocational education which utilizes the latest developments in instructional technology.

8. Workshop sites should provide a comprehensive display of both commercially available and teacher-made pre-vocational materials.
9. Workshop activities should include visits to local businesses and industries.

APPENDIX A

WORKSHOP PARTICIPANTS

1. George G. Campbell, Model Coordinator
   Central Middle School
   Murfreesboro, Tennessee 37130

2. Sara C. Cobb, Mathematics
   Central Middle School
   Murfreesboro, Tennessee 37130

3. Jerry L. Culbertson, Industrial Arts
   Central Middle School
   Murfreesboro, Tennessee 37130

4. Sandra Drake, Office Occupations
   Central Middle School
   Murfreesboro, Tennessee 37130

5. Ivan E. Duggin, Distributive Education
   Riverdale High School
   Murfreesboro, Tennessee 37130

6. Sue Grubbs, Social Studies
   Central Middle School
   Murfreesboro, Tennessee 37130

7. Elizabeth Graves, Health Occupations
   Oakland High School
   Murfreesboro, Tennessee 37130

8. A. T. Jackson, Agriculture
   Central Middle School
   Murfreesboro, Tennessee 37130

9. Helen Jennings, Girls Physical Education
   Central Middle School
   Murfreesboro, Tennessee 37130

10. William E. Locke, Industrial Arts
    Fayetteville City Schools
    Fayetteville, Tennessee 37334

11. Peggy Mason, Science
    Central Middle School
    Murfreesboro, Tennessee 37130

12. Henderson F. Massey, Industrial Arts
    Hamilton County Schools
    Chattanooga, Tennessee

13. Raymond Nunley, Vocational Supervisor
    Rutherford County Schools
    Murfreesboro, Tennessee 37130

14. Joy Perkins, Special Education
    Central Middle School
    Murfreesboro, Tennessee 37130

15. Patricia Short, Guidance
    Central Middle School
    Murfreesboro, Tennessee 37130

16. Sharon Summar, Home Economics
    Central Middle School
    Murfreesboro, Tennessee 37130

17. Mary Swafford, English
    Central Middle School
    Murfreesboro, Tennessee 37130

18. Thomas Tenpenny, Principal
    Central Middle School
    Murfreesboro, Tennessee 37130

19. Patricia Todd, Art and Music
    Central Middle School
    Murfreesboro, Tennessee 37130

20. Richard Wise, Industrial Arts
    Central Middle School
    Murfreesboro, Tennessee 37130

21. Charles E. Wolff, Industrial Arts
    Hamilton County Schools
    Chattanooga, Tennessee

APPENDIX B

CONSULTANTS
Pre-Vocational Education Workshop
July 8-19, 1974

Division of Vocational Education
State Department of Education

1. Mr. William M. Harrison
   Assistant Commissioner
   Division of Vocational-Technical Education
   205 Cordell Hull Building
   Nashville, Tennessee 37219

2. Dr. Walter A. Cameron
   Assistant Director
   Tennessee Research Coordinating Unit
   2020 Terrace Avenue
   Knoxville, Tennessee 37916

3. Mr. Leo Hogan, Supervisor
   Industrial Arts, Program Planning
   Room 209, Cordell Hull Building
   Nashville, Tennessee 37219

4. Mr. Ed B. Hudgens, Chief
   Program Services
   Room 200, Cordell Hull Building
   Nashville, Tennessee 37219

5. Mr. Russell Smith, Director
   Research, Programs Services
   Room 200, Cordell Hull Building
   Nashville, Tennessee 37219

Exemplary Programs

1. Mr. Ron Fritchley, Director
   Pre-Vocational Education Curriculum
   Development Project
   213 Fain Hall
   University of Georgia
   Athens, Georgia 30602

2. Mr. Clayton Haynes, Director
   Model Career Education Program
   Covington City Schools
   Covington, Tennessee 38019

3. Mr. James E. Hugueley, Director
   SPAN and Model Career Program
   Career Education Programs
   Memphis City Schools
   Memphis, Tennessee

4. Mr. Donald McCulley, Director
   Johnson City Vocational School
   501 Garland Drive
   Johnson City, Tennessee 37601

Commercial Companies

1. Mr. Dave Downen
   Science Research Associates, Inc.
   5168 Fairbank Avenue
   Memphis, Tennessee 38118

2. Mr. Robert J. Duby
   Test Representative for Tennessee (OVIS)
   Harcourt Brace Jovanovich, Inc.
   1454 Darbel Drive
   Morristown, Tennessee 37814

3. Mr. Goda
   Singer Education Division
   Career Systems
   Rochester, New York 14603

4. Mr. Bob Osteen
   COMPULEARN
   P. O. Box 15793
   Nashville, Tennessee 37215

5. Mr. Larry Shupe, Sales Representative
   McKnight Publishing Company
   610 North 6th Street
   Mayfield, Kentucky 42066

6. Mr. Charlie Whicker, Sales Representative
   Multigraphics Division
   Addressograph Multigraph
   1903 West End Avenue
   Nashville, Tennessee 37203

7. Mr. Bill Kuhlman
   Education Liaison
   Navy Recruiting District
   1808 West End Avenue
   Nashville, Tennessee 37203

8. Mr. David Gilchrist
   Account Executive
   Zerox Learning Systems
   2250 North Druid Hills Road, N. E.
   Atlanta, Georgia 30329

10. Mr. James Vincent
    Singer Company
    Nashville, Tennessee

Murfreesboro Agencies and Industries

1. Mr. Robert Haston, Director
   Employment Security
   220 East Vine Street
   Murfreesboro, Tennessee 37130

2. Mrs. Jean Heilig
   State Farm Insurance Company
   Regional Office
   Northwest Broad Street
   Murfreesboro, Tennessee 37130

3. Mr. Tommy Tomlinson, Personnel Manager
   Samsonite Corporation
   Samsonite Boulevard
   Murfreesboro, Tennessee 37130

4. Mr. Jack Tutor, General Manager
   White Stag Manufacturing Company
   Park Avenue
   Murfreesboro, Tennessee 37130

Middle Tennessee State University Personnel

1. Mr. Charlie M. Dunn, Director
   Vocational-Technical Education
   School of Basic and Applied Sciences

2. Dr. Gerald Baughman, Associate Professor
   Education Department (Curriculum)

3. Dr. Neil G. Ellis, Chairman
   Industrial Arts and Technology Department

4. Dr. Jeannette Heritage, Assistant Professor
   Psychology Department

5. Dr. Aubrey Moseley, Professor
   Education Department (Curriculum)

6. Dr. Helen Self, Assistant Professor
   Education Department (Special Education)

7. Dr. F. S. Voorhies, Dean
   School of Basic and Applied Sciences

Rutherford County Education System

1. Mr. Raymond Nunley
   Director of Vocational Education
   Rutherford County Schools
   502 Memorial Boulevard
   Murfreesboro, Tennessee 37130

2. Mr. Thomas Tenpenny, Principal
   Central Middle School
   East Main Street
   Murfreesboro, Tennessee 37130

APPENDIX C

VISITORS ATTENDING WORKSHOP

Margaret Crockett, State Supervisor
Home Economics

Russell Smith, Research
Program Services, State Office

Dr. Edwin E. Lamberth
Regional Research and Development Coordinator

Joe E. Hill, Regional Supervisor
Distributive Education

Elizabeth Johnston, Regional Specialist
Home Economics Education

Dr. Dalton Drennan, Chairman
Business Education, MTSU

Richard David, Regional Supervisor
Office Occupations

W. E. Holt, Regional Supervisor
Management, Columbia

Edward J. Kobeck, Regional Supervisor
Trade and Industrial Education

Willie H. Mathis, Regional Supervisor
Trade and Industrial Education

Dr. M. G. Scarlett, President
Middle Tennessee State University

Dr. Howard Kirksey
Vice-President forAcademic Affairs, MTSU

Melville G. Parker, Director
Multisystem Career Education Project
Tullahoma

APPFNDIX D

PRE-VOCATIONAL ENGLISH UNIT

Subject Area: English

Title of Unit: Exploring the Newspaper Field

Rationale for Unit: Investigating the occupational offerings in the journalism field and the closely allied publishing and graphic arts industries is an excellent means of giving students valuable knowledge and experience and stimulating student respect for various work roles. The concrete activity of organizing, writing, editing and publishing a newspaper involves students using their abstract knowledge and skills in a practical application.

Objectives:

1. Given a group of occupational titles in the newspaper field, the students will be able to organize them under the three department headings of editorial, mechanical, and business according to the characteristics of each work role.

2. Students will be able to spell and define vocabulary words from the unit study.

3. In a discussion of editorial cartoons, the student will be able to define the term, describe the incident of individual features in the cartoon, and analyze the cartoon according to content, motivation, and effectiveness of treatment.

4. The learner will be able to discuss in written form the importance of language skills to newspaper writing, mentioning specific skills and those work-rolls that employ them more heavily than others.

5. Students will demonstrate their writing skills by writing news stories of class events or field trips following the criteria of style, content, and mechanics that pertain to news stories.

6. In the course of the unit study the students will demonstrate their oral communication skills by selecting a classified ad from an assortment of employment ads, and reporting on it orally to the class, mentioning the kind of work offered, the preparation required, the hours and salary (if given), and the procedure for application.

7. In a written discussion, the student will be able to determine and analyze the newspaper's role in informing the public, including such items as the responsibility of the newspaper to its readers, the provisions to protect the free press under the Bill of Rights, the newspaper as an influencer of public opinion, etc.

8. The students will be able to name ten workers in the newspaper field and describe their duties.

9. The students will be able to trace either orally or in written form the origination of a news story from the actual incident through the final edition that reaches the reader's hands. At least five operations that occur in the process should be mentioned.

10. The students will be able to solve mathematics work problems dealing with advertising costs and column inches.

11. The student will be able to describe the raw materials of newspaper production, the ink, paper, metals, etc. Students will be able to describe graphically in simple form the process by which newsprint is made from wood and water.

12. The student will be able to solve word problems dealing with addition, subtraction, multiplication, and division in reference to newspaper budget figures.

Activities:

1. Show an appropriate film or filmstrip on newspapers and their relation to the community.

2. Plan a bulletin board display of different types of newspapers or newspaper articles. Have samples from local papers, Metro Nashville, and any others that are available.

3. Make a display of books and pamphlets that relate to the newspaper field.

4. Initiate a discussion of the importance of newspapers to the community.

5. Plan and give a brief questionnaire concerning newspaper reading habits. Discuss and chart the results.

6. Invite a resource person in the newspaper field to discuss his activities with the class.

7. Distribute copies of newspapers and discuss the different parts and departments of the paper. Try to determine the functions of each and which ones are the most popular.

8. Have students make drawings of different phases of the newspapers that interest them.

9. Make wall charts on vocabulary words, occupational listings, and information that is needed. Illustrate with clippings from the newspaper, pictures, and students' drawings.

10. Dramatize phases of newspaper operation and have individual students role play the different positions.

11. Clip different types of articles from the newspaper to compare the writing styles of each. Compare a straight news article and a feature story to see if sentence structure, sentence length, diction, etc., differ. Compare news writing with the composition, descriptive writing done by students.

12. Do library research on famous newspaper men (their lives, contribution, activities, etc.). Have individual oral or written reports on research.

13. Distinguish between different newspaper articles as to function, content, interest, technique, style, etc. Practice writing different types of articles (straight news, features, sports stories) in preparation for publication in class or school newspaper.

14. Plan publication of paper. Organize into departments (News, Sports, Society, Entertainment, etc.) and plan format of paper. Different interest groups could handle the various assignments.

15. Initiate a discussion of the importance of language skills to newspaper workers. (Spelling, punctuation, organization, sentence structure, word choice).

16. Practice interviewing skills that a reporter might use. Utilize these skills in role playing, field trip conversations, and talks with resource people.

17. Read books for book review section in a newspaper. Have individuals alternate handling the assignment of reading a book and writing a review to be printed.

18. Work problems using multiplication and division skills in dealing with advertising costs in newspapers.

19. Discuss the costs involved in operating a newspaper, (cost of materials, newsprint, ink, equipment and maintenance of facilities, salaries, taxes, transportation and distribution costs, etc.)

20. Have students design and illustrate comics for the newspaper. Do editorial cartoons based upon some topic of current interest.

21. Take field trip to Daily News Journal to provide an actual view of what goes on in the journalism field.

Resources:

1. Filmstrips and Cassettes:
"The World of Communications", McKnight Publishing Company.

2. Books:

(a) Arnold, Elliott. Nose for News - The Way of Life of a Reporter. The Way of Life Series, Row, Peterson, Chicago, 1941.

(b) Banner, M. G. The Real Book About Journalism. Garden City Books, Garden City, N.Y., 1960.

(c) Botter, David. News Reporters and What They Do. Franklin Watts, Inc., New York, 1959.

(d) Burt, Olive W. Peter's Story Goes to Press. Henry Holt Company, New York, 1943.

(e) Floherty, John. Your Daily Paper. J.B. Lippincott Company, Philadelphia, 1938.

(f) Stein, M. S. Your Career in Journalism. Julian Messner Publishers, N. Y., 1966.

3. Resource Persons

DeHoff Publishing Company
Daily News Journal
MTSU Journalism Department

4. Equipment and Supplies

typing paper	metal ruler
newspapers	file folders
butcher paper	tempera paint

construction paper	scissors
poster paint	ditto sheets
tacks	stapler and staples
advertising cost catalog	type face catalog

Evaluation:

1. Give written test to determine changes in knowledge level.

2. Give questionnaire concerning newspaper reading habits.

3. Did students exhibit any change in attitude toward their school-related activities or toward the world of work?

APPENDIX E

PRE-VOCATIONAL OFFICE OCCUPATIONS UNIT

Subject Area: Office Occupations

Title of Unit: Introduction to the Cluster of Office Occupations

Rationale for Unit: To identify the many office related jobs, recognize desirable characteristics of office workers, and learn the letter keys of the typewriter by the touch method as well as operate the various parts of the machine.

Objectives:

1. To identify the six job families in the cluster of office occupations and types of jobs within each.

2. To type all letters of the typewriter keyboard by touch, using correct fingering.

3. To locate and demonstrate the correct use of the manipulative parts of the typewriter.

4. To demonstrate correct posture daily while typing.

5. To identify aspects of finger action stroking and apply daily in drills.

6. To identify general characteristics of office personnel.

7. To discuss case situations concerning professional qualities desirable in office workers.

8. To relate basic skills in academic areas to skills needed in office work.

Activities:

1. Class will discuss previous knowledge or experience with people in office jobs.

2. Students will talk with someone they know in an office job and list: job titles, where employed, duties, employee satisfaction.

3. Follow up on #2 class discussions. . . will classify each report according to areas with main cluster.

4. Bring want ads to class from different newspapers. Compare ads as to job titles, salary, qualifications asked for, and experience, and group in cluster areas.

5. Student will watch teacher demonstration of insertion and removal of paper in the typewriter; each student will repeat the steps daily thereafter.

6. Students will apply touch typing techniques to typing the home keys the first day and approximately two new keys daily for 20-30 minutes of instruction using short words and drills.

7. Students will watch teacher demonstration of her ability to type.

8. Describe proper typing form through class discussion of each element and its importance to touch typing.

9. Watch teacher type.

10. Watch other students.

11. View film.

12. Students complete a check list of personal traits.

13. Write a short autobiography with paragraphs on their interest in a career in office work.

14. View film/s and list personality traits desirable for office workers.

15. Guest speaker/or listen to cassette tape . . .discuss characteristics expected in employees.

16. Role play situations contrasting right and wrong manners, grooming, and dress.

17. Compare manner of office grooming with other occupations by bringing pictures or talking with workers.

18. Small groups will find pictures of office workers and want ads and make posters displaying cluster areas.

19. View filmstrips.

20. Work crossword puzzle.

21. Class discussion on jobs for men as well as women in office occupations.

Resources:

1. Bulletin board showing cluster.
2. Transparencies . . . "Careers in Office Occupations".
3. Filmstrip . . ."The Working World of a Secretary".
4. Want ad section of a newspaper
5. Dictionary of Occupational Titles
6. Pictures of office workers.
7. Parents, guest speaker from a business.
8. Teacher prepared corssword puzzle or other games.
9. Teacher demonstration of touch typing skill.
10. Demonstration stand and typewriter.
11. Text - Personal Typing for Junior High Schools
12. Transparencies of machine parts and step by step instruction on usage.
13. Transparencies - Body position, desk arrangement, book placement, etc.
14. Photographs of persons typing.
15. Film . . ."Building Typing Skill", 16 mm.
16. Guest speaker - personnel director from local business.
17. Film - "Working Together", "Do I Want to Be A Secretary?"
18. Exploratory Business; Dame, Patrick, and Grubbs, Gregg Publishing Company, 1971.
19. Clerical Office Procedures; Meehan Paseward, Oliverio, South-Western Publishing Company, 1973.
20. A Career in the Modern Office; Morrison, Gregg Publishing Company, 1969, #1 and 2.
21. Business Behavior.

Evaluation:

1. Observation.
2. 85% accuracy on matching quiz.
3. Self-evaluation of class participation.
4. Student critique of film or speaker, etc.
5. Daily observation of each student.
6. 80% accuracy in listing parts and function of each.
7. Class participation in discussion.
8. Listing of techniques.
9. Rating of student progress on checklist.
10. Student critique of speaker or film.
11. List and explain characteristics.
12. Rate themselves on their traits that apply to office traits.

ACCESSION NUMBER: VT102006

PUBLICATION DATE: 15MAR75

TITLE: A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. QUARTERLY REPORT.

DESCRIPTOR: *CAREER EDUCATION; *COMPREHENSIVE PROGRAMS; *VOCATIONAL DEVELOPMENT; STAFF UTILIZATION; CURRICULUM DEVELOPMENT; *INSTRUCTIONAL MATERIALS; OCCUPATIONAL GUIDANCE; LEARNING ACTIVITIES

IDENTIFIER: *LEON COUNTY SCHOOLS; FLORIDA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 272P.

ABSTRACT: MAJOR ACTIVITIES AND ACCOMPLISHMENTS FROM DECEMBER 15, 1974 TO MARCH 15, 1975 ARE PRESENTED IN THIS QUARTERLY REPORT OF A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14 IN LEON COUNTY, FLORIDA. DUE TO PERSONNEL CHANGES IT WAS NECESSARY TO DEVOTE TIME TO REDEFINING JOB DESCRIPTIONS AND IDENTIFYING TASKS AND RESPONSIBILITIES. THE CURRICULUM COMPONENT CONDUCTED WORKSHOPS AND COMPILED THE LEON HIGH SCHOOL CAREER EDUCATION PLAN BOOK AND OTHER MATERIALS. IMPROVED COUNTY-WIDE GUIDANCE ACTIVITIES ARE DESCRIBED. THE PLACEMENT AND FOLLOWUP COMPONENT INCLUDED IMPLEMENTATION OF JOB PLACEMENT PLANS IN THREE DISTRICT HIGH SCHOOLS AND A VOCATIONAL-TECHNICAL SCHOOL, WITH EMPHASIS ON DEVELOPMENT OF A FOLLOWUP SURVEY INSTRUMENT. A NUMBER OF MEASUREMENT INSTRUMENTS WERE ADMINISTERED AT THE ELEMENTARY, MIDDLE, AND HIGH SCHOOL LEVELS. EXCERPTS FROM THE LEON HIGH SCHOOL CAREER EDUCATION PLAN BOOK, A CAREER GUIDE FOR FOREIGN LANGUAGES (GERMAN); MIDDLE SCHOOL PROGRAM COST DATA, AND THE LEON COUNTY SCHOOL BOARD FOLLOWUP SURVEY INSTRUMENT ARE APPENDED. (MF)

CONTRACT NUMBER: OEG-0-73-3004

INSTITUTION NAME: FLORIDA STATE DEPT. OF EDUCATION, TALLAHASSEE. DIV. OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION.

SPONSORING AGENCY NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102006

QUARTERLY REPORT

Project No. V361007L
Grant No. OEG-0-73-3004

A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14

Conducted under
Part C of Public Law 90-576

K. M. Eaddy, Chief
Bureau of Research and Evaluation
Division of Vocational, Technical and Adult Education
Department of Education
Tallahassee, Florida 32304

March 15, 1975

VT 102 006

QUARTERLY REPORT

Project No. V361007L
Grant No. OEG-0-73-3004

A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14

Conducted Under
Part C of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Bureau of Occupational and Adult Education, U.S. Department of Health, Education, and Welfare. Grantees undertaking such projects under government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official position or policy.

K. M. Eaddy, Chief
Bureau of Research and Evaluation
Division of Vocational, Technical and Adult Education
Department of Education
Tallahassee, Florida 32304

March 15, 1975

PERIOD COVERED

December 15, 1974 to March 15, 1975

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

Despite expansions in school programs, services and appropriations, many students leave school without adequate educational attainment, salable skills or career objectives. The need for educational reforms designed to ameliorate these conditions has been recognized by the School Board of Leon County which has given high priority to implementation of needed changes so that Career Education may become a primary focus, K-14.

The purpose of this project is to begin effecting the needed changes by developing, implementing, evaluating and disseminating a comprehensive career education program which will increase self-awareness, develop favorable attitudes about the personal, social and economic significance of work, and assist each student in developing and practicing appropriate career decision-making skills.

The program goals provide for the following educational opportunities:

a. Increased student self-awareness of personal abilities and skills in the perspective of work values and job options.

b. Career exposure, motivation, orientation and meaningful exploratory experiences to assist students in formulating realistic occupational goals and to enable them to better relate to the need and purpose of general/academic studies.

c. Job preparation and retraining in a wide variety of occupational areas geared to current and projected manpower needs and job performance requirements.

d. Student placement in either a job or an advanced level occupational training or baccalaureate program.

The broadly stated program objectives that have been formulated in accordance with the program goals include the following:

a. Developing an elementary program for grades K-5 to increase self-awareness and career awareness of students and to provide the skills necessary to relate self-concept to the broad range of options open to them in the world of work.

b. Developing programs for the middle school level, grades 6-8, to provide career orientation and meaningful exploratory experiences in the 15 occupational clusters as they relate to the students' expanding self-concept.

c. Developing programs for grade levels 9-14, that extend in-depth career exploration and job preparation experiences, including the utilization of work experience and cooperative education opportunities; the experiences

would provide skills necessary for success in an occupation or subsequent educational program.

d. Continuing and expanding counseling and guidance services to students at all grade levels.

e. Articulating the functions of placement and follow-up.

f. Providing maximum career information for use of students through organized systems and media.

g. Planning and providing placement through coordinated efforts of the placement component personnel of the Career Education Center, counselors, occupational specialists, teachers and cooperating agencies.

h. Planning, providing and conducting follow-up studies and providing feedback of pertinent information to the school system for development of plans to meet present and future needs of students.

i. Providing in-service programs in the areas of orientation, planning and implementation of Career Education for teachers, administrators and supportive staff.

j. Developing a program of school-community involvement to provide continuing educational services to all people.

The schools selected to participate in this project include five elementary schools, two middle schools, one senior high school, one post-secondary area vocational-technical school and the community college. The elementary schools are feeder schools for the selected middle schools which, in turn, feed into the high school; from high school, the students may go to the area vocational-technical school or the community college for occupational training.

The major activities for this reporting period were undertaken as a result of the needs identified during the last reporting period (Refer to FUTURE ACTIVITIES, Quarterly Report, December 15, 1974.) The accomplishments relative to the identified needs are summarized on the following page.

Since several personnel changes were made as of December 15, 1974, a major part of this reporting period was devoted to re-defining job descriptions, identifying tasks to be accomplished during the remaining fiscal year and re-assigning responsibilities accordingly.

In addition to the personnel changes mentioned above, the federal portion of the project was to terminate December 15, 1974; thus, commercial materials were ordered, logged and distributed, in an effort to expend the remaining funds. However, the project was granted a six-month extension without additional funds and time now remains to amend the budget, complete the project evaluation and submit the final report.

Personnel changes include the following:

--The academic curriculum specialist now works with secondary curriculum, primarily, and the guidance/evaluation coordinator works with the elementary curriculum and evaluation. These changes occured because the project vocational curriculum specialist left the project staff and is now a member of the Lively Vo-Tech staff. Further, the project guidance program goals and objectives have been defined and fused into the on-going district guidance program which is the responsibility of the Director of PPS.

--The project placement and follow-up program has been developed as mandated and is now under the direction of the PPS, and operates district-wide. However, the position is still funded by state Career Education money.

The curriculum component personnel report the following activities:

--Met with curriculum coordinators and principals of all project schools to communicate new roles and discuss progress of the Career Education program.

--Along with project director, met with district level elementary supervisors and several non-project elementary principals, curriculum coordinators and guidance personnel to discuss the possibilities of expansion into additional district schools and to describe the program objectives, activities and materials as they exist in the project schools.

--Conducted workshops for total faculties of two project and one non-project elementary schools for directed study of all FAIS program and methods of fusing it into appropriate curriculum areas.

--Compiled Leon High School Career Education Plan Book, which includes a description of the high school program, individual teacher's Career Education lesson plans, and a summary of costs of the high school program. (Refer to Appendix A for copy of Plan Book.)

--Continue to edit Leon High School Foreign Language/Career Education curriculum materials. (Refer to Appendix B for example of German Teacher's Guide.)

--Continue summarizing program cost data for each project school. These include costs of all resource materials and in-service. (Refer to Appendix C for copy of project middle school program costs.)

--Developed script for tape/slide presentation of the Leon District Career Education Project.

The major guidance activities and accomplishments include the following:

--Participated with newly organized Pupil Personnel Services Lead Team to plan for an improved county-wide program which includes many of the services and activities developed in the Career Education project schools.

--Worked with the new District Coordinator of Elementary Guidance to assist her in reviewing the elementary guidance program in project and non-project schools.

--Served as consultant to several schools on interpretation and use of standardized test scores.

The major activities of the placement and follow-up component are described below:

--The plan for placement is now implemented in the three district high schools and Lively Vo-Tech School. The major emphasis for this reporting period has been development of a follow-up survey instrument that will provide meaningful information on which to base recommendations for changes in curriculum or placement services. Tentative information-gathering items have been developed to be included on a follow-up survey instrument. (See Appendix D.) The format for the instrument and the method of summarizing the data have not been determined as of this date.

--For this school year, from September 1974 to March 1975, the following placement information is submitted: School drop-outs totaled 408. This includes figures for the area vocational/technical center with 207, and 201 for the three district high schools. Of these 408 drop-outs, 161 requested full-time job placement assistance, 131 of these drop-outs were placed in full-time jobs and 30 are awaiting assistance. One hundred five drop-outs requested part-time job placement assistance, with 84 placed in part-time job situations. Forty-seven drop-outs were returned to a regular high school program; 65 drop-outs were placed in the area vocational/technical school programs making a total of 327 satisfactory placements for 408 drop-outs.

--The three high schools reported 184 seniors graduated and were offered placement assistance in January 1975 and of these graduates, 39 requested job placement assistance, 10 requested education/training placement assistance, 19 were placed on full-time jobs, 30 were placed on part-time jobs, and 9 were assisted in gaining entry to education/training situations, making a total of 58 placements of high school graduates. Of individuals completing programs at the area vocational school, 82 requested job placement assistance and 80 were placed satisfactorily.

Major activities of the vocational counselor include the following:

--Worked with FDOE Pupil Personnel Cumulative Folder Revision Committee.

--Assisted district Director of PPS and Data Processing Steering Committee in developing plans for a Pupil Locater - Student Data System.

--Assisted Teen-Age Parent Program Committee and staff personnel in developing a program evaluation.

--Coordinated activities for preparation of tape/slide presentation of Leon District Career Education Project.

--Assisted in planning for and participated in Leon High School Career Day.

--Counseled with students regarding career opportunities.

--Assisted extensively in Career Education project evaluation.

SIGNIFICANT FINDINGS AND EVENTS

--As project school faculties have gone through directed study of lesson plans in the FAIS program, they have developed an enthusiasm for the program and plans were made to fuse it into the program. Flexibility in planning has helped it become a part of the program rather than an added-on activity.

--The elementary guidance program for the district has taken the direction given by the counselors in the Career Education pilot schools -- by emphasizing self-awareness and values clarification through group activities and consultation with teachers.

--In spite of the scarcity of jobs due to the economic recession and some misuse of occupational placement specialists by school administrators the implementation of the placement component has been very satisfactory in the district.

PROBLEMS

Because of the high rate of attrition and the constraints of the subject-centered secondary curriculum, the program implementation plan is not

being executed and/or reported by all responsible individuals in the project schools. Thus, the anticipated outcomes may not be realized to their fullest extent.

DATA COLLECTION

--The following instruments were used to collect data in project and matching non-project schools. The tests were used in the first phase of a test/retest evaluation program initiated in January 1975

GRADES	INSTRUMENTS
K	"Teacher's Observation Scale of Student Behaviors"
1-2	"Teacher's Observation Scale of Student Behaviors" "WIS_M Level I"
3-5	"Teacher's Observation Scale of Student Behaviors" "WIS_M Level II"
6	"Career Awareness Inventory" (Scholastic Testing Service)
7-8	"A Measure of Career Information, Attitudes and Concepts"
9 and 11	"Assessment of Career Development" (Houghton-Mifflin Co.)
10 and 12	"Career Maturity Inventory" (CTB/McGraw Hill)
Voc. School (DE and Child Care Dept.)	"Assessment of Career Development" (Houghton-Mifflin Co.)

The "Teacher's Observation Scale for Student Behaviors" was developed by the guidance/evaluator, the vocational counselor and a consultant from Florida State University. The "WIS_M was adapted to our needs from the FSU Career Education Project. "A Measure of Career Information, Attitudes and Concepts" is the instrument used to evaluate the middle school FAIS program. The other instruments were selected because they had subtests which the U. S. Office of Career Education, Department of Health, Education and Welfare had evaluated and recommended to measure objectives which were a part of our program.

Instruments administered at the middle and high school levels have been sent to scoring services for scoring and summarization of data. Elementary instruments are being hand-scored and summarized in the guidance/evaluator's office.

DISSEMINATION ACTIVITIES

There have been many and varied dissemination activities during this reporting period. Many could be described as "major activities" as well. They include the following:

--A workshop was conducted by staff personnel for several teachers and the director of the Taylor County Career Education Project to review the FAIS program and materials and to determine strategies for fusing it into their existing program.

--Staff personnel met with two graduate classes at FSU, to describe the Leon District project.

--Staff personnel met with FAMU School of Education leaders to identify Career Education needs relative to their teacher-education program.

--The vocational counselor planned and conducted Career Education field trips for Concord Elementary School children.

--The vocational counselor communicated objectives of the Career Education project to board members of the Mental Health Association of Leon County, and disseminated Career Education information through Project VIEW.

OTHER ACTIVITIES

None

STAFF EMPLOYMENT AND UTILIZATION

During the first quarter, two occupational specialists and one guidance counselor were employed through funds received under a state grant for Career Education, to provide additional personnel in the project middle schools and high schools. (This refers to the first quarter of 1973-74. The personnel continue to function but are no longer paid by Career Education funds.)

STAFF DEVELOPMENT

None

FUTURE ACTIVITIES

--Continued collection of data on type and frequency of planned activities or techniques used by teachers in the Career Education program and summarization of reports requesting teacher reaction to the program.

--Continued coding of remaining project school programs.

--Interpretation of data gathered on the sample selected for evaluation purposes.

--The items to be used on the follow-up instrument have been developed and plans are to place these items on a reader scan form so data can be tabulated by a computer. When this is complete 100 students from the high schools and Lively will be asked to evaluate the instrument and suggest changes in format or substance of the items on the basis of how they would respond.

APPENDIXES

A. LEON HIGH SCHOOL CAREER EDUCATION PLAN BOOK - EXCERPTS

B. CAREER GUIDE FOR FOREIGN LANGUAGES — GERMAN I-IV, TEACHER'S GUIDE FOR USE WITH STUDENT CAREER UNITS

C. MIDDLE SCHOOL PROGRAM COST DATA

D. FOLLOW-UP SURVEY INSTRUMENT, SCHOOL BOARD OF LEON COUNTY

APPENDIX A

LEON HIGH SCHOOL CAREER EDUCATION PLAN BOOK - EXCERPTS

LEON HIGH SCHOOL CAREER EDUCATION PLAN BOOK

DEVELOPED BY
LEON HIGH SCHOOL FACULTY
CAREER EDUCATION PROJECT STAFF

COMPILED AND EDITED BY

ELIZABETH CUNNINGHAM
CURRICULUM SPECIALIST
LEON DISTRICT CAREER EDUCATION PROJECT

JANUARY 1975
LEON DISTRICT CAREER EDUCATION PROJECT
925 MICCOSUKEE ROAD
TALLAHASSEE, FLORIDA

JAMES C. TALLEY, DIRECTOR

TABLE OF CONTENTS

I.	INTRODUCTION	2
II.	PROGRAM PLANNING	4
III.	PROGRAM DESCRIPTION	5
	CAREER-RELATED GUIDANCE ACTIVITIES	7
	CAREER EDUCATION CURRICULUM DESIGN MODEL - GRADES 9-12	8
	CAREER EDUCATION CURRICULUM/GUIDANCE GOALS AND OBJECTIVES - GRADES 9-12	9
	IMPLEMENTATION OF CAREER EDUCATION OBJECTIVES - LEON HIGH SCHOOL	11
	LEON DISTRICT SECONDARY/POST - SECONDARY CAREER EDUCATION IMPLEMENTATION/EVALUATION FORM	16
IV.	CAREER UNIT OUTLINES	17
	AGRICULTURE	18
	ART	20
	BUSINESS EDUCATION	28
	DCT	57
	DRIVER EDUCATION	59
	ENGLISH	61
	FOREIGN LANGUAGE	68
	HOME ECONOMICS	70
	INDUSTRIAL ARTS	95
	MATHEMATICS	105
	MEDIA CENTER	121
	PHYSICAL EDUCATION	123
	READING	127
	SCIENCE	133
	SOCIAL STUDIES	141
V.	APPENDIXES	153
	A. EXCERPTS FROM LEON HIGH SCHOOL COMPREHENSIVE PLAN	154
	B. EXPENDITURES FOR LEON HIGH SCHOOL RESOURCE MATERIALS AND IN-SERVICE PROGRAMS	164
	LISTING OF CAREER EDUCATION MATERIALS PROVIDED BY CAREER EDUCATION PROJECT - JULY 1973-JANUARY 1975	165
	C. LEON HIGH SCHOOL GUIDANCE	176

I. INTRODUCTION

Despite expansions in school programs, services and appropriations, many students leave school without adequate educational attainment, salable skills or career objectives. The need for educational reforms designed to ameliorate these conditions was recognized by the School Board of Leon County which gave high priority to implementation of needed changes so that Career Education might become a primary focus, K-14.

The purpose of this project was to begin effecting the needed changes by developing, implementing, evaluating and disseminating a comprehensive Career Education program to increase self-awareness, develop favorable attitudes about the personal, social and economic significance of work, and assist each student in developing and practicing appropriate career decision-making skills.

The program goals provide for the following educational opportunities:

- Increased student self-awareness of personal abilities and skills in the perspective of work values and job options.

- Career exposure, motivation, orientation and meaningful exploratory experiences to assist students in formulating realistic occupational goals and to enable them to better relate to the need and purpose of general/academic studies.

- Job preparation and retraining in a wide variety of occupational areas geared to current and projected manpower needs and job performance requirements.

- Student placement in either a job or an advanced level occupational training or baccalaureate program.

The broadly stated program objectives that were identified for the secondary/post-secondary program include the following:

- Developing programs for grade levels 9-14, that extend in-depth career exploration and job preparation experiences, including the utilization of work experience and cooperative education opportunities; the experiences would provide skills necessary for success in an occupation or subsequent educational program.

- Continuing and expanding counseling and guidance services to students at grade levels 9-14.

- Providing maximum career information for use of students through organized systems and media.

- Planning and providing placement through coordinated efforts of the placement component personnel of the Career Education Center, counselors, occupational specialists, teachers and cooperating agencies.

- Planning, providing and conducting follow-up studies and providing feedback of pertinent information to the school system for development of plans to meet present and future needs of students.

- Providing in-service programs in the areas of orientation, planning and implementation of Career Education for teachers, administrators and supportive staff.

The following summary briefly describes the secondary program and the process through which the program was developed during the planning and implementation phases of the project, June 15, 1973 - December 15, 1974.

Examples of pertinent documents related to the developmental process and the program description are included throughout this plan book.

II. PROGRAM PLANNING

Leon High School personnel participated in two orientation and planning workshops early in the initiation of the project -- the Administrative Workshop, June 1973 and the Orientation and Planning Workshop, August 1973.

Since there were several changes in the Leon High School administration at that time, representation in the Administrative Workshop was limited. However, several faculty and guidance representatives attended the Orientation and Planning Workshop, and as a result, a Leon High School Coordinating Committee Plan was formulated.

Various committees worked together for total curriculum planning and Career Education was identified as the focus of the 1973-74 Leon High School Comprehensive Plan. Excerpts from the plan are included in Appendix A.

In addition to developing the comprehensive plan, innumerable meetings were held with administrators, guidance counselors, department heads, total departments and individual faculty members. The meetings were concerned with orientation for those who did not attend the workshops, identification of program and student objectives, review of resource materials, etc.

It was decided that during the planning year, monthly reports would be submitted by faculty members and guidance personnel, in an effort to identify the existing scope of Career Education activities in the school program and to describe results of experimental activities. Through this process, it was determined that many excellent activities were in effect and that the primary needs for program development were to identify a scope and sequence for the activities and to assure that all students were receiving similar experiences.

A workshop was held in February 1974 to accomplish these tasks and to refine program and student objectives.

III. PROGRAM DESCRIPTION

Since all departments were not represented in the workshop it was impossible to plan a total program; however, a tentative program model was developed. The eight elements of Career Education were accepted as essential to the program, with emphasis on Self-awareness and Values Clarification. Thus each of the eight elements was placed at a specific grade level relative to student developmental needs, and a model was designed as a basis for program planning. The model is included on page 8.

Workshop participants recognized that these elements needed to reach all students at each grade level. However, the constraints of the existing curriculum and the scheduling methods presented obstacles to the identification of student objectives and implementation strategies.

In an effort to facilitate the process, project staff personnel identified three program objectives and nine student objectives based on the eight elements and designed a tentative implementation plan. These

were presented to the workshop participants as a point of departure; but, because it was late in the workshop, plans were made to hold additional departmental meetings to finalize implementation plans. (Copies of the objectives and implementation plan are included on pages 9-15.)

As a result of departmental meetings, faculty members completed a Career Unit Outline for each course offering. The outlines include the objectives emphasized, the activities and the required resources. The Career Unit Outlines that were submitted comprise Part IV of this plan book.

In addition to the school-wide activities, several individual teachers produced career-related curriculum materials during summer workshops. These include the following:

- Teacher's and student's guides incorporating Career Education activities into Basic Biology, BSCS Biology (Green Version) and ISCS Science.

- Teacher's and student's guides incorporating Career Education activities into German I-IV and Spanish I-IV.

Because of the extensive length of these materials they have not been included here but are available on request.

The Career Unit Outlines are presently being implement and results will be reported periodically. (Refer to example of reporting form on page 16.)

A listing of resource materials provided for program implementation is included in Appendix B, along with the total cost for materials and in-service.

Career-Related Guidance Activities

At the beginning of the Career Education Project, Leon High School had four counselors and one occupational specialist in an established program. A counselor and an occupational specialist were added by the project to expand services during the 1973-74 school year.

Guidance Personnel attended most Career Education workshops and have participated in all facets of program planning.

During summer workshops guidance personnel produced an outline of career-related program objectives and activities (included in Appendix C) which provide a developmental program of interpersonal skills, values clarification and career planning that will reach all students. They also produced the "Teacher's Handbook for Guidance Services" which was distributed to all Leon High School faculty members to apprise them of available guidance services, in an effort to work cooperatively for the students' welfare.

Hopefully the combined efforts of ALL sectors concerned with the educational process will continue to result in programs that will enhance the learning of basic skills, expand affective learning and emphasize the relevance of education to the career direction of all students.

GRADES 9-12 CURRICULUM DESIGN

LEON DISTRICT CAREER EDUCATION

SUBJECT MATTER RELATING EFFORT AND FUSION OF CURRICULA

	////////////////////// CAREER PLACEMENT AND FOLLOW-UP //////////////////////	
12th	JOB PREPARATION (BEGINNING COMPETENCIES)	Continue development of special skills needed for career choice.
	CAREER DECISION MAKING	Identify choice of placement -- higher education, vocational/technical education, employment.
11th	JOB PREPARATION (BEGINNING COMPETENCIES)	Acquire occupational skills for entry level employment and/or advanced occupational/educational training.
	EDUCATIONAL AWARENESS	Relate academic training (courses) to career opportunities/preparation.
	CAREER DECISION MAKING	Provide individual career counseling for students in need of assistance.
	EMPLOYABILITY SKILLS	Develop specific employability skills needed to obtain and maintain employment.
10th	SELF AWARENESS VALUES CLARIFICATION	Expand values clarification activities and continue relating to career decision making.
	CAREER DECISION MAKING	Make tentative commitment to career direction and enroll in appropriate 11th grade courses.
	CAREER EXPLORATION EDUCATIONAL AWARENESS ECONOMIC AWARENESS	Explore clusters in assigned subject areas.
9th	SELF AWARENESS VALUES CLARIFICATION	Develop self-awareness by identifying major interests, abilities, values and achievements.
	CAREER DECISION MAKING	Relate interests, abilities, values and achievements to occupation areas.
	CAREER EXPLORATION EDUCATIONAL AWARENESS ECONOMIC AWARENESS	Explore clusters in assigned subject areas.
	EMPLOYABILITY SKILLS	Develop beginning competencies needed to obtain and maintain employment.

LEON DISTRICT CAREER EDUCATION PROJECT

CURRICULUM/GUIDANCE GOALS AND OBJECTIVES

GRADES 9-12

General Objectives: To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

Specific Objectives: The student will

--demonstrate self-awareness by identifying his major abilities, interests, values and achievements

--relate his abilities, interests, achievements, personal values and influence of others' values to occupational areas

--demonstrate beginning competencies needed to obtain and maintain employment and to progress in the world of work

--explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations

--identify and utilize sources of individual career counseling to make a tentative commitment to a career direction and register in appropriate courses

--develop specific employability skills needed to obtain and maintain employment

--identify the relationship between academic training (general background and basic skills courses) and career opportunities/preparation

LEON DISTRICT CAREER EDUCATION PROJECT

CURRICULUM/GUIDANCE GOALS AND OBJECTIVES

GRADES 9-12 (continued)

--develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice

--identify his choice of placement--higher education, vocational/technical education or employment--following graduation

April 1974

IMPLEMENTATION OF CAREER EDUCATION OBJECTIVES

LEON HIGH SCHOOL

STUDENT OBJECTIVES	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#1 Demonstrate self-awareness by identifying his major abilities, interests, values and achievements. ELEMENTS Self-awareness Values Clarification	9th (10th optional*)	Guid/SS/LA	EAC Creating Your Future: Module A "Developing Awareness for Career Commitment" Film Strips: SVE - "Commitment to What?" "Who Are You?" "Discovering What Life's All About" "What Do You Believe About Life?" GA - "The Adolescent Experience" film strip series "The Changing Work Ethic" "Job Attitudes" Survey results related to aptitudes, interests, achievement
	10th	Guid/SS/LA	Values Clarification: Sid Simon (Continue Values Clarification at this level)

*In first year of project, may be presented in 10th grade and above, if student scheduling appropriate and materials are of sufficient quantity.

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#2 Relate his abilities, interests, achievements, personal values and influence of others' values to occupational areas. ELEMENTS Career Decision-making	9th (10th where possible)	Guid/SS/LA	"Changing Times", Career Directions Unit I, "Deciding What You Want to Do" Creating Your Future: Module E, "Planning Your Future" Film Strips: "Learning to Make Decisions" "Choosing A Career" "What is a Job?" "Changing Times" Unit II, "Choosing the Kind of Job You Want" Broward Unit on Decision-making

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#3 Demonstrate beginning competencies needed to obtain and maintain employment and to progress in the world of work. ELEMENTS Employability Skills	9th (10th where possible)	Guid/LA	Department of Education, Employability Skills with film strip Creating Your Future: Module B, Learning Habits to Build Your Career Creating Your Future: Module F, Education for Your Future Film Strips: "Why Study?" "What Good is School?"
		Guid/SS	Creating Your Future: Module C, Developing a Life-Style for Career Success Creating Your Future: Module D, Developing Leadership Skills for Career Opportunities Adventures in Success: Ed. Development Corp.

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations. ELEMENTS Career Exploration, Educational Awareness, Economic Awareness	9th-12th 9th & 10th emphasis	All areas relative to placement of clusters, in depts.	Prepared outline "Educational and Occupational Information" (Oklahoma Department of Education) Prepared units and guides West Virginia and Orange cluster survey materials. Transparencies.."Career Exploration" VIEW materials- Cluster breakdowns--Texas Education Agency Filed brochures Film Strips: "Job Opportunities Now" series "Westinghouse Series" Resource people from community

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#5 Identify and utilize sources of career counseling to make a tentative commitment to a career direction and register in appropriate courses.	End of 10th and above, as needed	Guidance/through class activities	Leon High curriculum guides. Pre-requisite information related to selected program. Group career counseling. Individual counseling Resource persons from other agencies, and community "The Self- Directed Search", John Holland, Consulting Psychologists Press, Palo Alto, California

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#6 Develop specific employability skills needed to obtain and maintain employment.	11th and 12th target	Guid/O.S in class-room Special areas, i.e Coop. H.E.	Transparencies: "How to Get a Job" "Preparing for Interviews" Orange County Unit "Changing Times", Career Directions Unit III, Entering the Job Market Unit IV, Staying With It and Getting Ahead SVE-Job Survival Kit Department of Education, Employability Skills with film strips.
ELEMENTS Employability Skills			

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#7 Identify the relationship between academic training (general background and basic skills courses) and career opportunities/ preparation.	9th-12th 11th, 12th emphasis	All areas	Relate subject areas to occupations by identifying which occupations require skills included in your area using cluster material (West Virginia, Ohio, Texas) brochures, units, guides, commercial materials, VIEW, resource persons, etc. to develop unit on above where needed. Commercial materials i.e. "Why Math" by Mafex Co.
ELEMENTS Educational Awareness			

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice. ELEMENTS Beginning Competencies/ Job Preparation	9th-12th (11th, 12th emphasis)	All areas through cluster placement and by relating academic skills in areas (Occupational Specialists assistance)	Identify low level jobs within assigned cluster and subject area Identify and develop mini-courses for salable skills within academic area, (i.e. Orange County unit) Fuse academic area content with specific occupations (i.e. math, foreign languages) Expand vocational skills - development course offerings. Develop skills required for college program. Provide shadowing, internship experiences. Units from other projects.

OBJECTIVE	GRADE	DEPT.	SUGGESTED STRATEGIES/RESOURCES
#9 Identify his choice of placement --higher education, vocational/ technical education or employment --following graduation. ELEMENTS Decision-making	12th	Guid/Placement Using HR time	Individual/group counseling. Employer and admissions officer contacts.

Instr. 74
App. [illegible]
Date 12/11/74

LEON DISTRICT SECONDARY/POST-SECONDARY

CAREER EDUCATION IMPLEMENTATION/EVALUATION REPORT

School _____ Grade/s _____

Department _____ Teacher _____

Course _____ Date _____

I. School Objective/s: (Circle) #1 #2 #3

II. Student Objective/s: (Circle) #1 #2 #3 #4 #5 #6 #7 #8 #9

III. Activities:

IV. Resources:

V. Evaluation: (Circle appropriate responses)

Student Reaction:	Excellent	Good	Fair	Poor
Student Outcomes:	Excellent	Good	Fair	Poor
Teacher Evaluation:	Excellent	Good	Fair	Poor

Comments: _____

Please submit to Career Education contact person after each career unit is completed. Attach any available data on student outcomes related to Career Education: (i.e., test scores, % students completing objectives, etc.).

30

IV. CAREER UNIT OUTLINES

AGRICULTURE

CAREER UNIT OUTLINE

DEPARTMENT Agriculture GRADE _____

COURSE Agriculture I TEACHER Mr. Wilburth

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations.

ACTIVITIES

1. Exposure to job-related occupations thru media, interviews and job-related people.

RESOURCES

1. Career filmstrips on Agriculture and Construction

ART

CAREER UNIT OUTLINE

DEPARTMENT Art

GRADE ___

COURSE Art I

TEACHER Mary Voutsinas

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills, and job opportunities related to occupations.

ACTIVITIES

Each student will:

1. View filmstrips available in the career guidance center, which deal with job opportunities in the art field related to class projects.
2. Investigate information available in a departmentally prepared packet concerning the nature of specific careers in art. The packet contains information on training required, pay scale, the nature of the occupation, and the availability of local job opportunities in these specific areas.
3. Utilize a list of colleges and universities offering programs in Fine and Applied arts, Art Education, and Architecture, (which includes evaluations of the school's various programs) and write to the colleges for further information.
4. Review information in Making A Living in Art, William K. Reid, concerning specific areas of interest.

RESOURCE

Career Guidance Series (10 filmstrips and records prepared and narrated by working professional in ten different fields in art.)
Career Information Packet.
College and University Listing.
Making a Living in Art, William K. Reid.
Speakers: Specialists in a single field and those knowledgeable in the general field of careers.

EXPECTED OUTCOMES

1. The students will understand and be able to discuss the nature of one or more careers in arts as to training needed, pay scale and job opportunites locally.

2. The students begin to think about and make tentative plans in the field of art, or may decide to drop art and look in a different direction.

CAREER UNIT OUTLINE

DEPARTMENT Art GRADE ___

COURSE Advanced Art TEACHER Marnita Taylor

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 4 Explore occupational cluster areas, noting key occupational requirements, economic implications, required skills and job opportunities related to occupations.

ACTIVITIES

Each student will:

1. View two or more filmstrips in the Career Guidance Series and listen to recording for each filmstrip.
2. Select two or more career information folders from departmentally prepared packet, explore the nature of the occupation, training needed, pay scale, and job opportunities locally for each career.
3. Look through departmentally prepared list of colleges and universities that offer programs in Fine and Applied Arts, Art Education, and Architecture. (If a college degree is necessary information needed in selecting school.)
4. Refer to Making a Living At Art . Select the sections most akin to one chosen career and write a report by answering questions that are listed in that section.

RESOURCES

Career Guidance Series (10 filmstrips and records prepared and narrated by working professionals in ten different fields of art.)
Career Information Packet.
College and University Listing.
Making a Living At Art, William K. Reid, Jr.
Speakers-both specialists in a single field and specialists in the general field of careers.

EXPECTED OUTCOMES

1. The students will demonstrate understanding of the nature of one or more careers in art through class discussion, including required training, pay scale, and local job opportunities.

2. Students will begin to compile a portfolio of their work, which will be of use as admittance to art schools and university art programs, or which will serve as an aid in obtaining jobs in the art field.

CAREER UNIT OUTLINE

DEPARTMENT Art GRADE ___

COURSE Ceramic I and II TEACHER Dorsett

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 3 Demonstrate beginning competencies needed to obtain and maintain employment and to progress in the world of work.

No. 4 Explore occupational cluster areas, noting key occupations and educational requirements, economic implications, required skills, and job opportunities related to occupations.

ACTIVITIES

Each student will:

Study units on various artists, skill refinement and exposure to various aspects of ceramic art (see functional vs decorative). Possible visitations and exposure to as many ceramic institutions as possible. Students will begin a slide portfolio of their works for future use.

RESOURCES

1. Visits from successful potters and field trips to shows.
2. Histo , and employment opportunity literature from commercial potteries.
3. Films and literature on ceramic artists of U.S. and other countries and the markets for their wares.

EXPECTED OUTCOME

The student will be aware of the market outlets and opportunities for sale of his products if he decides to be an independent ceramist. He will be aware of the skills and knowledge he needs to be considered for employment in a commercial pottery.

CAREER UNIT OUTLINE

DEPARTMENT Art GRADE ___

COURSE Crafts TEACHER Keuling

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

No. 3 To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

STUDENT OBJECTIVES

No. 1 Demonstrate self-awareness by identifying his major abilities, interests, values and achievements.

No. 2 Relate his abilities, interests, achievements, personal values and influence of others' values to occupational areas.

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations.

ACTIVITIES

Individualized activities in the various fields and techniques of fabrics. (All facets of weaving, twining, macrame, batik, tie & dye, stitchery, rug hooking, vegetable dye, and spinning)

RESOURCES

Listing of available art careers in Tallahassee:
- Name of business
- Address & phone number
- Art techniques utilized in the business
- Schools attended by business people
- Salary (low, average, high) usually earned by those in the business
- Availability of part-time, summer, permanent jobs for students.

Listing of colleges/universities that have outstanding art departments.
Areas craftsmen--guest speakers (demonstrations).
Field trips--to observe either process or products.
Resource materials found in guidance department.
School catalogs found in room and guidance department.

EXPECTED OUTCOME

1. Students completing the course in crafts can be semi-proficient in areas that could become a career/profession or hobby. The number of self-supporting craftsmen growing (locally and nationally). It is not unreasonable to assume that students could go into this field upon graduation from high school although further apprenticeship would be advisable.

2. The crafts are utilized in the teaching profession-college/university education is readily understood as essential in this career.

3. Students not only learn certain areas of crafts (individualized work-- according to student interest) but also learn a great amount of responsibility. Students work in a free and open atmosphere included in instructor's personal teaching philosophy and have to learn to accept work instead of "playing around."

BUSINESS EDUCATION

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 10, 11, & 12

COURSE Bookkeeping I TEACHER Maxine Deal

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher education relative to their career choice.

STUDENT OBJECTIVES

No. 8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher education training relative to his career choice.

ACTIVITIES

Each student will:

1. Study double-entry bookkeeping
2. Learn basic accounting principles that he can then adapt to changing techniques and tools.
3. Learn from simple to complex--broad training for career.
4. Complete two business simulation sets which have been developed and refined to give the student the feeling of actual experience in realistic business situations.

RESOURCES

1. Text--Century 21 Accounting
2. Dictionary of Accounting Terminology
3. Two Business Simulation Sets
4. Transparencies
5. Accounting Wall charts
6. Filmstrips with sound
7. Income tax kit
8. Social Security kit
9. Field trips
10. Monograph 92--"Audio-visual Aids for Business, Economics and Distributive Education."

EXPECTED OUTCOMES

1. The student will be able obtain and maintain a simple bookkeeping position.

2. The student will be able to comprehend the transition fr manual and machine accounting to automated accounting.

3. The student will be able to apply the write-it-once pri ciple to an authentic, widely used pegboard payroll syst

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 11-12

COURSE Business English & Commun. TEACHER Ingram

SCHOOL OBJECTIVE

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements, and relate these to a tentative career choice.

STUDENT OBJECTIVE

No. 1 Demonstrate self-awareness by identifying his major abilities, interests, values, and achievements.

ACTIVITIES

1. Student will compile information concerning his education, work experience, health, etc.
2. Student will analyze past achievements or failures in class or social organizations, interests, talents, hobbies.
3. Student will evaluate his own personal characteristics.
4. Student will write, from the information in item 1-3, a biographical profile on himself.

RESOURCES

1. School records
2. Medical records
3. Information from parents
4. Former employers
5. Personality Inventory (A 5-page hand-out)
6. Introversion-Extroversion Test (1-page hand-out)

EXPECTED OUTCOMES

1. Student will understand himself better.
2. Student will decide what type of job his education, experience, and personality will be best suited.
3. Student will have information about himself readily available when he is ready to apply for a job and complete a personal data sheet (resumé).

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE _____

COURSE Business Law TEACHER Portz

SCHOOL OBJECTIVES

No. 2 To provide opportunities to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations.

ACTIVITIES

Each student will:

1. Study a list of careers related to real estate and real estate law, specifically: broker, salesman, office worker, appraiser, property clerks, etc.
2. Examine and complete mock legal forms required.
3. Research the careers selected, exploring the nature of the occupation, the educational requirements, economic implications, required skills, and job opportunities.
4. Write a report on career selected.
5. Participate in class discussions and class reports.

RESOURCES

1. Speakers from as many areas as practicable
2. Legal forms
3. Field trip to real estate office
4. Classified real estate ads
5. Field trip to records division, Real Property Section of County Courthouse
6. Instructor-TCC Real Estate Salesmanship Course to discuss educational requirements, etc.
7. Films: Presenting Yours Sales Case Convincingly
   Selling as a Career
   Salesmanship: Career Opportunities
8. Business Careers Kit
9. "Law in Business" (Color Transparencies)

EXPECTED OUTCOMES

1. The students will be able to identify key occupations in real estate and real estate law.

2. The students will be able to state the nature of the occupations, the educational requirements, economic implications, required skills, and job opportunities for each of the careers discussed.

3. The students will develop career awareness, economical awareness and self-awareness.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE _____

COURSE Business Math TEACHER Portz

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements, and relate them to a tentative career choice.

STUDENT OBJECTIVES

No. 1 Demonstrate self-awareness by identifying his major abilities, interests, values and achievements.

No.2 Relate his abilities, interests, achievements, personal values and influence of others' values to occupational areas.

ACTIVITIES

Each student will:

1. Prepare banking forms (deposit slips, reconciliations, check endorsements, savings deposit slips, etc.).
2. Perform mathematical computation needed in banking careers.
3. Complete student activity kit, "Paying by Check".
4. Participate in discussions about student experiences in banks, different jobs performed by banking personnel, necessity of emotional stability in banking careers, etc.
5. Prepare and present report on various careers found in banking: teller, cashier, officer, guard, clerk, bookkeepers, etc.

RESOURCES

1. Filmstrips: "Bank Reconciliation", "Interest-Borrowing and Investing", "Proper Handling of Checks", "The Credit Union", "The Bank Loan", "Money and Banking", and "Your Career in Banking"
2. Field trip to bank and teachers' credit union
3. Resource people from bank
4. Booklet: Everybody's Money
5. VIEW script on "Bank Teller"
6. Films: Banking: A Career for Today and Tomorrow
   Banking: An Opportunity for You

7. Booklet: Careers in Banking

8. Student Activity Kits, "Fundamentals of Basic Mathematics"

9. Filmstrip (sound), "Just a Teller"

EXPECTED OUTCOMES

1. Students will recognize own individual skills, competencies, particular fitness for career banking.

2. Students will develop career awareness, economical awareness, educational awareness and self-awareness.

3. Students will have determined the educational requirements, economic implications and job opportunities in banking careers.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 10, 11, 12

COURSE Consumer Economics TEACHER Maxine Deal

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications required skills and job opportunities related to occupations.

ACTIVITIES

1. Identify career opportunities in the following areas covered in the consumer economic course.
   A. Investment and banking
   B. Marketing--buying and selling
   C. Advertising
   D. Insurance
   E. Real Estate
   F. Law

RESOURCES

1. Career files in the Guidance Department
2. Career information in Library of Leon High
3. Speakers from various fields mentioned in activities
4. Films and film strips available at Leon and Media center
5. Free information supplied by banks, investment houses, and insurance agencies

EXPECTED OUTCOMES

1. The students will better understand the many jobs opportunities open to them in the various fields surrounding consumer economics.
2. The student perhaps might make a tentative career choice.
3. The student will be able to identify key occupations in the various fields of his/her choice.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 11-12

COURSE Cooperative Business Education (CBE) TEACHER Ingram

SCHOOL OBJECTIVE

No. 3 To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

STUDENT OBJECTIVES

No. 6 Develop specific employability skills needed to obtain and maintain employment.

ACTIVITIES

Each student will:

1. Prepare a biographical profile on himself as background material before seeking employment.
2. List sources of job placement information.
3. Write a letter of application.
4. Complete a standard printed application form.
5. Prepare a personal data sheet (resumé).
6. Write a paper on employment interviews, including questions employers would probable ask, proper dress, proper grooming for interview, etc.
7. Participate in role-playing interviews in classroom.

RESOURCES

1. Guest interviewer
2. Secretarial Office Procedures, 8th Edition, Meehan, Oliverio, Pasewark (South-Western Publishing Co.)
3. How to Find and Apply for a Job, Keily & Walters (South-Western Publishing Company)
4. A Career in the Modern Office, No. 4 "Getting the Right Job," Morrision (Gregg Publishing Company)
5. Seven Keys to Getting and Holding a Job, Lyons & Martin Gregg Publishing Company
6. Helpful Hints for Choosing a Career, Southern Bell Telephone Company
7. You and Your Job, Blackledge, Blackledge, and Keily, South-Western Publishing Company

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE

COURSE General Business - Money, Credit and Banks TEACHER Bonis

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to exlore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

After studying the unit, students will:

1. Understand that money is a tool that facilitates trade.
2. Understand that money is anything generally accepted in exchange for goods, services, or debts.
3. Understand that credit has both advantages and disadvantages.
4. Through his use of credit, a person establishes a credit rating which becomes a matter of record.
5. Understand the personal, social, and business services that a bank renders in the community.
6. Develop the ability to make intelligent use of checking account services, and other ways of making money payments such as special checks, money orders, and telegram

ACTIVITIES

1. The class will have a barter day. Each students will bring something to trade.
2. Transparencies will be used to illustrate the functions of money and the travels of a check.
3. Students will discuss the three C's of credit - Character, Capacity, Capital.
4. Bulletin board display of forms used in opening and using a checking account.
5. Students will prepare signature cards, deposit tickets, write checks, and reconcile bank statements.

6. Volunteers will participate in skits.

7. Showing of filmstrips: "Using Bank Services", "Using Credit", and "Just a Teller"

RESOURCES

1. Speaker - Special detective from Police department - Lecture and demonstration on counterfeit money

2. Field trip to and/or speaker from bank

3. Selected filmstrips and films

4. Periodical - Everybody's Money, Fortune, and other current magazines

5. Newspaper and magazine clippings

EXPECTED OUTCOMES

1. The students will understand that the real value of money is its purchasing power, or what it will be able to buy.

2. The student will be able to make a wise choice in selecting credit on the basis of its advantages and disadvantages.

3. The student will be able to demonstrate the procedures for opening a bank account, making a bank deposit, writing checks, and reconciling a bank statement.

4. The student will have an understanding of the duties and functions of a bank employee.

5. Students will have an understanding of the use of other forms of money payments, such as bank money orders, cashier 's check, certified check and the telegram.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 11 and 12

COURSE Office Machines TEACHER Helen Kelly

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 8 Develop occupational/academic skills needed for entry-level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Follow a class rotation plan to gain understanding of the following office machines: rotary calculator, printing calculator, display electronic calculator, printing electronics calculator, ten-key adding machine, full-bank adding machine, voice writer, posting machine, executive typewriter, and fluid and mimeographing machines.

2. Learn to "patch" a stencil, prepare a 4-page mimeographed program, and an 8-page master-copy program.

3. Improve his knowledge of business mathematics through problem application on the office machines.

4. Increase his knowledge of business terms and forms and apply to the operation of the office machines.

RESOURCES

1. Singer Filmstrips on "Office Machines", Leon High School Media Center

2. Divisumma 24--Printing Calculator--Underwood Corporation

3. Office Machines Course, Adding and Calculating Machines, 3rd edition, South-Western Publishing Co.

4. Office Machines Course, Adding and Calculating Machines, 4th edition, South-Western Publishing Co.

5. Machine Accounting for Accounts Receivable—Monroe International, Inc.
6. Transcription Skills for Word Processing, IBM Executary Dictation Equipment
7. Machine Transcription in the Modern Office, Lanier Business Products
8. Dictation for Tomorrow's Secretary, Lanier Business Products

EXPECTED OUTCOMES

1. The student will be better equipped to secure entry-level job through his acquaintance with office machinces found in the classroom.
2. The student will gain a knowledge of office procedures, terms, and fundamentals.
3. Student will strengthen his business mathematics background. This should prove beneficial for an employment test or job placement.
4. The course should prove to be beneficial for a career choice.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE _____

COURSE Office Procedures TEACHER Helen Kelly

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

No. 3 To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

STUDENT OBJECTIVE

No. 3 Demonstrate beginning competencies needed to obtain and maintain employment and to progress in the world of work.

No. 6 Develop specific employability skills needed to obtain and maintain employment.

No. 8 Develop occupational/academic skills needed for entry-level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Try to create an awareness of the needed personal qualities to obtain and be successful in an office position.
2. Gain a knowledge of filing and records control.
3. Be exposed to the proper procedure for obtaining a job including proper job sources, the interview and application, and the follow-up of an interview.
4. Learn proper telephone courtesy and etiquette.
5. Have an understanding of business letter placement, stationary, and office supplies.
6. Study the various career choices in the business office.
7. Develop an understanding of the financial forms found in an office.

RESOURCES

1. Text--Secretarial Office Practice, South-Western Publishing Co.

2. Today's Secretary--Magazine

3. Personality Development for Business, South-Western Publishing Company

4. Charm, Gregg Publishing Co.

5. Business Filing and Records Control--South Western Publishing Co.

6. Film: Careers in Business and Office Occupations, Florida State Department of Education

7. Filmstrip: "Secretary in a Changing Business World", Leon High School Media Center

8. Reference Manual for Stenographers and Typist--South-Western Publishing Co.

9. Films: How to Lose Your Best Customers Without Really Trying
I Rather Like You, Mr. Bell
If an Elephant Answers Local Telephone Co.

10. Films: Choosing a Job, Just a Secretary, The Secretary: A Normal Day, and Applying for a Job from the Leon County Media Center

11. Guest Speakers: Jan Knofp from Capital City First National Bank on money management and Heather Brooks on communications

12. Filmstrip: "Filing Procedures in Business" Leon County Media Center

13. Field Trips: Telephone Company, IBM Corporation

EXPECTED OUTCOMES

1. The student will develop employment skills which should prepare him for initial employment in an office.

2. Students will develop a self-awareness of those personal qualities that are necessary for successful office employment.

3. Students will become aware of the requirements for job placement and will prepare themselves with the techniques necessary to secure employment.

4. Students will gain a more thorough understanding of the economics of the world of work.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 10-12

COURSE Recordkeeping TEACHER Edith Mathews

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced training or higher level education relative to their career choice.

STUDENT OBJECTIVE

No. 8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

The student will:

1. Study the place of recordkeeping in the business world--its importance, qualifications required, opportunities for advancement.
2. Practice good penmanship and compare and arrange names, addresses, and numbers.
3. Write checks and reconcile checkbook balances with bank statements.
4. Keep family budget records.
5. Make entries of sales and purchases of merchandise for cash and on account.
6. Make entries of cash receipts and payments and keep petty cash records.
7. Keep payroll records.
8. Keep records for a small retail business.

RESOURCES

1. Textbook, workbooks, and practice sets
2. Films and filmstrips
3. Guest speakers when available

EXPECTED OUTCOME

The students will understand the need for recordkeepers, the skills and personal qualifications needed for successful employment, and be prepared to obtain and hold a job involving simple clerical recordkeeping.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE 11 and 12

COURSE Personal Typewriting TEACHER Helen Kelly

SCHOOL OBJECTIVES

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

No. 7 Identify the relationship between academic training (general background and basic skills courses) and career opportunities/preparation.

No. 8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Gain a mastery of touch typing and keyboard control.
2. Learn the parts of the typewriter.
3. Attempt to build typing speed and accuracy.
4. Gain a mastery of word division.
5. Type business letters and simple tabulations.
6. Learn the fundamentals of erasing.
7. Learn to type manuscripts which will benefit him in a post-high school situation.
8. Type a letter of application and a personal data sheet.
9. Type some problems that will benefit him in a personal or business situation, e.g. a legal form, minutes, resolutions, etc.

RESOURCES

1. Text--Personal and Professional Typing--South-Western Publishing Co.
2. Keyboard Charts
3. Typing rhythm records--located in the Department
4. Timed Writing About Careers--South-Western Publishing Co.
5. Basic Typewriting Drills--South-Western Publishing Co.
6. Typing Power Drill, 2nd edition, McGraw-Hill Book Co.

EXPECTED OUTCOMES

1. The student will gain an insight to the business world. For academic students, this may be their only introduction to business while in the high school situation.

2. A career choice may be determined through this introduction to business.

3. Employability skills should be gained.

4. Academic preparation is strengthened as the student will learn to type manuscripts.

5. Employability skills will be gained through the typing of applications and personal data sheets.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE

COURSE Shorthand I TEACHER Dorothy Turner

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVE

No. 8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Study the Gregg shorthand system.
2. Read and write from outlines in textbook and from dictated notes.
3. Take dictation at varied speeds from records, tapes, and teacher.
4. Transcribe at typewriter from shorthand notes.
5. Apply English skills in transcription.

RESOURCES

1. EDL Skill Building Filmstrips
   Set B--Beginning Reading
   Set C--Advanced Reading
2. Dictation tapes--Gregg and Dictation Disc
3. Records--Dictation Disc, Steno Disc, and Gregg Student Dictation Practice Records
4. Gregg Shorthand Transparencies-Theory/Review
   Gregg Shorthand Transparencies-Transcription Techniques
5. Reference Books
   Reference Manual for Office Personnel
   Reference Manual for Stenographers and Typists
   20,000 Words

EXPECTED OUTCOMES

1. The student will develop speed in taking dictation.
2. The student will develop the ability to transcribe accurately from shorthand notes at the typewriter.
3. The student will be able to master the dictation-transcription skill sufficiently to obtain and maintain employment or determine that he/she needs additional skill development.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE 11-12

COURSE Shorthand II TEACHER Dorothy Turner

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or high level education relative to their career choice.

STUDENT OBJECTIVE

No. 4 Explore occupational cluster areas, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations.

ACTIVITIES

1. Identify a list of careers in the stenographic-secretarial cluster.

2. Provide knowledge in the stenographic-secretarial careers by exploring the educational requirements, economic opportunities, skills required, and employment opportunities.

RESOURCES

1. List of careers in the stenographic-secretarial cluster will be provided for each student.

2. Use the following filmstrips (located in either the County or Leon High School Media Center):

   "The Secretary in a Changing Business "
   "Just a Secretary"
   "The Secretary: A Normal Day"
   "The Secretary: Taking Dictation"
   "The Secretary: Transcribing"
   "The Secretary As A Receptionist"
   "Requirements in the World of Jobs"
   "Achieving Success in the World of Jobs"

3. Use business education periodicals--Today's Secretary, PS for Private Secretaries, Journal of Business Education

4. Brochures and pamphlets. (Money will be needed for postage to order brochures and a small charge for others.)

5. Field trips and shadowing

6. Speakers--lay citizens employed in various positions within the stenographic-secretarial cluster and a speaker from the Florida State Employment Service to discuss job opportunities

EXPECTED OUTCOMES

1. Student will have a better understanding of educational requirements, skill requirements, economic expectation, and job opportunities for the career in the stenographic-secretarial cluster.

2. The student thinks about her own career and makes a tentative choice or commitment to a career.

3. Student will be better able to determine whether she has the ability to perform the skills for a successful career in the stenographic-secretarial cluster.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 9-12

COURSE Typewriting I TEACHER Helen Kelly

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVE

No 8 Develop occupational/academic skills needed for entry-level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Gain a mastery of touch typing and keyboard control.
2. Learn the parts of the typewriter.
3. Attempt to build typing speed and accuracy.
4. Gain a mastery of word division.
5. Type business letters and simple tabulations.
6. Learn the fundamentals of erasing.

RESOURCES

1. Text--20th Century Typewriting, 9th ed., South-Western Publishing Co.
2. Typing transparencies to correlate with the above text--South-Western Publishing Co.
3. Keyboard Charts
4. Typing rhythm records---located in the Department
5. Film: Elementary Typing--Leon County Media Center
6. EDL typing skill building filmstrip--Leon H.S. Media Center

EXPECTED OUTCOMES

1. The student will learn the proper use of the typewriter and develop the proper system of touch typing which should provide the basis for entry-level competency.
2. The student will learn office terminology and business letter writing which should benefit him for any career choice.
3. The student will gain insight to the world of business.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADES 9-12

COURSE Typewriting II TEACHER Helen Kelly

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

No. 3 To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

STUDENT OBJECTIVE

No. 3 Demonstrate beginning competencies needed to obtain and maintain employment and to progress in the world of work.

No. 8 Develop occupational/academic skills needed for entry-level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

Each student will:

1. Gain a knowledge of basic office forms, supplies, and materials.
2. Learn to type manuscripts which will benefit him an an office situation or in a higher educational setting.
3. Have an introduction to typing problems that will help him gain job-entry skills; should prove profitable to him if he decides to continue his education beyond the high school, and be valuable in a personal-typing situation.
4. Learn to "cut" a stencil and prepare a master copy for fluid duplicating.
5. Continue his knowledge of the proper typing and preparation of business letters.
6. Type a letter of application and a personal data sheet.

RESOURCES

1. Text--20th Century Typewriting, 9th ed., South-Western Publishing Co.
2. Typing transparencies to correlate with the above text--South-Western Publishing Co.

3. Keyboard Charts
4. Typing rhythm records--located in the Department
5. Letterhead Display--Haverhill Paper Co.
6. "The Art of Duplication," A.B. Dick Co.
7. Timed Writings About Careers--South-Western Publishing Co.
8. Film: Impressions, I.B.M. Corporation
9. EDL typing skill building filmstrips--Leon H.S. Media Center

EXPECTED OUTCOMES

1. This course should help the student in his determination of a career choice.
2. The student should become familiar with business forms and terminology.
3. The student would gain job-entry skills which should prove beneficial for immediate or later-date employment.
4. The student should be able to apply his typing knowledge vocationally or for a personal-use situation.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE _____

COURSE Typing II TEACHER Edith Mathews

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

After typing a variety of assignments students will:

1. Refine and develop a high degree of skill in typing various styles of business letters, office forms, memorandums, and other special applications.

2. Strive for accuracy in typing "mailable" materials, as measured by office standards.

3. Increase knowledge and responsibility for proper care of the typewriter.

ACTIVITIES

1. Students will type drills, straight copy and business applications to determine remedial instruction, (if needed).

2. Students will be "employed" by a company through use of a practice set with a wide variety of jobs.

3. Office style typing assignments will include problems for typing in legal, technical, medical, sales, executive and other offices. A refinement of duplicating skills will also be included.

4. Students will take an employment test.

RESOURCES

1. Twentieth Century Typewriting 9th ed., will be used for all typing assignments except the practice set; Practice Set--Top Music--South-Western Publishing Co.

2. Transparencies correlated with the text will be used for demonstrations and reinforcement in presenting materials.

3. Films and filmstrips will be shown, including Write at the Typewriter, by IBM.

EXPECTED OUTCOMES

1. Students will demonstrate ability to do production typing under pressure.

2. Students will complete the "jobs" in the practice set using a variety of business and office forms.

3. Students will demonstrate a high level of performance typing the assignments, with minimum of directions and supervision.

CAREER UNIT OUTLINE

DEPARTMENT Business Education GRADE _____

COURSE Typing III TEACHER Edith Mathews

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

No. 3 To provide opportunities for students to develop employability skills necessary to obtain and maintain employment.

STUDENT OBJECTIVE

No. 6 Develop specific employability skills needed to obtain and maintain employment.

No. 8 Develop occupational/academic skills needed for entry level employment, advanced occupational training or higher educational training relative to his career choice.

ACTIVITIES

The student will:

1. Type letters of application and personal data sheets.
2. Type timed writings and manuscripts containing information about job interviews, employment requirements, and attitudes necessary to success in a business office.
3. Type various styles and sizes business letters.
4. Address envelopes
5. Observe good practices in the use of the typewriter and good working habits and attitudes on the job through films and filmstrips.
6. Take tests comparable to tests given to qualify for employment.

RESOURCES

1. Textbook, printed business forms, films and filmstrips
2. Drill books, tests

EXPECTED OUTCOME

1. The student will be able to produce typewritten letters, forms, and reports that will be acceptable for use in a business office.

DCT

CAREER UNIT OUTLINE

DEPARTMENT Diversified Cooperative GRADE _____

COURSE DCT TEACHER Rosemary White

SCHOOL OBJECTIVE

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVE

No. 4 Explore occupational cluster area, noting key occupations and the educational requirements, economic implications, required skills and job opportunities related to occupations; and relate his abilities, interests, achievements, personal values and influence of other' values to occupational areas.

ACTIVITIES

Each student will prepare a research paper containing information about the job he is currently employed in. They will find out just where in the occupational cluster their particular job fits; find out what skills they are presently learning that can be transferred to other jobs in that cluster; what jobs in that cluster would be of more interest to them and for which they would have the abilities needed to be successful. They would also research employment possibilities in the local areas, on a statewide basis and on a national basis.

RESOURCES

Occupational cluster information provided by Career Education, school and county
Dictionary of Occupational Titles
VIEW
Job supervisors or employers
State statistical information
Encyclopedias

EXPECTED OUTCOMES

1. Will identify and explore other occupations within cluster.
2. Will relate personal abilities, interests and values to occupations within a cluster.
3. Will be more knowledgeable in respect to decision-making regarding a possible career.

----------PAGES 59 - 140 OMITTED----------

SOCIAL STUDIES

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADES 11-12

COURSE Comparative Systems TEACHER Norman Bond

SCHOOL OBJECTIVE

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

STUDENT OBJECTIVES

No. 1 To demonstrate self-awareness by identifying his major abilities, interests, values and achievements.

No. 2 Relate his abilities, interests, achievements, personal values and influence of other's values to occupational areas.

No. 7 Identify the relationship between academic training and career opportunities/preparation.

ACTIVITIES

Each student will:

1. Research "Jerry Voorhis Campaign" to discover what goes into an election campaign, on the national level.
2. Research "Wes Ulhman Campaign" to discover any differences in what makes an election campaign on the state level.
3. Analyze the document "What Makes a Good Senator".
4. View the film The Story of an Election to discover the preparation (personal) and values of candidates.
5. Be tested on "My Preparation for Public Office" demonstrating his understanding of the necessary abilities, interests, and the necessary academic training to develop these skills and abilities.

RESOURCES

1. Film: The Story of an Election
2. Text: Comparative Political Systems, which reveals the necessary preparation and interests for holding public office
3. Guest Speaker (Elected Officials, as available)

EXPECTED OUTCOMES

1. The student will be able to identify his abilities in relationship to a possible career choice.
2. The student will be able to state the nature of the occupation of public office holder, the educational requirements, economic implications, required skills, and job opportunities for a public office holder (elective).

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADES 10-12

COURSE Ethnic Studies TEACHER

SCHOOL OBJECTIVE

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

STUDENT OBJECTIVES

1. To help students to understand themselves and other people.
2. To identify the relationship between a study of different ethnic groups and the types of jobs available to help minorities become contributing members to the majority society.
3. To provide each student with the philosophy that has a meaningful, practical significance as he prepares for his future.
4. To help each student learn how to work with and understand groups of people that may be different from him.
5. To help some students develop a deep interest in the careers that are specifically designed to help others.

ACTIVITIES

Each student will:

1. After deciding what needs groups of immigrants had upon reaching America, decide what jobs would best help the immigrants meet these needs.
2. Research a helping career of his choice, including what education is needed, pay, training, future opportunity, as well as what part of the country would have the most need for these types of positions.
3. Present his findings orally to the class, after which there will be a class discussion.

Outside speakers will be invited to talk about some of the various careers (i.e., immigration agent, traveler's aide; passport clerk, interpreter, etc.).

RESOURCES

1. Speakers-(above, and occupational specialist and counselor)
2. Library
3. Media--films and news

EXPECTED OUTCOMES

1. The student will be aware of the various careers available in the area of social services for all types of people.

2. The student will think about his or her abilities and the qualifications they must have to work in people-oriented jobs.

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADE

COURSE Psychology TEACHER Copeland

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interest, achievements and relate these to tentative career choice.

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

1. To help students to understand themselves and other people.
2. To help each student to identify individual abilities, interests, and priorities.
3. To provide each student with the knowledge of the various fields of psychology.
4. To provide each student with the theory that has meaningful and practical significance for the student as he prepares for his future role.
5. To help each student learn how to face the stress and conflict in everyday living.
6. Hopefully, to stimulate students into further study of psychology and into a related career.

ACTIVITIES

1. Teach a unit on careers available in psychology.
2. Have each student explore one career.
3. Research this career as to what education is needed, ability to find jobs, pay, future opportunity, and growth.
4. Class discussion after report is presented to class.
5. Have outside speakers come in and talk about profession and demonstrate their work; for example, testing.
6. Visit certain institutions; example, Mental Health Center.
7. Explore possible volunteer work.

RESOURCES

1. Library
2. Resource personnel

EXPECTED OUTCOMES

1. The student will be aware of the various careers available in psychology.
2. The student will be aware of how important good mental health is to any career choice.

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADE ____

COURSE Sociology TEACHER Hodges

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

No. 2 To provide opportunities for students to explore occupational clusters and develop occupational/academic skills needed for entry level employment, advanced occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

To introduce and explore career and job opportunities and educational qualification in the fields related to Sociology-(Social Work, Criminology, Marriage and Family Counseling, Drug Rehabilitation, Demography, Poll Research, Public and Mental Health, and Retardation.)

ACTIVITIES

Various college and university catalogs will be studied to determine the various qualifications and to ascertain which of the fields above are offered at which institutions.

Make a class study through reading, films, library research, and discussions to explore items involved and see where each student's main interests lie-- To see if any of the above are what the student desires as a career.

Visits to local social agencies and/or speakers from each of the following: Mental Health Clinic, Red Cross, Sunland, Easter Seal Therapy Center, Candle of Hope School, and the Family Welfare Unit to give the students a realistic overview of possible careers in this general area. Volunteer work in any of the agencies to see if student could envision this as a lifetime career.

RESOURCES

Catalogs
Pamphlets from H. E. W.
Career pamphlets in Guidance Office
Lengthy lists of texts and paperback books available on request from various publishers about each of the main fields listed above.

EXPECTED OUTCOME

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADE

COURSE World's Great Religion TEACHER N. E. Booth

SCHOOL OBJECTIVES

STUDENTS OBJECTIVES

ACTIVITIES

During question and answer time of guest religious leaders, one of the questions will be - HOW CAN YOU PREPARE TO BECOME A "MISSIONARY, MINISTER, PRIEST, RABBI, etc." This questions may be modified to fit the occasion.

RESOURCES

EXPECTED OUTCOME

CAREER UNIT OUTLINE

DEPARTMENT Social Studies GRADE _____

COURSE World History TEACHER _____

SCHOOL OBJECTIVES

No. 1 To provide opportunities for students to develop self-awareness by identifying their major abilities, values, interests, achievements and relate these to a tentative career choice.

No. 2 To provide opportunities for students to explore occupational/academic skills needed for entry level employment, advancement occupational training or higher level education relative to their career choice.

STUDENT OBJECTIVES

1. To expand the students' knowledge of the magnitude of the working world, especially as related to World History.

2. To change students' ideas about the relative importance of various occupations through the use of historical evidence.

3. To make students aware of the importance of every occupation.

4. To develop within the student attitudes and values necessary for work success.

5. To show students that it is possible to overcome obstacles to achieve personal fulfillment.

ACTIVITIES

1. Debates:
   a. Help students strengthen attitudes, values, beliefs.
   b. Value of expressing thought logically.
2. Role Playing
   a. Humanistic value--working with and understanding different roles in life.
3. Simulation Games
   a. "Middle East Game"--simulated decision-making, pressure, power, frustrations of world situations.
4. Outside Speakers
   a. Professionals from history-related occupations
5. Field Trips
   a. To observe history-related occupations in action--legislature, archaeological dig sites, museums, architecture.
6. Outside Reading:
   a. To emphasize broad range of history-related occupations through writings, both fiction and non-fiction.

7. Demonstrations
   a. Engineering principles from history
   b. Military strategy
   c. Music and art as expressions of the life and times.

RESOURCES

EXPECTED OUTCOMES

V. APPENDIXES

A. EXCERPTS FROM THE LEON HIGH SCHOOL COMPREHENSIVE PLAN

B. EXPENDITURES FOR LEON HIGH SCHOOL RESOURCE MATERIALS AND IN-SERVICE PROGRAMS

LISTING OF CAREER EDUCATION MATERIALS PROVIDED BY CAREER EDUCATION PROJECT - JULY 1973-JANUARY 1975

C. LEON HIGH GUIDANCE

APPENDIX A

EXCERPTS FROM THE LEON HIGH SCHOOL COMPREHENSIVE PLAN

EXCERPTS FROM
LEON HIGH SCHOOL COMPREHENSIVE PLAN
1973-74

I. Philosophy/Goals

A. Philosophy

We believe in the potential worth of each individual and his right to mature as a whole person in order to become a self-supporting, self-respecting contributing member of society.

We believe that the student should be provided learning situations in which he can develop a positive concept of himself in relation to others and acquire the knowledge and understandings essential to intelligent decision making. He should be made aware of his rights and responsibilities for achieving economic security and for participating in governmental processes.

We believe that we should provide a broad range of activities in which the student can evaluate past, present, and emerging values and develop and strengthen values of his own, not under rigid instruction but in freedom to react intelligently while pursuing his own goals.

In keeping with these beliefs and in consideration of opinions expressed by parents, teachers, administrators, and students the school goals have been developed.

B. Goals

1. Help students learn how to think for themselves and make choices intelligently.
2. Help students prepare for college.
3. Help students acquire skills which they will need to get and hold a job.

II. Long Range Objectives

A. Career Education:

1. All students shall acquire a knowledge and understanding of the opportunities open to them for preparing for a productive life, and shall develop those skills and abilities which will enable them to take full advantage of those opportunities - including a positive attitude toward work and respect for the dignity of all honorable occupations.

B. Activity Period:

1. All students shall develop a concern for moral, ethical and spiritual values for the application of such values to life situations.

2. All students shall aquire the greatest possible understanding of an appreciation of themselves as well as of persons belonging to social, cultural and ethnic groups different from their own, and of the worthiness of all persons as members of society.

3. All students shall develop skill in interpersonal and group relationships and shall recognize the importance of and need for ethical and moral standards of behavior.

III. Status Description

A. Career Education

1. A Planning and Coordination Committee shall be organized to develop a master plan for implementing career education at Leon High School which is consistent with the District Career Education objectives.

2. The career education plan for Leon High School will include the eight components as adopted by the Leon District Schools Career Education Project.

B. Activity Period:

1. An activity period has been started and students are allowed to choose from available activities what they want to participate in.

2. Limited offerings are available at the present time in the areas of intramural sports, films, service and inter-clubs and enrichment talks.

IV. Derived Needs Statements &

V. Priority Structure Needs

A. Career Education

1. To provide for comprehensive planning and coordination of the project so as to remain consistent with the total school program.

2. To provide an opportunity for career exposure, motivation, orientation and meaningful exploratory experiences to assist students in formulating realistic occupational goals, and to enable them to better relate to the need and purpose of general academic studies.

3. To provide a program geared to student placement in either a job or advanced occupational training or baccalaureate programs as mandated by the Florida Legislature.

B. Activity Period

1. To develop better student-faculty-administration relations.

2. To provide students the opportunity to explore areas of interest during the school day.

3. To involve more students in activities designed to enhance and strengthen their self-concept, positive behavior patterns and concern for others.

VI. Short-Term Objectives and Evaluation Statements.

A. Career Education

1. Develop a written plan for implementing the career education project at Leon High School.

Evaluation: A written career education plan will be completed in the 1973-74 school year.

2. To field test ideas for implementing career education on a pilot scale.

Evaluation: Selected departments or teachers will implement career education components on a pilot basis.

B. Activity Period

1. Funds to support the activity period are to be secured from Leon County School Board.

Evaluation: Budget allocation from Leon County School Board for Leon High School Activity Period 1973-74.

2. Increase student participation in school sponsored co-curricula programs.

Evaluation: Student attendance at school sponsored co-curricula program (activity period) 1973-74.

3. Provide students with a wider variety of in-school experiences which otherwise may not be available to all students.

Evaluation: Listing of the number of activities and student attendance at the activities for 1973-74.

VII. Proposal and Selection of Strategies

A. Career Education

1. Appoint and activate Leon High School planning and coordinating committee for career education with appropriate sub-committees.

2. Select interested departments and/or teachers to field test various career education components on a pilot basis to determine if they will be feasible for implementing on larger scale.

B. Activity Period

1. Submit a proposal to Leon County School Board through the Associate Superintendent for Instruction giving rationale, need, and justification for funds to support the Activity Period.

2. Offer a wide variety of activities based on student interest survey to be developed.

3. Provide one-two periods per two weeks for in-school activity period which will be supervised by teachers sponsoring various activities.

4. Help students improve work habits and study skills.
5. Help students master course content in English, mathematics, science, and social studies.
6. Help students understand themselves and others.
7. Help students learn how to get along with others.
8. Help students master the basic skills of communication and computation.
9. Help students grow in appreciation of art, music, and literature.
10. Help students grow in respect for law and order.
11. Help students learn the functions and problems of government and politics and to practice seeking solutions.
12. Help students learn to distinguish right from wrong and guide their actions accordingly.
13. Help students learn the importance of discovering common values.
14. Help students acquire good manners and self-confidence.
15. Help students learn about problems of family life and how to deal with them.
16. Help students learn how to use money wisely.
17. Help students learn the importance of health and the things which contribute to it.
18. Help students learn the importance of physical education and what it may contribute to valuable use of leisure time.

VIII. Implementation and Monitoring Strategies

A. Career Education

1. Implementation will begin with the appointment and activation of career education planning and coordination committee for Leon High School. Monitoring will be by principal, assistant principal for curriculum and Leon District School Career Education Project Director (1973-74)

2. Implementation of the field testing will be done as programs are developed and approved. Monitoring will be completed by the evaluation sub-committee of the school project planning and coordination committee.

B. Activity Period.

1. Proposal for funding to be submitted by principal and school activity period sponsors through the Associate Superintendent for Instruction. Monitoring will be the assistant principal for student activities.

2. Development of a student interest survey by the Assistant Principal for Student Affairs to be administered and results tabulated and used to determine what activities are desired by students. Monitored by the Principal and Assistant Principal for Student Affairs.

3. Principal will set aside one period every two weeks for activities. Monitoring will be with activity sponsors (teachers) and the Assistant Principal for Student Affairs.

4. Activity will be evaluated on basis of student participation monitored by the school administration.

CAREER EDUCATION BUDGET

BUDGET NUMBER	LEON HIGH SCHOOL CURRICULUM COMPONENT	
6	Tools: such as, tool kits, hand tools	$200.00
7	Instructional Manuals	300.00
8	Visual Aids: such as, slides, film strips	400.00
9	Visual Aid Supplies, films, tapes	400.00
10	Learning packages, paper, booklets	1,000.00
		$2,300.00
	GUIDANCE, EVALUATION, PLACEMENT AND FOLLOW-UP	
11	Purchased tests and manuals, printed materials	300.00
12	Tools: such as, tool kits, hand tools	300.00
13	Instructional Manuals	300.00
14	Visual aids: such as, slides, film strips, tapes	300.00
15	Visual Aid Supplies: such as film, tapes records	300.00
		$1,500.00

These funds were provided by the Career Education Project. Funds were allocated by both federal and state source.

APPENDIX B

EXPENDITURES FOR LEON HIGH SCHOOL RESOURCE MATERIALS AND IN-SERVICE PROGRAMS

LISTING OF CAREER EDUCATION MATERIALS PROVIDED BY CAREER EDUCATION PROJECT
JULY 1973-JANUARY 1975

EXPENDITURES FOR LEON HIGH SCHOOL RESOURCE MATERIALS AND IN-SERVICE PROGRAMS

DEPARTMENT	AMOUNT OF PURCHASES
AGRICULTURE	$ 91.40
ART	69.50
BUSINESS EDUCATION	93.15
FOREIGN LANGUAGES	275.25
HOME ECONOMICS	82.50
INDUSTRIAL ARTS	45.00
LANGUAGE ARTS	92.60 + $300 (printing)*
MATHEMATICS	109.54
READING	267.85
SCIENCE	159.18 + $300 (printing)*
SOCIAL STUDIES	142.00
SPECIAL EDUCATION	504.00
	$1931.97
GUIDANCE & GENERAL CIRCULATION	2177.55
	$4109.52
PRINTING	600.00
Sub Total.....	$4709.52
IN-SERVICE PROGRAMS & CURRICULUM WRITING	4964.00
Total.....	$9673.52

*Cost of printing non-copyright materials and curriculum materials developed in summer workshops.

LISTING OF CAREER EDUCATION MATERIALS
PROVIDED BY CAREER EDUCATION PROJECT
JULY 1973-JANUARY 1975

AGRICULTURE		
Calhoun Company-(Film Strips/Records)		$80.00
"Careers in Construction"		
"Careers in Agriculture"		
McGraw-Hill Pub.-(Books-4 copies)		$11.40
Selling Farm and Garden Supply		
	Total	$91.40

ART		
Charles W. Clark Co.-(Film Strips/Cassettes)		58.00
"Careers in the Fine Arts"		
"Arts Careers in Advertising"		
"Careers in Photography"		
Walsh Pub.-(Book-3 copies)		11.50
Famous Cartoonists		
Political Cartoonists		
Careers in Art		
	Total	$69.50

BUSINESS EDUCATION		
Careers, Inc. (Largo)-(Pamphlets- 6 copies)		1.50
"Executive Secretary"		
"Bilingual Secretary"		
"Male Secretary"		
"Secretary"		
"Foreign Service Secretary"		

97

Florida School Book Depository-(Books- 5 sets)	$33.60
A Career in the Modern Office Series	
Opportunities in Today's Office	
Making the Most of Yourself	
Making the Most of Your Skills	
Timed Writing About Careers-(Books- 15 copies)	27.00
Institute for Research-(Pamphlets- 3 copies)	2.85
"Careers As a Court Reporter"	
"Careers for Women as a Private Secretary"	
"Careers As A Legal Secretary"	
South-Western Pub. Co.-(Books- 15 copies)	28.20
Exploring Clerical Careers	
Totals	$93.15

FOREIGN LANGUAGES

American Foreign Language Teacher	
Two-Year Sub. to AFLT	36.90
German Culture Through Performance Objectives	
In Gasthaus-Teacher Unit	
La Salida-Unit Package	
El Reencuentro (3 Copies)	
Gessler Pub. Co.	64.55
La Vraie Cuisine	
Parfait Secretarie	
Que Ferai-Je Plus Tard	
Schulkochbuch	
Monopoly (German)	
Monopoly (Spanish)	
La Cocina Sabrosa Y Practice	

German News Co.	43.00
Die Welt (Newspaper Sub.)	
"Das Beste" (German "Reader's Digest")	
Language Research Press-(Booklets - 10 each)	46.00
Spanish for Hotels and Motels	
Spanish for Retail Selling	
Spanish for Doctors, Dentists, Oculists, Optometrists and Nurses	
Spanish for Homemakers	
Wible Language Institute	$84.80
"Occupations-I"-(Film Strips/German Texts)	
"Occupations-II" "	
"La Oficina"-(Teacher-Student Kits)	
"Las Tiendas" "	
Total	$275.25

GUIDANCE CENTER

FOR USE IN CENTER AND GENERAL CIRCULATION

Academic Paperbacks-(Pamphlets-2 each)	18.00
"A Place to Live"	
" Government Services for Consumers"	
"The Teen-Ager and His Family"	
"Viewing Your Career"	
"Majority at 18"	
"Consumer Purchasing"	
"Health and Leisure"	
"Car Purchase and Maintenance"	
"Dollar Power"	

Achievement Motivation Program

Motivation Advance Program 34.00

Allen Kahn Pub.

My Job Application File-(workbook- 15 copies) 23.40

Ben Borden Co.-(FS/Cassette Kit) 296.00

"Fascinating World fo Work"

Bruce Company-(Booklet- 5 copies) 6.70

My Career Guide

Teacher's Manual

Careers, Inc.(Largo)

Career Desk Top Kit for Seniors 135.00

"Occupational Briefs"-(1 set) 6.00

Changing Times Education Service -(FS/Cassettes, Booklets, Transparencies) 268.00

"Unit I "Deciding What You Want to Do"

"Unit II "Choosing the Kind of Job You Want"

"Unit III "Entering the Job Market"

"Unit IV "Staying With It and Getting Ahead"

College Entrance Examination Board-(Books and Guides) 8.00

Decisions and Outcomes

Deciding

Consulting Psychologist Press, Inc.

Occupational Outlook Handbook-(Books- 9 copies) [illegible]

Self Directed Search Kits-(25 sets)

100 Assessment Booklets

100 Occupational Finders 93.00

Curriculum Innovations, Inc.

Career World-'73-'74 (15 copies/mo.) 44.25

Career World-'74-'75 (30 copies/mo) 88.50

Educational Development Corp.

Career Games Laboratory Kit 81.50

Educator's Progress Service, Inc.

Educator's Guide to Free Guidance Materials (3 copies) 26.25

Florida School Book Depository-(Books- 5 of each) 13.80

How to Get a Job

How to Choose Your Work

General Learning Corporation

Career Education Learning Resource Guide(4 copies)

Career Education In-Service Training Guide(1 copy) 18.00

Guidance Associates-(FS/Cassettes) $162.50

"Dropping Out, Road to Nowhere"

"Changing Work Ethic"

"Which College for You?"

"Setting Goals"

"Shaping Identity"

"Interpersonal Relationships"

"Developing Values"

Harcourt, Brace, Jovanovich, Inc.

"Ohio Vocational Interest Survey" (OVIS) (1 unit) 120.05

Hart Pub. Co., Inc.

Values Clarification (Books- 3 copies) 7.90

Houghton-Mifflin Co.

Career Exploration and Planning-(Text- 1 copy)

Teacher's Manual

Student Workbooks-(15 copies) 26.55

The Assessment of Career Development

Test Booklets-(5 pkgs.)

Answer Sheets-(30 sets) 182.25

McGraw-Hill

Career Maturity Inventory (CMI)

Complete Inventory -(5 pkgs)

Compuscan Answer Sheets-(2 pkgs.) 172.00

Prentice Hall, Inc.

Careers - Exploration and Decisions-(Books- 30 copies) 67.50

Singer Co.

Job Survival Skills Kit- (FS/Cassettes- 13) 182.00

"Introduction"

"Education and Training

102

"From Which Point of View"

"Self-Concept and Employment"

"Communication"

"You and Your Supervisor"

"You and Your Co-Workers"

"Job-Seeking Skills"

"Personal Appearance"

"Resume"

"Application"

"Interview"

"Summarizing"

Systems for Learning (VMI)- (Transparencies/Masters)

"Career Exploration"

"Career Math"

"How to Get a Job"

"Preparing for Interviews" 34.75

Total $2177.55

HOME ECONOMICS

Charles A. Bennett, Inc.

Opportunities in Clothing -(Book) $1.25

Dillon Press

Looking Forward to a Career in Fashion-(Book) 1.25

Pathescope Films- (FS/Cassettes) 80.00

"Careers in Fashion and Textiles"

"Careers in Food Services"

Total $82.50

INDUSTRIAL ARTS

Education Dimensions Co.

"Careers in Drafting" -(FS/Casettes) $45.00

LANGUAGE ARTS

Steck-Vaughn-(Booklets-20 of each) 57.60

Becoming a More Effective Person

Communicating With Others

The Oklahoman and Times

Open Window to the World -(Books- 10 copies) 35.00

Orange County - Non-copyright materials. Cost for duplication only.

1)	Mass Media and You	28 copies
2)	Careers in Social Work	28 copies
3)	Courthouse Careers	28 copies
4)	Newspaper Careers (App. A)	29 copies
5)	Careers in Field of Foreign Language	8 copies
6)	Careers in Music	13 copies
7)	The Newspaper	34 copies
8)	Paragraph Development	84 copies
9)	Careers in Computer Tech.	4 copies
10)	Careers in Sports	44 copies
11)	Journalism	3 copies
12)	Careers in Radio and TV	8 copies

13)	English	80 copies	
14)	Working for a Newspaper (Introduction)	15 copies	
15)	Mass Media	10 copies	
16)	Newspaper Work as A Career	15 copies	$300.00
		Total	$392.60

MATHEMATICS

American Enterprises-(Books- 8 copies)	$40.00
Fun Things for Teaching Career Education	
Mafex Association , Inc.-(Texts- 10 each)	57.54
Mathematics for Employment - Part I	
Mathematics for Employment- Part II	
The Mathematical Association of America-(Booklets-30)	12.00
Professional Opportunities in Mathematics	
Total	$109.54

READING

Fearon, Inc. -(Books- 10 each)	35.00
Jerry Works in a Service Station	
Going Places with a Personality	
What it Takes	
King Features	
Career Awareness Program-(Booklets- 1 unit)	43.55
Relevant Productions, Inc.	
(Reading Booklets, Cassettes, Skill Sheets- 5 modules)	189.30
"Making and Keeping Friends"	
"How to Get and Hold a Job"	

"How to Handle Money"

"Reaching the Age of Responsibility"

"Buying a Car"

Total $267.85

SCIENCE

American Association of Colleges of Pharmacy

"Pharmacy - A Health Career" -(FS/Cassette) $20.00

American Society for Microbiology

Microbiology and Your Future - (Pamphlet- 10) 2.50

B'nai B'rith -(Pamphlets- 6 of each) 18.00

A Career in Biological Sciences

Careers in Pharmacy

Careers in Nursing

Careers, Inc. (Largo) 37.20

Science Career Kit

D.C. Health Co.

Pharmacy: A Synthesis of Science-(Booklets - 2) 4.00

E.P Dutton and Co.

Careers and Opportunities in the Medical Services (Book) 5.95

Fergu son Pub. Co.

Career Opportunities-Health Technicians-(Book) 11.95

Guidance Associates

"People Who Work in Science" -(FS/Cassettes) 37.50

Messner Co. - (Books) 9.08

Careers in the Health Field

Careers in Horticulture Sciences

National League for Nursing, Inc. -(Books- 10 each)	7.50
Education for Nursing: The Diploma Way	
Do You Want to be a Nurse?	
Social Conservation Services- (Booklets - 10)	1.00
A Social Conservation Career For You in Conservation Services	
SRA	
Psychiatric Social Workers -(Booklet - 10 copies)	4.50
Cost of Printing "Career Guides"	300.00
Total	$459.18

SOCIAL STUDIES

Harcourt, Brace, Jovanovich	
"Micro-Economy"- Simulation Game (11/29/'73 & 8/12/'74)	78.00
US Government Printing Office	
We the Americans - The Work We Do Pamphlets	28.00
(11/29/'73 - 70 copies)	
(9/24/'74 - 90 copies)	36.00
Total	$142.00

SPECIAL EDUCATION

Assortment of hand tools, garden implements, construction materials, etc. Total	$504.00

APPENDIX C

LEON HIGH GUIDANCE

Program Objective	State Standard	Suggested Activities	Student Outcomes
1. To provide an opportunity for all teachers to become aware of guidance services offered by the Guidance Department.	P-5.199 Level 2-e	Orientation program for administrators and teachers by departments in guidance suite. Handout material for teachers.	
2. To provide an opportunity for all students to become involved in classroom guidance activities in areas of self-awareness, decision-making and value clarification.	P-5.196 Level 2-a S-5.148 Level 3-a	In service for teachers in the valuing process. Counselor-directed activities. Specific activities planned with complete instructions for teachers' use. Model video tape for study.	
3. To establish an active career education committee to communicate and facilitate better working relationships with faculty and administration and to clarify the role of guidance with emphasis on Career Education.	P-5.199 Level 2-e	Name a representative committee. Set up purposes and meetings. Include parents, Kiwanis members, and students.	
4. To provide current information for all students concerning the	P-5.191	Additional VIEW machine with printer.	

Program Objective	State Standard	Suggested Activities	Student Outcomes
world of work through a career information center in an accessible location to most students, counselors and teachers.		VIEW handouts. Information by clusters and DOT. Audio visual materials. Current periodicals and books.	
5. To assess the interests and aptitudes of all students and provide further individual assessment as needed.		Vocational interest survey to become a part of county testing program for grade 11. ASVAB - for grades 10 and 12. Use Self Directed Search on an individual basis. Explore Scout Survey grades 9-12. Planned follow-up of surveys.	
6. To plan for the implementation of a program of employability skills for 11th graders in classrooms and for target groups of 12th graders.	P-5.191 Level 1-b	Use the transportable model of employability skills and guidance activities developed at Lively and modify as needed. Use of consultants, filmstrips, and printed materials.	

Program Objective	State Standard	Suggested Activities	Student Outcomes
7. To plan and implement a Career Day for all students.	P-5.195 Level 2-a	Use students, parents and the business and professional community to plan and participate in the Career Day activities.	
8. To maintain a placement and follow-up service for all school leavers.	P-5.202 Level 2-a, 2-b	Devise a plan for follow-up at specific times.	
	P-5.200 Level 1-a	Follow county plan for placement using Exit Interview forms.	
9. To involve the community in the guidance program as it relates to careers and placement.		Career Day planning and consultants. Resource people for classrooms. Include the business community in identifying skills needed in jobs.	
10. To establish lines of communication between the home and school to exchange information which will be valuable to the school and parent.	P-5.201 Level 2-a	Newsletters Parent conferences as requested. Parent group involvement.	

Program Objective	State Standard	Suggested Activities	Student Outcomes
11. To identify students for placement in special education and career training programs.	P-5.201 Level 2-a	Follow up of interest surveys. Cooperate with all job training programs and special education for placement to benefit students.	
12. To provide referral services to meet special needs of students.	P-5.198 Level 2-a	Gather information for making referrals to Vocational Rehabilitation Speech therapy Job training Lively program Early college admittance and others.	

APPENDIX B

CAREER GUIDE FOR FOREIGN LANGUAGES -- GERMAN I-IV,
TEACHER'S GUIDE FOR USE WITH STUDENT CAREER UNITS

CAREER GUIDE FOR FOREIGN LANGUAGES

GERMAN I-IV

DEVELOPED BY

BETTY MASON
LEON HIGH SCHOOL FOREIGN LANGUAGE DEPARTMENT

EDITED BY

ELIZABETH CUNNINGHAM
PROJECT ACADEMIC CURRICULUM SPECIALIST

LEON DISTRICT CAREER EDUCATION PROJECT
925 MICCOSUKEE ROAD
TALLAHASSEE, FLORIDA

MR. JAMES C. TALLEY, DIRECTOR

PREFACE

Although Career Education is obviously one of the most dynamic educational innovations in the nation, and gaining momentum daily, it is concurrently a new concept to many in the educational sector.

Innumerable pilot projects are in the process of defining programs and developing materials and activities through which the concept can reach the student in the traditional classroom. Many of the materials produced thus far are of notable quality and have been successfully implemented in existing curricula.

However, there is an apparent dearth of available strategies and materials that can be utilized to fuse Career Education with many of the traditionally academic areas in the secondary curriculum.

For this reason members of the Foreign Language Department of the León District project high school initiated the development of this module.

The module provides a transportable model which can be used to deliver basic foreign language skills by merely substituting the appropriate vocabulary and resource materials. A variety of activities has been developed to enrich the learning experiences of students.

Further, the module fuses the foreign language with several elements of Career Education, including Career Awareness/Exploration, Self Awareness, Decision-Making, Employability Skills and to some extent, Job Preparation.

The materials will be implemented and refined in the following school year.

INTRODUCTION

In past decades students have been told that foreign languages are of use only to college-bound students. This is no longer true.

Many non-professional jobs in this country offer an opportunity for--and often require the use of--a second language. In addition, the world market is open to professional and non-professional people from the United States to fill gaps in other countries. This offers opportunities for work and travel to those who could never afford leisure travel alone. One requirement, however, is that employees have an active knowledge of the foreign language.

Foreign language teachers at every level should learn to work simultaneously with language and Career Education. Combining the two would offer students an interesting and stimulating way of becoming acquainted with available career choices and would make many language courses more relevant to students.

DESCRIPTION OF MODULE

This module is composed of a Teacher's Guide and five Student Units, written in English-German. Each of the units is related to one of the five occupational clusters listed below:

--Business and Office
--Communications and Media
--Health and Related Occupations
--Hospitality and Recreation
--Marketing and Distribution

The Teacher's Guide comprises the first part of the module and includes the following information:

--Strategies for implementing the student units and incorporating related resources such as texts, filmstrips, films, games, newspapers and magazines
--Specific objectives/activities of the Student Units
--Descriptions of contents of each of the five Student Units
--Copies of vocabulary quizzes and answers, in English
--Texts for listing comprehension tests, in German and English
--A complete set of Student Units

The five individualized Student Units all follow the same format, but each addresses a different selected cluster. The units consist of two main sections, the "Learning Activity Package," which is designed to provide the student with basic skills in the target language relative to the occupational cluster unit being studied, and the "Career Research Package," which provides occupational information and activities to assist the student in exploring the career of his/her choice. They contain the following information and activities, with directions for completing the packages:

Learning Activity Package
--List of Selected Occupations
--Basic Vocabulary List
--Multiple Choice Basic Vocabulary Test
--Skit
--Supplementary Vocabulary
--Supplementary Activities

Career Research Package
--Information on Selected Occupations
--Career Exploration Form

All units are designed to be adapted by the foreign language teacher to his/her specific target language.

OBJECTIVES OF MODULE

The following broad objectives are applicable to each student unit and are re-defined as specific objectives in the Teacher's Guide and Student Units:

The student will:

1. Demonstrate knowledge of the selected vocabulary related to the occupational cluster unit being studied.

2. Develop basic employment skills including news/creative writing, translating, drawing, operating audio-visual equipment, and using charts and forms related to occupations.

3. Identify and develop interpersonal communications skills by participating in the production of the prepared skits, and by utilizing the concepts and vocabulary to write an original skit.

4. Develop employability skills by reading "Help Wanted" ads, writing letters of application, writing resumes' and completing application forms in the target language.

5. Complete career research activities related to his choice of selected occupations.

T E A C H E R ' S G U I D E

FOR USE WITH

STUDENT CAREER UNITS -- GERMAN I - IV

TABLE OF CONTENTS

I. IMPLEMENTATION STRATEGIES

II. OBJECTIVES OF STUDENT UNITS

III. DESCRIPTION OF STUDENT UNIT CONTENTS

IV. APPENDIXES
- A. Unit Vocabulary Quizzes
- B. Texts For Unit Listening Comprehension Tests
- C. Career Exploration Form
- D. Resources

TEACHER'S GUIDE
FOR USE WITH
STUDENT CAREER UNITS--GERMAN I-IV

I. IMPLEMENTATION STRATEGIES

It is suggested that all the units in this module be used in conjunction with a textbook. ALM-2nd Edition was used as the basis for developing this module.

--The teacher can adapt the material in each unit for any level of the language by adding to or deleting selected vocabulary or skit items. (Remember to adjust the tests accordingly.)
--The teacher is encouraged to utilize pictures or transparencies of the occupational situations to introduce the vocabulary to the student and to insure correct pronounciation. These can also be used to stimulate discussion after the vocabulary has been learned.
--The teacher should explain and/or review the use of all charts or forms in target language on higher levels.
--The teacher is encouraged to act out the basic skits in class and, if possible, record the skits on video tape.
--The teacher should incorporate any additional foreign language materials into supplementary activities, such as reading and reporting on career-related articles in target language magazines and newspapers.
--If the teacher wishes to give a written test on the unit, it is suggested that she/he provide the student with a picture or set of pictures and ask for a written description.
--The "Learning Activity Package" may be used in the following ways:
-May be used at any time after the career unit has been introduced.
-May be introduced before or after the "Career Research Package."
-May be assigned to students either on an individual basis or in small groups.
-May be used as a reference for planning large-group classroom activities.
--An excellent source of films related to Germany and to careers is the German Consulate (Atlanta, Georgia). The films can be borrowed at no cost, and a list of the films can be obtained on request.

II. OBJECTIVES OF STUDENT UNITS

The following student objectives are developed in each of the Student Career Units, with very little variation. They are repeated in the student's section of this module for the student's information.

The student will -

--Demonstrate knowledge of the occupationally-related vocabulary and unit contents by completing a written and listening comprehension test.
--Interpret and/or complete any assigned forms, charts, etc., related to the career units being studied.
--Participate in the production of skits by either acting, directing, filming, designing props, etc.
--Compose a short skit based on provided conversation stimuli related to the career units.
--Utilize the "Help Wanted" Ads in provided foreign language newspapers to identify job offers related to the career units being studied. (Optional)
--Select an occupation to explore and utilize the provided information to complete the Career Exploration Form for each of the five units.

The student will be evaluated on an objective, percentage basis or a subjective, satisfactory/unsatisfactory basis, depending on the nature of the activity.

III. DESCRIPTION OF STUDENT UNIT CONTENTS

The basic contents of the Student Units were described on Page 3 of this module. A detailed description of the five units is presented on the following pages:

BUSINESS AND OFFICE

The unit on Business And Office consists of:

Learning Activity Package

--List of occupations
--Vocabulary list with English equivalents
--Multiple choice vocabulary quiz (English equivalent and answers are in Teacher's Guide.)
--Basic skit on the Job Interview
--Supplementary activities
  1. Finding a job advertisement in FL newspaper
  2. Writing a letter of application and resume' for a chosen job
  3. Completing an application form
  4. Composing a job interview based on job advertisement
--Application form
--Listening Comprehension Test Answer sheet (Test in target language, English Equivalent and answers are in Teacher's Guide.)

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
FL newspaper

COMMUNICATIONS AND MEDIA

The unit on Communications And Media is divided into two parts:
The News Media
In the Post Office

The first section, The Newsmedia, consists of:

Learning Activity Package

--List of occupations
--A vocabulary list with English equivalents
--A multiple choice vocabulary quiz
--Basic skit on TV Interview
--Supplementary vocabulary list
--Supplementary activities
1. Writing an interview
2. Writing a news article
3. Planning and executing an interview with native speaker
4. Reading a news article and summarizing and making editorial remarks
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
Journalism Careers film "The Journalist" produced by SDX--may be obtained on a fee-loan basis by writing to Modern Talking Picture Service, 2323 New Hyde Park, New York, New York 11040. List alternate playdates. (16mm, color, 26 Minutes)
German newspaper or magazine.(Das Beste is good because it is written on a simple reading level.)

The section, In The Post Office, consists of:

Learning Activity Package

--List of occupations
--Basic vocabulary list with English equivalents
--Multiple choice vocabulary quiz
--Basic skit on In the Post Office
--Supplementary vocabulary list
--Conversation stimulus
--Supplementary activities - completing postal forms
1. Paketkarte
2. Telegramm
3. Postanweisung
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
Deutsche Bundespost - Winter Formblattheft

HEALTH AND RELATED PROFESSIONS

The unit on Health And Related Professions is divided into three main sections:
At The Hospital
In The Doctor's Office
In The Dentist's Office

The section, At The Hospital, consists of:

Learning Activity Package

--List of occupations
--Vocabulary list with English equivalents
--Multiple choice vocabulary quiz
--Basic skit on At The Hospital
--Supplementary vocabulary list
--Temperature conversion chart
--Conversation stimulus
--Supplementary activity - completing hospital admission form
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
Local hospital

The section, In The Doctor's Office, consists of:

Learning Activity Package:

--List of occupations
--Vocabulary list with English equivalents
--Multiple choice vocabulary quiz
--Basic skit on In The Doctor's Office
--The Human Body (labeled sketch)
--Supplementary activities
  1. Label sketch of body
  2. Read a (German) magazine article and write a summary
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition

HOSPITALITY AND RECREATION

The unit on Hospitality And Recreation is divided into two parts:
In The Restaurant
In The Hotel

The section, In The Hotel, consists of:

Learning Activity Package

--List of occupations
--Vocabulary list with English equivalents
--A multiple choice vocabulary quiz
--Basic skit for registering in a hotel
--Form for registering
--Supplementary vocabulary
--Stimulus for individual student skits
--Listening comprehension test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
Foreign language newspapers and magazines
Speaker from local hotel

The section, In The Restaurant, consists of:

Learning Activity Package:

--List of occupations
--A vocabulary list with English equivalents
--A multiple choice vocabulary quiz
--Basic skit for ordering in the restaurant
--Supplementary vocabulary list
--Chart on measuring weights
--Recipes of German dishes in German with extra vocabulary helps
--Stimulus for individual student skits
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: ALM German, Second Edition
Dr. Detker, Schulkochbuch, (Eres-Vering)
Rudolf-August Oetker KG Bielfield, 1963

MARKETING AND DISTRIBUTION

The unit on Marketing And Distribution is divided into two parts:
In The Bank
In The Department Store

The section, In The Bank, consists of:

Learning Activity Package

--List of occupations
--Vocabulary list with English equivalents
--A multiple choice vocabulary quiz
--Basic skit for withdrawing money from a bank
--Supplementary vocabulary
--Supplementary activity on rate of exchange, using an exchange form
--Stimulus for individual conversation
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: Monopoly games in target language, to practice money exchange

The section, In The Department Store, consists of:

Learning Activity Package

--List of occupations
--Vocabulary list with English equivalents
--A multiple choice vocabulary quiz
--Basic skit for buying in a store
--Supplementary vocabulary
--Stimulus for individual conversation
--Listening Comprehension Test answer sheet

Career Research Package

--Information on occupations
--Career Exploration Form

Resources: Monopoly games in target language, to practice buying and selling.
Product labels in target language can often be obtained directly from manufacturer.

The Appendixes comprising the remainder of this guide provide the teacher with the following materials:

--Unit vocabulary quizzes and answers, in English
--Texts for unit Listening Comprehension Tests
--Sample "Career Exploration Form"
--Listing of resources

Following the Appendixes which conclude the Teacher's Guide, a complete set of the five individualized Student Units is included for the teacher's convenience.

APPENDIX A

UNIT VOCABULARY QUIZZES

BUSINESS AND OFFICE UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

The Job Interview

1. She is learning shorthand at an _____.
   A. desk
   B. language test
   *C. occupational school

2. If you are an American then German is a _____.
   A. country
   B. shorthand
   *C. foreign language

3. The information on this form _____.
   *A. is correct
   B. fills out
   C. advertises

4. Of course, the secretary can _____.
   A. attend
   *B. type
   C. advertise

5. That secretary did her _____ at this firm.
   *A. practical work experience
   B. reference
   C. position

6. Before the interview you must fill out an _____.
   A. training
   *B. information form
   C. occupational school

7. We do business with this _____.
   A. Position
   B. foreign language
   *C. firm

8. Your desk is in the _____.
   *A. office
   B. firm
   C. occupational school

9. My _____ is at 3:00.
   A. position
   B. reference
   *C. appointment

10. Which occupational school will you _____?
   A. advertise
   *B. attend
   C. fill out

COMMUNICATIONS AND MEDIA UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

The Newsmedia

1. We buy a newspaper to read the _____.
   *A. news
   B. questions
   C. viewers

2. One takes a photograph with a _____.
   A. radio
   B. editor
   *C. camera

3. I am answering his _____.
   *A. question
   B. opinion
   C. report

4. Spain, France and Germany are all _____.
   A. foreign correspondents
   *B. situations
   *C. nations

5. On television one must talk in a _____.
   A. radio
   *B. microphone
   C. newspaper

6. Do you want my _____ on the situation?
   A. question
   *B. opinion
   C. interview

7. I report international news for the newspaper. I am the _____.
   *A. foreign correspondent
   B. editor
   C. viewer

8. People from every country live in New York. It is an _____ city.
   *A. international
   B. economic
   C. interview

9. Our newspaper reports only the _____ _____.
   A. viewers
   *B. facts
   C. questions

10. We have to _____ about Germany.
   A. interview
   B. answer
   *C. report

COMMUNICATIONS AND MEDIA UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Post Office

1. I want to send her a letter, but I don't know her _____.
   A. phone number
   *B. address
   C. airmail

2. You can't send a letter without a _____.
   A. connection
   B. postal clerk
   *C. stamp

3. I need money to call Aunt Ella on a _____.
   *A. pay phone
   B. area code
   C. long distance call

4. He must have this letter soon. I want to send it _____.
   A. stamp
   B. moment
   *C. air mail

5. I don't know his telephone number. I must ask the _____.
   *A. operator
   B. postal clerk
   C. stamp

6. My mother lives in Cologne, but I want to call her. I will have to make a _____.
   *A. long distance call
   B. connection
   C. area code

7. If your friend doesn't live in this city, you need to know his _____.
   A. phone number
   *B. area code
   C. operator

8. He buys his stamps from the _____.
   A. operator
   B. air mail
   *C. postal clerk

9. To call, you must go into the _____.
   A. post office
   *B. telephone booth
   C. pay phone

10. I receive 3 _____ every day.
   *A. letters
   B. stamps
   C. addresses

HEALTH AND RELATED PROFESSIONS UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Hospital

1. The nurse asked me my _____.
   A. accident
   *B. name
   C. relative

2. She also wanted to know my _____.
   *A. address
   B. motorcycle
   C. mother

3. I gave her my _____ as 18.
   A. height
   B. weight
   *C. age

4. My brother is my _____.
   *A. relative
   B. insurance company
   C. policy

5. The nurse wants to know if I'm married or _____.
   A. relative
   B. employer
   *C. single

6. As [illegible], I have no _____.
   A. weight
   B. height
   *C. employer

7. I also have no _____.
   A. accident
   *B. religion
   C. age

8. My _____ is approximately 118 lbs.
   A. height
   B. relative
   *C. weight

9. My _____ is 5 feet, 2 inches.

A. relative
B. policy
*C. height

10. I have a _____ with that company.

A. accident
B. married
*C. policy

HEALTH AND RELATED PROFESSIONS UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Doctor's Office

1. I'm not hungry; I have no _____.
   A. tongue
   *B. appetite
   C. cough medicine

2. The doctor took my _____.
   *A. pulse
   B. tension
   C. cough

3. My mother made an _____ with the doctor.
   A. problem
   B. prescription
   *C. appointment

4. He gave me a _____ for my cough.
   A. visit
   B. pain
   *C. prescription

5. My brother has a pain in his _____.
   *A. chest
   B. appointment
   C. pulse

6. He has to have an _____ taken.
   *A. X-ray
   B. nervous
   C. cough

7. I've been very _____ since the accident.
   *A. nervous
   B. appetite
   C. dizziness

8. The _____ indicates (says) 99° F.
   A. pulse
   *B. thermometer
   C. prescription

9. My father works too much, and he is very _____.
   *A. tired
   B. nervous
   C. pulse

10. I now take these _____ for the pain.
   A. cough medicines
   *B. pills
   C. tongues

HEALTH AND RELATED PROFESSIONS UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Dentist's Office

1. My teeth don't ache. I visit the _____ twice a year.
   A. brush
   *B. dentist
   C. filling

2. The _____ will last five weeks.
   *A. treatment
   B. deposit
   C. silver

3. My fillings are _____.
   *A. gold
   B. pain
   C. brush

4. I need a new _____. This one is old.
   A. dentist
   B. cleaning
   *C. brush

5. My sister's teeth are _____ because she doesn't brush.
   A. porcelain
   *B. decayed
   C. treatment

6. I have two gold fillings and one of _____.
   *A. silver
   B. deposit
   C. brush

7. The dentist says that I have three _____.
   A. teeth
   *B. fillings
   C. cleanings

8. My mother made a $10.00 _____ last week.
   *A. deposit
   B. brush
   C. cleaning

9. Mom, call the dentist. I have a _____.
   A. filling
   B. cleaning
   *C. toothache

10. The dentist wants to know what the _____ is.
   *A. trouble
   B. deposit
   C. treatment

HOSPITALITY AND RECREATION UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Restaurant

1. What time is it? I don't see the _____.
   A. table
   B. knife
   *C. clock

2. One drinks from a _____.
   *A. glass
   B. plate
   C. fork

3. After the dinner, we order a _____.
   A. table
   B. bread
   *C. dessert

4. Before we can order dinner, we need a _____.
   A. fork
   *B. menu
   C. dessert

5. The chair is next to the _____.
   A. vegetable
   B. dessert
   *C. table

6. The house wine is a _____.
   A. soup
   *B. beverage
   C. vegetable

7. One drinks coffee from a _____.
   *A. cup
   B. saucer
   C. fork

8. One eats soup with a _____.
   *A. spoon
   B. knife
   C. fork

9. I need butter for my _____.
   A. salad
   *B. bread
   C. beverage

10. The service charge on our bill is for the _____.
   A. menu
   B. dessert
   *C. waitress

HOSPITALITY AND RECREATION UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Hotel

1. We don't live upstairs; we live _____.
   *A. downstairs
   B. reservation
   C. view

2. My suitcase is too heavy. I need a _____.
   A. bath
   B. clerk
   *C. bellhop

3. You want a room in this hotel for Saturday? Make a _____ now.
   A. key
   B. view
   *C. reservation

4. We can see very well from here. There is a very good _____.
   *A. view
   B. room
   C. person

5. Where are you staying? We are in this _____.
   A. bath
   *B. room
   C. suitcase

6. I cannot go in the room. I don't have a _____.
   A. bath
   B. tip
   *C. key

7. In the winter, we don't need _____.
   A. suitcases
   *B. air-conditioning
   C. television

8. The bellman is very good. My father gives him a _____.
   A. suitcase
   B. key
   *C. tip

9. The clerk stands behind the _____.
   A. elevator
   B. key
   *C. desk

10. There's no elevator in this hotel. We must use the _____.
   *A. stairs
   B. suitcase
   C. air-conditioning

MARKETING AND DISTRIBUTION UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Bank

1. At the end of the form _____ your name.
   A. help
   *B. sign
   C. withdraw

2. I receive the change from the _____.
   *A. teller
   B. daily statement
   C. voucher

3. Please give me change for this _____.
   A. teller
   B. daily statement
   *C. bill

4. My money is in the _____.
   A. change
   *B. bank
   C. teller

5. I will withdraw the money from my _____.
   *A. account
   B. bill
   C. bank clerk

6. You must take the _____ to the cashier for the money.
   A. account ID card
   *B. voucher
   C. daily statement

7. You don't know how to get your money? The bank clerk will _____ you.
   A. sign
   B. withdraw
   *C. help

8. How much money do I have? I don't know. I'll look at my _____.
   A. account ID card
   *B. daily statement
   C. teller

9. I have no bills. Only some _____.
   *A. change
   B. bank
   C. account ID card

10. My account number is on my _____.
   A. bill
   B. bank clerk
   *C. account ID card

MARKETING AND DISTRIBUTION UNIT VOCABULARY QUIZ

Directions: You will read a series of incomplete sentences. Each sentence is followed by three choices - A, B and C. You are to decide which of these choices most appropriately completes the sentence and circle the letter which corresponds to your choice.

In The Department Store

1. What color is your hair? My hair is _____.
   *A. yellow
   B. blue
   C. long

2. When one goes swimming in the summer, one needs _____.
   A. lipstick
   B. nail polish
   *C. suntan lotion

3. The blouse is not my size. I want an _____.
   A. bargain
   *B. exchange
   C. check

4. When I go to America, I don't bring money. I bring _____.
   A. deodorant
   *B. traveler's checks
   C. refunds

5. This lipstick is old and bad. I want a _____.
   A. shampoo
   *B. refund
   C. suntan lotion

6. See my hands; I have a new _____.
   A. shaving lotion
   B. check
   *C. nail polish

7. My hair is dirty. I need _____.
   A. color
   B. toothpaste
   *C. shampoo

8. The lipstick and the nail polish are both _____.
   *A. cosmetics
   B. exchange
   C. blue

9. After eating, one needs _____.
   *A. tooth paste
   B. shaving lotion
   C. shampoo

10. No, I don't want a check, I want _____.
   A. cosmetics
   B. refund
   *C. cash

APPENDIX B

TEXTS FOR UNIT LISTENING COMPREHENSION TESTS

BUSINESS AND OFFICE LISTENING COMPREHENSION TEST

Directions: The teacher will read a series of statements or questions followed by two possible rejoinders - A and B. The student must determine which is the most appropriate rejoinder and write the corresponding letter on his answer sheet.

The Job Interview

1. Haben Sie eine Verabredung?
   A. Ja, um drei Uhr.
   B. Ja, die Sekretärin.

2. Haben Sie Kurzschriftkenntnis?
   A. Ja, ich kann auch tippen.
   B. Ja, ich habe ihn ausgefüllt.

3. Haben Sie ein Sprachkenntnis?
   A. Ja, ich kann tippen.
   B. Ja, ich kann English.

4. Ich mochte ein Buch kaufen.
   A. Dann brauchen Sie einen Bestellzeitel.
   B. Dann brauchen Sie einen Personalbogen.

5. Von wem ist die Emfehlung?
   A. Von Herrn Hand. Ich habe Praktikum bei ihm gemacht.
   B. Von der Sekretarin. Sie hat mir den Personalbogen gegeben.

6. Ich gehe jetzt ins Büro.
   A. Es ist 19.00 Uhr und das Büro ist geschlossen.
   B. Wo hast du das gelernt?

7. Warum sitzt du am Fenster?
   A. Das Fenster ist neu.
   B. Mein Schreibtisch ist da.

8. Die Sprachprüfung ist sehr kurz.
   A. Ja, ich bestehe sie bestimmt.
   B. Ja, ich habe sie gern.

9. Als Sekretärin, was ist ihre Aufgabe?
   A. Ich muss tippen.
   B. Ich bin im Büro.

10. Die Firma zeigte die Stelle an.
   A. Ja, ich sehe sie jetzt in der Zeitung.
   B. Ja, ich fulle sie jetzt aus.

BUSINESS AND OFFICE LISTENING COMPREHENSION TEST

Directions: The teacher will read a series of statements or questions followed by two possible rejoinders - A and B. The student must determine which is the most appropriate rejoinder and write the corresponding letter on his answer sheet.

The Job Interview

1. Do you have an appointment?
   *A. Yes, at three o'clock
   B. Yes, the secretary

2. Can you take short hand?
   *A. Yes, I can also type
   B. Yes, I have completed it.

3. Do you know a foreign language?
   A. Yes, I can type
   *B. Yes, I know English.

4. I want to buy a book.
   *A. Then you need an order form.
   B. Then you need an application form.

5. From whom is the recommendation?
   *A. From Mr. Hand. I had my practical working experience with him.
   B. From the secretary. She gave me the application form.

6. I'm going to the office now.
   *A. It is 7:00, and the office is closed.
   B. Where did you learn that?

7. Why do you sit at the window?
   *A. That's where my desk is.
   B. The window is new.

8. The language test is very short.
   *A. Yes, I will surely pass it.
   B. Yes, I like it very much.

9. What are your duties as secretary?
   *A. I have to type.
   B. I am in the office.

10. The firm advertised the position.
   *A. Yes, I see it now in the newspaper.
   B. Yes, I'm completing it now.

COMMUNICATIONS AND MEDIA LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

The Newsmedia

1. Reporter: Haben Sie eine Meinung über den ökonomischen Zustand?
   Burgermeister: Ja, ich antworte einige Fragen.

2. Johann: Lesen Sie die Zeitung oft?
   Herr Braun: Ja, ich lese sie jeden Tag.

3. Maria: Merke ich eine Akzent, wenn Sie sprechen?
   Karin: Ja, ich bin Amerikanerin.

4. Frau Schmidt: Worüber berichten Sie heute?
   Eckart: Ich berichte über Berlin.

5. Herr Lange: Sind Sie der Zeitungsschriftleiter?
   Herr Kurz? Ja, ich bin der Auslandskorrespondent.

6. Mutter: Hast du das Radio mit? Ich möchte die nachiechten hören.
   Vater: Nein, aber ich habe die Kamera.

7. Jakob: Besuchen Sie Deutschland Oft?
   Inge: Ja, denn meine Grossmutter wohnt in Deutschland.

8. Frau Gold: Ist München eine internationale Stadt?
   Frau Jung: Ja, München ist sehr alt.

9. Schwester: Das ist nur deine Meinung, nicht wahr?
   Bruder: Nein, das ist eine Tatsache.

10. Mann I: Entschuldigen Sie mir, bitte! Sie sind der Reporter, nicht wahr?
    Mann II: Ja, das ist eine aktuelle Frage.

COMMUNICATIONS AND MEDIA LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

The Newsmedia

1. Reporter: Do you have an opinion about the economic situation?
   Mayor: Yes, I will answer a few questions. (B)

2. John: Do you read the newspaper often?
   Mr. Brown: Yes, I read it every day. (A)

3. Mary: Do I notice an accent when you speak?
   Karen: Yes, I am an American. (A)

4. Mrs. Smith: What are you reporting about today?
   Robert: I'm reporting about Berlin. (A)

5. Mr. Long: Are you the Newspaper editor?
   Mr. Short: Yes, I'm the foreign correspondent. (B)

6. Mother: Do you have the radio with you? I want to hear the news.
   Father: No, but I have the camera. (B)

7. Jack: Do you visit Germany very often?
   Jill: Yes, because my grandmother lives in Germany (A)

8. Mrs. Gold: Is Munich an international city?
   Mrs. Young: Yes, Munich is very old. (B)

9. Sister: That is only your opinion, isn't it?
   Brother: No, that's a fact. (A)

10. Man I: Excuse me please. You are the reporter, aren't you?
    Man II: Yes, that is an important issue. (B)

COMMUNICATIONS AND MEDIA LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Post Office

1. Postbeamter: Darf ich Ihnen helfen?
   Kunde: Ja, ich brauche eine Vorwahlnummer.

2. Karin: Ich möchte meine Schwester anrufen.
   Susan: Weisst du die Telephonnummer?

3. Mutter: Kannst du mich heute anrufen?
   Sohn: Nein, da gibt es keine Post.

4. Junge: Wieviel kostet eine Briefmarke?
   Postbeamter: Möchtest du den Brief mit Luftpost schicken?

5. Frau: Können Sie mich mit Herrn Braun verbinden?
   Fraulein: Ja, einen Augenblick bitte.

6. Johann: Wir haben kein Telephon zu Hause.
   Heinrich: Also, ruf mal mit dem Münztelephon an!

7. Mutter: Hast du die Adresse auf dem Brief?
   Vater: Ja, und auch eine Briefmarke.

8. Anna: Wie viel kostet ein Ferngespräch nach Hamburg?
   Maria: Das kostet siebzig Pfennig program.

9. Fraulein: Wen möchten Sie anrufen?
   Mann: Ich möchte New York anrufen.

10. Herr: Das Telephon klingelt.
    Frau: Dann nimm es mal ab!!!!

COMMUNICATIONS AND MEDIA LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Post Office

1. Postal Clerk: May I help you?
   Customer: Yes, I need an area code. (B)

2. Karen: I want to call my sister.
   Susan: Do you know her telephone number? (A)

3. Mother: Can you call me today?
   Son: No, there is no post office there (B)

4. Boy: How much is a stamp?
   Postal Clerk: Do you want to send the letter by airmail? (A)

5. Woman: Can you connect me with Mr. Brown?
   Operator: Yes, one moment please. (A)

6. John: We have no telephone at our house.
   Henry: Then, use the pay phone. (A)

7. Mother: Do you have the address on the letter?
   Father: Yes, and a stamp. (A)

8. Ann: How much does a long distance call to Hamburg cost?
   Mary: That cost 26¢ per ounce. (B)

9. Operator: Whom do you wish to call?
   Man: I would like to call New York. (B)

10. Mr.: The telephone is ringing.
    Mrs.: Then answer it!!!! (A)

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders -- A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Hospital

1. Wie heissen Sie?
   A. Kolumbusstrasse neun sieben acht.
   B. Josef Braun.

2. Wie haben Sie sich den [illegible] gebrochen?
   A. In einem Verkehrsunfall.
   B. Im Krankenhaus.

3. Wie alt sind Sie?
   A. Ich bin siebzehn Jahre alt.
   B. Ich bin ein Meter sechzig alt.

4. Sind Sie verheiratet?
   A. Ja, und ich habe auch Brustschmerzen.
   B. Nein, ich bin ledig.

5. Sie sind ledig?
   A. Ja, und ich habe zwei Kinder.
   B. Ja, und ich wohne bei meinen Eltern.

6. Ist Herr Braun Ihr Verwandte?
   A. Ja, er ist mein Arbeitsgeber.
   B. Ja, er ist mein Onkel.

7. Wie gross sind Sie?
   A. Ich bin ein Meter sechzig gross.
   B. Ich bin hundertachtzehn Pfund gross.

8. Was ist Ihr Geburtsort?
   A. Deutscher Gesundheit.
   B. West Berlin

9. Sind Sie krank?
   A. Ja, ich habe Brustschmerzen.
   B. Ja, Deutscher Gesundheit.

10. Meine Tante ist Krankenschwester.
    A. Ist sie krank?
    B. Arbeitet sie in einem Krankenhaus?

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Hospital

1. What is your name?
   A. 978 Columbus Street
   *B. Joe Brown

2. How did you break your arm?
   *A. In a motorcycle accident.
   B. In the hospital.

3. How old are you?
   *A. I'm 17 years.
   B. I'm 5 ft., 6 in.

4. Are you married?
   A. Yes, and I also have chest pains.
   *B. No, I am single.

5. Are you single?
   A. Yes, and I have 2 children.
   *B. Yes, and I live with my parents.

6. Is Mr. Brown your relative?
   A. Yes, he is my employer
   *B. Yes, he is my uncle.

7. How tall are you?
   *A. I am 5 ft., 6 in. tall.
   B. I am 118 pounds tall.

8. Where is your place of birth?
   A. German Health
   *B. West Berlin.

9. Are you sick?
   *A. Yes, I have chest pains.
   B. Yes, German Health

10. My aunt is a nurse.
    A. Is she sick?
    *B. Does she work in a hospital?

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Doctor's Office

1. Fraulein: Ich habe Husten.
   Arzt: Ich verschreibe Ihnen ein Hustenmittel.

2. Arzt: Sind Sie sehr nervös?
   Fräulein: Ja, ich habe einen guten Appetit.

3. Erich: Bist du müde?
   Karin: Ja, ich gehe jetzt schlafen.

4. Mutter: Hast du abgenommen?
   Vater: Ja, ich esse immer so viel.

5. Arzt: Essen Sie gut?
   Fraulein: Nein, ich habe keinen Appetit.

6. Krankenschwester: Messen Sie jetzt den Puls?
   Arzt: Ja, wo ist der Thermometer.

7. Vater: Wozu brauchst du Pillen?
   Mutter: Gegen die Schmerzen.

8. Fraulein: Ich habe Brustschmerzen.
   Arzt: Das ist nicht gut. Lassen wir Sie röntgen!

9. Frau: Ich möchte mir ein Termin geben lassen.
   Schwester: Gut, können Sie morgen um 4.00 Uhr kommen?

10. Arzt: Schlafen Sie gut?
    Frau: Ja, ich leide unter Schlaflosigkeit.

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Doctor's Office

1. Miss: I have a cough.
   Doctor: I'll prescribe you a cough medicine (A)

2. Doctor: Are you nervous?
   Miss: Yes, I have a good appetite (B)

3. Erich: Are you tired?
   Karen: Yes, I'm going to bed now. (A)

4. Mother: Have you lost weight?
   Father: Yes, I always eat so much (B)

5. Doctor: Do you eat well?
   Miss: No, I don't have an appetite. (A)

6. Nurse: Are you measuring the pulse now?
   Doctor: Yes, where is the thermometer? (B)

7. Father: Why do you need these pills?
   Mother: For the pain. (A)

8. Miss: I have chest pains.
   Doctor: That isn't good. We'd better X-ray you. (A)

9. Miss: I would like to make an appointment.
   Nurse: Good. Can you come tomorrow at 4:00? (A)

10. Doctor: Do you sleep well?
    Miss: Yes, I suffer from sleeplessness. (B)

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Dentist's Office

1. Warum gehen Sie zum Zahnarzt?
   A. Ich habe eine Zahnbürste
   B. Ich habe Zahnschmerzen.

2. Warum habe ich Zahnschmerzen?
   A. Die Zähne sind hohl.
   B. Die Zähne sind alt.

3. Sind die Zähne hohl.
   A. Ja, Sie brauchen einen Zahnfüllung.
   B. Ja, Sie brauchen nur einen Reinigung

4. Wann soll ich mir die Zähne putzen?
   A. Um sieben Uhr.
   B. Nach dem Essen.

5. Brauche ich eine Zahnfüllung aus Perzellan?
   A. Nein, der Zahn ist hinten.
   B. Nein, sie kostet DM 20,00.

6. Ich möchte eine Anzahlung von DM20,00 machen.
   A. Gut, es kostet DM10,00.
   B. Gut, und wie möchten Sie den Reste zahlen?

7. Ich habe Zahnschmerz nicht gern.
   A. Gut, dann putzen Sie sich die Zähne nicht.
   B. Gut, dann putzen Sie sich jeden Tag die Zähne.

8. Wie lange dauert die Behandlung?
   A. Wir brauchen dafür DM50,00.
   B. Wir brauchen dafür drei Konsultationen.

9. Warum lassen Sie den Zahn röntgen?
   A. Ich kann ihn nicht gut sehen.
   B. Die Anzahlung ist zu viel.

10. Meine Zahnfüllungen sind aus Gold.
    A. Sind sie teuer?
    B. Sind sie aus Silber?

HEALTH AND RELATED PROFESSIONS LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Dentist's Office

1. Why are you going to the dentist?
   A. I have a toothbursh.
   *B. I have a toothache.

2. Why do I have toothaches?
   *A. Your teeth are decayed.
   B. Your teeth are old.

3. Are my teeth decayed?
   *A. Yes, you need a filling.
   B. Yes, you need a cleaning.

4. When should I brush my teeth?
   A. At 7:00
   *B. After meals.

5. Do I need a filling out of porcelain ?
   *A. No, the tooth is in the back.
   B. No, it costs $20.00.

6. I would like to make a deposit of $20.00.
   A. Good, it costs $10.00
   *B. Good, and how would you like to pay the rest?

7. I don't like toothaches.
   A. Good, then don't brush your teeth.
   *B. Good, then brush your teeth every day.

8. How long will the treatment take?
   A. We will need $50.00 for it.
   *B. We will need three visits for it.

9. Why are you X-raying the tooth.
   *A. I can't see it very well.
   B. The deposit is too much.

10. My fillings are out of gold.
    *A. Are they expensive?
    B. Are they out of silver?

HOSPITALITY AND RECREATION LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Restaurant

1. Sind die Menüs hier teuer?
   A. Ja, wir haben die gern.
   B. Nein, sie sind billig.

2. Was möchten Sie trinken?
   A. Ich möchte Wein.
   B. Ich möchte Hähnchen.

3. Wie ist das Essen hier?
   A. Es schmeckt sehr gut.
   B. Es ist sehr gemütlich hier.

4. Wohin setzen wir uns?
   A. Hier ist ein Tisch.
   B. Hier ist ein Löffel.

5. Hier ist die Rechnung.
   A. Gut, wir möchten bestellen.
   B. Gut, wir möchten zahlen.

6. Haben Sie Hunger?
   A. Nein, ich brauche eine Speisekarte.
   B. Nein, ich bin satt.

7. Gefällt Ihnen dieses Restaurant?
   A. Ja, das Essen hier schmeckt.
   B. Ja, jeden Tag.

8. Möchten Sie eine Tasse Kaffee?
   A. Ja, und ich brauche auch eine Untertasse.

9. Empfehlen Sie die Tagessuppe?
   A. Ja, alle Menüs finde ich gut.
   B. Ja, sie ist Prima.

10. Warum brauchen Sie ein Messer?
    A. Ich esse Fleisch.
    B. Ich esse Suppe.

HOSPITALITY AND RECREATION LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Restaurant

1. Are the dinners here expensive?
   A. Yes, we like them
   *B. No, they are inexpensive.

2. What would you like to drink?
   *A. I would like wine.
   B. I would like chicken.

3. How is the food here?
   *A. It tastes very good
   B. It is very pleasant here.

4. Where shall we sit?
   *A. Here is a table.
   B. Here is a spoon.

5. Here is the bill.
   A. Good, we would like to order.
   *B. Good, we would like to pay.

6. Are you hungry?
   A. No, I need a menu.
   *B. No, I am full.

7. Do you like this restaurant?
   *A. Yes, the food here is good.
   B. Yes, every day.

8. Would you like a cup of coffee?
   *A. Yes, and I need a saucer too.
   B. Yes, and I need a plate too.

9. Do you recommend the soup of the day?
   A. Yes, all the dinners look good.
   *B. Yes, it is wonderful.

10. Why do you need a knife?
   *A. I am eating meat.
   B. I am eating soup.

HOSPITALITY AND RECREATION LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Hotel

1. Bekommen wir Vollpension?
   A. Nein, wir haben keine Zimmer.
   B. Nein, wir haben kein Restaurant.

2. Wie lange bleiben Sie?
   A. Wir bleiben im Zimmer.
   B. Wir bleiben zwei Tage.

3. Ist das Zimmer teuer?
   A. Nein, es kostet nur 15,00 DM pro Tag.
   B. Ja, es ist oben.

4. Wir sind gerade angekommen.
   A. Brauchen Sie ein Zimmer?
   B. Brauchen Sie noch etwas?

5. Hat Ihr Zimmer einen schönen Anblick?
   A. Nein, wir haben kein Fenater.
   B. Ja, wir haben einen Fernseher.

6. Darf ich Ihnen helfen?
   A. Ja, ich habe einen Schlüssel.
   B. Ja, ich habe zwei Koffer.

7. Wo ist der Empfangschef
   A. Da an dem Aufzug.
   B. Da, an dem Anmeldungstisch.

8. Der Gepäckträger ist sehr gut.
   A. Ja, geben Sie ihm ein Trinkgeld.
   B. Ja, geben Sie ihm einen Schlüssel.

9. Was unterschreiber ich für das Zimmer?
   A. Unterschreiben Sie den Meldezettel.
   B. Unterschreiben Sie an dem Anmeldungstisch.

10. Wie sind Sie nach unten gekommen?
   A. Ich habe den Gepäckträger gefragt.
   B. Ich bin mit Dem Aufzug gefahren.

HOSPITALITY AND RECREATION LISTENING COMPREHENSION TEST

Directions: You will hear a series of statements or questions followed by two possible rejoinders - A and B. You will determine which is the most appropriate rejoinder and write the corresponding letter on your answer sheet.

In The Hotel

1. Are the meals included?
   A. No, we have no rooms.
   *B. No, we have no restaurant.

2. How long will you be with us?
   A. We will be in the room
   *B. We will be here two days.

3. Is the room expensive?
   *A. No, it costs only $15.00 per day.
   B. Yes, it is upstairs.

4. We have just arrived.
   *A. Do you need a room?
   B. Do you need anything more?

5. Does your room have a good view?
   *A. No, we have no window.
   B. Yes, we have a television.

6. May I help you?
   A. Yes, I have a key.
   *B. Yes, I have two suitcases.

7. Where is the clerk?
   A. There at the elevator
   *B. There at the desk.

8. The bellhop is very good.
   *A. Yes, give him a tip.
   B. Yes, give him a key.

9. What do I sign for the room?
   *A. Sign the registration form.
   B. Sign at the desk.

10. How did you get downstairs?
    A. I asked the bellhop.
    *B. I used the elevator.

MARKETING AND DISTRIBUTION LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Bank

1. Kassierer: Wie kann ich Ihnen helfen?

   Frau B: Danke gut, und Ihnen?

2. Bankangestellte: Was ist Ihre Kontonummer?
   Frau B: Ich weiss nicht. Hier ist mein Kontoausweis.

3. Frau B. Ich möchte fünfundzwanzig Mark, bitte.
   Kassierer: Haben Sie ein Belegschein?

4. Frau B? Ich möchte etwas Kleingeld.
   Bankangestellte: Haben Sie einen Tagesauszug?

5. Bankangestellte: Hier ich Ihr Belegschein.
   Frau B: Danke, wo unterschreibe ich?

6. Bankangestellte: Gehen Sie bitte an die Kasse.
   Frau B: Ja, ich habe ein Konto.

7. Frau A: Wo haben Sie Ihr Geld?
   Frau B: In der Bank, natürlich.

8. Frau B: Was tue ich mit dem Belegschein?
   Bankangestellte: Nehmen Sie es an die Kasse.

9. Frau A: Sie haben eine Stelle bei der Bank?
   Frau B: Ja, ich bin Kassierer.

10. Frau B: Darf ich Geld abheben? Ich habe hier kein Konto.
    Bankangestellte: Natürlich, wie viel möchten Sie abheben?

MARKETING AND DISTRIBUTION LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Bank

1. Teller: How can I help you?
   Mrs. B: Fine Thank you. And you? (B)

2. Clerk: What is your account number
   Mrs. B: I don't know. Here is my account ID card. (A)

3. Mrs. B: I would like $25.00
   Teller: Do you have a voucher? (A)

4. Mrs. B: I would like some change.
   Clerk: Do you have a daily statement? (B)

5. Clerk: Here is your voucher.
   Mrs. B: Thank you, where do I sign? (A)

6. Clerk: Please go to the teller counter.
   Mrs. B: Yes, I have an account. (B)

7. Mrs. A: Where do you keep your money?
   Mrs. B: In the bank naturally. (A)

8. Mrs. B: What do I do with the voucher?
   Clerk: Take it to the teller. (A)

9. Mrs. A: You work at the bank?
   Mrs. B: Yes, I'm a teller. (A)

10. Mrs. B: May I withdraw money? I have no account here.
    Clerk: Of course, how much would you like to withdraw? (B)

MARKETING AND DISTRIBUTION LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Department Store

1. Verkäuferin: Welche Farbe möchten Sie?
   Frau B: Ich möchte eine Bluse.

2. Herr B: Gehen wir in die Kosmetikabteilung!
   Frau B: Ja, ich brauche einen Lippenstift.

3. Frau B: Wenn die Bluse nicht passt, darf ich Rückzahlung bekommen?
   Verkäuferin: Ja, wir geben Ihnen eine Rückzahlung oder einen Umtausch.

4. Verkäuferin: Diese Bluse kostet DM30,00.
   Frau B: Haben Sie eine Kleinere Grösse?

5. Herr B: Nehmen Sie einen Reisescheck?
   Verkäuferin: Ja, er ist so gut wie Bargeld.

6. Frau B: Warum kaufst du Sonnencreme?
   Herr B: Mein Haar ist schmutzig.

7. Herr B: Diese Bluse kostet nur DM5,00.
   Frau B: Das war ein guter Einkauf.

8. Frau B: Diese Bluse passt nicht.
   Verkäuferin: Welche Grösse brauchen Sie?

9. Frau B: Welche Farbe hast du am liebsten?
   Herr B: Ich habe blau am liebsten.

10. Susanna: Hallo Johann, was kaufst du?
    Johann: Ich kaufe Nagellack für meine Schwester

MARKETING AND DISTRIBUTION LISTENING COMPREHENSION TEST

Directions: You will hear a brief dialogue. Decide whether the last response is appropriate or inappropriate. Indicate your answer as follows: A-appropriate, B-inappropriate.

In The Department Store

1. Clerk: What color would you like?
   Mrs. B: I would like a blouse. (B)

2. Mr. B: Let's go to the cosmetics department
   Mrs. B: Yes, I need a lipstick (A)

3. Mrs. B; If the blouse doesn't fit, may I get a refund?
   Clerk: Yes we will give you a refund or exchange it. (A)

4. Clerk: This blouse costs $30.00.
   Mrs. B: Do you have one in a smaller size? (B)

5. Mr. B: Will you take a traveler's check?
   Clerk: Yes, it is as good as cash. (A)

6. Mrs. B: Why are you buying suntan lotion?
   Mr. B: My hair is dirty. (B)

7. Mr. B: This blouse cost just $5.00.
   Mrs. B: That was a bargain. (A)

8. Mrs. B: This blouse does not fit.
   Clerk: What size do you need? (A)

9. Mrs. B: What color do you prefer?
   Mr. B: I prefer blue. (A)

10. Susan: Hello John, what are you buying?
    John: I am buying nail polish for my sister. (A)

APPENDIX C

CAREER EXPLORATION FORM

CAREER EXPLORATION FORM

Using the information provided in your booklet and/or information in your classroom or library, complete the following questions concerning an occupation you have chosen from this career unit.

OCCUPATION RESEARCHED_____

1. Check the correct answer or answers.

   The occupation you have chosen requires:

   _____ a high school diploma

   _____ a college diploma

   _____ apprenticeship

   _____ union membership

   _____ trade school training

   _____ no special training

   _____ practical experience

   _____ physical strength

   _____ a license or certification

2. The occupation you have chosen requires approximately how much training time?

3. What are some personal characteristics required for this job?

4. List 5 duties involved in your chosen occupation.

   a. d.
   b. e.
   c.

5. What determines your chances for advancement?

6. What is the average pay for your job? What are your fringe benefits?

7. What are average working conditions for your occupation? (eg. working with individuals, working outdoors, etc.)

8. What are two locations of employment for your occupation?

   a. b.

9. List one local employer in your job field.

APPENDIX D

RESOURCES

RESOURCES

Brod, Richard I., "Non-[illegible]ic Vocati[illegible] Opportunities in Foreign Languages." Bulletin of t[illegible] Associati[illegible]n of Departments of Foreign Languages, 3,1(1971):53-54.

Browning, Meshach, Career Awareness in Foreign Language Instruction. Cumberland, Maryland: Fort Hill High School. (Mimeo.)

Foreign Language: Key to Career Development. Madison, Wisconsin: Department of Curriculum Development, Madison Public Schools, 1972.

Froning, Dorothy, "Vocational Opportunities for the Foreign Language Major." Wichita State University Foreign Language Summary 6,11(1971): 3-6. (EDRS: ED 066 091)

Hardesty, Richard T., [illegible]er, Translating Foreign Language into Careers. Bloomington: Indiana Language Program, 1964.

Prol, J., Occupational Opportunities Through Learning Foreign Languages. Largo, Maryland: Prince George's Community College, 1973.

Filmstrips: Occupations I and II, Wible Language Institute, Allentown, Pennsylvania 18105

Films:

APPENDIX C

MIDDLE SCHOOL PROGRAM COST DATA

MATERIALS PURCHASED FOR COBB MIDDLE SCHOOL
CAREER EDUCATION PROGRAM
JULY 1973-JANUARY 1975

ALVYN M. FREED			
TA For Kids	(10 books @ $3.20 each)	Total	$ 32.00
BILL'S BOOKSTORE			
Values and Teaching	(7 books @ $3.95 each)		27.65
Values Clarification	(8 books @ $3.95 each)		31.60
		Total	$ 59.25
BRUCE PUBLISHING CO.			
Search	(3 booklets @ $ .93 each)		2.79
Quest	(3 booklets @ $ .93 each)		2.79
Focus	(3 booklets @ $ .93 each)		2.79
		Total	$ 8.37
CHANNING L. BETE CO.			
"Getting a Job"	Learning Unit (2 copies)		2.00
"Attitude and You"	Mini-Unit (20 copies)		5.00
"Drop-Out"	Mini-Unit (20 copies)		5.00
		Total	$ 12.00
COMMUNITY PLAYTHINGS			
Tool Sets (3 sets #H60 @ $64.50 each)		Total	$ 193.50
E & R DEVELOPMENT CORP.			
Vocations, 7-12 (33 booklets)		Total	$ 60.50
EDUCATIONAL ACHIEVEMENT CORP.			
"Work Values Auction Game"			15.00
"Interview" Cards	(3 sets @ $1.67 each		5.01
Facilitator's Guide, Set I	(2 @ $35.00 each)		70.00
Facilitator's Guide, Set II	(3 @ $35.00 each)		105.00
Facilitator's Guide, Set III	(2 @ $35.00 each)		70.00
Ditto Masters, Set I	(2 @ $2.00 each)		24.00
Ditto Masters, Set II	(3 @ $12.00 each)		36.00
Ditto Masters, Set III	(2 @ $12.00 each)		24.00
"Career Cluster" Game	(2 @ $99.95 each)		199.90
		Total	$ 548.91
EDUCATIONAL PRODUCTS			
"World to Conquer" (5 FS/Cassettes)		Total	$ 97.50
EDUCATOR'S PROGRESS SERVICE, INC.			
Educator's Guide to Free Science Materials		Total	$ 9.25
FINNEY COMPANY			
Finding Your Job Series (Units 1-6)			145.50
Occupational Guidance Series (Units 1-5)			222.00
		Total	$ 367.50

FLORIDA BOOK DEPOSITORY, INC.		
Mathematics for Employment, Part I	(70 texts @ $2.25 each)	$ 157.50
Mathematics for Employment, Part II	(70 texts @ $2.25 each)	157.50
Mathematics for the Worker	(70 texts @ $2.25 each)	157.50
Mathematics for Everyday Living	(70 texts @ $2.25 each)	157.50
Mathematics for Citizenship	(70 texts @ $2.25 each)	157.50
	Total	$ 787.50
GUIDANCE ASSOCIATES		
"Discovering Your Personality: Belonging to a Group"	(FS/Record)	41.50
"Discovering Your Personality: Who Are You?"	(FS/Record)	41.50
"Discovering Your Personality: Exploring Your Feelings"	(FS/Record)	41.50
"Do We Live or Exist?"	(FS/Record)	22.00
"Jobs for You: It's Happening in Home Economics"	(FS/Record)	19.50
	Total	$ 165.00
LITTLE FOLKS STORE		
"Careers" Game	(2 @ $5.00 each)	10.00
"Dealer's Choice" Game		7.00
"Masterpiece" Game	(2 @ $6.00 each)	12.00
"Prize Property" Game		9.00
"Billionaire" Game		9.00
"The Boss" Game		8.00
	Total	$ 55.00
RADIO SHACK		
"Crystal Radio Set" kits	(5 kits @ $5.95 each) Total	$ 29.75
SCHOLASTIC NEWSTIME MAGAZINES		
Scholastic Newstime Magazines	(30 subscriptions) Nov. 8, 1973	30.00
"Dimension" Kits	(7 units with cassettes)	77.00
Scholastic Newstime Magazines	(30 subscriptions) Feb. 1974	30.00
"Dimension" Kits	(4 units)	79.50
	Total	$ 216.50
SCHOLASTIC TESTING SERVICES		
An Instrument to Determine Career Awareness		
Test Booklets	(80 copies)	48.00
Examiner Manuals	(8 copies)	4.00
Answer Sheets	(400 copies	64.00
Score-Vue	(8 copies)	4.00
	Total	$ 120.00
SCHOOL SPECIALTY SUPPLY		
"Auto Math" Kit		2.00
"Market Math" Kit		2.00
"Kitchen Math" Kit		2.00
	Total	$ 6.00

SCIENCE RESEARCH ASSOCIATES, INC.		
Discovering Yourself (book)	Total	$ 2.25
SEARS ROEBUCK AND CO.		
Soldering Gun Kits (3 @ $11.99 each - discount)	Total	$ 32.27
U. S. GOVERNMENT PRINTING OFFICE		
Dictionary of Occupational Titles, Vols. I and II	Total	$ 19.01
U. S. POSTMASTER		
Business Envelopes (140 #10 regular @ $ .10 each)	Total	$ 16.80
WEBSTER DIVISION		
Home Economics As a Profession (book)	Total	$ 6.80
WESTINGHOUSE		
"Career Cluster Series" (15 FS/Cassettes)	Total	$ 238.00
	GRAND TOTAL	$3084.66

CAREER EDUCATION IN-SERVICE PROGRAMS

COBB MIDDLE SCHOOL

ORIENTATION AND PLANNING WORKSHOP - August 8-21, 1973

PARTICIPANTS

1. Cox, Carmen
2. Davis, Florence
3. Ference, Margaret
4. Gardner, Essie
5. Harris, Carol
6. Hollins, Mildred
7. Jones, Eugenia
8. Kupperburg, Yvonne
9. Lamb, Eugene
10. Miller, Bill
11. Newton, Marilyn
12. Stanton, Carol
13. Still, Susan
14. Wester, Wilhemina
15. Thompson, Bernadette

COST - $2,169.00

MIDDLE SCHOOL FAIS WORKSHOP - MARCH 12-APRIL 4, 1974

PARTICIPANTS

1. Anderson, Ruth
2. Archibald, Carol
3. Davis, Florence
4. Freeland, Jane
5. Gardner, Essie
6. Green, Dan
7. Guy, Beverly
8. Harris, Carol
9. Jones, Eugenia
10. Kickliter, Patricia
11. Newton, Marilyn
12. Springfield, Charlotte
13. Thompson, Alice
14. Thomas, Jackie
15. Thomas, Mary Kay
16. Whitaker, Bette

COST - $1,344.00

MIDDLE SCHOOL FAIS WORKSHOP - AUGUST 23, 1974

PARTICIPANTS

1. Anderson, Ruth
2. Carter, Eunice
3. Cox, Carmen
4. Davis, Marie
5. Farrell, Dorothy
6. Ference, Margaret
7. Freeland, Jane
8. Gardner, Essie
9. Kuperberg, Yvonne
10. Parrish, Frances
11. Ponder, Marjorie
12. Rolle, Annie
13. Still, Susan
14. Thomas, Jacqueline
15. Thomas, Mary Kay
16. Thompson, Alice
17. Williams, Ruth

COST - $340.00

MIDDLE SCHOOL LOOM WORKSHOP - FEBRUARY 21-APRIL 18, 1974

PARTICIPANTS

1. Cox, Carmen
2. Davis, Florence (Marie)
3. Freeland, Jane
4. Green, Dan
5. Guy, Beverly
6. Kasler, Lynn
7. Jones, Eugenia
8. Springfield, Charlotte
9. Thomas, Jacqueline
10. Thompson, Alice
11. Harris, Carol

COST - $462.00

MIDDLE SCHOOL LOOM WORKSHOPS - AUGUST 21-22, 1974

PARTICIPANTS

1. Anderson, Ruth K.
2. Cox, Carmen C.
3. Davis, Florence
4. Farrell, Dorothy
5. Harris, Carol
6. Ference, Margaret
7. Freeland, Jane
8. Marshall, Virginia

9. McLeod, Pat
10. Newton, Marilyn
11. Parrish, Frances
12. Ponder, Marjorie
13. Rolle, Annie H.
14. Still, Susan D.
15. Walker, Linda
16. Wester, Wilhelmina
17. Williams, Ruth D.

COST - $680.00

MIDDLE SCHOOL SCIENCE WORKSHOP - JULY 15-19, 1974

PARTICIPANTS

1. Ponder, Marjorie
2. Springer, Charlotte
3. Still, Susan

COST - $300.00

TOTAL COST - $5,295.00

MATERIALS PURCHASED FOR RAA MIDDLE SCHOOL
CAREER EDUCATION PROGRAM
JULY 1973-JANUARY 1975

AMERICAN ENTERPRISES, INC.			
Fun Things for Teaching in Career Education (6 booklets @ $5.00 each)		Total	$ 30.00
AMERICAN HOME ECONOMICS ASSOC.			
"Careers in Home Economics"	(FS/Record)	Total	$ 23.00
CAREERS - Largo			
"Junior High Kit"		Total	$ 123.00
CHECKMARK OFFICE SUPPLY CO.			
DOE Cluster Boxed (15 @ $1.55 each)		Total	$ 23.25
COMMUNITY PLAYTHINGS			
Tool Kits (3 #H60 @ $67.50 each)		Total	$ 202.50
EDUCATIONAL ACHIEVEMENT CORP.			
Facilitator Guides, Set I	(3 @ $35.00 each)		105.00
Facilitator Guides, Set II	(3 @ $35.00 each)		105.00
Facilitator Guides, Set III	(4 @ $35.00 each)		140.00
Pre-Post Tests	(10 @ $2.00 each)		20.00
Ditto Masters, Set I	(3 @ $12.00 each)		36.00
Ditto Masters, Set II	(3 @ $12.00 each)		36.00
Ditto Masters, Set III	(4 @ $12.00 each)		48.00
"Cluster Game"			99.95
"Work Values Auction Game"	(3 @ $15.00 each)		45.00
"Interview Cards"	(3 @ $1.67 each)		5.01
		Total	$ 639.96
EDUCATIONAL DIMENSIONS, INC.			
"Afro-American Art"	(FS/Cassette)		17.50
"Art Careers in Advertising"	(FS/Cassette)		17.50
"Careers in Fashion Designing"	(FS/Cassette)		17.50
		Total	$ 52.50
FLORIDA BOOK DEPOSITORY			
Mathematics for Employment, Part I	(90 copies @ $2.25 each)		202.50
Mathematics for Employment, Part II	(90 copies @ $2.25 each)		202.50
Mathematics for the Worker	(90 copies @ $2.25 each)		202.50
Mathematics for Every Day Living	(60 copies @ $2.25 each)		135.00
		Total	$ 742.50
GUIDANCE ASSOCIATES			
"Trouble at Work"	(FS/Cassettes)		41.50
"Your First Week on the Job"	(FS/Cassettes)		41.50
"Jobs and Gender"	(FS/Cassettes)		41.50
		Total	$ 124.50

JOE KENNEDY CARTOONS			
"The Drop-Out Blues"	(Posters)		5.50
"If You Want the Job"	(Posters)		3.75
"Despair is a Drop-Out"	(Posters)		3.50
		Total	$ 12.75
LITTLE FOLKS STORE			
"Boss" Game	(2 @ $5.88 each)		11.76
"Careers" Game	(4 @ $5.00 each)		20.00
"Dealer's Choice" Game	(3 @ $7.00 each)		21.00
"Masterpiece" Game	(3 @ $6.00 each)		18.00
"Shopping Center" Game	(2 @ $10.00 each)		20.00
		Total	$ 90.76
PATHOSCOPE, INC.			
"Careers in Sales"	(2 FS/Cassettes)		44.00
"Careers in Repairs"	(2 FS/Cassettes)		44.00
"Careers in Social Work"	(2 FS/Cassettes)		44.00
		Total	$ 132.00
SCIENCE RESEARCH ASSOCIATES			
Kuder General Interest Survey			
(1 set Form E)		Total	$ 105.20
SEARS ROEBUCK AND CO.			
Pliers	(2)		
Screwdriver Sets	(2)		
Pop-Riveter			
Assorted Bolts	(3 Pkgs.)		
Assorted Screws	(3 Pkgs.)		
Tape Measures	(2)		
Sandpaper	(10 Pkgs.)		
Soldering Kits	(2)	Total	$ 74.17
J. WESTON WALCH PUBLISHERS			
"Famous Cartoonists"	(Art Posters)		3.50
"Political Cartoonists"	(Art Posters)		3.50
"Special Newspaper Pkg."			35.00
"Careers in Art"	(Posters)		4.00
		Total	$ 46.00
WESTINGHOUSE			
"Career Cluster Series"	(15 FS/Cassettes)	Total	$ 238.00
		GRAND TOTAL	$2,660.09

CAREER EDUCATION IN-SERVICE PROGRAMS

RAA MIDDLE SCHOOL

ORIENTATION AND PLANNING WORKSHOP - August 8-21, 1973

PARTICIPANTS

1. Ballard, Herb
2. Berry, Ethel
3. Crawford, Jerry
4. Eikman, Helen
5. Keaton, Helen
6. Harpe, Anne
7. Harward, Lucy
8. Johnson, Carrie
9. Johnson, Bill
10. Mallory, G. I.
11. Stevens, Harriet
12. Traylor, Eugenia
13. Dover, Sara

COST - $1,791.00

MIDDLE SCHOOL FAIS WORKSHOP - March 12-April 4, 1974

PARTICIPANTS

1. Ballard, Herb
2. Berry, Ethel
3. Brock, Nancy
4. Byrd, Jerry
5. Dover, Sara
6. Eikman, Helen
7. Gainous, Samuel
8. Harward, Lucy
9. Johnson, Bill
10. Mallory, Gussie
11. Messich, Sharon
12. Mills, Mary
13. Munro, Phyllis
14. Ross, Steve
15. Traylor, Jean

COST - $1,260.00

MIDDLE SCHOOL FAIS WORKSHOP - August 23, 1974

PARTICIPANTS

1. Ballard, Herbert
2. Berry, Ethel
3. Brock, Nancy
4. Crisp, Edith
5. Crutchfield, Faye
6. Eikman, Helen
7. Groot, Joline
8. Haas, Ann
9. Harpe, Anne
10. Jernigan, Emma
11. Littleton, Jo
12. Sweeten, Dorothy

COST - $240.00

MIDDLE SCHOOL LOOM WORKSHOP - February 21-April 18, 1974

PARTICIPANTS

1. Dover, Sara
2. Harpe, Anne
3. Harward, Lucy
4. Holdsworth, Fred
5. Messick, Sharon
6. Moody, Doris
7. Perkins, Marjorie
8. Ross, Steve

COST - $200.00

MIDDLE SCHOOL LOOM WORKSHOPS - August 21-22, 1974

PARTICIPANTS

1. Ballard, Herb
2. Brock Nancy
3. Cannon, Beth
4. Crawford, Jerry L.
5. Crisp, Edith
6. Haas, Ann
7. Harpe, Anne
8. Harvey, Mary J.
9. Littleton, Jo
10. Mallory, Gussie
11. Maloy, Edyth
12. Munro, Phyllis
13. Perkins, Marjorie

COST - $520.00

184

MIDDLE SCHOOL SCIENCE WORKSHOP - August 12-16, 1974

PARTICIPANTS

1. Harvey, Mary
2. Mallory, Gussie
3. Mills, Mary
4. Ray, Lynette

COST - $400.00

TOTAL COST - $4,411.00

APPENDIX D

FOLLOW-UP SURVEY INSTRUMENT, SCHOOL BOARD OF LEON COUNTY

School Board of Leon County

Follow-Up Survey

Personal Information

1. Name _____ _____ _____
   Last First Middle or Maiden

2. Present Address _____
   Number Street/RFD City State Zip

3. Permanent Address (if different from above) _____
   Number Street/RFD

   _____
   City State Zip

4. Social Security Number

0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9

5. Date of Birth _____ _____ _____
   Month Day Year

6. Sex M ☐ F ☐

7. Race W ☐ B ☐ Other ☐

8. Marital Status:

   Single ☐ Married ☐ Separated ☐ Divorced ☐

9. What type of program were you enrolled in during your last year in public school?

   Regular Academic ☐ Co-Op/Work Study ☐ Vocational ☐

10. Did you have a part-time job while attending high school or Lively? Yes ☐ No ☐

11. In which of the following schools were you last enrolled? Godby ☐ Leon ☐

    Lincoln ☐ Richards ☐

12. What was the last grade you completed? 9 10 11 12

13. Were you enrolled in Lively Vocational/Technical School? (a) No _____

    (b) Part time ____ (c) Full Time _____ (d) Indicate Program of Studies:

    (1) Vocational _____ (2) technical _____ (3) adult high school _____

    (4) combination _____ (e) Did you complete? Yes _____ No _____

14. Of the following programs in which you were enrolled or took part in have been of value to you since leaving high school? Please indicate by circling the number that indicates your feeling with 1 being very valuable, 2 valuable, 3 of some value, and 4 of no value.

(a) Social Studies	1	2	3	4
(b) Language Arts (English, Literature, etc.)	1	2	3	4
(c) Foreign Languages (Spanish, Latin, etc.)	1	2	3	4
(d) Math	1	2	3	4
(e) Science	1	2	3	4
(f) Art	1	2	3	4
(g) Vocational courses (Shop, Home Ec., Agriculture Typing, Bookkeeping, DCT, D.E. W.E., etc.)	1	2	3	4
(h) Physical Education	1	2	3	4
(i) Music (Band, Choral, etc.)	1	2	3	4
(j) Co-Curricular Activities (Sports, Student Gov't)	1	2	3	4
(k) Extra Curricular Activities (Social Clubs, e.g. Key, Civitan, Optimist, etc.)	1	2	3	4

15. Please rate the following types of class study assignments according to your preferences with 1 being most preferred and 4 being never preferred.

(a) Individual assignment	1	2	3	4
(b) Small group assignment	1	2	3	4
(c) Large group assignment	1	2	3	4
(d) Assignments of oral reports	1	2	3	4
(e) Assignments of written reports	1	2	3	4

16. Please rate the following as to how they [illegible] while in school with 1 being very helpful and 4 being of no [illegible]

(a) Textbooks	1	2	3	4
(b) Library books	1	2	3	4
(c) Study guides	1	2	3	4
(d) Field trips	1	2	3	4
(e) Instructional games	1	2	3	4
(f) Class discussions	1	2	3	4
(g) Community resource people	1	2	3	4
(h) Teacher lectures	1	2	3	4
(i) Teacher demonstrations				
(j) Participating in activities (class, shop, art, etc.)	1	2	3	4
(k) Audio/Visual aides (movies, slides, tapes, etc.)	1	2	3	4

17. Rate the following as to their helpfulness in what you are doing now.

	very helpful	helpful	of no help
(a) Student-teacher relations	☐	☐	☐
(b) Making friends	☐	☐	☐
(c) Sports	☐	☐	☐
(d) Guidance	☐	☐	☐
(e) Clubs, Social activities	☐	☐	☐
(f) Class subject and courses	☐	☐	☐

18. Did your school experience help prepare you for leasure time activities?

Yes ☐ No ☐

19. Did your school experience help you clarify your values? Yes ☐ No ☐

20. Do you feel the majority of the individuals you dealt with while enrolled in school were interested in you? Yes ☐ No ☐

21. I would like to have evaluated the following groups while enrolled in school on the basis of the services they provided:

	Yes	No
(a) Faculty	☐	☐
(b) Guidance Staff	☐	☐
(c) Administrative Staff	☐	☐
(d) Clerical Staff	☐	☐
(e) Cafeteria Staff	☐	☐
(f) Custodial Staff	☐	☐

22. Did you feel the need for more personal interaction with school personnel?

Yes ☐ No ☐

23. Do you feel there was a need for more job skill development in high school?

Yes ☐ No ☐

24. Do you feel the high schools should offer more courses dealing with sex education? Yes ☐ No ☐

25. Did you desire to enroll in a class and could not because:

(a) the course wasn't offered ☐

(b) of your class schedule ☐

(c) of academic requirements ☐

(d) of lack of space to teach the course ☐

(e) of lack of teachers to teach the course ☐

(f) the course was closed due to enrollments ☐

(g) there was'nt enough equipment to accomodate more students ☐

(h) Please indicate courses _____

_____

26. Do you at the present time think schools need to provide more opportunities to learn about careers? Yes No

27. Did you desire to enroll in Lively Vocational/Technical School and could'nt because of the lack of free public transportation? Yes No

28. Do you think the school you attended should offer more extra curricular activities? Yes No

29. Did you desire to enroll in the high school summer school program and did not because the:

(a) course you wanted to take was not offered ☐

(b) cost was more than you could afford ☐

30. Do you think the school prepared you to cope with the experiences you have had since leaving? Yes No

31. Are you presently enrolled in school or college? (a) Please indicate which of the of the following:

(1) No ☐
(2) Part time ☐
(3) Full time ☐
(4) Public Vocational/Technical School ☐
(5) Private Vocational/Technical School ☐
(6) Public Community two year college ☐
(7) Private " " " " ☐
(8) Public four year college/University ☐
(9) Private " " " " ☐

(b) How are you financing your education?

working ☐
family ☐
student loan ☐
government benefits ☐
public scholarship ☐
private scholarship ☐
other ☐ specify_____

(c) What is your present area of study? _____

32. Are you presently working? (a) No ☐ (b) part time ☐

(c) full time ☐

(d) hours per week (1) 15 or less ☐ (2) 15-35 ☐ (3) 35 or more ☐

33. What has been the length of your present employment?

less than 6 mo. ☐ 6 mo. - 1 year ☐ 1 year or longer ☐

34. How did you get your present job?

On my own ☐
Through my teacher/instructor ☐
Through a school counselor ☐
Through an occupational specialist ☐
Through family or friends ☐
Through the state employment agency ☐
Through a private employment agency ☐
Other ☐ Specify_____

35. My present work is:

(a) related to my vocational/technical training ☐

(b) not related to my vocational/technical training ☐

(c) related to courses I took in high school ☐

(d) not related to courses I took in high school ☐

36.. What is your present job title? _____

37. Are you presently or have you been an active member of the:

	Army	Air Force	Navy	Marine Corp	Coast Guard	National Guard
(a)	☐	☐	☐	☐	☐	☐

(b) Military Occupation Speciality (MOS*) _____

38. Do you desire placement assistance for:

(a) job ☐ (c) job training ☐

(b) education ☐ (d) other ☐ specify _____

(e) If yes to any of the above please register for assistance with the placement officer at the last school you attended.

39. Please make any suggestions, criticisions or general comments you may desire to make:

_____

_____

_____

_____

40. You may have permission to contact my school and/or employer.

Name & Address of School and/or employer:

_____
Name

_____
Street/RFD City

_____
State Zip

_____ _____
Date Signature

ACCESSION NUMBER: VT102037

TITLE: INSTRUCTOR'S GUIDE FOR PROFESSIONAL SUPERMARKET CHECKERS.

PERSONAL AUTHOR: RIGGS, WALTER A.

DESCRIPTOR: *TEACHING GUIDES; *FOOD STORES; *FOOD SERVICE OCCUPATIONS; *INSTRUCTIONAL MATERIALS; TESTS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 228P.

ABSTRACT: THIS INSTRUCTOR'S GUIDE CONTAINS BASIC STANDARDS OF TRAINING FOR ALL STUDENTS ENROLLED IN CHECKER TRAINING PROGRAMS IN WASHINGTON STATE. INCLUDED ARE THE RESULTS OF ONE YEAR'S FIELD TESTING OF THE MOBILE CHECKER TRAINING PROGRAM. THIS GUIDE CONTAINS HANDOUTS TO BE USED IN CONJUNCTION WITH 30 3-HOUR UNITS OF STUDY AND IS NOT INTENDED AS A TEXT OR COURSE OUTLINE. IT IS TO BE USED IN COMBINATION WITH THE TEXTS "A STUDY GUIDE TO EFFICIENT MARKET CHECKING," "YOUR ATTITUDE IS SHOWING," AND THE 13 PROGRAMMED INSTRUCTION UNITS OF THE QUAKER OATS SUPERMARKET KIT. APPENDIX B CONTAINS TESTS FOR THE UNITS OF THIS GUIDE. (LJ)

INSTITUTION NAME: WASHINGTON STATE COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION, OLYMPIA.

VT 102 037

AA~TOUCH

INSTRUCTOR'S GUIDE

For PROFESSIONAL SUPERMARKET CHECKERS

By

Walter A. Rigg
Program Specialist

Coordinating Council for Occupational Education
Olympia

VT 102 037

FOREWORD

Three years ago, representatives from the food industry discussed with the Coordinating Council for Occupational Education the possibility of a state wide checker trainer program which would reduce off-the-street hiring of untrained individuals. As an integral part of this program, they identified a need for a mobile type program to provide training in those areas not having a permanent center. It then became apparent there was a need for an instructor's guide providing basic standards of training for all students enrolled in checker training programs in the state.

Thus through the efforts of many individuals and organizations, the Mobile Checker Training Program was formulated. An instructor's guide to provide an organized direction for the training was developed and field tested. The results are included here and contain all the revised input available from one year's field tryout. It will be a valuable asset to those instructors wishing to provide a training program with greater competency and employee success.

The professional dedication of those people involved is appreciated. Through their efforts, employers in the State of Washington will profit by more productive competent checkers in their stores. Customers will profit from prompt, accurate and knowledgeable service. Our graduates will profit financially, but more important, we hope our graduates will find a greater degree of self fullfillment as a result of their training.

Arthur Binnie
State Director and Executive Officer
Coordinating Council for Occupational Education

WASHINGTON STATE FOOD DEALERS ASSOCIATON

416 LLOYD BUILDING / SEATTLE, WASHINGTON 98101 / MAIN 2-7015

PRESIDENT
FRANK D. HARBAUGH
SPOKANE

VICE-PRESIDENTS
RICHARD E. MANSFIELD
SEATTLE

ROBERT L. CURTIS
EAST WENATCHEE

HOWARD W. NEUNER
BAINBRIDGE ISLAND

EXECUTIVE DIRECTOR
F. N. McCOWAN

DIRECTORS
CHARLES F. BOEHM
Anacortes
DONALD S. OLSEN
Bellevue
DONALD HAGGEN
Bellingham
DORR FORBES
Bothell
ROBERT W. BOGGS
Everett
GORDON W. HERRON
Federal Way
JACK B. COLE
Ferndale
GEORGE PLANT
Issaquah
IRIS F. PICKERING
Montesano
KENNETH STORMANS
Olympia
LYLE R. PEIN
Oroville
W. R. "DICK" SMITH
Oroville
ALBERT EVANS
Prosser
NEIL B. HURD
Rockford
ROGER P. CROSHAW
Seattle
ROY P. KNOWLES
Seattle
CHARLES J. WHYMAN
Seattle
SIDNEY R. SNYDER
Seaview
JACK E. BEAUDRY
Spokane
JOHN L. WEEKES
Spokane
JOEL G. CHAMBERS
Sunnyside
MARION D. DUBOIS
Tekoa
RONALD O. KEIL
Vancouver
LORRAINE KIMMEL
Vashon
FRANCIS W. FLEENOR
Walla Walla
RICHARD H. CROTHERS
White Salmon
WRAY R. BROWN
Yakima
MALCOLM W. BROWN
Yelm

Official Publication
WASHINGTON FOOD DEALER
Affiliated
National Association of Retail Grocers
of United States
Food Trade Press

May 8, 1970

Vocational Education
Coordinating Council for
Occupational Education
P. O. Box 248
Olympia, Washington 98501

Gentlemen:

The Washington State Food Dealers Association recognized the need for educational programs for the food industry. That is why we are involved with the Washington State Checker Training programs and the food marketing institutes.

The programs, instructors, and officials of the Washington State Coordinating Council for Occupational Education have made a significant contribution to the industry. We are proud to be a part of, and to have taken a lead in developing these programs of education.

Speaking on behalf of our members who have participated in these educational programs--we recommend and endorse these programs to all supermarket operators.

Sincerely,

F. N. McCowan

F. N. MC COWAN
Executive Director

FNMc/rg

PREFACE

This instructor's guide is just what the name implies. It is not a text. The texts used in connection with this guide are, "A Study Guide to Efficient Market Checking," "Your Attitude is Showing," and the thirteen programmed instruction units of the "Quaker Oats Supermarket Kit."

The handout materials in this publication are intended to be a guide for both student and instructor to hopefully be of assistance in developing indepth the body of knowledge required for professionalism in a career as a supermarket checker.

The guide for the thirty, three-hour units of study, is not written as a text or course outline. It is purposely written as a sequencial order of learning experiences to assist the instructor in scheduling time and importance of the learning process. This method of writing the guide is the result of more than a year devoted to researching curriculum and teaching methods using our follow-up studies to implement necessary changes in our teaching methods and curriculum.

The tests included in this guide have been developed to determine the desired level of competency for employment success.

It is realized that no text or guide can be used verbatum. The needs of your students must determine the modifications the instructor must make to accomplish the greatest good measured by behavioral changes of graduating students. The trademark of a professional instructor is his ability to adapt a program of instruction to the needs of his students. Now, for a must . . .

Each student must know at the beginning of the program what will be measured and how. There is a desired level of competency that must be developed in each student by the instructor. The tests will measure these levels of competency. We suggest that you review with the students the competencies listed on page xi or handout #50 and the method of testing to be used in measuring these competencies, Appendix B, test instructions and rating form and handout #55.

This ninety-hour course of instruction is an accelerated program. Nothing has been deleted in the essence of time. The instructor must move rapidly through the learning experiences and the student must learn rapidly. Due to the limited amount of class time and the burden this imposes on both student and instructor, we have resorted to as much home study as possible where this can be accomplished by the student without sacrificing quality of learning. To accomplish this home study, assignments are given using the Quaker Oats programmed instruction kits, Carl Jackson's text and "Your Attitude is Showing," which leaves more time for those learning experiences that must occur in the classroom and laboratory. To convert this guide for use in a 180-hour course of instruction, convert the three-hour units of study to six-hour units of study. This will give both the instructor and the student more time to develop the competencies needed for success as a professional checker. This will be particularly helpful for slower learners who would be incapable of carrying the load required in our 90-hour program.

WALTER A. RIGGS

Olympia, Washington
September 1972

ACKNOWLEDGEMENTS

The writer is appreciative of the assistance given to the development of our mobile checker program by a great many individuals and organizations. He is grateful for the privilege of having been assigned the responsibility for developing this program, and for having the opportunity to work with so many dedicated individuals.

SWEDA, International
National Cash Register Company
Western Michigan University
Darigold Farms
Safeway Stores
Associated Grocery
Bellingham Technical Institute
Washington State Food Dealer's Association
Supermarket Institute

Mr. Ernest G. Kramer, Director, Vocational Education
Mr. K. Otto Logan, Program Director, Distributive Education
Mr. Ray Smith, Vocational Director, Bellingham Technical Institute
Mr. Ben Haggen, Haggen's Food Stores, Bellingham
Mr. F. N. McCowan, Executive Director, Washington State Food Dealer's Association
Mr. LeRoy McCartney, Program Specialist, Distributive Education
Mr. James Blue, Director, Vocational Education, Superintendent of Public Instruction
Mr. Dick Wilson, President, Thriftee Food Stores
Mr. Harry Tobin, Mid-Management Coordinator, Skagit Valley College
Mr. E. Stewart, SWEDA Dealer

The author offers an advanced apology to any whose names have been inadvertently omitted.

PREVIEW COMMITTEE

A special thanks to the following individuals who gave so generously of their time and talent, previewing this publication before it went to press.

Mr. K. Otto Logan, Program Director, Distributive Education
Mr. Larry Belka, Director, Vocational Education, Bellingham Technical Institute
Mr. F. Leigh Hales, Mid-Management Supervisor, Spokane Community College
Mr. F. N. McCowan, Executive Director, Washington State Food Dealer's Association
Mr. Merrill Cox, Employee Relations Manager, Safeway
Mr. R. T. Sheehan, Vice President and General Manager, A & P Grocers
Mr. Dennis Coplen, W-DECA State Advisor
Mr. LeRoy McCartney, Program Specialist, Distributive Education
Mr. Carl N. Jackson, Teacher-Coordinator, Grocery Training Program, Long Beach City College
Dr. William Drummond, Associate for Teacher Education, Office of the Superintendent of Public Instruction
Mr. James Blue, Director, Vocational Education, Office of the Superintendent of Public Instruction
Mr. William D. Syhlman, DE Teacher-Educator, Eastern Washington State College

WASHINGTON STATE ADVISORY COMMITTEE

for

PROGRAMS IN FOOD MARKETING

MEMBERS

Mr. F. N. McCowan, Executive Director
Washington Food Dealer's Assoc.
416 Lloyd Building, Seattle 98101

Mr. Merrill Cox, Employee Relations Mgr.
Safeway Stores
Bellevue 99004

Mr. Dick Judson, President, LDS Corporation
Lynden 98264

Mr. Mike McGowan, General Manager
Klauser Corporation
Tacoma 98498

Mr. Bill Earp, Divisional Manager
Low Cost Food Stores
Spokane 99207

Mr. P. L. Cope, Secretary-Treasurer
Washington State Council of Retail
Clerks, Everett 98201

Mervyn L. Henderson, Secretary-Treas.
Retail Clerks Local #1105
Seattle 98121

Mr. Ray Rich, Secretary-Treasurer
Retail Clerks Local #367
Tacoma 98402

Mr. Dannie O'Brien, Secretary-Treas.
Retail Clerks Local #1439
Spokane 99205

INTRODUCTION FOR INSTRUCTORS

INSTRUCTOR'S REFERENCE TEXTS

1. Eighteen rules of bagmanship, student's booklet
   Eighteen rules of bagmanship, instructor's flipchart
   Bagmanship Wall Chart
   Plastic Bag Insert
   Order: "Crown Service Selling Systems, Bagmanship." A complete training kit on bagmanship and service selling. (Free of charge). Crown Zellerbach Corporation, Public Service Building, Portland, Oregon 97204.

2. The Household Encyclopedia, N. H. and S. K. Mager, Published by, Pocketbooks, New York.

3. Economics for our Times, Third Edition revised, Augustus H. Smith, Webster Publishing Division, McGraw-Hill Book Company.

4. 101 Meat Cuts, 40 pp in full color, 20¢ per copy
   Beef-Pork-Lamb Instructor's Wall Charts, 20¢ each chart.
   Order from: National Livestock and Meat Board, 36 South Wabash Avenue, Chicago, Illinois 60603

5. Quaker Oats Self-Study Kit for Food Marketing. Order from: The Quaker Oats Company, Merchandise Mart Plaza #345, Chicago, Illinois 60654, Price $4.95.

6. A Study Guide to Efficient Market Checking, Fifth edition, CNJ Publishing Company, P. O. Box 6656, Long Beach, California 90815

7. Your Attitude is Showing, Elwood N. Chapman, Science Research Associates, Chicago, Illinois 60611

8. Blue Goose Buying Guide, Blue Goose, Inc., Post Office Box 46, Fullerton, California 92632

SPECIAL NOTE: Items 8 and 9 must be purchased by students. Other items should provided by the school.

INSTRUCTOR'S PREPARATION FOR TEACHING

1. Review all reference texts.

2. Review Instructor's Guide.

   a. Thirty units of instruction

   b. Handout materials

   c. Tests

3. Code the following three keys on all registers with squares of sandpaper, 50¢, 20¢, and 7¢. Use scotch 3M mounting squares to attach sandpaper to keys. Use a course grit sandpaper.

4. Have available, enough of the following handout materials for each student:

   a. ACURA-TOUCH brochure for the Employee (brown)

   b. ACURA-TOUCH brochure for the Employer (white)

   c. ACURA-TOUCH brochure for both the Employer and Employee (salmon)

   d. ACURA-TOUCH manipulative skill exercises

   e. Handout materials

   f. Tests

5. Review NCR Personal Opinion Ballot. Prepare entry memory tests (handouts 13 and 14). The Wonderlic Test is recommended together with personal interview between instructor and students.

6. Learning takes place as a result of the instructor using a combination of . . .

   a. Lecture

   b. Discussion

   c. Programmed Instruction

   d. Self Study

   e. Written Assignments

   f. Individual Tutoring

   g. Role Playing

7. The three-hour block of time is scheduled as follows:

   a. First Hour - Lecture, Discussion, Role Playing

   b. Next Two Hours - Divide into four 1/2 hour units of study. The students are divided into two equal teams.

   c. Rotation - Team one works on ACURA-TOUCH while team two works on self study. Rotate every 1/2 hour.

   d. Instructor -

      1) Lectures, discusses, and role plays with the students the first hour

      2) Discusses, tutors, role plays with the students during the four 1/2 hour units of instruction

8. Simulated Front-End Operation:

   a. This should be as realistic as possible. The instructor acts as store manager. The students take turns being checker, customer, and bagger.

   b. Use checks (handout #19) to pay for purchases. Customer is to write check incorrectly to test the checker's skill at accepting checks.

   c. Have each student bring to class $5 in bills or change so that each register has proper change assortment. Change is to be left in the registers until the end of the course. Change must be counted at the beginning and end of each day.

   d. Register tapes and dates must be correct each day. Remove tapes each day after class. Have students rotate each day setting dates and inserting tapes before starting to work.

   e. Front end must be kept neat and orderly at all times.

   f. Selection of items to be checked - Use three or four items from meat and produce departments. Select items that will not spoil or damage with handling. Use smoked meats or freeze-dried. Use spuds, cabbage, or oranges, never tomatoes. Change the produce items each session. Use cans with multiple prices as well as single prices. To minimize the load of the carts, use cereals and paper products along with cans. Order should be typical of those encountered in an eight hour day. You may substitute bags containing sand or gravel for produce items. Wrapped blocks of wood properly priced may be used for meat items.

g. Fill grocery carts, one for each checkstand. Number the carts one, two, three, etc. Rotate the carts so that each student will check each cart at least twice during one three-hour block of time.

h. Be sure students call the manager for check approval or customer complaints.

i. Be sure students post their ledger sheets for errors, paid-outs, refunds, etc.

j. Be sure students have prepared their daily reference sheets for produce. Also, that they prepare a reference sheet for ad items on ad day.

It is the responsibility of the instructor to make it clear to the student

. . . The program objective

. . . The competencies they must develop to achieve this objective

. . . How they will learn

. . . How they will be tested

Special Note: When using behavioral objectives as a teaching method, it is important that the student be in agreement with the objectives, methods of learning and testing. If the student is not in agreement, he will not commit himself to learning. Without commitment, learning excellence will not occur. Go over handout #50 with the students and arrive at agreement with them as to the importance of these objectives. If they are not in agreement that the objectives, methods of teaching and testing are worthwhile, they will not achieve the level of competency desired.

SPECIAL INSTRUCTIONS

The items listed below have not been included in the thirty units of instruction for two reasons. First, one or more of the items are not considered to be the responsibility of the checker in most supermarkets; for example, reading registers and scheduling checkers and box boys. It will be up to each instructor to determine whether or not these items should be taught. Second, it allows freedom on the part of the instructor to teach these items where they will fit best in relation to time available and other learning activities scheduled; for example, housekeeping for front end personnel might fit best in Units XXV through XXX in most programs.

1. Reading Registers when closing and post these readings accurately in the daily ledger.

2. Schedule hours of checkers and box boys in a manner that will provide maximum customer services at a minimum cost commensurate with store policies.

3. Housekeeping for front end personnel.

4. Laws governing the supermarket checkstand:

   a. Liquor
   b. Cigarette
   c. City Laws
   d. State and Federal Laws.

5. How to apply for a job:

   a. Interview
   b. Resume
   c. Applications
   d. Conduct, etc.

COMPETENCIES (Where Taught)

ACURA - TOUCH. . . . . Units II - XXX

BAGGING GROCERIES. . . . . Unit XXIV

BAKERY DEPARTMENT. . . . . Unit XX

CASHING CHECKS . . . . . Unit XXIII

DAIRY DEPARTMENT . . . . . Unit XIX

FRONT-END PROCEDURES . . . . . Unit XXI

GROCERY DEPARTMENT . . . . . Unit XIII

INTERPERSONAL RELATIONS. . . . . Units II - XVI

MULTIPLES. . . . . Units XII - XXX

MONEY MANIPULATORS . . . . . Unit VII

MEAT . . . . . Unit XV

MEMORY . . . . . Units II - XXX

NON-FOODS. . . . . Unit XX

PRODUCE. . . . . Units II - XXX

PERSONAL APPEARANCE. . . . . Unit XI, XXV - XXX

PRICING AND STOCKING . . . . . Unit XIV

POSTING THE LEDGER . . . . . Unit XXII

REGISTER MANIPULATION. . . . . Unit XIII

SCALE OPERATION. . . . . Units VI - X

SUPERMARKET ECONOMICS. . . . . Units IX

STORE SECURITY . . . . . Units VII - VIII

STORE POLICIES . . . . . Unit XXI

MAKING CHANGE . . . . . Unit III

INSTRUCTIONS FOR TEACHING ACURA-TOUCH

1. The name of the game is accuracy. Continually stress the importance of going slow, learning the keyboard. If the total is incorrect, they are going too fast.

2. As the student progresses through the lessons and drill exercises, he will learn the relationship of a number registered to the number to be registered. When this occurs, the student will no longer use the sandpapered home keys. These will be used by the student to locate home position only when he removes his hand from the register.

3. The thumb and index finger are to be used for numbered keys. There are two exceptions. The first exception will be found in Lesson #5. The second exception is on a register with a curved keyboard where the keyboard is too long to ring 19 using thumb and index finger. In this case, the student may use the middle finger to register number 9.

4. The middle finger is to be used to push the department keys on those registers where the department keys are located at the upper right side of the keyboard.

5. On the SWEDA Power Penney, the department keys are to be pushed with the thumb. The student has a choice of using the thumb on either hand. If using the thumb on the right hand causes the student to remove his hand from the keyboard, he should use the thumb on his left hand.

6. Those keys on the ledger side of the register such as amount tendered, change, void, etc., are to be pushed as follows. If the key to be pushed is below the center of the keyboard, the key is to be pushed with the thumb; if above center, the key is to be pushed with the middle finger.

7. The motor bar is to be pushed with the side of the hand or little finger whichever is convenient.

8. On change computation registers, the cash tendered or amount tendered key is raised higher than the other keys. This key is to be pushed with one side of the hand.

9. The student is not to lift his thumb and finger from the keyboard while learning key location. They must slide the thumb and finger from one set of numbers to the next set. In other words, they must feel their way from number to number until confidence is developed.

10. Students are to push both keys at once when ringing numbers involving two keys. Example: When ringing 29¢, place the thumb on the 20, the index finger on 9 and push both keys down simultaneously.

11. The student is not to lift his thumb and finger from the keyboard while learning key location. They must slide the thumb and finger from one set of numbers to the next set. In other words, they must feel their way from number to number until confidence is developed.

12. Students are to push both keys at once when ringing numbers involving two keys. Example: When ringing 29¢, place the thumb on the 20, the index finger on 9 and push both keys down simultaneously.

STUDENT MANUAL

Purposes

1. Preparation of the manual by the student reinforces learning.
2. When completed, the manual is a ready reference as an aid in solving on-the-job problems.
3. Enhances the student's employment opportunities when the manual is used by the student during the job application and interview process.

Organization and Preparation

The student manual should be organized in 7 parts, as follows:

Part A	Diploma and Resume
Part I	Handout Materials
Part II	Tests
Part III	Answers and written comments on each unit of the Quaker Oats Programmed instruction
Part IV	Written comments on each chapter covered in the text, "Your Attitude is Showing"
Part V	Written assignments related to each of the twenty two competencies.
Part VI	Student notes

CONTENTS

Page

PREFACE i

ACKNOWLEDGEMENTS ii

PREVIEW COMMITTEE iii

ADVISORY COMMITTEE MEMBERS iv

INTRODUCTION TO INSTRUCTORS v

COMPETENCIES xi

TABLE OF CONTENTS xvii

APPENDIX A xix

APPENDIX B xxiii

PROGRAM OBJECTIVE xxv

UNITS OF INSTRUCTION

UNIT I - Student's Introduction To The Program 1

UNIT II - Human Relations 5

UNIT III - The Grocery Industry 7

UNIT IV - Human Relations 9

UNIT V - Producer To Consumer and History 11

UNIT VI - Human Relations and Reading The Scale 13

UNIT VII - Supermarket Today and Money Manipulators 17

UNIT VIII - Human Relations and Store Security 21

UNIT IX - Supermarket Economics 25

UNIT X - Human Relations 29

UNIT XI - Customer Relations and Personal Appearance 31

UNIT XII - Human Relations and Multiples 33

UNIT XIII - The Grocery Department and How To Operate a Cash Register 37

	Page
UNIT XIV - Human Relations and Pricing and Stocking	41
UNIT XV - Meat Department	43
UNIT XVI - Human Relations	47
UNIT XVII - The Produce Department	49
UNIT XVIII - The Produce Department	53
UNIT XIX - Dairy, Frozen Foods	55
UNIT XX - Bakery and Other Departments	59
UNIT XXI - The Front End	61
UNIT XXII - Posting the Ledger	65
UNIT XXIII - How to Cash Checks	67
UNIT XXIV - Bagmanship, Final Instructions, Review	71
UNIT XXV - Final Review and Testing	75
UNITS XXVI - THROUGH XXX - Front End Operation (Role Playing)	77
APPENDIX A - Handout Materials	
APPENDIX B - Test Materials	

APPENDIX A

STUDENT HANDOUT MATERIALS AND WHERE COVERED

HANDOUT # 1	UNIT III
# 2	UNIT XI
# 3	UNIT XXI
# 4	UNIT XXI
# 5	UNIT II
# 6	UNIT I
# 7	UNITS I & IV
# 8	UNIT IV
# 9	UNIT III
#10	UNIT VI
#11	UNIT III
#12	UNIT II
#13	UNITS I & II
#14	UNITS I & II
#15	UNITS VIII, XI, XXI
#16	UNIT XXII
#17	UNIT XXII
#18	UNIT XXIII & XXV
#19	UNITS XXIII & XXVI
#20	UNIT XXIII
#21	UNIT XIX
#22	UNIT VI
#23	UNIT XXV

HANDOUT #24	UNIT XX
#25	UNIT XX
#26	UNIT XX
#27	UNIT XV
#28	UNIT XV
#29	UNIT XV
#30	UNIT XV
#31	UNIT XV
#32	UNIT XIX
#33	UNIT XIX
#34	UNIT XIX
#35	UNIT XVII
#36	UNIT XVIII
#37	UNIT XVII
#38	UNIT XVII & XVIII
#39	UNIT XVII
#40	UNIT IX
#41	UNIT XIII
#42	UNIT XIV
#43	UNIT XXIII
#44	UNIT XXII
#45	UNIT XXI
#46	UNITS VII & VIII
#47	UNIT XXIV
#48	UNIT XXI

HANDOUT #49 . . . . . UNIT XII

#50 . . . . . UNIT I

#51 . . . . . UNIT I & II

#52 . . . . . UNIT I

#53 . . . . . UNIT I

#54 . . . . . UNIT I

#55 . . . . . UNIT I & XXV

#56 . . . . . UNIT I THROUGH XXV

#57 . . . . . UNIT XXX

#58 . . . . . UNIT XXV THROUGH XXX

#59 . . . . . UNIT II

APPENDIX B

TEST MATERIALS
SUGGESTIONS OF WHERE TO USE

TEST # 1	UNIT XXIV
# 2	UNIT XVII
# 3	UNIT IX
# 4	UNIT XI
# 5	UNIT XXV
# 6	UNIT VIII
# 7	UNIT XV
# 8	UNIT XIX
# 9	UNIT XXV
#10	UNIT XXV
#11	UNIT X
#12	UNIT XXII
#13	UNIT XIV
#14	UNIT XXI
#15	UNIT XXV
#16	UNIT XXI
#17	UNIT XXV
#18	UNIT XXV
#19	UNIT XVI
#20	UNIT XX

PROGRAM OBJECTIVE

To develop the student to a level of competency equal to, or in excess of, the average ability of an employee hired "off the street" with six months work experience.

Specific Goals to reach the above goal:

Upon completion of the one hundred eighty hours of instruction, plus six weeks on-the-job work experience orientation, the student . . .

Will Be Able To:

Handle Money and make change accurately so that neither customer nor store suffer financial loss.

Cash Checks in a manner that will not cause financial loss to the store and handle Food Stamps and Manufacturer and Store Coupons in a like manner.

Post the Ledger so that all transactions that occur in the checkstand are accurately recorded.

Understand Policies that exist in stores. Know what they are and the importance of learning and knowing how to use these policies as established by the store in the daily work of a checker.

Understand Security to minimize losses caused by those actions generally classified under store security.

Know Front-End Procedures and use those that will give the customer fast, accurate service, and create an environment conducive to building customer good will.

Price and Stock accurately and rapidly.

Do Multiples accurately to determine the unit price for items sold by multiple pricing.

Memorize prices, know how to investigate and remember produce prices, ad prices, multiple prices, prices for unmarked items.

Bag Groceries in a manner that will offer the customer the finest service, and minimize customer dissatisfaction. Handle products in a manner that will minimize shrinkage loss due to incorrect bagging.

Handle Interpersonal Relationships in a manner that will encourage customers to patronize the store. Contribute to improvement of interpersonal relationships among store employees so that work experience will be more enjoyable for both student and employees. Will possess those attitudes sometimes referred to as "The Industrial Virtues."

Maintain Personal Appearance and understand why this is so important.

Use ACURA-TOUCH Method in order to focus attention on the customer or the merchandise to give accurate, prompt service and minimize loss to both store and customer. The ACURA-TOUCH is a system of register manipulation.

Operate a Register in a manner that will minimize loss due to repairs and service charges.

Operate a Scale accurately and promptly.

Identify Produce sold in the produce department, know where they originated, their characteristics, how sold, time of year available, and how used.

Know Dairy Department and answer customer questions intelligently concerning products sold in that department, how they are sold, used, and handled at the checkstand.

Identify Meats and be able to speak intelligently on cuts of meat, grades and characteristics of meat, care and use of products sold in the meat department.

Know the Bakery Department and understand the care and use of bakery products, with a knowledge of ingredients used, why they are used, and how they benefit the customer.

Have Knowledge of the Non-Foods Department and know its importance to the customer and the store. Identify products sold in the non-foods department, their uses and care in stocking and handling.

Recognize Grocery Items by can and package sizes, different grades and qualities, how to serve a customer in a self-service grocery department, the reasons for product location, space and display, why some products are stocked and others are not.

Understand Supermarket Economics so as to make a better contribution to the financial success of the store and to communicate accurately the role of the food industry when communicating with others.

In addition to the classroom instruction, the graduating student must have six weeks work experience to adapt to store policies and procedures.

UNITS OF INSTRUCTION

NINETY HOUR COURSE

ONE HUNDRED EIGHTY HOUR COURSE

UNIT I - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Do testing and orientation as shown in guide

2. Other

3. Check your notes

4. Other

UNIT I - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Give students enough copies of Handout #22.

2. Take students to participating supermarket to learn how to get produce prices.

3. Check your notes

4. Other

- UNIT I - 3 HOURS

STUDENT'S INTRODUCTION TO THE PROGRAM
Lecture and Testing

1. Purpose of entry tests

   To determine student's level of competency, attitudes and aptitudes in critical areas essential for successfully completing the course and being employable. Upon completion, all students should receive expert counseling before entry into this program.

2. Kinds of entry tests

   Memory: Using Handouts #13 and 14
   NCR Personal Opinion Ballot
   Wonderlic Test

3. Student Manual

   Purpose and Organization, Handout #53

4. ACURA-TOUCH

   Colored brochures plus Handouts #6 and #7

5. Program Objective

   Go over Handout #50 with the students

6. How they will learn

   Reference pages, vii, Instructor's Preparation for Teaching

7. How they will be tested

   Review the twenty two tests and test instructions

8. History of the Mobile Unit, Handout #54

9. Give entry level tests and personal interview if this has not been done already.

10. Assignments

    A. Start Unit I Quaker Oats programmed instruction. Explain the purpose of, and how to learn, using programmed instruction. Have the students read the unit and answer the questions in their manual. Do not write in the books provided for this course of instruction. Have the students write in their own words, what they have learned. About two pages should be enought. For the first unit and for all others, their manual should look like the example on the next page.

- UNIT I - 3 HOURS

Page One - Unit One

HISTORY OF THE FOOD BUSINESS

Student Name

Pages two and three

What They Learned About The Food Business

Pages four, five and maybe six

Answers to Programmed Instruction Unit

When the course is completed, the student should have 14 units in the manual following this same format.

10. B. Assign chapter one, "Your Attitude Is Showing," for home study. Student is to write a brief review on the importance of Chapter One to be inserted in student manual (see Handout No. 53). Each chapter covered in, "Your Attitude Is Showing," is to be entered in the student manual.

11. ACURA-TOUCH - Two one-half hour periods

Start students on lesson one (handout #51, pages 1, 2, and 3). Assign two students to a register for the first two sessions only. Thereafter, one half the class will be working on self study while the other half works on the register. The class will be divided into teams one and two. This will be explained in greater detail as you progress through the rest of the units.

Students are to push both keys at once when ringing numbers using the thumb and index finger. Example: 27¢ - with thumb on 20 and index finger on 7, push both keys simultaneously. This must be done at all times with all two-key prices.

You should have students place thumb on 20 and finger on 7. They must go slowly and feel for the next number to register. They must not lift finger or thumb from register. They must slide the fingers from one set of numbers to the next the first few days while learning the keyboard. The

students must learn the relationship between the number registered and the number to be registered. They will do this in the early stages by feeling from one key to the next. The students will learn by team effort two to a team the first few units. The student on the machine keeps her eyes on the drill exercise. The student observer will act as instructor pointing out mistakes. They should rotate about every ten minutes.

The instructor will observe each team and demonstrate correct procedure for those students having difficulty.

You will note that the numbers used are not prices but scientifically-selected numbers to make the learning process as easy as possible. For example: It is easy to move from 27 to 28. The thumb stays on the home key and the finger merely slides up one key. GO SLOW GO SLOW GO SLOW. ACCURACY is the name of the game, NOT SPEED.

Students must not proceed from drill one to drill two until instructed to do so. Drill one and two account for about 85% of all rings. Once these two drills have been mastered the rest will be easy.

12. Special Notes

Assignments for self study periods should be given and explained during the one-hour lecture period.

Each unit of instruction is approximate to the time schedule shown. The instructor must use good judgment in following this schedule. Each unit will vary in accordance with the learning ability of the students. It is important to remember, however, that to cover the material in this course, too much time cannot be devoted to any one unit or other units will not be covered. In other words, the instructor must discipline himself and the students to keep on schedule as closely as possible giving proper priorities according to the learning needs of the individual students as well as proper priorities to what must be learned. Example: Quaker Oats Kits are designed to eliminate, or minimize, need to devote class time to this body of knowledge. The instructor should discuss each unit briefly in order to determine whether or not the students are learning the body of knowledge being taught. The instructor MUST devote the one-half hour lecture period and one-half hour self study periods to these areas where the instructor's help with individual needs is essential. All other work should be done at home.

NOTE: Continue Unit One into Unit Two, if necessary.

13. Student Texts and Materials

Be sure students have items 1, 2, 7 and 8 of handout #52. Other items desirable for reference should be used.

UNIT II - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1, Follow your guide

2. Check your notes

3. Other

UNIT II - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Produce Quiz

   a. Instructor quiz each student

   b. Have students quiz each other

   c. Using Handout #22, Give written test on 20 items

2. Check your notes

3. Other

- UNIT II - 3 HOURS

One of the reasons our mobile school has been so successful is the fact that it operates on a supermarket parking lot so that the student's learning activities are as realistic as possible. The student goes into the store daily investigating and learning at the appropriate time . . . In permanent centers a supermarket should be selected in a location convenient for all students.

Produce Prices	Ad Prices
Multiple Prices	Unmarked Prices
Product Knowledge	

Put heavy emphasis on the in-store activities. They must develop this competency to the highest degree of proficiency or they just plain won't make it on the job as a checker.

The in-store learning activities should take place during the one-half hour self-study periods. There are two reasons for this.

a. The students will be in smaller groups

b. The one-hour lecture period is needed for other learning activities

c. For permanent centers students can visit selected supermarket at their convenience after school time.

II. Final Examination - None

III. Self Study - Two one-half hour periods

Students can use this time to work on Unit I, Quaker Oats and Lesson One, Human Relations

IV. ACURA-TOUCH - Two one-half hour periods

Handout #51, pages 1, 2, 3

Lesson One - Do each column ten times before going on to the next column. Instructor must move back and forth between teams one and two helping individual students with their special problems. Watch the students doing ACURA-TOUCH very carefully to be sure that they are using correct finger and thumb positions. Slow them down. Be sure the home position keys 20 and 7 and finding key 50 are coded with squares of sandpaper. Students must call numbers loud and clear before ringing the number.

UNIT III - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow guide
2. Check your notes
3. Other

UNIT III - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. How to handle money
   a. See Item 3, Lecture Period, Unit III, 90-Hour Course
2. Check your notes
3. Other

- UNIT III - 3 HOURS

THE GROCERY INDUSTRY
HOW TO HANDLE MONEY

I. Lecture Period - One Hour

1. Review brochures on ACURA-TOUCH. Go through them with the students. Point out the fact that what they are learning will make their work more accurate, less tiring, and more interesting. The competency developed by the student, if they learn all lessons well, will provide for the students, those things all employees look for; job security, acceptance, recognition, and self fulfillment. The effort it takes to learn will be well worth it. Handouts #1, 7, and 9.

2. Discuss Unit One, Quaker Oats Kit. Each student should have this written assignment completed in section two of their manual. Check each manual to be sure they understand the format correctly. Now is the time to get them started on the right foot. Be sure they keep up to date with these assignments.

3. Teach items on Test #6, Unit VIII on handling money. Also, pages 158 through 162 in the Carl Jackson Text. Print ditto copies of forms on pages 159 and 161 leaving the first column blank. Give students problems to enter in this blank column. Practice change making as often as time permits from this unit through unit VII. Give Test #6 in Unit VIII.

II. References

A. Carl Jackson, Lesson One - Pages 1, 4, 5, 6, 9

NOTE: All Carl Jackson references are to be read by the students. Their written comments are to be entered in Section V of the student manual.

D. Handout No. 11, "The Importance of Listening and Following Directions." The importance of doing what must be done when it must be done and done as directed to be done. That is a lot of done's.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Assign Unit II, Quaker Oats Kit. Students can work on this unit and Lesson One, Human Relations.

V. ACURA-TOUCH - Two one-half hour periods

Continue Lesson one.

NOTE: The half hour ACURA-TOUCH and self study periods are rotated between team one and two. Team one works on self study assignments while team two works on ACURA-TOUCH. Six students to each team for a class of twelve.

UNIT IV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
2. Check your notes
3. Other

UNIT IV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Finish your guide
2. Produce Quiz
   a. Oral between teacher and students
   b. Oral between students
   c. Written 10 to 20 items Handout #22
3. Money Handling
   a. Written on forms
   b. Role play with play money

- UNIT IV - 3 HOURS

HUMAN RELATIONS

I. Lecture Period - One Hour

A. Human Relations, Chapters II and III. Human relations can make or break you. Shape up or ship out. Point out that human relations is not an end in itself but a means to an end; more productivity both group and individual, more enjoyable working environment, better job security, greater feeling of self-worth and self-fulfillment.

B. Handout No. 8, William Shakespeare. Comment on this handout.

C. Refer to leaders guide for text, "Your Attitude Is Showing," for ideas to cover. Take special note of those items in text printed in italics.

D. Point out the significance of the words recognition and rejection. How do they relate to the strongest of human emotions. Give others a little recognition. "Cast your bread upon the water, it shall return tenfold."

E. The meaning of empathy. Practice it on the job and off the job.

F. For additional material, read the fourth chapter of Mark verses 23, 24 and 25.

G. Discuss pages 1,4,5,6,9 assigned in Unit III.

II. References

A. Be sure the students are instructed to read Chapters II and III, Human Relations

B. Be sure the students write what they have learned from these two chapters and this material is properly located in their student manual.

C. Student and instructors reference. Carl Jackson Text, Pages 9, 11, and 14.

Note: All Carl Jackson references are to be read by the student.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Students should be writing what they learned about human relations from the lecture above and chapters II and III of "Your Attitude is Showing." Also, they may be working on Unit II, Quaker Oats Kit.

V. ACURA-TOUCH - Two one-half hour periods

Stay on lesson one. Considerable improvement should be noticeable. Have them slow down. If their totals are not correct, they are going too fast. Toward the end of the ACURA-TOUCH lessons, two totals are not correct. This was done deliberately so that the instructor can determine whether or not the students are checking the accuracy of their work.

UNIT V - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
2. Check your notes
3. Other

UNIT V - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Produce Quiz
   a. Follow same procedure as previously
2. Money Handling
   a. Follow same procedure as previously

- UNIT V - 3 HOURS

PRODUCER TO CONSUMER AND
HISTORY OF THE CASH REGISTER

I. Lecture Period - One Hour

A. Discuss Unit II, Quaker Oats Kit

B. Discuss the evolution and development of the checkout register.

II. References

A. Contact NCR representative for information on the history of the cash register.

B. Contact SWEDA representative for history of the braille key register.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Assign Unit III, Quaker Oats Kit. Students can work on this assignment or Human Relations assignment made in Unit IV.

V. ACURA-TOUCH - Two one-half hour periods.

Continue with lesson one exercises.

UNIT VI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Human Relations
   a. Handout #10
2. Discuss Unit III, Quaker Oats Kit
   a. What have students learned?
3. Check your notes
4. Other

UNIT VI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Reading the scale
   a. See your guide
   b. See ITEM B, Lecture Period, Unit VI, 90-Hour Course
2. Check your notes
3. Other

- UNIT VI - 3 HOURS

HUMAN RELATIONS AND
READING THE SCALE

I. Lecture Period - One Hour

A. Human Relations, Chapter's IV and V, "Your Attitude Is Showing."

B. Reading the Scale, discuss with the students pages 31-32-33-34-35-36. Have the students study these pages.

1. Have students do the exercise on following pages in Carl Jackson Text; 38-39-40-41-42-64-65-66-67-68.

2. Before starting students on scale exercise page 91. Be sure they have learned how to weigh multiple prices for three pounds. Teach them as a group if possible. If not, be sure to tell them not to start this exercise until they have learned how to do it. Now have them do excercises on pages 90-91-92-93-94-108-109-110-111-112.

3. Teach students how to weigh multiple prices for ten pounds then have them do the exercises on the following pages 126-127-128-129-130-149-150.

4. Teach students how to weigh multiple prices for five pounds. Then have them do the exercises on the following pages 166-167-168-182-183-184.

II. References

A. "Your Attitude Is Showing," Leader's Guide

B. Handout #10, "Value of a Smile"

C. Handout Produce Idiot Sheets. Use Handout #22, or as noted below, each student will need two or more of Handout #22.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Instructions for the following assignments should be given during Lecture Period.

A. On-the-job procedures for checkers requires that each checker must, before they start to check, fill out a produce idiot sheet for all items and prices on the produce rack. This must be done every day. From now on for the rest of the course your students must go into the supermarket and learn produce items in stock and prices for these items a minimum of twice a week. Idiot sheet is terminology generally used in the industry to describe a sheet or form that lists the produce items generally stocked by most stores. There are empty lines to add items not listed.

- UNIT VI - 3 HOURS

One idiot sheet should last one week. You do not use a new one each day. Once the items and prices have been filled in the first time, thereafter, only price changes are entered and new items noted.

B. You will not start the students learning to read the computing scale. They will do this during self-study periods for the next several sessions or units. You will be advised when it is time to discontinue this work. From now on you will have to devote considerable time to your self study students to assist them in understanding scale operation. At the same time you must keep your ACURA-TOUCH students progressing. In most cases a large percentage of your students should be doing well with ACURA-TOUCH so you can and must help those who may still be having problems.

Lessons on how to operate and read the scale will be found in the Carl Jackson Text. The lessons to be done are listed here in sequential order. Pages 31, 33, 34, 35, 38, 40, 64, 91, 108, 126, 166. Do only those lessons first that do not require a scale. There are scale exercises in the text that require the use of scales. Follow instructions given in Carl Jackson Instructor's Guide for doing these lessons.

V. ACURA-TOUCH - Two one-half hour periods

A. Continue Lesson I. Be sure students are calling numbers. Check their accuracy. Speed is not important. It will come with practice and confidence. Accuracy is important. If the students are not calling numbers loud enough for the ear to hear, they will not develop accuracy or speed. If the totals are wrong, they are doing the drills too fast. Slow 'em down!

If you are not "busier than a cat with fleas," you are not teaching!

UNIT VII - 3 HOURS OF 180 HOUR COURSE

- -

Lecture I:

1. Follow Guide
    a. Money Manipulators
    b. Produce Quiz
    c. Finish Unit III, Quaker Oats Kit
2. Check your notes
3. Other

UNIT VII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Teach Scale Exercises
2. Produce Quiz
3. How to Handle Money
    a. Use forms
    b. Role play with play money
4. Now is the time to assign memorizing ad items
    a. Use ad from participating store
    b. Use Handout #20

- UNIT VII - 3 HOURS

SUPERMARKET TODAY
AND MONEY MANIPULATORS

I. Lecture Period - One Hour

A. Discuss Unit III Quaker Oats Kit. The students should have unit III complete in their manuals.

B. Money manipulators, short change artists, till tappers, drop-artists, marked bills -- students should know how to prevent being taken by this type individual. Some rules:

1. Never turn back on register when drawer is open.

2. Never leave checkstand unless register is locked.

3. Never get involved with that individual who wants to trade money. A $10 bill for 10 ones, etc. You can't beat a money manipulator.

4. The drop-artist drops part of his change on the floor, tells the checker he got the wrong change.

5. Marked bills. These types work in teams of two. The first person makes a purchase paying with a $20 bill that has an identifying mark such as a phone number. The second member follows. He pays with a $5 bill, tells the checker he gave a $20 bill, knows he did because he wrote a phone number on it.

6. Have a member of the Bunco Squad from your local police department speak on short change artists, etc.

II. References

A. Store Manager
B. Police Department

C. Carl Jackson Text, Pages 153, 154, 155, 156, 157, 158

D. Handout #46

Note: All Carl Jackson references should be read by the students. Students written comments to be entered in section V of their student manual.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Students should be working on scale reading lessons in Carl Jackson test.

- UNIT VII - 3 HOURS

They should have human relations up to date in section IV of the manual. They should have written comments on Chapters I, II, III, IV, V.

V. ACURA-TOUCH - Two one-half hour periods

Start lesson 2. You will notice that the thumb and finger positions are reversed from lesson 1. The thumb moves from the 20 key to the 2 key. The finger from the 7 key to the 70 key. They will now register numbers where the 10 column number is higher than the penney column. They must learn once again the position of the number to be registered is related to the number previously registered. They must not remove thumb or finger from number registered but rather they must feel their way to the next number by sliding the thumb and finger from one position to the next. It is usually easier to not move thumb and finger at the same time. Have the thumb or finger find the correct key before moving the other thumb or finger to the new key.

Note: Give attention to the individual needs of your students during the half hour periods devoted to self study and ACURA-TOUCH.

UNIT VIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Human Relations
   b. Produce Quiz
2. Check your notes
3. Other

UNIT VIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Store security
2. Scale reading
3. Assign Unit IV, Quaker Oats Kit
4. Check your notes
5. Other

- UNIT VIII - 3 HOURS

HUMAN RELATIONS AND
STORE SECURITY

I. Lecture Period - One Hour

A. Human relations Chapters VI and VII, "Your Attitude Is Showing," use previous references.

B. Shoplifting and Store Security

1. A checker's role should be preventative. For apprehension call the store manager. Never accuse a customer of stealing. The student should know behavior pattern of shoplifting types. Generally, a shoplifter is not looking at the merchandise but around the store to determine if he is being observed.

II. References

A. Handouts #15 and 46.

B. Carl Jackson Text, pages 283 through 288.

Note: All Carl Jackson references are to be read by the student. written comments are to be entered in section V of the student manual.

III. Final Examination

Test # 6.

IV. Self Study - Two one-half hour periods

Students should be given a short oral quiz on product prices and product knowledge. What did they learn about the produce department from making out the idiot sheet as instructed in Unit VI. This can be done with each team separately during the self study period. Students should once again go into the store and bring their idiot sheets up-to-date. Whatever time is left during these two self study periods should be devoted to the scale reading lessons.

Are you keeping up with your schedule of student learning experiences. Students should be . . .

A. Going into the store daily to fill out produce idiot sheets a minimum of twice a week. You should be quizing them each day by the role playing method on produce prices. You should play the customer and ask each student the price of one or more items from the produce rack. Students may role play between themselves, too.

- UNIT VIII - 3 HOURS

B. Studying Quaker Oats Kits.

C. Studying "Your Attitude Is Showing"

D. Doing scale reading exercises

E. ACURA-TOUCH drills

F. Daily lectures that change from day to day.

V. ACURA-TOUCH - Two one-half hour periods

Lesson 2 continued. Students should practice each column 10 times before moving on to the next column.

UNIT IX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your Guide

   a. Supermarket Economics

   b. Produce Quiz

2. Check your notes

3. Other

UNIT IX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Give test on ad prices

2. Teach reading scale

3. Discuss how to recognize ad items. How to read ad before giving test.

   a. Explain difference between items in ad at regular prices and items at reduced prices.

   b. Why items at regular prices

   c. Why items at reduced prices

   d. Why out of ad items

   e. What to do if out of ad items

- UNIT IX - 3 HOURS

SUPERMARKET ECONOMICS

I. Lecture Period - One Hour

A. Discussion of Unit IV, Quaker Oats Kit. This unit should be completed in the student's manual. Better check, don't permit them to get behind or they won't catch up. Now is the time to introduce them to some bonehead economics.

B. A student in a recent checker class who was a third-year student at a State University, made this comment: "Why does a bag of ice sell for 29¢ instead of 10¢? After all, it is only water!" She, like many others, is not aware of what economists choose to identify as time, place, form, utility. These things cost money and when they are added to a free good, they make the free good cost money. Refrigeration is required to change water to form utility, this costs money. Water itself is no longer a free good when piped to the refrigeration plant. Labor and materials for packaging cost money. Trucks and labor to distribute the ice costs money. Time and place utility. Labor and equipment to store and sell the ice cost money.

There are those who believe that all one must do to get food is ask the government for food stamps. Food must be planted, grown, harvested, processed, distributed. This all costs money. The cost of distribution at retail, permits the average food retailer to show a net profit of only 1 1/2¢ on every dollar he takes in. A recent report by the Federal Government (1970) showed that the average family used 17% of their spendable income for food (15.6% 1972); the lowest this percentage has ever been in the U.S. and way below any other country in the world. A recent study by English newsmen permitted to enter North Viet Nam showed that one pound of meat cost the average North Vietnamese worker the equivalent of one day's work. Source: "North Viet Nam," A one-hour documentary film produced by an English film company.

II. References

A. Carl Jackson Text, pages 269 through 273.

B. Paul Samuelson Economics, Part III.

C. A reference more to the point than Samuelson is, "Economics For Our Times," Augustus H. Smith, McGraw-Hill, Parts I and II. Use specifically, Part II, page 20.

D. Handout #40.

III. Final Examination

Test No. 3

- UNIT IX - 3 HOURS

IV. Self Study - Two one-half hour periods

Continue lessons on reading scale. Assign Unit V, Quaker Oats Kit. Students can also work on Chapters VI and VII, "Your Attitude Is Showing." Give a short written quiz on produce prices, about 10 items.

V. ACURA-TOUCH - two one-half hour periods

Continue lesson 2, exercise drills. Call numbers, check accuracy, please give assistance to the ones still having trouble.

UNIT X - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Human Relations
   b. What have they learned so far?
2. Check your notes
3. Other

UNIT X - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Give Test #2
2. Discuss Quaker Oats Kit, No. IV
3. Assign Quaker Oats Kit, No. V
4. Teach reading the scale

- UNIT X - 3 HOURS

HUMAN RELATIONS

I. Lecture Period - One Hour

A. Study Chapter VIII, "Your Attitude Is Showing."

B. Now is the time to stop and take inventory of how your students are doing. Have them give written answers to these questions.

1. What have you learned so far?
2. What has meant the most to you?
3. In what areas are you having the most difficulty?
4. What can I do to help you?
5. How can I do a better job?

Remember your objective -- that these students will have, upon graduation, a level of competency equal to, or beyond, that of a checker with six months experience. Never forget, "If the student hasn't learned, the instructor hasn't taught."

II. References

A. I call your attention to page 50, "Your Attitude is Showing," about the middle of the page, starting with the paragraph, "Supervisors have been delegated the primary responsibility of helping their employees achieve maximum productivity. Does this responsibility lie wholly on the shoulders of the supervisor? Of course not."

Read the next 10 lines and impress upon the students the importance of this lesson.

III. Final Examination

Test No. 11

IV. Self Study - Two one-half hour periods

Have students go into store and bring their produce idiot sheet up to date. Give a short oral quiz on produce prices and product knowledge. The best way to do this is by role playing. Pretend you are the customer. They should know what to charge you for your purchases. Students should also be working on the scale exercises in the Carl Jackson Text.

V. ACURA-TOUCH - Two one-half hour periods

Continue with the lesson 2 exercises.

UNIT XI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. Customer relations and personal appearance

2. Produce Quiz

3. Check your notes

4. Other

UNIT XI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Assign Quaker Oats Kit, Unit VI

2. Discuss Quaker Oats Kit, Unit V

3. Give Test #4

4. Check your notes

5. Other

- UNIT XI - 3 HOURS

CUSTOMER RELATIONS AND PERSONAL APPEARANCE

I. Lecture Period - One Hour

A. Discuss customer relations and Personal Appearance

II. References

A. Unit V, Quaker Oats Kit

B. Carl Jackson Text, Page 10, 11, 14

C. Handout #2 and Handout #15, pages 2, 3, 4.

III. Final Examination

Test No. 4

IV. Self Study - Two one-half hour periods

Discontinue scale lessons in Carl Jackson Text. Give Test #4. Take the students into the store three at a time. Using a cart with 10 produce items, have them weigh them and enter the answers on Test #4. They should also know how to . . .

A. Turn on the scale light

B. Level the scale

C. Balance the scale to zero

V. ACURA-TOUCH - Two one-half hour periods

Continue with lesson 2.

UNIT XII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Human Relations
2. Produce Quiz
3. Check your notes
4. Other

UNIT XII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide
   a. Multiples
2. Check your notes
3. Other

- UNIT XII - 3 HOURS

HUMAN RELATIONS AND MULTIPLES

I. Lecture Period - One Hour

A. Discuss Chapter 9, "Your Attitude Is Showing."

B. Start students on multiples

II. References

A. Carl Jackson Text, pages 45 through 54.

B. Handout #49. Follow the steps of this handout for teaching multiples as the final examination is related to this handout. Carl Jackson is for your own reference.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

A. Start students on multiple exercises in the Carl Jackson Text, pages 87, 123, 147, 163, 179, 201, 209, 229, 243, 253. Follow instructions on handout #49 for working these problems.

B. The examples below should be of help to you in addition to the student handout #49.

Purchases will be either an odd number of units such as 3 cans, 5 cans, etc. Or even number of units such as 4 cans, 6 cans, 8 cans.

Rule A: Where units of the multiple are in even numbers, reduce the multiple to its lowest multiple and charge that price for that quantity. Example: 6 for 77. Six is an even unit, it can be reduced to 3, so 3 cans would sell for 1/2 of 77 rounded off to the nearest 10th of 1¢ - 39¢. Example: 8 for 73. Eight can be reduced to 4 so 4 would sell for 37¢. It can be further reduced to 2, so 2 cans would sell for 19¢.

Rule B: Even units such as 6 for 77¢ must be reduced to their lowest multiple before determining the price for purchases less than the lowest multiple. You do not find the price for one can or 2 or 3 cans by dividing 6 into 77¢.

Rule C: There is no problem with odd number units such as 5 for 77¢ or 3 for 77¢. Once again, remember to reduce even units to the lowest multiple. Now proceed. Here is the rule for determining the price of one or more cans that are less than the units of the multiple.

- UNIT XII - 3 HOURS

Example: 7 for 93¢ and the customer buys 4. Divide 7 into 93 to get a fraction, 13 2/7. The numerator 2 tells you how many cans sell for the rounded off price of 14¢, the rest sell for 13¢. So, the first 2 cans will sell for 14¢ each, the rest selling for 13¢ each.

Note: Handout #49 instructs students to learn two policies. Most stores follow policy "A" of this handout. In a later unit the students will develop an idiot sheet for those multiples presently in use by the cooperating supermarket.

In developing this idiot sheet use policy "A" only. Policy "A" is to be used during the role playing sessions at the end of the program.

In every multiple lesson, there are three columns. Price for one, two and three cans. Be sure the students enter the price for two or three cans as the case may be. Some students may enter the price for one can, then the price for the second and third can. This way they will have three single prices in a row.

Example: Correct Way	3-25	1	2	3
		9	17	25
Incorrect Way	3-25	1	2	3
		9	8	8

Produce: Be sure students go into the store and bring their idiot sheet up to date. Remember, this must be done once each day for the entire course. Role play price quiz.

V. ACURA-TOUCH - Two one-half hour periods

Continue lesson 2. By now you should notice that the students are no longer feeling their way, or seldom feeling their way. They should be moving slowly but accurately from number to number without searching for the keys by feel. We call this "finger confidence" or "educated fingers."

UNIT XIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. The grocery department, Quaker Oats Kit, Unit VI

2. Assign Unit VII, Quaker Oats Kit

3. Produce Quiz

4. Check your notes

5. Other

UNIT XIII -3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide

   a. How to operate the cash register

2. Multiples Quiz

3. Teach Multiples

- UNIT XIII - 3 HOURS

THE GROCERY DEPARTMENT AND
HOW TO OPERATE A CASH REGISTER

I. Lecture Period - One Hour

A. Assign Unit VII, Quaker Oats Kit.
Lecture period will have to be continued into Unit XIV.

II. References

A. Unit VI, Quaker Oats Kit

B. Carl Jackson Text, Pages 1, 4, 5, 6

C. The Household Encyclopedia, Pages 489 through 504

D. Test No. 13 - For reference only at this time

E. Test No. 7 - For reference only at this time

F. Handout #41. Have students sketch layout of participating supermarket showing customer traffic pattern.

G. Store Manager

H. Carl Jackson Text, pages 207 and 208.

I. Carl Jackson Text, Pages 190, 219 through 226.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

The students can study the following pages in the Carl Jackson Text, 16 through 30 and 57 through 63, and 115, 116, 141, 177, 213. The other pages are less important. Most stores will not permit the checker to do all the operations listed but they should understand them. Stores generally will not permit checkers to take register readings or remove detail tape. Nor will they allow a checker to trip open a register drawer. The register must be rung even for "no sale." Personal explanation of the text can take place during the self study period.

Students should devote one self study period to multiple problems in the Carl Jackson text.

- UNIT XIII - 3 HOURS

V. ACURA-TOUCH - two one-half hour periods

A. Start students on lesson 4, exercise drills. This lesson is a combination of lesson 1 and 2. They will now be registering numbers the same as they would on the job. Go slowly - check for accuracy.

B. Now is the time to use receipt tape. The students should know how to . . .

1. Set the date
2. Put in receipt and detail tape
3. How to prevent and clear register jams
4. How to operate different types of registers
5. The complete list of things they should know at this time will be found on the following pages of Carl Jackson, 17, 20, 21, 22, 23, 24, 28, 57, 115, 116, 117, 118, 119, 120, 121, 141, 177, 193, 213.

C. Have the students ring one column, then total the column. If the total on the register receipt is not the same as shown in the exercise, have students check the receipt tape against the exercise, number for number, until they find their error. Do this with every receipt tape when the total is not correct. Accuracy is the name of the game. Speed will come with confidence. Slow them down every session.

UNIT XIV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. Human Relations

2. Produce Quiz

3. Ad Price Quiz

   a. Why? See Unit IX

4. Check your notes

5. Other

UNIT XIV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide

   a. Pricing and stocking

2. Text No. 13

3. Ad Quiz here instead of Lecture I if short on time in Lecture I

4. Be sure to keep notes on your activities and always check them. Use page in guide

5. Other

- UNIT XIV - 3 HOURS

HUMAN RELATIONS AND
PRICING AND STOCKING

I. Lecture Period - One Hour

A. Continue Unit XIII

B. Assign Chapters 12 and 13, "Your Attitude Is Showing."

C. Discuss Pricing and Stocking

II. References

A. Handout #42

B. Store Manager

III. Final Examination

Test No. 13

IV. Self Study - Two one-half hour periods

A. Give a written test on produce prices. Select 20 best selling items.

B. Discuss what they have learned about produce from their daily checking of produce prices.

C. Continue multiples.

D. Students can also work on human relations Chapter 12 and 13, "Your Attitude is Showing." Check student manuals. Be sure section III, Quaker Oats Kit and section IV, human relations, are up to date. Students should have completed Unit VII of the Quaker Oats Kit. Be sure students go into the store and update the produce idiot sheet.

V. ACURA-TOUCH - Two one-half hour periods

Continue drills lesson 4. Check register tapes for accuracy.

UNIT XV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Cover 1/2 of Meat Department Knowledge
2. Assign Quaker Oats, Unit VIII
3. Discuss Unit VII, Quaker Oats Kit
4. Check your notes
5. Other

UNIT XV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide
   a. Finish meat department
2. Produce quiz
3. Text No. 7
4. Multiples Quiz

- UNIT XV - 3 HOURS

MEAT DEPARTMENT

I. Lecture Period - One Hour

A. Students should know . . .

1. How to handle meat at the checkstand
2. Variety, grades, cuts of meat, poultry, fish and other items sold in the meat department
3. How shoplifters steal or change prices on meat
4. How to handle customer complaints (store policies)

B. Assign Unit VIII, Quaker Oats Kit

II. References

A. Meat Department Manager

B. Quaker Oats Kit, Unit VII

C. Wall Charts for Beef, Pork, Lamb, Item VII, Instructor's Reference Texts.

D. 101 Meat Cuts, Item VI, Instructor's Reference Texts

E. The Household Encyclopedia, pages 455 through 471

F. Handouts No. 27 through 31

III. Final Examination

Test No. 7

IV. Self Study - Two one-half hour periods

A. Arrange with manager for a tour of the meat department.

B. Be sure students are prepared to ask questions.

C. Prepare the manager ahead of time so that he will point out the important things he wants your checkers to know so this will be a learning experience.

D. Continue lessons on multiples, Carl Jackson Text.

- UNIT XV - 3 HOURS

V. ACURA-TOUCH - Two one-half hour periods

Start lesson 3. With the hand in the correct position on the keyboard, the five keys such as $5, 50¢ and 5¢, become the middle or dividing line between the top and bottom of the keyboard. It is only natural therefore, that the thumb should ring all single keys below 5 and the index finger all single keys above 5. It is necessary to allow some flexibility due to the different sizes of hands. Here is the rule . . .

The 5 keys are the dividing line. Under no circumstances must the thumb be allowed to ring a key above 5. Also, the index finger is not permitted to ring a key below 3. This allows the student a reasonable degree of flexibility without moving the hand from the correct position on the keyboard.

UNIT XVI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Human Relations
2. Produce Quiz
3. Multiples
4. Discuss Quaker Oats Kit, Unit VIII
5. Assign Quaker Oats Kit, Unit IX
6. Check your notes
7. Other

UNIT XVI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Give tests 5 and 19
   a. Allow students 1/2 hour for each test
   b. If necessary test time could exceed 1/2 hour by using self study time

- UNIT XVI - 3 HOURS

HUMAN RELATIONS

I. Lecture Period - One Hour

A. Assign human relations, Chapters 14, 15, 18, "Your Attitude is Showing." This concludes the study of human relations. Have the students express their attitudes on human relations and how they plan to use it on the job. You should have a good discussion on this subject and how it relates to on-the-job situations.

B. Be sure student manuals are up to date.

II. References

III. Final Examination

Test No. 19

IV. Self Study - Two one-half hour periods

A. Continue multiple lessons in Carl Jackson Text.

B. Have students go into the store and bring produce idiot sheet up to date. You should have an oral quiz on produce prices. Have each student take a turn at playing the role of a customer and pick three produce items for another student to call correctly.

V. ACURA-TOUCH - Two one-half hour periods

A. Start students on lesson 5. The same basic rules for hand position apply to lesson 5 as they did for lesson 3.

B. This lesson teaches how to ring matching numbers. Example: 11, 22, 33, 44, 55, 66, 77, 88, 99.

C. For matching numbers 55 to 99, use the index and middle finger. The index finger rings the keys on the dime column and the middle finger rings the keys on the penney column. Push both keys simultaneously.

D. For matching numbers 11 to 44, use the thumb. Place the thumb so that it rests evenly on both keys. Push both keys simultaneously.

E. In lessons 1 and 2, only the thumb and index finger were used for all numbers. This lesson offers the student an option when ringing numbers above 55.

UNIT XVII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Cover first half of vegetables
   b. Be sure to cover all test items as well
2. Check your notes
3. Other

UNIT XVII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide
   a. Cover second half of vegetables
2. Give Test #2
3. Produce Quiz
4. Assign ad memory. Use ad from participating supermarket

- UNIT XVII - 3 HOURS

THE PRODUCE DEPARTMENT.

I. Lecture Period - One Hour

A. You should devote this unit, plus unit XVIII to the produce department

B. Cover vegetables in this unit, and fruit in Unit XVIII

C. Students must know . . .

1. How to care for produce at checkstand
2. How each item is sold
3. Where grown
4. Time of year available
5. Characteristics of each item
6. How cooked or served
7. How produce is displayed
8. How produce is cared for in the produce department

D. Using Handout #37, have students prepare a complete list of items sold in the produce department.

E. Using Handout #39 and entering items on Handout #37, have students learn the knowledge required on Handout #37. Example: Grapefruit.

1. Requires average care at checkstand
2. Sold by the bag, pound or each
3. Grown in California, Arizona, Texas and Florida
4. Grows in Florida during the winter season, Texas during the winter season, Arizona during the summer season, California during the summer season. There is an overlap of the season, of course. If you investigate, you can be more specific as to fall and spring.
5. Characteristics:

a. Florida: Famous for its Indian River grapefruit. Grown in the Indian River Valley on the east coast of Florida. Considered by consumers generally, as the best there is. Originally pink, it does not have the strong grapefruit flavor some consumers refer to as sour.

b. Texas: Best known for Texas Pink Grapefruit. Generally considered an imitation of Indian River and not of such high quality.

c. Arizona: Generally white, it usually has a thick skin. It is also considered pourest in quality and usually is less expensive.

d. California: This variety of grapefruit is pink and white. It is the most famous and is considered best of all kinds by the true grapefruit gourmet. The brand, Coachella Valley, grown in the valley of the same name. It has a genuine grapefruit flavor.

6. Usually grapefruit is used as a breakfast fruit. But it can also be used in other ways, have students offer suggestions.

F. Follow this same procedure with every item sold during a 12-month period in the produce department. Remember, you are educating a professional checker not a cashier, and knowledge + skill = a professional checker.

G. Be sure to check on student manuals to determine if students are properly filing their work in the proper sections of the manual. Students must keep their manuals up to date as you move along. These manuals are a very important part of the total program.

H. Assign Unit 9, Quaker Oats Kit.

II. References

A. Unit 8, Quaker Oats Kit

B. Handouts #35, 37, and 38

C. Produce Manager

D. Household Encyclopedia Pages 477 - 489.

E. Blue Goose Buying Guide.

III. Final Examination

Test No. 2

IV. Self Study - Two one-half hour periods

Continue with multiple lessons

V. ACURA-TOUCH - Two one-half hour periods

A. Start students on exercise drills 6, 7, 8, 9

B. Have the students ring each column no more than three times, then move on to the next column going through lessons 6 through 9.

- UNIT XVII - 3 HOURS

C. After completing lesson 9, start over again with lesson 6.

D. If student totals are not correct, have them slow down and get correct totals. Accuracy is the name of the game.

E. Be sure students check tapes to locate errors.

F. Some totals are purposely incorrect to determine if the students are checking tapes.

UNIT XVIII - 3 HOURS 180 HOUR COURSE

- -

LECTURE I:

1. Cover first half of fruit
2. Check your notes
3. Other

UNIT XVIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Cover second half of fruit
2. Produce quiz
3. Multiple quiz

- UNIT XVIII - 3 HOURS

PRODUCE DEPARTMENT

I. Lecture Period - One Hour

A. Continued from Unit XVII

B. Cover fruit and miscellaneous items in this unit

II. References

The same as in Unit XVII with Handouts #36 and 38

III. Final Examination - None

IV. Self Study - Two one-half hour periods

Continue multiple lessons in Carl Jackson Text

V. ACURA-TOUCH - Two one-half hour periods

Continue ACURA-TOUCH drills, lessons 6 through 9.

UNIT XIX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Dairy department
   b. Frozen foods
2. Check your notes
3. Other

UNIT XIX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Discuss Unit IX, Quaker Oats Kit
2. Assign Unit X, Quaker Oats Kit
3. Give Test #2
4. Give Ad test

- UNIT XIX - 3 HOURS

DAIRY - FROZEN FOODS

I. Lecture Period - One Hour

A. Assign Units 9 and 10, Quaker Oats Kit.

II. References

A. Unit 9, Quaker Oats Kit

B. Unit 10, Quaker Oats Kit

C. Handouts #32 through 34

D. Store Manager

E. Household Encyclopedia, Pages 472 through 477.

III. Final Examination - Test No. 8

IV. Self Study - Two one-half hour periods

Give human relations Test No. 2

Discontinue multiple problems in Carl Jackson Text.

Have the students (in teams of six) go into the supermarket and make a list of all multiples. Divide the store into sections so each student will do one area to save time. Have your students compare their lists and remove duplications so that they have one list of store multiples without duplications. Applying what they have learned, have them make a multiple price idiot sheet. Have each student make her own idiot sheet working independently of the others. When each student has completed this assignment, have them compare their sheets with each other for accuracy so that all sheets are identical.

Use Handout #21 for preparing this idiot sheet on store multiples.

Your students should know . . .

1. When they go to work for the first time that they must prepare an idiot sheet of store multiples.
2. How to determine the unit prices for the idiot sheet.
3. That they must remember these multiple prices so that they can give prompt accurate customer service.

- UNIT XIX - 3 HOURS

V. ACURA-TOUCH - Two one-half hour periods

Discontinue the ACURA-TOUCH Handout drills and lessons. Start the students on the cash register drills in the Carl Jackson Text. The students will now learn to use department keys and ring simulated grocery orders. Have them ring meat, produce and groceries only. Have them check the register tape with the drill to determine whether or not they have rung prices and departments correctly. Disregard the time and grades shown with these drills. Accuracy is the name of the game. Impress this on your students, slow down. Do each drill once, then move on to the next drill. After all drills have been completed, start over and do them again until the student can ring each drill correctly.

Have students practice cash register drills on the following pages in the Carl Jackson Text, 56, 107, 146, 165, 176, 200, 227, 242. DO NOT DO THE OTHER DRILLS.

On those registers where the department keys are located to the upper right of the keyboard, the students are to push these keys with the middle finger. On the SWEDA Power Penney, the department keys are to be pushed with the thumb of either hand whichever is most convenient for the student.

If the student is interested in determining her level of competency on the cash register, she should be capable of doing these drills with no mistakes in twice the time shown. The mobile school is an accelerated program. The drill time shown applies to permanent centers where the course of instruction is longer. The level of competency of a graduate of the mobile school will be 100% accuracy within the time limit of final examination Test No. 1. The student will pick up speed rapidly on the job as confidence develops and they have more time on the register. Some students may do these drills in the time shown. Remember, it is accuracy first, speed second.

UNIT XX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. Bakery Department

2. Discuss Unit X, Quaker Oats Kit

3. Produce Quiz

4. Assign Unit XI, Quaker Oats Kit

5. Check your notes

6. Other

UNIT XX - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Follow your guide

   a. Other departments

2. Test #20

3. NOTE: Under other departments, be sure to cover the importance of the wine department. Knowledge of wine, cooking wines, etc.

- UNIT XX - 3 HOURS

BAKERY AND OTHER DEPARTMENTS

I. Lecture Period - One Hour

II. References

A. Units 11 and 13, Quaker Oats Kit

B. Handouts #24 through 26

C. Manager of in-store bakery

D. Store Manager

III. Final Examination

Test No. 20

IV. Self Study - Two one-half hour periods

A. Have students bring produce idiot sheets up to date. Role play customer-checker situation to determine if the students know produce prices.

B. Students should complete the multiple price assignment given in Unit XIX. They will each have a multiple price idiot sheet that is identical with each other. Have them role play with each other, one a customer and one a checker, to determine how many multiples they can remember.

V. ACURA-TOUCH - Two one-half hour periods

Continue cash register drills in the Carl Jackson Text. Check register tapes for accuracy.

UNIT XXI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. Front end

2. Check your notes

3. Other

UNIT XXI - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Discuss Unit XI, Quaker Oats Kit

2. Assign Unit XII, Quaker Oats Kit

3. Produce Quiz

4. Tests #14 and 16

5. Students should start doing time tests in Carl Jackson Text for cash register using ACURA-TOUCH.

   a. Suggest drills on pages 107-122-146-165-176-200-212-227-242-252-275. Have students do these drills in order listed. Time each student on each drill. Have students complete two drills each day of this week.

- UNIT XXI - 3 HOURS

THE FRONT END

I. Lecture Period - One Hour

A. Explain the advantages and disadvantages of the following items . . .

1. Multiple prices - trend in some areas to single unit pricing

2. Front end merchandising

3. Split "L" Checkstand

4. Automatic Checkstand

Note: These should be explained from the point of view of the checker, the customer, the owner.

B. Students must know . . .

1. How to work efficiently in a Split "L" Checkstand to minimize fatigue and increase accuracy

2. How to work in an automatic checkstand to increase accuracy

3. Responsibilities for supplies, cleanliness, maintenance, and equipment, etc.

II. References

A. Handouts #3, 4, 15, 45, 48

B. Unit 12, Quaker Oats Kit

C. Carl Jackson Text, Pages 71 through 78, 133, 137 through 140

III. Final Examination

Tests No. 14 and 16

IV. Self Study - Two one-half hour periods

Continue with memory development of in-store multiples. Checkers have to know multiples. They do not have time when checking to work math problems. It is more difficult to memorize multiples in the classroom than it is on the job. They must recognize that they have the responsibility to remember multiple prices. The classroom offers the opportunity to develop the self discipline and know how required to memorize multiples.

- UNIT XXI - 3 HOURS

V. ACURA-TOUCH - Two one-half hour units

Continue cash register drills, Carl Jackson Text. Check tapes for accuracy.

INSTRUCTOR'S NOTE: References for Units XXI, XXII, XXIII, XXIV, will be found in Carl Jackson Text, Lessons IV, V, VII, IX, X, XII.

UNIT XXII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Posting the ledger
2. Check your notes
3. Other

UNIT XXII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Produce Quiz
2. Give ad assignment
3. Test No. 12
4. Other

- UNIT XXII - 3 HOURS

POSTING THE LEDGER

I. Lecture Period - One Hour

A. The students should know that the form used in class will not be the same as on the job, that different stores use different forms and different procedures but all stores require that the checkers post a ledger in accordance with their store policy.

B. After you have instructed the class on how to post every entry, role play with you being the customer. Have the students fill out the ledger form covering every type of situation. Do this until students know how to post every entry accurately and rapidly.

C. Use ledger sheets, Handout #17. Also use correction sheets from one or more of the leading supermarkets in your area so the student will learn how different supermarkets correct checker errors, etc.

II. References

A. Handouts #16 and #44.

B. Carl Jackson Text, Pages 97 through 104, 133 through 139.

III. Final Examination

Test #12

IV. Self Study - Two one-half hour periods

A. Produce idiot sheet must be brought up to date. Role play to determine students' knowledge of prices.

B. Role play, posting the ledger. Instructor can be the customer. Students may take turns being the customer.

V. ACURA-TOUCH - Two one-half hour periods

Continue cash register drills, Carl Jackson Text. Check register tapes for accuracy. Are the students calling the prices?

UNIT XXIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. How to cash checks
2. Check your notes
3. Other

UNIT XXIII - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Discuss Unit XII, Quaker Oats Kit
2. Assign Unit XIII Quaker Oats Kit
3. Produce Quiz
4. Multiple Quiz
   a. Use Multiples from participating supermarket

- UNIT XXIII - 3 HOURS

HOW TO CASH CHECKS

I. Lecture Period - One Hour

A. Limit of financial responsibility

1. Some stores will not allow checkers to cash any checks
2. Some stores allow personal checks only
3. Some stores limit the amount of change a checker can give. Example: Some stores do not allow a checker to give a customer more than $5 above the amount of the purchase. Explain why.

B. Customer identification

C. Checker identification. Most stores require that a checker identify check accepted as follows: On the top of the check usually in the middle, there is a blank area where identification can be entered as shown below.

1	20.00
15.95	bam

One is placed in the upper left corner (this is the checkstand number), $15.95 is the amount of purchase, $20.00 is the amount of the check, bam is the initial of the checker.

D. Post-dated checks are not acceptable. Explain.

E. Outdated checks are not acceptable. Explain.

F. Second party checks are not acceptable. Explain.

G. Signature, phone, address, not acceptable. Explain.

H. Amounts agree. Read the check.

I. Other. Once you have instructed the students, role play with you as the customer. Have students write checks according to your instructions, ask if they will accept a check. Use Handout #19.

J. Food Coupons

1. Have a store manager talk on food coupons
2. Have a representative from the United States Department of Agriculture talk on the food coupon program.
3. Teach them how to handle food coupons and food coupon customers.
4. Give students role playing learning activities using simulated food coupons.

K. Manufacturer's Coupons - Store Coupons

1. Have a store manager talk on these coupons
2. Give students role playing, learning activities using these coupons.

- UNIT XXIII - 3 HOURS

II. References

A. Test No. 10, reference only at this time.

B. Handout #43

C. Carl Jackson Text, Pages 171 through 175.

III. Final Examination - None

IV. Self Study - Two one-half hour periods

A. Give a memory quiz on store multiples. Role play with you as the customer.

B. Using Handout #20, have the student make an idiot sheet for ad prices on the day the ads come out.

C. Using Handout #18, have students make idiot sheet for unmarked prices.

SPECIAL NOTE: Students must learn that investigate + remember = correct prices at checkstand. You cannot stress this too strongly. Have the students do it daily. Investigate + remember . . .

1. Produce prices (they have been doing this daily)

2. Ad prices

3. Multiple prices

4. Unmarked prices

V. ACURA-TOUCH - Two one-half hour periods

Continue cash register drills in the Carl Jackson Text.

UNIT XXIV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide
   a. Bagmanship
2. Produce Quiz
3. Check your notes
4. Other

UNIT XXIV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Final review
   a. Review tests #10,15,18,17,9
2. Ad Quiz
3. Unmarked item Quiz

- UNIT XXIV - 3 HOURS

BAGMANSHIP, FINAL INSTRUCTIONS
AND REVIEW

I. Lecture Period - One Hour

A. Proper bagging

B. Store policies. Go through Handout #4 covering any items missed. Student should be instructed that when he goes to work he must take Handout #4 with him and go over every item with the store manager. Be sure he is instructed to write down the store policy for each item.

C. Cash register operation.

II. References

A. Handout the Crown Zellerbach Paper Company booklet, "Bagmanship."

B. Crown Zellerbach Paper Company Flip Chart, Plastic Sleeve, etc.

C. Lesson 18, Carl Jackson Text.

D. Lesson 6, Carl Jackson Text.

E. Carl Jackson Text, Pages 141 through 145.

F. Test No. 5, for reference only at this time.

G. Handout #47.

III. Final Examination

Acura-Touch, Test No. 1

IV. Self Study - Two one-half hour periods

Proper Bagging

A. Preparation - Have a cart of groceries and bags

B. Refer to Crown Zellerbach Paper Company Kit on "Bagmanship"

C. Demonstrate correct bagging procedure.

D. Select two students to demonstrate the procedure. It is not necessary to have all students practice at this time. They will have this opportunity during the next six units.

- UNIT XXIV - 3 HOURS

Students can devote any extra time reviewing for the remaining competency tests.

Check student manuals. If the Quaker Oats Units are not completed, be sure they are instructed to complete them and turn them in for your OK no later than Unit XXVIII.

V. ACURA-TOUCH - Two one-half hour periods

Start giving the ACURA-TOUCH Test No. 1

Have all of the students practice these tests. Give the students several opportunities to pass the test which does not need to be taken consecutively. If the student fails the first time, have him practice before taking the test the second time. Students may become very nervous about this test which will cause them to fail. Here are two suggestions that will prove helpful.

A. Do not stand close and watch them.

B. Have three at a time start practicing the test. Without their knowledge, start timing them one at a time. In other words, give them the test without them knowing they are being tested, if you can.

UNIT XXV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE I:

1. Follow your guide

   a. Review Handout #23

2. Discuss Unit XIII, Quaker Oats Kit

3. Give Tests #10,15

4. Check your notes

5. Other

UNIT XXV - 3 HOURS OF 180 HOUR COURSE

- -

LECTURE II:

1. Give tests no. 18,17,9

2. Assign Unit XIV, Quaker Oats Kit

NOTE: Students should have completed ACURA-TOUCH Tests.

- UNIT XXV - 3 HOURS

FINAL REVIEW AND TESTING

I. Have students prepare idiot sheet for unmarked items in grocery department. Use Handout #18. Prepare this the same as you did for multiples.

II. Types of checkers. Use Handout #23. Review this handout.

III. Final Examinations

A. Test No. 10

B. Test No. 15

C. Test No. 18

D. Test No. 17

E. Test No. 9

F. Test No. 5

- -

ROLE PLAYING

1. Follow your guide

2. Handout #59 should be used. Each student customer is to use this Handout to grade the student checker and bagger. When the student customer has satisfactorily graded the student checker and bagger, the student customer is to turn the grade sheet in to the instructor.

3. The instructor should check an order through on each student as checker and bagger. Use Handout #59 to grade the students.

- UNITS XXVI THROUGH XXX - 3 HOURS

FRONT-END OPERATION
(Role Playing)

PREPARATION:

A. Convert the classroom to three checkstand laboratories. (for mobile school)

B. Borrow three grocery carts from participating supermarkets and arrange for using merchandise from the store. (for mobile school)

C. Have students, in teams of two, take turns each class unit selecting a typical grocery order. Include items from all departments. A word of caution -- do not use items from the meat, produce and dairy departments that are highly perishable. Examples: tomatoes, fresh meats, milk. (for mobile school)

D. Have each student bring to class $5 in change and bills so that each cash register will have the same amount of money in the bank for making change. Have a generous supply of checks (Handout #19) to be used for paying for purchases.

E. Students must have produce idiot sheet, multiples idiot sheet, ad idiot sheet.

F. Students have ledger sheets enough for one ledger sheet per student for each class session.

G. A supply of correct sized bags. The two largest sized bags are needed plus smaller bags used for meat and perishables.

ROLE PLAYING:

A. The instructor is the store manager.

B. Assign three students to each checkstand. You will have to arrange with the participating supermarket to use one checkstand as often as possible. When it is not possible, assign one student to each checkstand as an observer.

C. One student is the customer, one the checker, one the bagger.

D. Have each student check out the order once, then rotate positions. The customer will become the checker, the checker will become the bagger, and the bagger will become the customer. If an observer is being used, fit her in to a four man team instead of a three man team.

E. Have the observer or the customer make notes of the mistakes made by the checker and the bagger. These notes can be turned in to you at the end of each three-hour session to guide you in lending assistance.

F. Number the carts 1, 2, 3, etc. When each student in a team has checked the order once, rotate the carts with the other teams.

G. Manager responsibility. Supervision and control of the front end so that your checkers and baggers are working at top performance, in accuracy and speed.

H. The ledger sheet must be posted correctly. Bottle returns, refunds, overrings, department errors.

I. Checks must be accepted in accordance with store policy.

J. Customer complaints must be handled in accordance with store policy.

K. Bagger must bag correctly.

L. Checker must use proper procedures. Refer to Handout #3. Also, the checker must use proper procedures in handling the merchandise.

1. Check by departments
2. Group multiple-priced items
3. Care of merchandise.

M. Personal Appearance

N. Customer relations - Human relations.

O. Store Policies. Examples: When must they call the store manager regarding cashing checks, refunds, exchanges, customer complaints.

P. Speed - approximately 1/2 the speed of a good checker.

Q. Bank must be balanced and accurate before and after each 3 Hour session.

R. Register date on receipt tapes must be accurate.

S. Departments must be registered correctly. Multiple priced items must be registered correctly. Coupons and food stamps must be handled correctly.

T. Ad prices and produce prices must be correct.

U. Produce knowledge of any item as covered in the course of instruction.

- UNITS XXVI THROUGH XXX

STUDENT MANUAL:

A. The student manual must be completed by UNIT XXVIII.

1. Diploma and resume

2. Section of the manual must contain all handout materials.

3. Section two of the manual must contain all test materials.

4. Section three of the manual must contain a short essay plus answers to the Quaker Oats Kit Units.

5. Section four of the manual must contain a short essay of each chapter covered in the text, "Your Attitude is Showing."

6. Section five of the manual must contain notes clearly identified covering areas not covered in the above four sections. Examples: checks, handling money, posting the ledger, how to use the scale, bagging, how to operate the register, store policies, front end procedures, shoplifting, etc.

7. Student notes.

VISUAL OBSERVATION TESTING:

A. Use handout #55, rate students in column 1. In giving a rating consider the written test plus your visual observation of student performance during the role playing simulated checker experience. Maximum rating of 50 points allowable for each competency.

APPENDIX A

A. J. ("Nick") Nichols
Vice President of Sales Personnel
Kellogg Sales Company
Battle Creek, Michigan

> "We are not too concerned about what you are being taught nor are we too concerned about what you will learn. But we would hope that your involvement here will make you aware of the necessity to change and to improve. And that you will be willing to admit that what you know could be wrong, and that you do not know all that you should know."

The quote above was taken from a conversation between Wally Riggs and Nick Nichols at a banquet hosted by the Kellogg Company for the students attending the WMU Checker School in September, 1968. It is printed here with his permission.

THE WASHINGTON STATE VOCATIONAL EDUCATION MOBILE CHECKER TRAINING PROGRAM is dedicated to finding a way, through continuous research and improvement, to serve the customer more accurately, more promptly and more courteously at less cost to the store owner.

And, most important of all, we are dedicated to the proposition that those unemployed who can profit from it should have an opportunity to secure a good education so that they may acquire a marketable skill.

Handout #2

I AM YOUR CUSTOMER

I AM YOUR CUSTOMER! You often accuse me of carrying a chip on my shoulder, but I suspect this is because you do not entirely understand me. Isn't it normal to expect satisfaction for one's money spent?

Ignore my wants and I simply will cease to exist. Satisfy those wants and I will become increasingly loyal. Add to this satisfaction any personal attention and friendly touches you can dream up -- and I will become a walking advertisement for your services.

When I criticize your products or service, which I will certainly do when I am displeased and to anyone who will listen to me, take heed. I'm not dreaming up displeasure -- the source of it lies in something you have failed to do to make our experience as enjoyable as I had anticipated. Let's first find that source and eliminate it or you will lose me and my friends as well.

I'm much more "sophisticated" these days than I was a few years ago. I have grown accustomed to better things, and my needs are more complex. I am perfectly willing to spend more money with you. (I have more money to spend), but I insist on good service from you.

I am, above all, a human being. I am sensitive -- especially when I am spending money. I can't stand being snubbed, ignored or looked down upon. I am proud. I am proud! My ego needs the nourishment of a friendly, personal greeting from you. It is important to me that you recognize my importance -- that you appreciate my business. Remember, when I buy your groceries, my money is figuratively feeding you.

Whatever my personal habits might be, you can be sure of this -- I am a real nut on the type of service I receive. If I detect signs of carelessness or other bad habits, ill manners or misconduct, you won't see me again.

I am your customer now, but you must prove to me again and again that I have made a wise choise in selecting your store over others. And you must convince me repeatedly that being your customer is a desirable thing in the first place. I can, after all, spend my money elsewhere. But you must provide something extra in service -- something superior enough to beckon me away from other places where I might spend money. You must provide the incentive for me to do business with you.

DO WE UNDERSTAND EACH OTHER?

Handout #3

CHECKING PROCEDURES

THESE PROCEDURES MUST BE FOLLOWED. YOU WILL BE TESTED REGULARLY THE FIRST FOUR WEEKS ON THE JOB, INTERMITTENTLY THEREAFTER.

CALL ALL PRICES

1. Before starting to check an order ask the customer if she found everything.

2. If you are not going to bag the order and you will need a box boy -- call him now.

3. Do not encourage conversation while checking. If the customer insists on talking, stop checking.

4. Group check by departments as far as you can go. Do not hop around from one department to another, checking single items.

5. When necessary to remove your hand from the register, locate home position before resuming checking.

6. When an error is made stop checking at once and correct the error on your correction sheet.

CALL ALL PRICES

7. When sale is completed, count the change to yourself as it is removed from the register. Then count it to your customer.

8. SMILE -- Treat your customer as you would a guest in your home. If she doesn't come back we won't have a home.

9.

10.

Handout #4

CHECKING PROCEDURES

LEARN STORE POLICY

- Personal Appearance
- Gum Chewing
- Smoking
- Work Schedule
- Union Requirements
- Pay Schedules
- Benefits
- Personal Checks
- Payroll Checks
- Government Checks
- Coupons
- Food Stamps
- Bottles
- Refunds
- Exchanges
- Customer Complaints
- How and who to call when you need assistance
- Other

Find the answers to store policy from the store manager and write below or on referse side.

Handout #5

E N T H U S I A S M ! !

I am the greatest builder in the world, I am the foundation of every triumph. I am the dynamo of human action. No matter what your position is, I can better it. My name is ENTHUSIASM.

I change the conditions of man and the destinies of nations. No one is proof against my power -- ENTHUSIASM.

Put me to work within your mind and I will harness such ENTHUSIASM to your work that no force can block the road to your success.

Sink me deep within your mind, then draw upon my power. Use it well and you will become irresistible and every obstacle will be overcome, making your progress safe and your success assured.

Do not be afraid to use me. I am catching, and when you show me to the world, all mankind stand in admiration and lend their efforts to your support.

ENTHUSIASM brings success to you on a platter of gold, Breed me in your thoughts, graft me to your mind and I will show you a power so great that you will shout and laugh for joy. You see the way to the actual realization of your good ambition and every doubt and fear will be lost in the echo of your rejoicing certainty.

I can say to yonder barren plain: "Become a city" and it becomes a city. I can put glory into the meanest work and out of the lowest occupations create unheard of opportunities.

Will all your getting, get me, ENTHUSIASMS! I will take you soaring to heights undreamed of, and give you great rewards for honest labor. Grapple me to your heart with hoops of steel, for I am Master of Love, Confidence, Content and Riches. I am the unfailing guide to your Success. Forget me not. Put me in your mind today, now, and feel the impulse of my Power. Think my thoughts and I will touch whatever you do with my magic wand of gold. Use me, ENTHUSIASM!

Handout #6

WHAT DO CHECKERS SAY ABOUT ACURA-TOUCH

I am less concerned with the cash register. I can devote more attention to my customer.

* * * * * * * * *

The ACURA-TOUCH method reduces the number of things that I must watch. The operation of the register becomes automatic. I handle the merchandise with more care, faster and watch the prices with ease. My eyes are on the merchandise instead of the register.

* * * * * * * * *

I feel more confident and competent. I know that I am doing a better job.

* * * * * * * * *

The ACURA-TOUCH system cuts frustration and fatigue. I make fewer mistakes and enjoy my work more.

* * * * * * * * *

I realize I am one of an elite group. Among the first in the state to learn this new way to check. I am proud of myself and what I can do.

* * * * * * * * *

No more skinned knuckles or broken fingernails to irritate me. I can now watch what my left hand is doing.

* * * * * * * * *

This is the greatest thing for me since the pill!

* * * * * * * * *

I never realized how many times I twisted my neck in an eight hour day.

* * * * * * * * *

Since all the checkers in our store learned ACURA-TOUCH, things are running smoother.

* * * * * * * * *

We still have problems but they are easier to solve - fewer of them and a lot less griping.

* * * * * * * * *

Why didn't someone think of this sooner?

* * * * * * * * *

RHYTHM METHOD OF REGISTER KEY MANIPULATION

There is nothing new about the rhythm method of key manipulation. It is as old as musical instruments operated by keys such as the saxaphone, accordian, piano, etc. It has been widely used for years on office machines and in industrial production.

Adapting this method of key manipulation to the modern supermarket cash register is a new innovative improvement in checker accuracy. It usually requires from 10 to 20 hours to learn this skill. Some have learned to do this in as little as 4 hours. Learning this skill is one thing -- developing this skill so that it is a permanent habit is another. Individuals who have not learned to work with their fingers instead of their eyes usually require 6 to 8 weeks at 40 hours a week in a checkstand to develop this skill as a permanent habit.

It is a proven fact that the fingers are more accurate and faster than the eyes. Anyone familiar with musical instruments, office machines and industrial production recognizes the validity of this statement.

Scientifically conducted tests under rigid controls have shown that a checker using the rhythm method check has a reduction in error frequency of 46%, a reduction in net dollar loss of 48% and an increase in productivity of 10%. A supermarket doing a 2 million dollar volume yearly will add $3,600.00 annually to net profits using this method in it's front end operation.

The goal of our program of education and training is to secure a larger share of the consumer dollar for the food industry in Washington State at less cost to the food retailer and a larger net profit.

The brain is much like a computer. That is, it directs the action of the body as a result of information fed to the brain from eye, ear and touch. To ring numbers correctly, the fingers must learn the keyboard. This information is fed to the brain. When a number is called the ear feeds this information to the brain which in turn directs the fingers to push the correct keys. You must call the numbers to be rung on the register loud enough for the ear to hear and feed this message to the brain. This reinforces the information fed to the brain by the eyes. For the best accuracy and efficiency plus the best customer service, the checker's focus of attention must be on either the merchandise the left hand is handling or on the customer. To do this the checker cannot focus his attention on the register as being done today by most checkers and taught today by most checker schools. Only by learning the ACURA-TOUCH method of register manipulation will you become truly a professional checker.

Handout #8

THE FAULT DEAR BRUTUS, IS NOT IN OUR STARS

BUT IN OURSELVES

William Shakespeare

IF I POSSESSED A SHOP OR STORE

"If I possessed a shop or store, I'd drive the grouches off the floor, I'd never let some gloomy guy offend the folks who want to buy. I'd never keep a boy or clerk with mental toothache at his work; Nor let a man who drew my pay drive customers of mine away. I'd treat the man who takes my time and spends a nickel or a dime; with courtesy, and make him feel that I was pleased to close the deal. Because tomorrow, who can tell, He may want the goods I have to sell; and in that case, then glad he'll be to spend his dollars all with me. The reason people pass one door to patronize another store, is not because the basic place has better silk or gloves or lace; or cheaper prices, but it lies in pleasant words and smiling eyes. The only difference I believe, is in the treatment folks receive."

--Edgar A. Guest

Handout #10

VALUE OF A SMILE

It costs nothing but creates much.

It enriches those who receive without impoverishing those who gave.

It happens in a flash and the memory of it sometimes lasts forever.

None are so rich that they can get along without it and none so poor but richer for its benefits.

It creates happiness in the home and fosters good will in business.

Yet it cannot be bought, begged, borrowed or stolen.

It is something that is no earthly good to anybody until it is given away.

If at times you meet someone who fails to give you a smile, may I ask that you give one of your own?

For nobody needs a smile as much as those who have none left to give.

Handout #11

CAN YOU FOLLOW DIRECTIONS?

This is a timed test -- You have three minutes only.

1. Read everything carefully before doing anything.
2. Put your name in the upper right hand corner of this paper.
3. Circle the word "NAME" in sentence two.
4. Draw five small squares in the upper left hand corner.
5. Put an "X" in each square.
6. After the title, write "YES, YES, YES."
7. Put a circle completely around sentence under seven.
8. Put an "X" in the lower left corner of this paper.
9. Draw a triangle around the "X" you just put down.
10. On the back of this paper, multiply 703 by 66.
11. Draw a rectangle around the word "CORNER" in sentence four.
12. Loudly call out our first name you get this far along.
13. If you think you have followed directions carefully to this point call out "I HAVE".
14. On the reverse side of this paper, add 8950 and 9805.
15. Put a circle around your answer, and put a square around the circle.
16. In a loud speaking voice, count from ten to one, backwards.
17. Punch three small holes in the top of this paper, with your pencil.
18. If you are the first person to reach this point, loudly call out, "I AM THE FIRST PERSON TO THIS POINT, AND I AM THE LEADER IN FOLLOWING DIRECTIONS."
19. Underline all even numbers on the left side of this paper.
20. Loudly call out "I AM NEARLY FINISHED. I HAVE FOLLOWED DIRECTIONS."
21. Now that you have finished reading everything carefully, do only sentences one and two.

Handout #12

Name (Print)_____

Address_____

Phone_____Male____Female____Age_____

Married___Single___No. of Children___Ages___ ___ ___ ___ ___

I

The last kind of work I did was_____

II

What I liked most about this work was_____

III

What I liked the least about this work was_____

IV

Why did you quit or get layed off?

Handout #13

NAME (PRINT LAST NAME FIRST)_____ DATE_____

MEMORY TIME 5 MINUTES TEST TIME 5 MINUTES

PRODUCE PRICES

ITEM	PRICE	SCORE
Lettuce		
Cucumbers		
Tomatoes		
Radishes		
Celery		
Carrots		
Rhubarb		
Celery		
Cauli		
Bagos		
Asparagus		
Broccolli		
Spinach		
Cabbage		
Apples		
Oranges		
Grapes		
Bananas		
Grapefruit		
Dry Onions		
5 Points Each Correct Answer	Total Score	

Handout #14

NAME (PRINT LAST NAME FIRST)_____ DATE_____

MEMORY TIME 5 MINUTES TEST TIME 5 MINUTES

ADVERTIZED ITEMS

Item at Regular Price	Ad Price	Score	
		Wrong	Right
Ice Cream			
Coffee			
Mayonnaise			
Margerine			
Oxydol			
Shake N Bake			
B & M Beans			
Tuna			
Del Monte Peas			
Del Monte Corn			
Peaches			
String Beans			
Tomatoes			
Paper Napkins			
Crisco			
Clorox			
Crackers			
Canned Dog Food			
Corn Flakes			
5 Points Each Wrong 5 Points Each Right	Total Score		

*Use 10 Ad Items

SOME GENERAL GUIDELINES FOR ALL STORES

Our Company: You are part of the Thrifty Food team, and you should develop the habit of saying "we" rather than "I" or "they." It is our company and to talk to a consumer or fellow employee without the "we" attitude does not indicate a cooperative spirit.

HOUSEKEEPING: Neatness, order and cleanliness are important for many reasons: health, safety, appearance, etc. It is everyone's job to pick up any loose paper and debris.

THE GOLDEN RULE OF SUPERMARKETING: If you were being waited on or helped by an employee in a store wouldn't you feel that you deserved their full attention? Never answer a question without a concerned and full response. If you were being checked out would you like the checker to be talking with the boxboy or another checker or customer? If you were waiting in line at the checkstand, would you like it if a checker waited on the person behind you first? Think of that customer as yourself and take care of them just like you would like to be taken care of.

RECEIVING MERCHANDISE: Every shipment of merchandise other than the large associated grocery deliveries must be physically checked, accounted for, and signed. Lady checkers and boxboys cannot sign for these deliveries. Be sure that the invoices are taken to the designated place and filed properly. This should not be done by the supplier personnel.

SHOPLIFTING: While this problem seems to be on the increase in our areas, there are only a few customers who try to take things without payment. These losses, however, can become huge if we are not careful. Be alert for something suspicious and tell the store manager immediately. He will handle it -- never accuse a customer.

TELEPHONE TIPS: Telephones are for store business. Please use the phones for personal use only with special reasons. When answering a phone always say, "Good morning, Thrifty Foods," or something appropriate. Try to make your voice as courteous as if you were actually speaking face to face with her. It is easy to be abrupt on the telephone without intending it.

ACCIDENTS: Report any customer or employee accidents to the store manager immediately. Be very attentive if you actually witness an accident. Your testimony may be required.

BACK DOOR REGULATIONS: All doors in the store except for the normal customer entrances will be locked all day. For a supplier to enter and leave, he must ring the buzzer, and be let in. In carrying out work activities an employee can go through the back doors. At any other time all employees will use the front door only -- this includes coming to and from work, lunch time, and leaving the store for any personal reason.

EMPLOYEE SECURITY MEASURES: We believe that by following high standards of initial selection of personnel we will eliminate the type of individual who would steal from his employer. As any business must do, certain security and precautionary measures will be in continuous effect in our stores. If any person abuses the trust that we place in him, he or she will be immediately dismissed. Thrifty Foods will also file a complaint with the local prosecuting authorities (or juvenile authorities for those under 18. For your information, the Statutes in this state are as follows: Petit-

Larceny -- The taking of cash of less than $25 or merchandise less than $75 with a penalty to not exceed one year and/or $1,000 fine. Grand Larceny -- The taking of over $25 in cash or over $75 in merchandise with a penalty not to exceed 15 years in a state penal institution.

CHECKSTAND PROCEDURES

There are lots of reasons why customers shop at one store rather than another but the majority of people make up their mind because of the personal service, courtesy, and general abilities of the employees. Thrifty Foods will be continuously looking at its operations to see that we are better than our competitors in every possible aspect.

In the area of employee-customer relationship, we are determined to be far and above our competitors. There is no more important area in a store to cement customer loyalty than in our front-end operations. Every one of our stores should be following the same procedures, so that we can create a company image. Therefore we are requesting that each and every person who works in the checkstands to follow the items outlined here. The store managers are directly in charge of the front-end and cannot delegate this responsibility to anyone else. They will set the example by their own checkstand conduct and are expected to regularly suggest areas of improvement for individuals and the crew as a whole. There will also be undisclosed professional "checker analyzers" consistently in our stores and sending reports in to the General Manager on individuals and stores for needed improvements

CHECKER RULES

1. Do everything in your power to make the customer feel that this is "her store."

2. Always greet the customer; make an effort to learn her name and then call her by name.

3. Be sure the checkstand area is clean, tidy and inviting.

4. Always wait on the customers promptly. If another checker is needed, call immediately. We would rather make an occasional unnecessary trip to the front than to let a customer wait and become irritated.

5. The checker is responsible for the conduct and proficiency of the boxboy. He is an important part of the front-end operation, and is the last employee to have contact with the customer. Be sure he sacks the groceries properly and gets everything to the car.

6. Your personal appearance is important -- the customers constantly judge you by your appearance. Be well groomed and always wear your name badge. Ladies take care of your outfit and all men and boys are required to wear clean white shirts and dark bow ties.

7. Wear a Big smile.

8. Know your business. Checkers should know unmarked prices in the store (Ad prices, produce, display items and unmarked shelf stock) nothing discourages a customer more than a checker mischarging a price. Answer questions intelligently -- know the merchandise and be able to direct people to the item they want.

9. Call prices loud and distinctly, item by item at all times. This will insure accuracy and build confidence in the minds of the customers. Produce items when weighed are to be called at the unit price per pound as well as the total price. Be sure the customer receives register receipt.

10. In handling misunderstandings, regard it as an opportunity to make a lasting friend. Be calm, listen carefully and patiently explain. The customer is "always" right, and if she leaves perturbed or in a huff you have failed.

11. Be very accurate in your checking. An item that sells 3/25¢ is 9¢ for one and 17¢ for two. Be sure your scale is right and do not under or over weigh.

12. Sincerely thank the customer at the completion of the transaction letting her know that we appreciate her business.

OTHER SUGGESTIONS ON HOW TO WIN CUSTOMERS

1. Don't offend customers by smoking or eating on the job. There are proper places in the store for these away from the public. Your store manager will show you these spots.

2. Take advantage of your happy moods by stepping up your courteous services even more. Not by whistling, humming or singing, which almost always irritates customers.

3. Show your intelligence through diplomatic, tactful handling of customers -- not by smart comebacks. They do nothing but make a bad situation worse.

4. The fine art of gum chewing doesn't impress our customers a bit. It is impossible to keep a good business appearance with jaws working furiously. Don't ruin a good impression by mumbling through a mouthful of gum.

5. Good storekeeping takes good housekeeping. Madam housewife loves to shop in a clean, spotless, well-stocked store. Do your part by keeping your work area spic and span.

6. A valuable man on a baseball team is a utility infielder -- a man who can play anywhere. Be a utility employee! Be prepared to take over wherever you are needed. Grab every chance to learn some other job in the store -- that knowledge will pay off!

7. Look your best -- prettiest -- always. But, please don't primp in view of customers! It just isn't done in public. Do these things in the privacy of the rest rooms.

8. There is no compromise between standing and sitting. Leaning or lolling about doesn't become any employee.

9. All merchandise for you and/or your relatives must be checked through the cash register by a fellow employee.

10. We would hope that our employees learn to say we instead of I or they. Don't hesitate to criticize -- but not to the customers or fellow employees -- but to the manager.

11. Bag and wrap merchandise carefully. Look out for fragile, breakable or perishable items -- put them on top!

12. Hand -- don't shove -- purchases to a customer. If the bag is heavy, see that the customer gets help. Don't make her ask for assistance.

13. Always read the ad before you come to work. Know what is advertised.

14. Always look and act like you were justifiably proud to be working for Thrifty Foods. Customer respect is easily gained by this attitude and is one of the most important single reasons for a store's success.

CHECKSTAND PROCEDURES -- MONEY HANDLING AND MISCELLANEOUS ITEMS

To best serve our customers and ease the bookkeeping load of our managers and central office, and to insure accuracy within the checkstand the following policies will be in effect throughout the group of Thrifty Stores.

1. Accuracy of the till: To be sure that each register balances at the end of the day you must be careful to record all department errors, overrings, refunds, etc. properly. Upon receiving change be sure that the amount that gets written down on a till slip is the amount that you got. (The manager also writes the amount down on a master slip.)

2. Departmental error: Immediately upon discovering a departmental error, record the error by putting the dollar amount in the department column of the control sheet where the error occured and initial. Explain to the customer, by showing him where the department error occured on his tape. After completing the customer transaction, ring up the department error amount on the correct department key and attach the machine tape to the control sheet.

3. Returned merchandise for cash: Our policy on customer returns is that all goods we sell is on customer satisfaction guaranteed basis. We do not argue, but try to make a friend of a disgruntled customer. Be sure to departmentalize this transaction under the returned merchandise including tax, and initial it each time.

4. Overrings: These should be departmentalized under the Return of Merchandise columns and initialed each time. Any overring or refund over $2 requires a manager's initials.

5. Bottle refunds: These should be recorded under Bottles under the returned merchandise column. Please initial each transaction. It is our policy to trust the customer, so that she may leave the bottles in a bottle deposit area and tell the checker how many she had.

6. Paid outs: These should be handled out of one till only. The manager will decide who can handle them.

7. Coupons: After you have rung up the order subtract the amount off the bottom of the slip, (after tax has been charged) or pay the customer cash for the coupons. Thrifty Foods will follow a strict policy of redeeming coupons only if the merchandise is bought. Some of our own coupons are handled differently and will be explained by the manager.

8. Checks: Be sure all checks are stamped with the endorsement stamp when you receive them. Initial each check in the bottom left corner on the front and write in the amount of groceries purchased. Our general check cashing policies will be explained by the store manager.

9. Food Stamps: Be sure you are completely aware of the laws regarding the sale of merchandise to food stamp holders and strictly follow them. Credit slips can be exchanged between our stores. Stamps should be endorsed upon receipt.

10. Charges; signing slips, etc.: Only certain groups (hospitals, restaurants, etc.) are eligible to charge at our stores and only on permission of the store manager. If there is a charge, it should be rung up like any order; then fill out a charge book in which you give the original copy and cash register slip to the customer and put the duplicate in the register. If someone wants to "sign a slip," it will be discouraged and only the store manager can give permission for this. Since it is a bookkeeping headache, employees will not be able to sign slips or charge their groceries. Employee Draws can only be made through our central office on a pre-arranged basis. Please do not ask the store manager to deviate from these policies.

11. Welfare Vouchers, etc.: Will be taken, but the customer must use the entire amount at one time. No credit slips should be given for a balance.

12. Discounts: Will be handled soley by the store manager.

13. Gift Certificates: Will be handled two different ways depending on the type and will be explained by the store manager.

OTHER MONEY HANDLING AND CHECKSTAND SUGGESTIONS

1. Be sure that your register has detail tape. When the tape turns red, call for immediate change.

2. If you have made a mistake on an order and have corrected it, be sure to clearly explain to the customer what has happened and then point it out on the register slip by circling the figures.

3. If you have any doubt whatever that a person is not 21 and is trying to buy beer or wine, ask for a Washington State Liquor ID Card. If they do not have it, politely turn them down or call for assistance.

4. Be thrifty, small wastes mean a total loss that is staggering! Use the right size bags, be sure that spoils or returned merchandise gets to its proper place.

5. Have an idea? Everytime you have a suggestion or an idea that might improve our checkstand operation and customers relationships, please let the manager know. We are all eager to do a better job and your help is requested and needed in this effort.

STUDENTS WERE TAUGHT THE FOLLOWING PROCEDURES
IF THIS DOES NOT AGREE WITH YOUR POLICY, PLEASE ADVISE THIS TRAINEE

1. Overrings

   Stop

2. Correct

3. Enter full amount of error on correction sheet and re-ring correctly.

4. Enter overring amount of tax in tax column.

5. Collect full amount of order.

6. Pay customer in cash for overring, plus tax.

* * * * * * * *

REFUNDS AND ADJUSTMENTS

1. Enter refunds in correct column and pay in cash.

   Refunds - Bottles or Returned Merchandise

* * * * * * * *

2. Underrings.

   Add to next item and circle the two rings so customer will know it is one item.

* * * * * * * *

Manufacturer's Coupons

1. Treat the same as cash and put coupons under cash drawer.

   Spread out thin.

* * * * * * * *

Any problems you do not know how to handle or should not handle call

Customer Service.

CASHIER _____

REGISTER _____ DATE _____

Limit of Responsibility $ _____

Paid Out-PO Tax-T	Refund-R Produce-P	Meat-M Bakery-B	Grocery-G Variety-V

Opening Change Fund $ _____

Added Change $ _____

Added Change $ _____

Cash Pick-Up $ _____

Check Pick-Up $ _____

Change Balance $ _____

Item	OK	Price $	Price ¢

Department Voids - V

CASHIER _____

REGISTER _____ DATE _____

Limit of Responsibility $ _____

Paid Out-PO Tax-T	Refund-R Produce-P	Meat-M Bakery-B	Grocery-G Variety-V

Opening Change Fund $ _____

Added Change $ _____

Added Change $ _____

Cash Pick-Up $ _____

Check Pick-UP $ _____

Change Balance $ _____

Item	OK	Price $	Price ¢

Department Voids - V

Handout #18

UNMARKED ITEMS

CHECKER _____ DATE _____

ITEM	DEPT.	SIZE	PRICE	1	2	3	OK

_____, 19___ No._____

Pay To_____$_____

_____Dollars

BNB Bellingham Bank
125 - 447 - 631 - 1569 - 09 _____

_____, 19___ No._____

Pay To_____$_____

_____Dollars

BNB Bellingham Bank
125 - 447 - 631 - 1569 - 09 _____

_____, 19___ No._____

Pay To_____$_____

_____Dollars

BNB Bellingham Bank
125 - 447 - 631 - 1569 - 09 _____

_____, 19___ No._____

Pay To_____$_____

_____Dollars

BNB Bellingham Bank
125 - 447 - 631 - 1569 - 09 _____

Handout #20

AD ITEMS

CHECKER _____ DATE _____

ITEM	DEPT.	SIZE	PRICE	1	2	3	OK

Handout #21

MULTIPLE PRICES

CHECKER _____ DATE _____

ITEM	SIZE	PRICE	1/2	1	2	3	OK

OK STORE MANAGER _____

Handout #22

PRODUCE PRICES

CHECKER _____ DATE _____

ITEM	MON	TUES	WED	THURS	FRI	SAT	SUN

OK Store Manager _____

If Checkers could be divided into three groups, they would be as follows:

GROUP ONE	GROUP TWO	GROUP THREE
Problem Solvers	Average	Problems

Most Checkers fall into group two.

Our program of checker education is designed to encourage groups three and two to move up to group one. Most problems can be solved by the checkers themselves if they understand how to do it and are willing to make the effort. The only problems a checker cannot solve, are those related to store policy. Even here, a good checker can offer constructive suggestions of which the store owner may not be aware.

Most store problems are related to -- PEOPLE MERCHANDISE FACILITIES.

A FEW EXAMPLES

MULTIPLES: A checker can make a list of store multiples, and then see how many she can do from memory. She can do this once or twice a month. Make a game of it at home.

AD PRICES: A professional checker would give herself a test each week on ad prices to keep herself a pro.

PRODUCE PRICES: The same holds true for produce prices as ad prices. A couple of nights a week a pro would test herself on produce prices.

HUMAN RELATIONS: A pro would look up the meaning of EMPATHY and then develop skill by practice.

FACILITIES: Most problems can be prevented by practicing good housekeeping. If you see a job that needs doing, do it without being told. Keep your eyes open and be alert. Price tags on shelf moulding-are they correct?

MERCHANDISE: It always looks better if properly faced. Why wait until the boss tells you to do it? Learn to schedule your time so you will do a little each day on these problems. A big splash one day and then doing nothing more for months is not the answer. Discipline yourself to do a little every day.

POLICY DECISIONS: If in doubt, ask the boss. Do not be afraid of the boss, he will appreciate your help. The only person who needs to fear the boss is the one who is doing nothing or doing something he shouldn't be doing.

IF YOUR WORK IS NOT EXCITING AND INTERESTING, IF IT DOES NOT MOTIVATE YOU TO EXCEL, QUIT! THIS IS A FREE COUNTRY YET. A JOB IS ALWAYS EXCITING FOR THOSE WITH THE RIGHT ATTITUDE.

ENJOY YOURSELF, ITS LATER THAN YOU THINK.

NON-FOODS

1. The non-food department got its start as a post-World War II innovation. It started first with a few items displayed at the front end. Women's Hose, asperin, toothpaste were a few of the original items starting the trend to non-food departments. The convenience for the shopper made sales that surprised the store operator. The larger gross profit was also a welcome asset for the store operator faced with loss leaders and low profits in traditional grocery products.

2. Today most supermarkets have large non-food departments serving the basic needs of the customer.

3. List by category products carried in the non-food department and why these product categories make shopping more convenient.

4. Can you think of products that should be stocked in the non-foods department that are not presently carried. Why?

5. Can you think of products now stocked in the non-foods department that should not be sold by the supermarket. Why?

6. Care in handling non-foods. Use good judgement. Glassware should be wrapped and packed to avoid breakage. Can you think of other items that should receive special attention?

7. Shoplifting. Many non-food items are popular with shoplifters. You should talk with your store manager to determine store policy for minimizing shoplifting of non-food items. Some popular items with shoplifters are records, cosmetics, vitamins. Store policy.

BAKERY DEPARTMENT

1. There are two kinds of bakery departments. The on-premises bakery and the off-premises bakery.

2. The on-premises bakery operates two ways - The bake-off method and the complete on-premises method.

3. The bake-off method. This method utilizes the advantages of mass production in raw product preparation. The products are delivered to the store (usually frozen) ready for baking. Baking and decorating is done on the premises.

4. The 100% on-premise bakery does the complete process of preparation, baking and decorating in the store.

5. The on-premises bakery adds much to a supermarket's potential for building customer loyalty. It does present management with many problems. It requires a high investment for equipment, training highly-skilled, dedicated employees.

6. Bakery products must be handled with care at the checkstand. Products concealed in boxes or bags should never be bagged with other groceries without customer's permission. It is better that you suggest to the customer that she carry these items. A box could contain a cream pie which would be damaged if not carried flat at all times. Cookies could be crushed.

7. A professional checker will know the ingredients used by on-premises bakeries and the advantages it offers the customer.

ON-PREMISE BAKERY
Product Knowledge

ITEM	INGREDIENTS	CUSTOMER ADVANTAGE
Breads:		
Cookies:		
Cakes:		

ITEM	INGREDIENTS	CUSTOMER ADVANTAGE
Pies:		
French Pastry:		
Danish Pastry:		

ITEM	INGREDIENTS	CUSTOMER ADVANTAGE
Puff Pastry:		
Icings:		
Fillings for Cream Puffs and other filled pastry:		

ITEM	INGREDIENTS	CUSTOMER ADVANTAGE
Other:		

Ingredients used in bakery products, like many other areas of supermarket operations is a controversial subject between different management groups. They all have the same objective, maximum volume of sales and customer satisfaction. They do not agree on how to achieve this. A few examples: "As costs go up, should the size of the item be made smaller to hold to the same selling price or should the size remain the same and the price increase." "Should substitutes be used such as a prepared mix for cream puff filling instead of whipped cream." "Should additives be used to improve eating qualities."

How many more can you find by talking with the bakery manager?

MEAT DEPARTMENT

1. Three departments in a supermarket develop a store image and can build customer loyalty. Produce, in-store bakery, and meat. The reason should be obvious. Grocery products are identical in all stores except for price. A bunch of radishes, a steak or hot pastry are not the same in all stores. The individuals who work in these departments must be very knowledgeable and very dedicated to give the products entrusted to them the loving care needed so that the customer will have the very best for her family.

2. The most important product is beef. It accounts for the largest volume of dollar sales.

Grades of Beef

The common grades sold in a supermarket are "Good" and "Choice." Grades below "Good" are used by packers for lunch meat, bologna, etc. The grade above "Choice" is "Prime." It is used primarily by better restaurants. Beef grading is done by the eye. The inspector must be highly skilled. His decision is final. Grade is determined by weight, fat content, and shape of the carcass. "Prime" beef has the highest fat content. Fat content drops as the grade goes down. When streaks of fat are visible in a steak, it is called "Marbleing." It is the fat content that makes a steak "juicy." "Prime" beef is always well "Marbled" and "Choice" usually has "Marbleing" in rib and T-Bone steaks.

There are two government agencies that have the responsibility for inspecting meat, slaughter houses, and meat packers; a state agency and a federal agency. The federal agency is the United States Department of Agriculture. Beef inspected by the federal agency will have this identifying stamp on the carcass -- USDA, then the Grade USDA choice. Federal inspectors are usually more strict than state inspectors.

Two kinds of beef are sold in supermarkets -- heifers and steers. Steer beef is most common.

Beef is fed in feed lots before slaughtering to improve the fat content and weight in order to bring the beef up to the standards required for "Choice" and "Prime" grades as these grades bring the highest price.

Tenderness

This is determined by the ageing process. Beef should age for 15 days before being cooked. Overcooking dries and toughens the meat. Beef properly fed and aged will be most tender and juicy if cooked medium rare.

Beef Coloring

Beef, when cut, is not bright red. It is a dark bluish-red. The change of color is called "Blooming." Ground beef and hamburger will be bright red on the outside but inside will be dark in color. So will all cuts of beef.

After beef "Blooms" it will slowly discolor in the meat display case. This is caused by bacteria, a part of the ageing process and by light. It is important that cleanliness be practiced in the meat department to reduce bacteria count so beef will

not discolor so rapidly. Usually employees of the meat department or others familiar with beef will buy these dark cuts of meat.

LAMB, VEAL, PORK, MUTTON

Generally what holds true for beef also holds true for these animals. Have a talk with the meat manager for things you should know about these animals.

One of the biggest customer complaints to this day is with pork. A pig has always been fat. Still the customer looks for roasts, steaks, or bacon without fat and always will, I guess. Find the answer to this problem from your meat manager.

Care of Fresh Meat

1. Meat should be bagged or wrapped separately from groceries. It should be wrapped in freezer paper before storing or freezing.

2. Fish: Fish is very perishable. The customer should take it home and refrigerate as soon as possible. It should be rewrapped in freezer paper before storing or freezing. Wrap or bag separately. DO NOT put next to cheese, butter, etc.

3. Poultry: The same rules apply for poultry as they do for fish.

Smoked Meats

Most smoked meats are packed by the processor using the Cryovac process. This is a method of vacuum packing meat in plastic film. It extends the shelf life of smoked meat. Lunch meat, sliced and packed on the premises, will turn dark quite rapidly.

Weighing and Pricing

All weights must be net weight. Cellophane trays/absorbing pads used in wrapping meat for self-service is called "tare." The "tare" must be deducted from the total weight of the package. State inspectors check supermarkets regularly on weight accuracy. Inspectors even require that the manager estimate the weight of moisture loss that may occur while the package is on display. Have the meat manager show you how "tare" is adjusted by the wrapping girls.

Display

Display of products in the meat department is controversial. Some operators display by product category such as, all beef together and all pork together. Others display by cut categories such as all steaks together and all roasts together. Some use a combination of the two.

Shoplifting

Become familiar with cuts and prices of meat. Shoplifters will switch labels. You should recognize high-priced cuts of meat and know when a label has been switched.

High-priced steaks, chops, bacon, and lunch meat will be concealed in newspapers, magazines, purses and pockets.

BEEF CUTS

Roasts

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.

Steaks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Stew

1.
2.
3.
4.
5.
6.

Ground

1.
2.
3.
4.

Alfal

1.
2.
3.
4.
5.
6.

PORK CUTS

Roasts

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.

Steaks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Stew

1.
2.
3.
4.
5.
6.

Ground

1.
2.
3.
4.

Alfal

1.
2.
3.
4.
5.
6.

Handout #30

LAMB CUTS

Roasts

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.

Steaks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Stew

1.
2.
3.
4.
5.
6.

Ground

1.
2.
3.
4.

Alfal

1.
2.
3.
4.
5.
6.

VEAL CUTS

Roasts

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.

Steaks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Stew

1.
2.
3.
4.
5.
6.

Ground

1.
2.
3.
4.

Alfal

1.
2.
3.
4.
5.
6.

DAIRY AND FROZEN FOODS

1. Frozen foods should be put in separate bag before packing with rest of groceries. Why?

2. Frozen foods should not be refrozen once thawed. Why?

3. Frozen foods require special care in pricing. Why?

4. Dairy products should not be bagged next to soap. Why?

5. Rotation of frozen foods and dairy products is very important. Why?

6. Other

7. Other

A good checker should know the characteristics of dairy products. By this we mean, how it is made, what it is made from, distinguishing features such as color, flavor, appearance, etc.

Handout #33

DAIRY AND FROZEN FOODS

ITEM	CHARACTERISTICS
Pasturized Milk	
Homogenized Milk	
Margerine	
Sweet Cream Butter	
Sour Cream Butter	
Grade "A" Milk	
Skim Milk	
2% Milk	
Grade AA Eggs	
Grade A Eggs	
Grade B Eggs	
Grade C Eggs	
Jumbo Eggs	
Extra Large Eggs	
Large Eggs	
Medium Eggs	
Small Eggs	
PeWee Eggs	
Fresh Eggs	(An old egg will float. A fresh egg will sink when put in a bowl of water.)

CHEESE

The most popular cheese is cheddar. It comes in mild, medium, sharp and extra-sharp. Ageing changes the flavor. Good extra-sharp cheese should age three years. The texture of cheddar cheese changes as it ages. It is rubbery when first made. It becomes smoother and firmer in texture as it ages. It is good for cooking sandwiches and for snacks.

OTHER CHEESE IN THE DAIRY DEPARTMENT

Type and Place of Origin	Source	Texture	Salad	Sandwich	Grating	Cooking	Desert	Hors d'oeuvre
Bleu Cheese (France)	Cow	Hard	x	x			x	x
Brie (France)	Cow	Soft					x	x
Camembert (France	Cow	Soft					x	x
Cottage Cheese (Europe)	Cow	Soft	x				x	x
Cream Cheese (American)	Cow	Soft	x	x		x	x	x
Chesire (England)	Cow	Hard			x	x		x
Club Cheese (Canada)	Cow	Soft		x			x	x
Edam (Holland)	Cow	Semi-Hard	x	x		x	x	x
Gammelost (Norway)	Cow	Semi-Hard						x
Gouda (Holland)	Cow	Semi-Hard	x	x		x	x	x
Grimere (Switzerland)	Cow	Hard		x				x
Jack Cheese (American)	Cow	Semi-Hard		x				x
Longhorn (American)	Cow	Semi-Hard		x				x
Lapland (Finland)	Reindeer	Hard						x
Leyden (Holland)	Cow	Hard		x				x
Muenster (Germany)	Cow	Semi-Soft		x				x
Myost (Scandinavia)	Cow	Soft		x				x
Neufschatel (France)	Cow	Soft		x				x
Parmesan (Italy)	Cow	Hard			x	x		

CHEESE CONTINUED

Type and Place of Origin	Source	Texture	Salad	Sandwich	Grating	Cooking	Desert	Hors d'oeuvre
Port Du Salut (France)	Cow	Semi-Soft						x
Romano (Italy)	Cow Goat Sheep	Semi-Hard			x			
Roquefort (France)	Sheep	Semi-Soft	x				x	x
Samsoe (Denmark)	Cow	Semi-Soft		x				x
Stilton (England)	Cow	Hard	x				x	x
Swiss (Switzerland)	Cow	Semi-Soft	x	x				x
Sapsago (Switzerland)	Cow	Hard		x	x			x
Sbrinz (Switzerland)	Cow	Hard		x	x			x
Scanno (Italy)	Sheep	Soft		x			x	x
Scamorze (Italy)	Cow	Semi-Soft				x		x
Provolone (Italy)	Cow	Hard		x		x		x
Noekkelost (Scandinavia)	Cow	Semi-Hard		x				x
Mozzarella (Italy)	Cow	Semi-Soft				x		x
Limburger (Belgium)	Cow	Soft		x				x
Holstein (Germany)	Cow	Semi-Hard						x
Goreonzola (Italy)	Cow	Semi-Hard	x				x	x

CHEESE SPREADS

These usually come in jars and are usually whipped and blended. Generally a product is added for extra flavor such as bacon, pimento, olives, smoke flavor, etc.

They are used for sandwiches and hor d'oeuvres.

THE PRODUCE DEPARTMENT

1. Moisture temperature and handling determine the freshness and _____ of fruit and produce. The customer expects produce to be garden fresh. When checking produce prices, call to the produce man's attention, any item that does not meet this criteria.

2. Know how to handle produce at the checkstand.

3. Know characteristics of all fruit and produce items, time of year available, how sold, how used, where grown.

4. The produce department today is a miracle of modern merchandising, technology and transportation. The average person consumes 500 pounds of produce per year. It comes from around the world and is garden fresh when purchased. The homemaker today can serve her family most produce items year round.

5. The six most popular items in the produce department are:

   . Potatoes
   . Oranges
   . Apples
   . Tomatoes
   . Bananas
   . Lettuce

FRUITS

1. APPLES
   a. Delicious
   b. Golden delicious
   c. Jonathon
   d. McIntosh
   e. Rome
   f. Winsap
   g. _____

2. APRICOTS
   a. Mordark
   b. Titlton
   c. _____

3. AVACADOS
   a. _____
   b. _____

4. BANANAS

5. BERRIES
   a. Strawberries
   b. Raspberries
   c. Loganberries
   d. Blueberries
   e. _____
   f. _____

6. CHERRIES
   a. _____
   b. _____
   c. _____

7. COCONUTS

8. CRANBERRIES

9. FIGS
   a. _____
   b. _____
   c. _____

10. GOOSEBERRIES

11. GRAPEFRUIT
    a. Indian River
    b. Ruby Red
    c. Coachella Valley
    d. Arizona
    e. _____
    f. _____

12. GRAPES
    a. Tokay
    b. Emperor
    c. Perlettes
    d. Ribier
    e. Pauscat
    f. Concord
    g. Malaga
    h. Lady Finger
    i. _____
    j. _____

13. KUMQUATS

14. LIMES

15. LEMONS

16. MANGOES

17. MINT

18. MELONS
    a. Cantaloupes
    b. Honeydew
    c. Crenshaw
    d. Casaba
    e. Persian
    f. Klondike Watermelon
    g. Rattlesnake Watermelon
    h. _____
    i. _____

FRUITS

19. NECTARINES

20. ORANGES

    a. Navel
    b. Valencia
    c. Tangelo
    d. Tangerine
    e. _____
    f. _____

21. PAPAYAS

22. PEACHES

    a. Hales
    b. Elberta
    c. Red Haven
    d. _____
    e. _____
    f. _____

23. PEARS

    a. Bartlett
    b. Comice
    c. Anjou
    d. _____

24. PERSIMMONS

25. PINEAPPLE

26. PRUNES

27. PLUMS

    a. Green Gage
    b. _____
    c. _____

28. POMEGRANATES

29. SUGAR CANE

30.

31.

32.

33.

34.

35.

VEGETABLES

1. ARTICHOKE
   a. Globe
   b. Jerusalem

2. ASPARAGUS

3. BEANS
   a. Wax
   b. Green
   c. Lima
   d. Shelle
   e. _____
   f. _____

4. BEETS
   a. Greens
   b. Bunched
   c. Topped

5. BROCCOLI

6. BRUSSELL SPROUTS

7. CABBAGE
   a. Red
   b. New
   c. Old
   d. _____

8. CARROTS
   a. Topped
   b. Bunch
   c. Packaged
   d. Old
   e. New

9. CAULIFLOWER

10. CELERY ROOT

11. CELERY
    a. Green
    b. White
    c. Hearts

12. COLLARD

13. CORN
    a. _____
    b. _____
    c. _____

14. CUCUMBERS
    a. Slicing Long Green
    b. Picking

15. DILL

16. EGGPLANT

17. ENDIVE

18. ESCAROLE

19. GARLIC
    a. Fresh
    b. Dry

20. HORSERADISH

21. KALE

22. KOHLRABI

VEGETABLES

23. LEEKS

24. LETTUCE

    a. Iceberg Head
    b. Red Leaf
    c. Green Leaf
    d. Bib
    e. _____
    f. _____

25. MUSTARD GREENS

26. MUSHROOMS

27. OKRA

28, ONIONS

    a. Yellow dry
    b. White dry
    c. Bermuda dry
    d. Red
    e. _____

29. GREEN ONIONS

30. PARSNIPS

31. PEAS

32. PEPPERS

    a. Bell Green
    b. Bell Red
    c. Hot Peppers
    d.

33. POTATOES

    a. Old Netted Gems
    b. Old North Dakota Reds
    c. Old Kenebeck
    d. Old _____
    e. New White Shafters
    f. New North Dakota Reds
    g. New _____

34. PUMPKIN

35. RADISHES

36. RHUBARB

37. RUTABAGAS

38. SPINACH

39. SQUASH

    a. Acorn or Danish
    b. Butternut
    c. Yellow Crook Neck
    d. Zucchini
    e. Hubbard
    f. Banana
    g. Marblehead
    h. _____
    i. _____

40. SWEET POTATOES

41. YAMS

42. SWISS CHARD

43. TOMATOES

    a. Pole
    b. Beefsteak
    c. Bush
    d. Cherry
    e. _____

44. TURNIP ROOT

VEGETABLES

45. TURNIP GREENS

46. WATERCRESS

47.

48.

49.

50.

51.

52.

53.

Handout #38

FRUIT

ITEM	WHERE GROWN	HOW SOLD	HOW HANDLED	TIME OF YEAR AVAILABLE	CHARACTERISTICS

Handout #39

VEGETABLES

ITEM	WHERE GROWN	HOW SOLD	HOW HANDLED	TIME OF YEAR AVAILABLE	CHARACTERISTICS

PROFIT AND THE SUPERMARKET

GROSS PROFIT: The difference between what a product costs and what it will sell for.

GROSS PROFIT BY PERCENTAGE FOR DEPARTMENTS AND SOME PRODUCT CATEGORIES:

By Departments

Grocery Department -- 15 - 20%
Produce Department -- 30 - 35%
Meat Department -- 17 - 22%
Bakery Department -- 30 - 35%
Non-Foods Department -- 30 - 35%

By Product Categories

Product Category -- Average Margin
Copy from: Lesson #4, Page 4.10 NCR-SMI

There are three rules that determine gross profit.

Rule 1. Competition
Rule 2. Rate of Turnover
Rule 3. Degree of Risk

Competition prevents a store from charging more than the established price in a given shopping area regardless of what the item costs.

Usually, the faster the rate of turnover, the lower the % of gross profit. Example: cigarettes.

Degree of risk: Example: Produce, highly perishable so large quantities can be lost by spoilage.

Non-foods: Markdowns must be taken on items that don't sell.

NET PROFIT: Amount of money left over after all bills are paid out of gross profit.

A few categories that must be paid for out of gross profit;

Wages	Contribution to Union Trust Funds	Charitable Contrib.
Rent	Health and Welfare Plans	Unemployment Comp.
Utilities	Losses Due to Bad Checks, etc.	Interest
Advertising	Office	Payroll Taxes
Repairs	Insurance	Licenses
Supplies		Other Taxes
Depreciation		

Net profit for a supermarket varies from 1-1/2% to 3%.

NET PROFIT AFTER TAXES: This is the amount of money the owner has for himself after paying income taxes. This amount is still not take-home pay. He must save a portion of it to buy new equipment, fixtures and to keep his store up to date.

PROFIT -- The yardstick by which ability to manage is measured.

In addition to providing take home pay for the owners, profit provides the money to build new stores, create new and more jobs for more people.

A large corporation has many owners called stockholders. Profit is divided among them based on the amount of shares they own. Owners are not paid first they are paid last, out of the profit. Sometimes there is no profit, then the owners do not get paid at all. Example: Pan American World Airways lost $25 million in 1969 so the owners did not receive any take home pay.

STORE LAYOUT

All stores have a customer traffic pattern. This means that the majority of customers travel a predictable pattern when shopping. In most supermarkets the traffic pattern is from left to right. Experienced woodsmen know that the average individual, when lost, will circle to the right.

SEE SKETCH BELOW

STORE LAYOUT

Store owners do not agree on department location in relation to the store's traffic pattern. Following are some ideas for determining department location.

1. Perishables such as produce and dairy products should be last in the shopping pattern so the customer will put these products on top of her order to prevent them from being damaged.

2. Meat being the base of the meal should come first, then the customer will buy related items as she shops through the store.

3. Produce should be first as it is potentially one of the most profitable departments in the store.

4. Non-foods should be first as it is potentially one of the most profitable departments in the store.

5. Non-foods should be scattered throughout the store as they are impulse items and should be placed in relationship to food products with which used. Example: Coffee Pots, mugs, etc., in the coffee department. Egg beaters, mixing bowls, etc., in the flour and prepared baking mixes department.

6. Non foods should be last so the customer will take time to look around, arranged by product categories so the customer can readily find what she is looking for.

7. The grocery department is the major department in the supermarket. In grouping product categories by location in this department, the manager considers both profit and customer convenience.

8. End displays -- the manager will make every effort to use these displays to sell profitable items. They will be used for ad items that do not show a profit when necessary for customer convenience. Usually they will endeavor to display a related profit item with the ad item.

9. Seasonal items, new items, impulse items -- the manager will make every effort to use end displays, signs and popular shelf location to call these items to the customer's attention as a service to the customer and in an effort to increase the store's sales volume.

10. A good checker will constantly make herself aware of the location of these changing displays so she can direct the customer to them when asked or answer questions related to these displays.

PRICING AND STOCKING SHELVES
PROCEDURES THAT MUST BE FOLLOWED

1. Stock Rotation:

Products on shelf must be removed and new stock put on the shelf with older stock in front. This is especially important in departments such as the cereal and dairy departments. All product labels must face forward. Care must be taken especially with products in glass to stack them carefully so the customer will not knock them on the floor accidentally.

2. Pricing:

Be careful when cutting cartons not to damage the contents. This is especially true with soap cartons or cereals. Be sure your pricing is legible so you, the customer, and other checkers can read it.

When stocking, check the price of the item on the shelf with the price of the item you are stocking. If they are not the same, check with your supervisor. Be sure you do not have two different prices for the same item. Price changes are taking place constantly. Be sure you make these changes correctly.

3. Do not leave empty boxes or other debris where a customer may trip over them and injure herself. Accidents are not only costly but no manager wants to suffer the mental anguish caused by an accident to a customer. Do you want to be responsible for the suffering a customer must endure as the result of an accident.

4. Be sure shelf price tags correspond with price on product.

5. Keep the area where you are working neat and clean at all times. Wipe shelves, molding and other fixtures with a damp cloth. No one wants to shop in a dirty store.

CHECK CASHING

1. Customers are often offended when a checker questions or refuses to cash a check. When new on the job, advise the customer that you are new and must have approval. Know your customers as rapidly as possible.

2. Most stores require that a checker enter the following information on the face of a check.

   A. Amount of check
   B. Amount of Purchase
   C. Checker's initials
   D. Checkstand Number

   This is accomplished as illustrated on the check below.

Date _____

Amount _____

Find a Blank Check to Enter Here

3. Most stores require that a checker enter the following information on the back of a check; if the customer is not known by the checker. A. Credit card number and name, eg; J. C. Penney, 818-051-077-1-4. B. Voters registration card. C. Drivers License is not valid but a car license number is.

4. Most stores limit the amount of change a checker may give a customer when accepting a personal check. Why _____

_____

_____

5. Most stores will not accept a second party check. Why _____

_____

Write a second party check.

6. Most stores will not allow checkers to cash payroll, government or bank checks.

Why _____

7. Most stores will not accept post-dated checks. Why _____

_____

Write a post-dated check.

8. Checks with restrictive endorsements are unacceptable. Why _____

_____

Write a check with a restrictive endorsement.

9. Most stores require that a customer not only sign a personal check properly, but also require that the customer enter under the signature, his telephone number and address. Why _____

_____

Write a check and follow these instructions.

10. A check written in pencil is unacceptable. Why _____

_____

11. Counter checks and checks without required micrencoding are unacceptable.

Why _____

Attach a Counter Check in space provided.

12. Be sure to read each check carefully. An honest person does forget, or makes a mistake. Be sure figures and written amounts agree.

13. All stores require that each check be stamped with what is referred to as a bank stamp. Why _____

_____

Where _____

_____

14. Can you think of other things you should know about cashing checks. Why?

_____

_____

_____

_____

_____

15. Consult a Store Manager. What other instructions did he give you for cashing checks. _____

_____

_____

_____

_____

POSTING THE LEDGER

1. All stores have some form used by the checker to correct errors, enter paid outs, etc. It is important that all ledger entries be made promptly, accurately, and legibly. Your till must balance at the end of the day. Your ledger sheet is the only way you have for accounting for transactions you made that would cause your till not to balance. In order to balance, the amount of money put in the register must equal the amount rung up as sales. It is also important that all sales be rung on the correct department key. If you fail to do so, it must be corrected on your ledger sheet, immediately. Why_____

2. Limit of responsibility:

   Most stores limit the amount of money a checker can pay out of her till without approval by the store manager. Why_____

   _____

   Usually this limit is $1.00; for the purposes of this course of instruction, your limit of responsibility will be $1.00. Compute sales tax at 4 1/2%.

3. Now that your instructor has completed his teaching of this unit of instruction, solve the following problems using the ledger sheet Handout #17.

Problem 1: Your opening change fund is $200. The store manager gave you $300 for cashing checks. The manager took from your till $278.53 in checks. What is your change balance? Give two answers. Find the correct answers under problem 11.

Problem 2. Your opening change fund is $200. The store manager made a cash pickup of $500. What is your change balance? How do you account for the manager's actions in picking up $500? Answer_____

_____

Problem 3: The salesman for the Seattle PI presents you with an invoice for $15 for 100 papers.

Problem 4: A customer returns two chickens. The price of the chickens is $4.29.

Problem 5: A customer brings you a box of empty pop bottles, price $2.75.

Problem 6: You registered a produce item, 79¢ on the grocery key.

Problem 7: You registered a meat item $1.79 on the grocery key.

Problem 8: You charged a customer 79¢ for a grocery item that was advertised at 59¢.

Problem 9: You charged a customer 39¢ for a produce item that was advertised at 29¢.

Problem 10: You charged a customer 39¢ for a grocery item that should have been 59¢.

Problem 11: Answer to problem 1.

The manager has two choices in this instance. By the addition of $300 to the change, you now have a change balance of $500 from which he can deduct $278.53 leaving a change balance of $221.47. He can credit your cash receipts turned in at the end of the day for $278.53. In this instance your change balance would be $500. In either instance, you should receive from the manager a signed receipt from the manager for the amount of money removed from your till.

Answer to problem 2.

Your change balance would still be $200. It is obvious that the $500 would have to come from cash receipts. There are several reasons why this $500 would be removed from your till. Following are three. Can you think of other reasons?

A. Your till would be so full that the drawer would not open easily and the money could fall out.

B. To reduce the money in your till in case of a robber.

C. He may need money for another checker who is running low due to the number of checks cashed.

It should be obvious that the student will make many mistakes the first few weeks on the job. She must know how to correct these mistakes using the ledger sheet provided by all stores. It should be obvious therefore that learning to post the ledger accurately and promptly is of utmost importance.

A. Under-rings - These are not posted in the ledger. Example: A grocery item selling for 59¢ is rung as 39¢. Ring the item again at 20¢ on the grocery key. This will show as two separate rings for one item on the receipt tape. Circle these two rings on the tape and point out the mistake to the customer. See tape below . . .

.53 P
.29 G
1.00 G
.39 G
.20 G
.19 P
.29 G

B. Over-rings - Using SWEDA Power Penney and other non-subtracting registers . . .

1. Re-ring correctly first.

2. The full amount of the item rung is entered on the ledger and identified by department. The amount of sales tax is also

entered as a tax refund. There are two ways this money can be refunded to the customer.

(a) It can be a cash refund
(b) It can be subtracted from the total of the order. See tape (x)

Tape X: A grocery item was rung at 59¢, it should be 39¢

```
   .49 G
   .33 G
   .79 P
  1.49 M
   .59 G  <- error
   .39 G  <- Corrected
  ------
ST 4.08
TX  .18
T  4.26
   .62
  ----
  3.64
```

```
59 error
 3 tax
---
62
```

(c) For stores who pay mistakes in cash, collect the amount shown $4.26 then pay the customer 62¢ in cash.

C. The illustration below shows how to enter this mistake on the ledger

(a) V - is for Void
(b) G - is for Grocery Department
(c) Tx - is for Tax

Item	OK	Price $	Price ¢
VG			59
V Tx			03

NOTE: When the bookkeeper picks up your ledger sheet to balance your register, he will subtract the 59¢ from your grocery rings and 3¢ from your tax rings so your till will balance at the end of the day.

D. Over-rings using registers with a void or refund key. These registers will subtract.

(a) Stop, and pushing the void or refund key, re-ring the amount of item rung incorrectly. This will automatically subtract the item from the customer's order.

(b) Re-ring the item correctly. See tape on next sheet.

Grocery item rung at 59¢ should be 39¢.

1.19 M
.79 G
.33 G
.59 G ← error
.59 G ← error corrected
.39 G ← item rung correctly
.49 G

E. How to enter this error on your ledger.

VG			59¢

NOTE: You do not refund tax as tax has not been added.

F. Department Errors - These do not affect the customer only the store management. Do not correct on the register, only in the ledger. Example: You rung produce 59¢ on the grocery key.

P - stands for produce

Item	OK	Price $	Price ¢
VG			59¢
P			59¢

NOTE: The bookkeeper can now subtract 59¢ from the grocery sales and add it to produce sales.

G. Cash paid-outs or refunds

1. Push the paid-out or refund key on those registers having these keys then ring the amount of the paid-out.

2. On SWEDA Power Penney or registers without paid-out or void or refund keys, do not touch the register. Enter in ledger only.

3. All cash paid-outs and refunds must be posted in the ledger regardless of whether or not they are rung on the register.

4. All paid-outs are entered in the ledger as illustrated below . . .

   (a) Paid-out for newspapers $2.95

PO Newspapers		2	95

   (b) Refund for a bad chicken returned. Amount of chicken $2.49

Rf. Chicken		2	49
V Tx			12

NOTE: You must also refund tax as shown. The amount paid to the customer will be $2.49 plus 12¢ tax. Total $2.61.

The bookkeeper will subtract $2.49 from meat sales and 12¢ from tax sales.

FRONT-END RESPONSIBILITIES AND WORKING PROCEDURES

1. Your checkstand area must be kept neat and clean at all times.

2. Have a damp sponge handy to wipe up water from produce or blood from meat.

3. Return all merchandise that should not be in the checkstand area to shelf stock as often as time permits.

4. Be sure all bag bins are kept full with proper sized bags.

5. Scale must be clean and balanced at zero when starting to work.

6. Register must have proper date, receipt and detail paper. Have an extra supply in your checkstand.

7. Return empty bottles to proper area as often as time permits or have box boy remove them if you are unable to leave your checkstand.

8. Have ledger forms, produce price list, ad price list, multiple price and tax chart conveniently located and up-to-date.

9. If you are responsible for stocking checkstand displays be sure they are properly filled.

10. Did you check your personal appearance before entering your checkstand.

11. Whatever your personal problems, did you leave them behind when you entered your checkstand. Your attitude can make or break you.

HOW TO WORK EFFICIENTLY IN A SPLIT "L" CHECKSTAND

1. Fatigue causes errors, poor attitudes, takes the fun out of your job. Do your work the easy way. Make as few moves as possible with your arms, legs, back and neck.

2. Referring to the drawing of a split "L" Checkstand:

   A. Stand in front of the grocery cart

   B. Keep your eyes on your left hand and the merchandise it is handling. This can be accomplished by learning well the ACURA-TOUCH method of register manipulation.

   C. Group check by departments as often as possible. Do not ring a single produce item if several produce items are within easy reach. This will minimize department errors, and you will have fewer entries to make on your ledger sheet.

   D. You should be facing in the direction of the customer and grocery cart not facing the register.

E. Place the items you are checking on the checkstand as close to you as possible. Do not try to reach all over the checkstand. Push the items one at a time so they will slide to the box boy or accumulate a group then slide them all at once.

F. Do not remove your hand from the cash register keyboard more often than absolutely necessary. Smaller items can be checked using only the left hand.

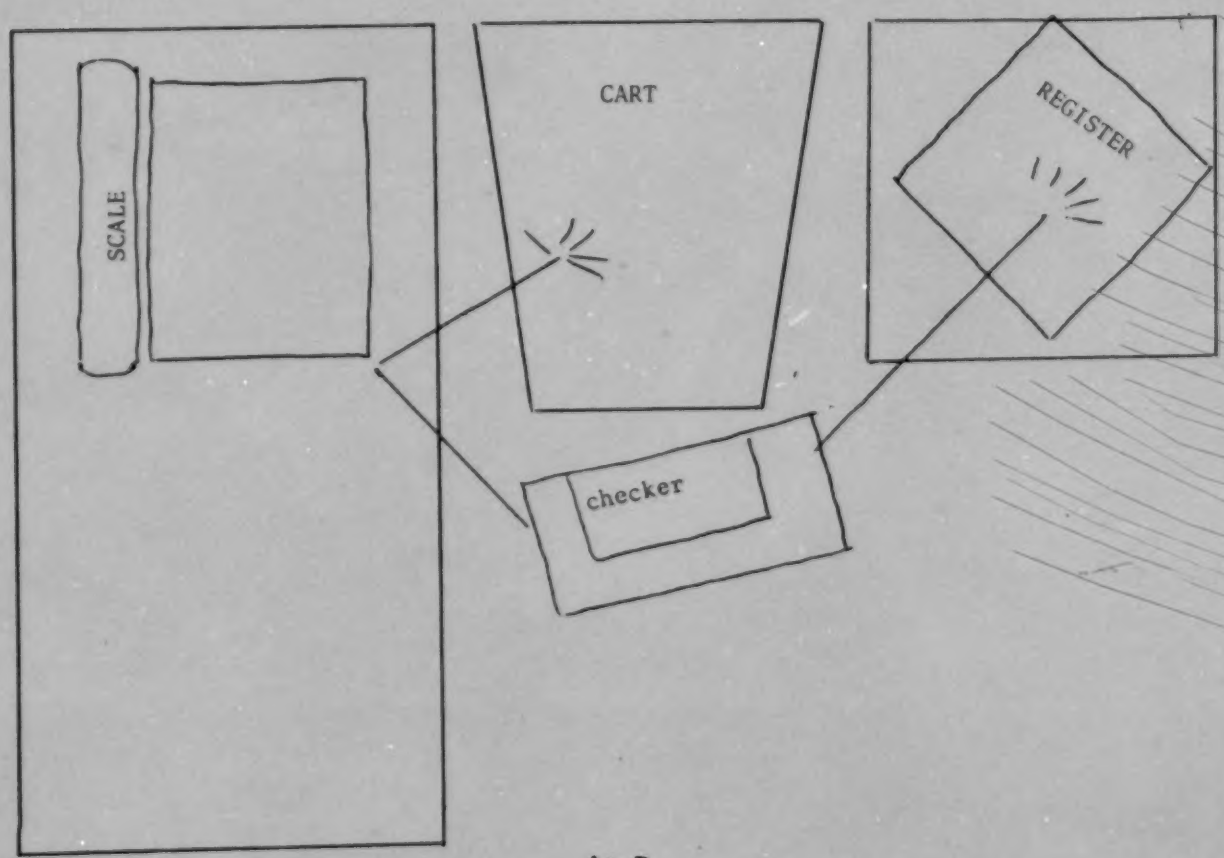
G. When removing items from the lower shelf of a grocery cart, use two hands and pick up several items at a time if possible. Save your back those extra trips.

H. Checking can be accurate, fast, fun and exciting if you use your head instead of your back.

I. Stop and think of how many moves you are presently making that could be eliminated, it will surprise you how much unnecessary work you are doing.

SPLIT "L" CHECKSTAND

The checkers focus of attention should be on the merchandise being handled by the left hand, or on the customer. It should not be necessary to look at the register for every item you ring. Be a professional. Learn ACURA-TOUCH.



STORE SECURITY

I. Shoplifting:

1. The average customer is interested in the products she is buying. Her focus of attention is on the item. A potential shoplifter on the other hand, selects the item he plans to steal then looks around the store to see if he is being watched. The police refer to this as a shoplifters M.O.

2. When working in the aisles offer assistance to the customer. Just because a store is self-service does not mean that customers should be ignored. This will increase sales and minimize shoplifting.

3. Shoplifters do not steal large inexpensive items. Some popular items preferred by shoplifters are women's hose, cosmetics, vitamins, records, steaks, lunchmeats, cigarettes, small tins of high priced items, such as crab meat.

4. Shoplifters conceal items in coats, purses, newspapers, magazines, between the legs.

5. If someone appears to have stolen an item, be sure you know what was stolen and where it is hidden. Call the store manager.

II. Checks:

1. Be sure that you understand and follow store policy. It is designed to minimize losses due to bad checks.

2. Checks to watch out for -- Out of Town, Government, Payroll.

3. If in doubt, call the store manager. Have the box boy get the car license number.

III. Money Manipulators - Short change artists:

1. You can't win. Don't try.

2. These individuals short change you by getting you confused. They generally start passing money back and forth asking for change or different denominations of bills. Call the store manager to handle any change transactions.

3. The drop artist drops a bill from his change on the floor and claims that you short changed him. Always call the store manager if a customer claims you short changed him.

IV. Till-Tappers:

These individuals work in various ways but the following are the most common.

1. They will push some change on the floor and while you are picking it up they help themselves from the cash drawer.

IV. 2. They will send you to the back of the store to get an item and help themselves while you are gone.

3. Marked bill artists work in teams of two. The first customer will give you a $20 bill with some identifying mark. The second member of the team will give you a $5 or $10 bill. He will then claim he gave you $20 and can prove it by remembering the identifying mark, usually a phone number, on the bill.

4. Rule: Do not leave your cash drawer open when your back is turned. Do not leave your checkstand unless register is locked. Call manager when customer claims you short changed her.

V. Robbers:

1. Better to be a live coward than a dead hero. Do what you are told.

2. Get a description. Better to notice one or two features than to try to remember everything. Look for some characteristic peculiar to the individual. Scar, limp, color of skin, color of eyes, mannerism, voice. Write it down as soon as possible. Don't trust your memory.

BAGMANSHIP

"Do unto others as you wish they would do unto you" could never be more true than when bagging groceries. Common sense and consideration for others will keep you out of trouble.

TRICKS OF THE TRADE

1. Open a bag by inserting your hand and pushing out all four corners. Do not snap the bag open.

2. Use correct sized bags. Ask the customer if she prefers one large bag or two smaller ones. If her purchases are all heavy items, one bag might be too heavy to carry.

3. Divide the load. Do not put light weight items in one bag and heavy items in the other bag.

4. Build a base. Use cans around the outside and heavy or large bottles in the center. Never put bottles on the outside. Separate glass jars with small packages such as jello.

5. After you have built the base, build the walls. Use packages such as cereals for this purpose. Put glassware in center or small items.

6. Put eggs, tomatoes and other perishables on top.

7. Leakers such as meat and wet produce items put in separate bags or wrap before bagging with other grocery items.

8. If your store has an in-store bakery, suggest to the customer that she carry items in bags or boxes. A box could contain a cream pie. A bag could contain a decorated pastry. Keep all boxed items in their flat position.

9. It is a checker's responsibility to see to it that the box boy bags her customer's order correctly.

10. Bags cost money. Do not fill a large bag only half full. Do not overload a bag either.

11. Be sure to check the bottom of the cart so that you do not omit any item.

12. Large packages, such as gallons of purex, or bags of dog food, need not be bagged.

13. Do not put dairy products next to soap.

14. If you tear a bag, remove all items and bag over in a new bag.

15. Use two hands. You can bag faster and just as accurately. Time costs money. Usually the customer is in a hurry to get home and the one waiting in line will appreciate your thinking of her too.

16. If you have a Queue, do not visit unnecessarily. You must consider the customer who is waiting as well as the one you are waiting on.

17. If you work in a store with an automatic checkstand, do not mix orders. If in doubt ask the customer where her order ends. It is easier to prevent a mistake than to correct one.

18. Put frozen foods in separate bags.

19. Tighten caps on all bottles, especially bleach and ammonia. Never put these items in a bag with other groceries.

20. Learn and remember customer names.

21. Thank a customer for waiting.

22. If you have given special attention to some item, call this to the customer's attention.

23. Treat your customer like you would a guest in your home. If you don't you won't have a home.

TRICKS OF THE TRADE

The Difference Between A Pro and An Amateur

1. Group check by departments as often as possible.
2. Do not look at the cash register keyboard every time you ring an item.
3. Call a box boy if you are going to need him, before you start to check an order, not after you have finished.
4. If unsure of a price, call the manager not another checker and continue checking.
5. Do not let customers Queue up at your checkstand, call another checker.
6. Have enough supplies to last out your shift.
7. Stop completely when interrupted.
8. Slow down when the situation calls for extra care.
9. Correct errors immediately. Explain the error to the customer's satisfaction.
10. Do not ring multiple price items separately. Hold the items to be sure customer has purchased the multiple unit. If in doubt, ask the customer.
11. Turn all items price side up. Look alikes could be different. Del Monte canned peas could look alike but contain different sieve count and consequently have different prices.
12. Think and act like you owned the store.
13. Treat the customer the way you would like to be treated.
14. Be prompt, be accurate, be fast.
15. Do those things that need doing without waiting to be told.
16. Ask questions. If you know why, work will be more fun and you will be more helpful to your customers, your fellow workers, and your manager.
17. Watchout for these words, they can ruin your career. Self pity, complaining, boasting, conceited, gossiping, rude.
18. It is easier to do the job right than explain why you did it wrong.
19. Admit your mistakes promptly and seek advice.
20. Be enthusiastic.

MULTIPLES

Step 1: Reduce the multiples to the lowest multiple if this is possible.

Examples: 8 for 50¢ reduced to its lowest multiple would be 2 for 13¢. Six for 77¢ reduced to its lowest multiple would be 3 for 39¢. NOTE: You can only reduce those multiples where the units of the multiple are divisible without a fraction for an answer.

Examples: 3-5-7-11 cannot be reduced. 4-6-8-9-10-12 can be reduced. 7 for $1 cannot be reduced but 9 for $1 can be reduced to 3 for 34¢.

Step 2: To determine the lowest price per unit for each unit of a multiple-priced item, divide the number of units into the price. The numerator of the fraction will tell you the number of units to be sold at the next highest price rounded off.

Examples: 5 for 77¢ -- $5\overline{)77}$ = 15 2/5

The numerator 2 tells you that the first two units sell for the next highest rounded off price which is 16¢. The rest of the units sell for 15¢. Therefore, one unit would be 16¢ - 2 for 32¢ - 3 for 47¢ - 4 for 62¢ and 5 for 77¢.

Rule 1: If a customer purchases more than the multiple price, add to the price the price for the extra units purchased. Examples: If a customer purchased six units of an item that sells for 5 for 77¢, you add 16¢ to 77¢. If 7 units are purchased, you add 32¢ to 77¢. If 8 units are purchased, you add 47¢ to 77¢.

Policies: In the State of Washington, most stores use one of the two following policies:

Policy A - The customer is to be charged the closest price to the multiple for any units purchased. Example: 3 for 25¢, 1 for 9¢, 2 for 17¢, 3 for 25¢.

Policy B - The customer is to be charged the rounded off price for all units less than the multiple price. Example: 3 for 25¢, one unit 9¢, 2 units 18¢, 3 units 25¢.

Instructions for using Carl Jackson Multiple Exercises:

You will notice that these exercises have lines for three policies, A - B - C. Draw a line through C and do A and B only as explained in this Handout.
Example:

3 for 25¢	1	2	3
A	9	17	25
B	9	18	25
C	X	X	X

PROGRAM OBJECTIVE

TO DEVELOP THE STUDENT TO A LEVEL OF COMPETENCY EQUAL TO OR IN EXCESS OF, THE AVERAGE ABILITY OF AN EMPLOYEE HIRED "OFF THE STREET" WITH SIX MONTHS WORK EXPERIENCE.

Specific Objective to reach the above goal:

Upon completion of 180 hours of instruction, plus six weeks on-the-job work experience orientation, the student

WILL BE ABLE TO:

HANDLE MONEY:

. Handle money and make change accurately so that neither customer nor store suffer financial loss.

CASH CHECKS, HANDLE FOOD STAMPS AND MANUFACTURER'S COUPONS:

. Cash checks in a manner that will not cause financial loss to the store.

POST THE LEDGER:

. Post a ledger so that all transactions that occur in the checkstand are accurately recorded.

UNDERSTAND POLICIES:

. Understand that store policies do exist. Know what they are. Know the importance of learning and knowing how to use these policies as established by the store in the daily work of a checker.

UNDERSTAND SECURITY:

. To minimize losses caused by those actions generally classified under store security.

KNOW FRONT-END PROCEDURES:

. Use front-end procedures that will give the customer fast, accurate service, and create an environment conducive to building customer good will.

PRICE AND STOCK:

. Price and stock accurately and rapidly.

DO MULTIPLES:

. Determine accurately the unit price for items sold by multiple pricing.

MEMORIZE:

. Know how to investigate and remember produce prices, ad prices, multiple prices, prices for unmarked items.

BAG GROCERIES:

. To bag groceries in a manner that will offer the customer the finest service, and minimize customer dissatisfaction. Handle products in a manner that will minimize shrinkage loss due to incorrect bagging.

INTER-PERSONAL RELATIONS:

. Understand and use human relations in such a manner that it will encourage customers to patronize the store. Contribute to improvement of inter-personal relationships among store personnel so that work experience will be more enjoyable for both student and other employees. Will possess those attitudes sometimes referred to as "The Industrial Virtues."

MAINTAIN PERSONAL APPEARANCE:

. Understand the importance of personal appearance and maintain such appearance as required by store policy.

USE ACURA-TOUCH METHOD:

. Manipulate the keys of the register in a manner so that the focus of attention is on the customer or the merchandise to give accurate, prompt service and minimize loss to both store and customer. THE ACURA-TOUCH METHOD OF REGISTER MANIPULATION.

OPERATE A REGISTER:

. Maintain and operate the cash register in a manner that will minimize loss due to repairs and service charges.

OPERATE A SCALE:

. Maintain and read a scale accurately and promptly.

IDENTIFY PRODUCE:

. Identify products sold in the produce department. Source of origin, characteristics, how sold, times of year available and how used.

KNOW DAIRY DEPARTMENT:

. Answer customer questions intelligently concerning products sold in the dairy department, how sold, used, and handled at the checkstand.

IDENTIFY MEATS:

. Identify the products sold in the meat department. Cuts of meat, grades and characteristics of meat, care and use of products sold in the meat department.

KNOW BAKERY DEPARTMENT:

. Understand care and use of bakery products. Will have a knowledge of ingredients used, why they are used, and how they benefit the customer.

HAVE KNOWLEDGE OF NON-FOODS DEPARTMENT:

. Will know the importance of the non-foods department to the customer and the store. Identify products sold in the non-foods department, their uses and care in stocking and handling.

RECOGNIZE GROCERY ITEMS:

. Recognize can and package sizes. Different grades and qualities. How to serve a customer in a self service grocery department. The reasons for product location, space, and display. Why some products are stocked and others are not.

UNDERSTAND SUPERMARKET ECONOMICS:

. Understand the economic facts of life of the supermarket so as to make a better contribution to the financial successes of the store and to communicate accurately the role of the food industry when communicating with others.

In addition to the classroom instruction, the graduating student must have six weeks work experience to adapt to store policies and procedures.

PAGES 173 THROUGH 182 WERE REMOVED FROM

THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO

THE ERIC DOCUMENT REPRODUCTION SERVICE.

STUDENT TEXTS AND MATERIALS

*1. Your Attitude Is Showing

*2. A Study Guide to Efficient Market Checking

3. The Household Encyclopedia (paperback)

4. 18 Rules of Bagmanship (booklet)

5. 101 Meat Cuts

6. Beef - Pork - Lamb Handouts (8 1/2 X 11)

* 7. One three-ring binder with 100 sheets ruled filler paper (for student manual)

* 8. Quaker Oats Kit

NOTE: 14 units of programmed instruction. This is provided by the school on loan to the student. Be sure all 14 units are in the kit when returned by the student. Collect a $5 deposit for each kit.

9. Blue Goose Buying Guide

*These items must be used by the students. Item one, two and seven must be purchased by the students. Item i may be purchased by the student or made available from the school library. Other items should be available from the school library.

THE STUDENT MANUAL

Purposes

1. Preparation of the manual by the student reinforces learning.
2. When completed the manual is a ready reference as an aid in solving on-the-job problems.
3. The manual enhances the student's employment opportunities when used by the student during the job application and interview process.

Organization

The manual should be organized in seven parts as follows:

Part A: Diploma and resume

Part I: Handout Materials

Part II: Tests

Part III: Answers and written comments on each unit of Quaker Oats Programmed Instruction

Part IV: Written comments on each chapter covered in the text, "Your Attitude Is Showing."

Part V: Written assignments related to each of the 22 competencies.

Part VI: Student notes.

HISTORY OF WASHINGTON STATE VOCATIONAL CASHIER-CHECKER MOBILE UNIT (How It All Came About)

Now on the road serving school districts in remote areas of the state, the Washington State Cashier-Checker Mobile Unit had its origin in an interesting set of circumstances. It was conceived in a setting when employment statistics showed a shortage of well-trained cashier-checkers both nationally and statewide. This critical need prompted the National Supermarket Institute, the National Cash Register Company, and the Department of Distributive Education at Western Michigan University, to call a national meeting to consider ways and means of solving the need. The Director of Distributive Education, K. Otto Logan, was among those fortunate enough to be invited to attend. Upon his return, he reported to his staff on a new teacher-education program developed and tested by the Supermarket Institute and National Cash Register Company in cooperation with Western Michigan University.

The grocers of Eastern Washington were quick to respond in favor of the program and asked their Supervisor of Distributive Education at Spokane Community College, Leigh Hales, to attend at their expense, a two-week teacher-training program at Western Michigan University to learn more about how to teach this new course. Later, through the efforts of the National Cash Register Company, the Associated Grocers of Seattle also responded by sending Mr. Walter A. Riggs, DE Coordinator at Bellingham Technical Institute, to a meeting of grocers at Western Michigan to evaluate the adequacy of the training program.

With this set of circumstances as a background, the focus of how the cashier-checker mobile unit came about can be directed to the State of Washington. Two overall questions were: What had the State of Washington offered in the past, and what could be offered in the future? It was apparent that in spite of the fact that five cashier-checker training programs were in operation in the state, the demand was far from being satisfied -- especially the needs in outlying areas in the state. In consideration of this, the state office staff focused its attention to the areas of greatest need and at a brainstroming session of the state office staff, (LeRoy McCartney, Jim Blue, Vocational Education Director Ernie Kramer, and others) the idea of the mobile unit came out as one possibility for expansion. However, the purchase of a made-to-order unit for a mobile classroom proved financially prohibitive.

Rather than drop the idea, however, the situation was described to Wally Riggs who pursued the idea further and discussed it with his vocational director, Mr. Ray Smith at the Bellingham Technical Institute. Mr. Smith came up with the idea that the school, through its regular instructional offerings, could convert a trailer unit if one were available, into a classroom. The State would have to work out the blueprints, plans and cover the costs of materials.

Because of this interest, it was decided that the matter be presented to the Executive Director of the Washington State Food Dealer's Association, F. N. McCowan, for his reactions. The complete idea fell into a receptive atmosphere and after Mr. McCowan had had time to discuss it with the directors of the food dealers group, they put out a notice for a trailer unit. The response was quite immediate since Safeway, Inc. gave us the opportunity to select a used trailer with their compliments and at the same time Darigold donated a tractor -- one which would be suitable for transporting the trailer from place to place.

With these developments the matter was presented to the Coordinating Council for Occupational Education and approved by them as a worthy project with $15,000 budgeted to cover costs of materials and equipment. The Bellingham Vocational Institute then began the work of overhauling the trailer and together with the state office, plans were for making the 8' X 35' trailer a classroom on wheels.

Without any previous blueprints to guide us, space was measured off for three split "L" checkstands, a table and chairs to serve a group of 12 students at one time, storage facilities, wiring, paneling, flooring, heat and air conditioning. With this pioneering blueprint, the work on meeting the specifications was the job of the Bellingham Technical Institute.

Before the year was up, the unit was ready for its initial pilot program on Haggen's Supermarket lot in Bellingham. A local advisory committee, consisting largely of grocers, but supported by labor, backed the initial project 100% and in two weeks of training the first class of 12 graduates completed the program July 4, 1969. The unit was now ready for launching statewide.

This action was not taken until a state advisory committee, representing management and labor, had been organized. The first meeting of the committee was held in the mobile unit at Bellingham, at which time the members witnessed the students in training.

The first request for the use of the unit came from Skagit Valley College to be used in connection with upgrading presently-employed grocery personnel in cashier-checker training. Harry Tobin, Mid-Management Coordinator, made the plans in the local area on the basis of the advice from his local advisory committee and organized the program into four twenty-hour shifts for purposes of upgrading. As a result of Mr. Tobin's participation, the ACURA-TOUCH system of cash register operation was initiated -- an innovative system which makes for increased checker accuracy.

The second request for the unit came from Spokane Community College in terms of serving a need in the outlying areas of the community college district at Pullman. To publicize and make known the availability of the school, the unit was purposely placed in the center of the campus at the Washington Vocational Association Conference in August, 1969, at Eastern Washington State College, where directors and supervisors of vocational education were briefed on the availability of the unit. Through the efforts of our teacher-educator William D. Syhlman, the first college credit course was offered on how to teach the ninety-hour cashier-checker course. The next month the unit was placed on display at the Food Dealer's Convention in Seattle. As a result, publicity has appeared in the Food Dealer's Magazine, the Vocational Education News for the State of Washington, the Labor Advocate, and numerous newspapers through the efforts of Alex Crewdson, Public Information Specialist.

Needless to say, there were many problems in connection with the pioneering of this new unit, all taking place during the period of time from the first pilot project at Bellingham to the third at Pullman. Problems arose such as: How the truck was to be packed for travel, electrical connections for hookup on supermarket lots, problems involving recruitment and publicity. These problems which in themselves are interesting experiences, were incidental to making the unit a functioning and moving school on wheels doing its part to serve a need, particularly in the outlying areas of the state. The whole history of the mobile unit is a story which started because of a need in industry on a nationwide basis, followed up with action in

the State of Washington, encouraged by the combined interests of management, labor, local school districts, and the support of the Coordinating Council for Occupational Education. This is Chapter I on how it all came about. Progress a year from now might be the subject of a second chapter.

Handout #55

TRAINEES RATING PROFILE

COLUMN I: Instructor's rating at the end of the 90 or 180 hour instructional period.

COLUMN II: Employer's rating at the end of four to six weeks' employment.

COLUMN III: Rating at termination of employment.

- Fifty represents the maximum competency attainable in each area at the end of the 90-hour instructional period.
- One hundred represents the maximum competency attainable by the graduate at the end of the four to six weeks' trainee's internship in employment.
- Attainment of a score of 100 in all areas in Column II indicates that the graduate is able to perform at a level of competency equal to that of the average checker with six months' experience.
- Attainment of a score of 200 in all areas in Column III indicates that the graduate is able to perform at a level of competency equal to that of a professional journeyman checker.

RATING FORM

AREA OF COMPETENCY	1	2	3	AREA OF COMPETENCY	1	2	3
Maximum Rating Attainable	50	100	200	Maximum Rating Attainable	50	100	200
MONEY HANDLING				PERSONAL APPEARANCE			
CHECKS				ACURA-TOUCH			
POSTING THE LEDGER				REGISTER OPERATION			
POLICIES				SCALE OPERATION			
STORE SECURITY				PRODUCE			
FRONT-END PROCEDURES				DAIRY			
PRICING AND STOCKING				MEAT			
MULTIPLES				BAKERY			
MEMORY				NON-FOODS			
BAGMANSHIP				GROCERY			
INTER-PERSONAL RELATIONS				SUPERMARKET ECONOMICS			

NOTE: This rating profile should be handed to the employer upon entering the trial period of employment and returned to the trainee with the employer rating at the end of the four to six weeks on-the-job experience.

NAME AND ADDRESS OF STORE: _____

_____

SIGNATURE: _____ TITLE _____

Tear off this portion

FOLLOW-UP REPORT
(To Be Completed By The Employer)

In order to maintain the highest standard of educational excellence, we would appreciate your filling out this follow-up evaluation after this student has been employed by you for two months. Mail to the Washington State Checker Schools, COORDINATING COUNCIL FOR OCCUPATIONAL EDUCATION, Distributive Education, P. O. Box 248, Olympia, Washington 98501.

STUDENT'S NAME _____ DATE _____

NAME OF SCHOOL _____ INSTRUCTOR _____

COMMENTS:

EMPLOYER NAME AND ADDRESS: _____

_____

SIGNED: _____ TITLE _____

PAGES 189 AND 190 WERE REMOVED FROM

THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO

THE ERIC DOCUMENT REPRODUCTION SERVICE.

STUDENT REACTION TO INSTRUCTION
Mobile Checker School

COURSE_____Date_____

This form gives you a chance to express your reaction to the instruction you are getting in this mobile school, and thereby to help your instructor improve his course. Please give it your careful attention. Check or write in the answers that most clearly express your best judgment. Leave a question unchecked if it does not apply to this course or if for some other reason you cannot make a sincere appraisal. Please do not sign your name.

REACTION TO COURSE ORGANIZATION

1. Is the course well organized?

   Well organized_____Satisfactorily organized_____Poorly organized_____

2. Are assignments clear and definite?

   Unusually clear and definite_____Clear and definite_____Sometimes vague and indefinite_____Usually vague and indefinite_____

3. Do you find special assignments or projects useful?

   Very useful_____Usually worthwhile_____Of doubtful value_____Mere busy work_____

4. How would you rate the textbooks you were asked to purchase?

   Very good_____Good_____Fair_____Poor_____

REACTION TO TEACHING METHODS

1. Are you encouraged to participate in class actively?

   Always encouraged_____Usually encouraged_____Instructor indifferent_____

   Participation discouraged_____

2. What do you think of the instructor's check on your work?

   Very good_____Good_____Fair_____Poor_____

3. Are the tests fair?

   Very fair_____Unfair_____Very unfair_____

4. What do you think of the instructor's grading system?

   Very fair_____Satisfactory_____ Unreliable_____Unfair_____

REACTION TO INSTRUCTOR'S GENERAL EFFECTIVENESS

1. How well does the instructor know his subject?

   Very well_____Fairly well_____Not well enough_____Very Poorly_____

2. Is the instructor well prepared for the class period?

   Always_____Usually_____Seldom_____

3. Does the Instructor stick to his subject?

   Almost always_____Usually_____Often wanders_____

4. Does the instructor speak clearly and distinctly?

   Almost always_____Usually_____Infrequently_____

5. How well does the instructor hold your interest in class?

   Very well_____Moderately_____Not too well_____Poorly_____

6. How well does the instructor succeed in stimulating you to work?

   Very well_____Moderately well_____Enough to "get by"_____

7. How effective is the instructor in helping individual students?

   Very effective_____Fairly effective_____Ineffective_____

8. From your knowledge and observation, how much cheating occurs in the course?

   None_____Very little_____Considerable_____Very much_____

9. On the whole, what do you think of the course?

   Very good_____Good_____Fair_____Poor_____Very poor_____

10. Considering everything, what do you think of the instructor's general effectiveness?

    Very good_____Good_____Fiar_____Poor_____Very poor_____

INFORMAL REACTIONS

1. What do you particularly like about this course and/or the instructor?

2. What do you particularly dislike about this course and/or the instructor?

Handout #58

Date_____

ROLE PLAYING
EVALUATION

CUSTOMER_____ CHECKER_____ BOXER_____

ITEM	GRADE	COMMENTS
Bottle Refund		
Paid Out		
Returned Merchandise		
Overring		
Underring		
Department Errors		
Correct Change		
Correct Prices		
Correct Bagging		
Group Multiples		
Service		
Checks		

He who is carried away by enthusiasm, may have to walk back.

To handle yourself, use your head;
To handle others, use your heart.

The foundation of good human relations is love, expressed by emphathy, friendliness, and good will. The proper conception of business is a transaction carried out in the spirit of friendliness.

Success or failure in business is related more to mental attitudes than mental capacities.

By now, if you have concluded that attitudes are as important as the skills and knowledge taught in this course, you are correct.

APPENDIX B

Competency Level

TEST INSTRUCTIONS

1. Give these tests during the one-half hour self-study periods.

2. Give the test as soon as the student has learned what they need to know to be at the level of competency required for a diploma.

3. It is the responsibility of the instructor to do everything possible to assist the student to achieve the required competency for a diploma. On the other hand, no student should receive a diploma who has not achieved the level of competency required.

4. If a student fails the test, give the student the test again at any time the student believes he has achieved the required level of competency.

5. A student who answers all questions correctly is to be given a score of 50. Deduct one point for each incorrect answer.

6. If the student is unable to answer all questions correctly, the student has not achieved the level of competency required for a diploma.

7. The tests are to be entered by the student in the student's manual as a part of the student's permanent record. Remember the importance of the student manual. It is the best key the student will have to open the door to employment opportunities.

8. When the student achieves the level of competency required for each body of knowledge, enter the score of "50" in your grade book or directly on the student's diploma.

INSTRUCTOR'S VISUAL OBSERVATION TEST OF STUDENT COMPETENCY

1. Enter a score of "50" for each competency on rating form if student's work is accurate.

2. These competencies are to be tested during role playing in the laboratory.

3. These visual observation tests are in addition to the written competency tests. A student must pass both tests with a score of "50".

4. The students must be rated twice. Rate them the first time by observing them in role playing with each other.

5. Second rating. The instructor is to take a cart of groceries and have each student check and bag the purchases with no errors or all errors related to the ledger sheet properly posted.

6. Enter the grades for the written tests.

INSTRUCTOR'S VISUAL OBSERVATION TEST
OF STUDENT COMPETENCY
(Rating Form)

Name: _____ Date: _____

Score: _____

COMPETENCY	Written Test SCORE	Observation Test SCORE	
	A	1	2
1. Change making and money handling			
2. Inter-Personal Relations			
3. Checks			
4. Posting the Ledger			
5. Store Policies			
6. Supermarket Economics			
7. Store Security			
8. Bagmanship			
9. Produce			
10. Dairy			
11. Personal Appearance			
12. Meat			
13. Bakery			
14. Non-Foods			
15. Grocery			
16. Multiples			
17. Memory			
18. Front-end procedures			
19. Scale Operation			
20. Register Operation			
21. ACURA-TOUCH			
22. Pricing and Stocking			

Final Examination

ACURA-TOUCH

Name: _____ Errors: _____

Date: _____ Time: _____

Minimum competency required for diploma. Time: 4 minutes with no mistakes. A professional checker can do this test in 2 minutes, 25 seconds, with no mistakes. Where multiple price is shown, ring price for one can.

2 - 41 GR	3 - 41 GR	1.14 MT
13 GR	11 GR	3.32 MT
3 - 40 GR	2 - 45 GR	2.41 MT
30 GR	24 GR	4.23 MT
2 - 25 GR	3 - 32 GR	34 PR
41 GR	33 GR	14 PR
2 - 19 GR	64 GR	37 PR
12 GR	71 GR	39 PR
3 - 11 GR	29 GR	45 PR
34 GR	26 GR	49 GR
2 - 23 GR	2 - 49 GR	73 GR
21 GR	2 - 37 GR	52 GR
83 GR	2 - 27 GR	44 GR
94 GR	2 - 21 GR	32 GR
28 GR	3 - 37 GR	10 GR
25 GR	2 - 65 GR	43 GR
2 - 35 GR	2 - 59 GR	23 GR
3 - 25 GR	2 - 43 GR	22 GR
2 - 79 GR	2 - 39 GR	51 GR
31 GR	3 - 31 GR	82 GR
42 GR	2 - 47 GR	35 GR
3 - 38 GR	3 - 35 GR	27 GR
3 - 29 GR	2 - 31 GR	
14 GR	2 - 33 GR	$ 30.27

Final Examination

ACURA-TOUCH

Name: _____ Errors: _____

Date: _____ Time: _____

Minimum competency required for diploma, time 3 minutes, with no mistakes. A professional checker can do this test in 1 minute, 40 seconds with no mistakes.

24	59	61	51	39
23	35	44	65	15
22	52	11	57	25
32	31	22	43	17
31	38	24	33	21
25	28	41	81	04
20	28	27	35	37
38	35	13	53	48
24	20	09	56	91
25	51	19	23	99
17	31	43	26	98
34	35	23	27	19
15	41	54	39	13
69	19	41	15	30
34	23	14	26	16
15	27	62	27	29
				24
			Total	27.91

Final Examination

ACURA-TOUCH

Name: _____ Errors: _____

Date: _____ Time: _____

Minimum competency required for diploma, time: 3 minutes, with no mistakes. A professional checker can do this test in one and one-half minutes with no mistakes.

22 GR	69 MT	02 TX	44 MT	95
81 MT	09 PR	79 MT	49 PR	30
38 PR	05 GR	23 PR	69 MT	03
41 GR	04 PR	50 MT	13 GR	72
28 PR	28 GR	59 MT	09 PR	69
91 MT	73 MT	35 PR	05 PR	03
14 PR	48 PR	52 GR	43 GR	65
62 MT	61 MT	38 MT	02 TX	05
07 PR	19 GR	61 PR	54 MT	28
29 GR	32 GR	20 GR	35 GR	94
76 MT	01 TX	01 TX	01 TX	04
13 PR	89 MT	91 MT	09 GR	49
68 MT	02 GR	17 PR	63 PR	82
33 GR	07 PR	41 GR	16 GR	11
01 TX	55 GR	02 TX	01 TX	56
			Total	27.56

Final Examination

HUMAN RELATIONS
(Inter-Personal Relations)

Name: _____ Date: _____

Score: _____

1. You will be hired not so much for what you know but for your willingness to learn and your willingness to work. Do you agree with this statement? Explain your answer.

2. Failure to listen is the cause of a great many employee problems. How can you improve your listening ability?

3. Most employers encourage employees to ask questions. Why?

4. Is it human relations smart to openly admit your mistakes? Explain your answer.

5. Teasing and testing is common where people work together. Why does this occur? How would you react to these conditions?

6. The employee should not expect management to provide monetary rewards every day, week or month to keep his personal productivity at a high level. He should not expect to be consistently counseled into becoming a high producer. He should not expect to be pampered into doing better work. Do you agree with this statement? Explain your answer.

7. How do you interpret the phrase, "Shape up or ship out?"

8. Explain in your own words what you think is meant by, "Inter-Personal Relations."

9. Most business executives agree that human relations problems are the biggest single factor contributing to loss of customers, loss of sales and loss of profits. Would you agree that "Do unto others as you would have them do unto you" could minimize, if not eliminate, most human relations problems? Explain your answer.

10. A fellow employee has just told you that another checker was given a 50¢ an hour raise. You have been employed as long as this other checker. What course of action would you take?

11. A customer accuses the store of deliberately short-weighing meat. What would you tell this customer.

12. What is meant by a positive attitude?

13. What will you do when hired as a checker, to improve the human relations environment of the supermarket where you will work.

DO NOT WRITE BELOW THIS LINE, FOR INSTRUCTORS USE ONLY

Attendance: Days Late _____ Days Missed _____

Cooperation: _____

Enthusiasm: _____

Employee Relations: (Role Playing) _____

Customer Relations: (Role Playing) _____

Personal Appearance: _____

Test No. 3

Final Examination

STORE SECURITY

NAME:_____ Date:_____

Score:_____

1. Describe the behavior pattern of a potential shoplifter?

2. What should you do if you observe someone shoplifting?

3. How can you minimize shoplifting?

4. How can you prevent till tapping?

5. How can you prevent being short changed?

6. What should you do when a robbery occurs?

Test No. 4

Final Examination

SCALE OPERATION

Name: _____ Date: _____

Score: _____

1. List the three things a checker must do to her scale before starting to check out customers.

2. When the reading line of a scale falls between two numbers, the checker must decide which price to charge for the item. There are two different policies and the checker must know the policy of her particular store. What are these two policies?

3. When the price per pound for an item is not listed on your scale, how do you determine what price to charge the customer? There are two easy ways to do this. Using 89¢ as the price per pound, show procedure one. Using 40¢ per pound, show procedure two.

4. Ocassionally a produce item may be priced as a multiple, i.e.: 10 lbs - 73¢. Describe how you would determine the selling price of the item if the multiple price is not on the price bar.

   Problem 1 - 10 lbs - 70¢ Problem 3 - 2 lbs - 39¢
   Problem 2 - 5 lbs - 63¢ Problem 4 - 3 lbs - 49¢

5. Instructor: Select six to ten items from the produce rack of participating super market. Have the student weigh each item, making entries on the form below.

ITEM	RETAIL SELLING PRICE	AMOUNT OF PURCHASE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Final Examination

REGISTER OPERATION

Name: _____ Date: _____

Score: _____

1. There are four things you must do before starting to check out customers on your register. What are they? (Do not include counting your change)

   1. 3.

   2. 4.

2. List in sequential order the three steps you must take to complete a sales transaction using a non-change computation cash register. (Do not include refunds, errors or paid-outs)

   1.

   2.

   3.

3. List in sequential order the five steps you must take to complete a sales transaction using a change computation cash register. (Do not include paid-outs, errors or refunds)

   1. 4.

   2. 5.

   3.

4. If the receipt paper becomes jammed in the register, what procedure would you use to correct this problem?

5. How do you determine when detail or receipt paper is needed?

6. How and when do you prevent operation of your cash register?

7. Why do cash registers have department keys?

8. If you depress a wrong key, what must you do?

9. How can you prevent jamming a cash register?

10. Why do some stores have clerk keys labeled A,B,C,D,E?

Final Examination

CHANGE MAKING AND MONEY HANDLING

Name: _____ DATE: _____

Score: _____

1. Whether a store manager requires it or not, it is a good idea to count the money in the cash drawer at the beginning and end of each shift. Why?

2. Where should money tendered be placed while making change? Why?

3. The procedure for removing change from register and giving it to the customer is done in two steps. What are they and why must this procedure be followed?

4. What side of a paper bill should be up and which direction should it face?

5. Enter in the cash drawer below where you would place the following:

   1¢ - 5¢ - 10¢ - 25 ¢ - 50¢ - $1 Bill - $5 Bill - $10 Bill - $20 Bill

6. Where would you place checks, coupons, and large bills? What care must be exercised when doing so?

7. (See Next Page)

8. (See Next Page)

Name: _____ Date: _____

Score: _____

7. Making Change - Regular Method

DIRECTIONS: Use as few coins and currency as possible when making change.

Denominations	01¢	05¢	10¢	25¢	50¢	One Dollar	Five Dollars	Result
EXAMPLE: 4.33 out of 10.	2	1	1		1		1	10.00
17¢ out of 50¢								50¢
2.73 out of 5.								5.00
1.29 out of 5.								5.00
81¢ out of 1.								1.00
39¢ out of 10.								10.00
21¢ out of 50¢								50¢
7.57 out of 10.								10.00
3.02 out of 5.								5.00
2.76 out of 10.								10.00
1.57 out of 5.								5.00
51¢ out of 75¢								75¢
2.01 out of 2.50								2.50
7.53 out of 10.								10.00
6.47 out of 20.								20.00
54¢ out of 1.04								1.04
76¢ out of 1.01								1.01

Name: _____ Date: _____

Score: _____

8. Making Change - When Using Change Computing Register

DIRECTIONS: Use as few coins and currency as possible. Enter number of each used.

Denominations	Five Dollars	One Dollar	50¢	25¢	10¢	05¢	01¢
EXAMPLE: Your Change $9.32	1	4		1		1	2
" " 0.24							
" " 2.73							
" " 3.29							
" " 0.83							
" " 0.44							
" " 2.21							
" " 6.37							
" " 3.07							
" " 2.76							
" " 1.58							
" " 0.62							
" " 8.65							
" " 7.49							
" " 4.27							
" " 5.91							
" " 6.19							

Test No. 7

Final Examination

PRICING AND STOCKING

Name: _____ Date: _____

Score: _____

1. What is meant by stock rotation? Why is rotation a must?

2. What determines number of facings given any product item?

3. Why must you check the shelf price and price of shelf stock with price of item you are stocking?

4. What would you do if the prices referred to in problem 3 did not match?

5. Why must you read the label on the item being stocked before putting it on the shelf?

6. How should you stock items in glass containers?

7. What care must be exercised when cutting cartons for pricing?

8. Most cartons contain two layers. Where do you cut this carton for pricing? Why?

9. Prices stamped on a product must be _____ and _____.

10. What is meant by the term "facing the shelves?" When do you do it?

11. Items should not be removed, priced and stocked one item at a time?

12. Is it possible to stock shelves using two hands? Explain the importance of your answer.

13. Usually one one or two designated individuals have authority to sign for merchandise delivered. Why?

14. When changing the price on a can, what do you do with the old price?

15. When changing the price on a carton, or cellophane package, what do you do with the old price?

16. How many ounces in the following can sizes? Flat_____: No. 1 Tall_____: No. 2_____: No. 303_____: No. 2 1/2_____.

17. Describe the difference between the following:

    Two sieve peas_____

    Three sieve peas_____

    Four sieve peas _____

Test No. 8

Final Examination

PRODUCE

NAME: _____ Date: _____

Score: _____

1. List the produce items that require careful handling at the checkstand.

2. Give three reasons why an advertised item would run out before the day is over.

3. Leaf vegetables require special care to assure garden freshness. Two conditions must exist. What are they?

4. What causes the fluctuation of produce prices from day to day?

5. Most supermarkets require that a checker do what, concerning the produce department before they start checking?

6. Using Handout #22, list correctly, today's price for ten vegetable items and five fruit items, as listed on the chalk board by your instructor.

7. Using Handout #38, fill out correctly, the ten items listed on the blackboard by the instructor.

8. Using Handout #39, fill out correctly, the ten items listed on the blackboard by the instructor.

Test No. 9

Final Examination

POSTING THE LEDGER

Name: _____ Date: _____

Score: _____

1. There are two reasons for the necessity of posting a ledger. What are they?

2. Why must your ledger be posted promptly?

3. Most stores require that the manager OK refunds or paid-outs in excess of $1. Why?

4. Why do most supermarkets hire "spotters" to check out groceries?

5. There are four kinds of ledger entries. What are they?

USING HANDOUT #17, SOLVE THE FOLLOWING PROBLEMS. SALES TAX 5%.

6. The manager has OK'd an invoice for cash payment amounting to $5.50.

7. A customer returns 79¢ worth of bottles.

8. The meat manager OK'd refund of $3.75 for a returned chicken.

9. A produce item of 39¢ was rung by mistake on the grocery key.

10. A 59¢ grocery item was registered on the grocery key at 79¢.

11. A meat item of $1.79 was registered on the grocery key.

12. A customer returned a defective can of hairspray that cost $1.79.

13. You charged a customer 79¢ for a produce item on sale at 49¢.

Final Examination

CASHING CHECKS

Name: _____ Date: _____

Score _____

1. What does NSF stand for and what information is provided to the checker to minimize loss due to NSF?

2. Why must a checker be particularly careful when cashing government checks?

3. List four good identifications.

4. What is a post-dated check? Is it acceptable?

5. What is a second-party check? Is it acceptable?

6. Would you cash a check on an out-of-town bank? Explain your answer.

7. What is a "bank stamp." Why is it used? Where on the check is the stamp used?

8. Most stores require that the checker enter four items of information. Give an example of how this is done.

9. Why is it important to "read" a check?

10. There is one good rule for cashing checks. What is it?

11. List your reasons for not accepting the following check. The purchase was $5.95.

_____

First National Bank, Bellingham

No. _____

78-4041
7335

Date Jan 21 1971

Pay to Beverly Monroe Amount 72.50

Seventy One and 50/100 Dollars

COUNTER CHECK Signed Walter A Riggs

12. Enter on the check the required information assuming the check above was good and the purchase was $68.50 and you were checking in checkstand No. 5.

Test No. 11

Final Examination
SUPERMARKET ECONOMICS

Name: _____ Date: _____

Score: _____

1. The cost of food in the U.S. is the lowest in the world and the lowest it has ever been in the U.S. according to the latest figures.

   A. What percent of spendable income is spent on food in the US?

   B. In Russia?

   C. In France?

   D. In England? (optional)

   E. How do you account for our food costing so little compared to Russia?

2. What is gross profit?

3. What is the percent of gross profit for the average supermarket?

4. What is net profit?

5. What is the percent of net profit for the average supermarket?

6. List five items paid for out of gross profit.

7. How are retail prices determined in the average supermarket?

8. What determines when an item stocked is discontinued by a supermarket?

9. Generally speaking, what determines the price of items advertised by the average supermarket?

10. There are some economic truths that are valid in any society. It requires effort to produce the food we eat or the things we use or wear. In other words, there is no such thing as something for nothing. The food we buy in a supermarket has what economists refer to as time, form, place, utility.

    A. What is time utility and why does it cost money? Give an example.

    B. What is form utility and why does it cost money? Give an example.

    C. What is place utility and why does it cost money? Give an example.

Test No. 12

Final Examination

STORE POLICIES

Name: _____ Date: _____

Score: _____

1. Why is it necessary for a store to have policies and why is it important for a checker to learn and follow these policies?

2. List fifteen items that are generally covered by a store policy?

Test No. 13

Final Examination

GROCERY

Name _____ Date _____

Score _____

1. What is meant by the term "facing the shelves?"

2. When does a checker face the shelves?

3. What is meant by the term, "rotation of stock?"

4. When does a checker rotate stock?

5. What determines the number of facings given to an item?

6. Which shelves are shopped more than others?

7. What determines the discontinuance of an item?

8. What is a loss leader?

9. Why do stores use multiple prices?

10. What is the average gross profit of a grocery department?

11. Every square foot of floor space costs the owner money each month for rent. He must earn as much as possible from every square foot devoted to selling space. If a loss leader is displayed on the end of a gondola, what can he do with this display to earn money on this floor space?

12. When checking out ad items, it is important to recognize different sized packages. Why?

13. When checking out canned goods, a checker must turn all priced ends up. Why?

14. Why must a checker group multiple-priced items before checking the item?

15. What does a checker do when the stack of multiple items gets too large to hold any longer?

16. What should a checker tell a customer when checking out an ad item?

17. What should you watch for when sliding canned goods out of your way?

18. List six popular items in the grocery department that normally make the store little or no profit.

19. Damaged or broken items are a contributing factor to loss of profit. What can you do to prevent loss from damaged or broken grocery items.

20. Surveys show that cleanliness is among the top reasons why customers prefer one store to another. What can you do to keep the grocery department neat and clean?

Test No. 14

Final Examination

NON-FOODS

NAME _____ Date _____

Score _____

1. Non-food departments became popular in supermarkets after World War II. What are the two most important reasons why supermarkets have added non-food departments?

2. Non-foods departments are in a sense a store within a store with several departments or product categories. List five product categories found in non-food departments.

3. One product category requires special handling when checking and bagging. What is it?

4. Shoplifting occurs frequently in the non-foods department. A checker must be alert to customer behavior to minimize shoplifting of non-food items. What product categories are most popular with shoplifters?

5. In independent supermarkets the merchandise is usually ordered and stocked by the wholesale house. What must a checker do to keep the shelves looking well stocked?

Test No. 15

Final Examination

FRONT-END OPERATIONS

Name _____ Date _____

Score _____

1. Draw a rough sketch showing how a checker should work in a split "L" checkstand.

2. Why should a checker focus her attention on the merchandise or the customer rather than on the cash register?

3. According to the research of SWEDA Cash Register Company, how does ACURA-TOUCH benefit the customer?

4. How does ACURA-TOUCH benefit the checker and the employer?

5. According to Handout No. 3, there are eight rules a checker must follow to give accurate, courteous, prompt service. What are they?

6. The line of customers waiting to be checked out is called a queue. How many customers should there be in a queue before calling another checker?

7. In addition to checking out customers, the checker has other checkstand duties. List five.

8. Handout No. 48 lists 20 tricks of the trade of professional checkers. List ten of them.

9. Why is department registration so important?

10. What must you do when you make a department error?

11. What must you do when you make a price error?

12. List some of the things you would do before opening your checkstand for customer service.

Test No. 16

Final Examination

BAKERY

Name _____ Date _____

Score _____

1. What are the advantages of an in-store bakery?

2. What are the disadvantages of an in-store bakery?

3. How should bakery products be bagged?

4. What are the advantages of imitation whipping cream over whipping cream when used in cream puffs and other puffed pastries?

5. What product is usually used as an imitation whipping cream?

6. What products are usually used as mold inhibitors in bread?

7. What are the customer advantages of mold inhibitors?

8. What is one major characteristic of bread products made without mold inhibitors?

9. Most bakeries use prepared mixes for donuts and danish pastries. What advantages does this offer to the customer?

10. What are the commonly used ingredients of cake frostings?

11. Many bakery products are frozen either as dough before baking or after baking and then stored. What is the customer advantage when bakeries use freezing in connection with production of bakery products?

12. When cost of ingredients and labor go up, the price of bakery products must be raised, or less expensive ingredients used if this is possible, or the size made smaller. How many in your class think the price should be raised? _____ How many in your class think the product should be made smaller? _____ How many in your class think less expensive ingredients should be used if this is possible? _____

13. What have you learned about the problems facing management from your answers to problem 12?

Test No. 17

Final Examination

MEMORY

Name _____ Date _____

Score _____

INSTRUCTOR'S NOTE: Select twenty items from the produce department and ten ad items from a current ad of a local supermarket. Enter in column one. Students must be instructed one day prior to this test the supermarket from which ad and produce prices will be selected.

ITEM	PRICE	ITEM	PRICE
1.		16.	
2.		17.	
3.		18.	
4.		19.	
5.		20.	
6.		21.	
7.		22.	
8.		23.	
9.		24.	
10.		25.	
11.		26.	
12.		27.	
13.		28.	
14.		29.	
15.		30.	

Final Examination

MULTIPLES

Name _____ Date _____

Score _____

1. What is the first step to take when determining the unit price for a multiple-priced item.

2. What is the second step to take when determining the unit price for a multiple-priced item.

3. Give the formula for determining the unit price of a multiple-priced item.

4. Describe the two policies generally used to determine the unit price of products sold by the multiple-price method.

5. Show how you would determine the single unit price of an item selling at six for 77¢. Show each step you used to determine your answer. Do all computations on your test paper.

6. How much would you charge for three units if the multiple-price is 5 for 77¢.

7. How much would you charge for three units if the multiple price is six for 77¢.

Final Examination

MULTIPLES

Name _____ Date _____

Score _____

INSTRUCTOR'S NOTE: Enter in the first column the 20 most commonly used multiples in your area.

STUDENT'S INSTRUCTIONS: In the form below, enter how much you would charge for one can, two cans, three cans, four cans.

MULTIPLE PRICE	ONE CAN	TWO CANS	THREE CANS	FOUR CANS
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Test No. 19

Final Examination

MEAT

Name _____ Date _____

Score _____

1. Three guidelines are used by inspectors to determine the grade of beef. What are they?

2. List the three grades of beef commonly sold fresh to the consumer.

3. What determines flavor and juicyness of beef?

4. What determines the tenderness of beef?

5. How should most items sold in the meat department be bagged?

6. Customers should exercise particular care with poultry and fish. What instructions should you give a customer buying poultry and fish?

7. The red color of beef in a show case is not its natural color when cut. What is the word used by butchers to describe this change in color?

8. What causes beef to lose its bright red color?

9. Meat departments in a supermarket are under regular supervision by state inspectors. Generally speaking these inspectors look for three things. What are they?

10. Explain what is meant by tare?

11. Generally speaking the meat department is the least profitable of all departments in a supermarket. Why is this true?

12. List the seven product categories sold in most meat departments.

13. Give one or more reasons why a checker should know cuts of meat.

14. What would you say to the irate customer who is complaining about how fat the pork roast and bacon are that she has just purchased?

Final Examination

DAIRY

Name _____ Date _____

Score _____

1. Stock rotation is important in all departments of a supermarket. But particularly this is true in the dairy department. Why?

2. Describe what care must be taken when bagging dairy products?

3. What determines the difference between grades of ice cream?

4. What is the difference between pastuerized and homogonized milk?

5. What is Grade "A" milk?

6. What two rules determine the separation of eggs so they are sold at different prices?

7. The conformation of an egg determines how it is sold by grade. Give the four most popular sizes of eggs.

8. The weight of an egg determines how it is sold by size. Give the four most popular sizes of eggs.

9. There are two kinds of buttermilk. One is becoming increasingly difficult to find in a supermarket. Describe these two kinds of buttermilk.

10. On next sheet.

Listed below are the most popular cheeses sold in a supermarket. Give the country of origin, animal source, texture and how used by filling the form in correctly.

TYPE	COUNTRY	SOURCE	TEXTURE	Salad	Sandwich	Grading	Cooking	Desert	Horsd'oeurve
Bleu									
Cottage Cheese									
Cream Cheese									
Edam									
Gouda									
Longhorn									
Muenster									
Myost									
Parmesan									
Romano									
Roquefort									
Swiss									
Provolone									
Mozzarella									
Cheddar - Sharp									
Cheddar - Mild									

11. Which two are the most popular in terms of dollar volume?

ACCESSION NUMBER: VT102043

PUBLICATION DATE: 18MAR75

TITLE: DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II. FINAL REPORT.

PERSONAL AUTHOR: HATTSTAEDT, MARY JANE; ISAAC, MARGARET M.

DESCRIPTOR: *PRACTICAL NURSING; *EQUIVALENCY TESTS; STUDENT EVALUATION; *PERFORMANCE TESTS; TESTING PROGRAMS; *NURSING; *TEST CONSTRUCTION; PERFORMANCE CRITERIA; COMMUNITY COLLEGES; ASSOCIATE DEGREES

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 176P.

ABSTRACT: THIS IS THE FINAL REPORT OF THE SECOND OF A TWO-PART PROJECT INVOLVING THE DEVELOPMENT AND TESTING OF CHALLENGE EXAMS FOR A CLINICAL COURSE IN PRACTICAL OR ASSOCIATE DEGREE NURSING. THE EXAMS WERE DEVELOPED TO ENABLE STUDENTS WITH PREVIOUS EXPERIENCE IN OBSTETRIC, GERIATRIC, OR PEDIATRIC NURSING TO MEET COURSE OBJECTIVES WITHOUT NEEDLESS REPETITION OF EXPERIENCE. PART II OF THE PROJECT IS CONCERNED WITH TESTING THE INSTRUMENTS AND USING THE CHALLENGE EXAMS AND RELATED PERFORMANCE EVALUATION TOOLS FOR A CLINICAL CHALLENGE BY STUDENTS ENROLLED IN NURSING II IN PIMA COMMUNITY COLLEGE, TUCSON, ARIZONA IN FALL, 1974 AND SPRING, 1975. INCLUDED IN THE REPORT ARE THE CHALLENGE EXAM PACKETS, PERFORMANCE OBJECTIVES AND EVALUATION CHECKLISTS, AND SELF-STUDY MATERIALS. STUDENT AND FACULTY REACTIONS TO THIS STUDENT EVALUATION PROGRAM ALSO APPEAR. AN ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING IS APPENDED, ALONG WITH RELATED FORMS AND QUESTIONNAIRES USED TO GATHER INFORMATION ABOUT OTHER NURSING PROGRAMS AND STUDENT EXPERIENCE. PART I OF THE PROJECT IS AVAILABLE AS VT 101 044 IN AIM, VOL. 7, NO. 6. (NJ)

INSTITUTION NAME: PIMA COMMUNITY COLL., TUCSON, ARIZ.

SPONSORING AGENCY NAME: ARIZONA OCCUPATIONAL RESEARCH COORDINATING UNIT, PHOENIX.; OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 043

DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II

FINAL REPORT

APR 21 1975

PROJECT NO. 74-RMG-1314

GRANT NO. 30146

Conducted Under
Section 131(b) Part C
Public Law 90-576

The project reported herein was performed pursuant to a grant from the Research Coordinating Unit, Division of Vocational/Career Education, Arizona Department of Education. Grantees undertaking such projects are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Arizona Department of Education position or policy.

MARY JANE HATTSTAEDT

AND

MARGARET M. ISAAC

PIMA COMMUNITY COLLEGE
2202 WEST ANKLAM ROAD
TUCSON, ARIZONA 85709

MARCH 18, 1975

VT 102 043

DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II, PART II

FINAL REPORT

PROJECT NO. 74-RMG-1314

GRANT NO. 30146

Conducted Under
Section 131(b) Part C
Public Law 90-576

The project reported herein was performed pursuant to a grant from the Research Coordinating Unit, Division of Vocational/Career Education, Arizona Department of Education. Grantees undertaking such projects are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Arizona Department of Education position or policy.

MARY JANE HATTSTAEDT

AND

MARGARET M. ISAAC

PIMA COMMUNITY COLLEGE
2202 WEST ANKLAM ROAD
TUCSON, ARIZONA 85709

MARCH 18, 1975

TABLE OF CONTENTS

	PAGE NO.
SUMMARY -	1
RECOMMENDATIONS -	19
STUDENT CLINICAL LABORATORY CHALLENGE EXAM PACKET FOR NURSING II (TITLE SHEET) - - - - - -	20
INTRODUCTION -	21
PEDIATRIC CLINICAL CHALLENGE EXAM (TITLE SHEET) -	P-1
INSTRUCTIONS FOR TESTORS- - - - - - - - - - - - -	P-2
METHOD- -	P-3
PEDIATRIC CLINICAL LAB CHALLENGE EXAM OBJECTIVES - - - - - - - - - - -	P-4
PEDIATRIC CLINICAL LABORATORY OBJECTIVES - - -	P-6
PEDIATRIC SELF STUDY MATERIALS - - - - - - - - -	P-8
GUIDELINES FOR ADMINISTRATION OF THE DENVER DEVELOPMENTAL SCREENING TEST - - - - -	P-9
DENVER DEVELOPMENTAL SCREENING TEST (DESCRIPTION) - - - - - - - - - - - - - - - - -	P-10
PERFORMANCE EVALUATION FOR DDST ADMINISTRATION-	P-11
DDST: SUMMARY AND SUPPLEMENTAL INFORMATION- - -	P-13
GIVING CARE TO A PEDIATRIC PATIENT PERFORMANCE EVALUATION CHECKLIST - - - - - -	P-14
PEDIATRIC QUESTION TOPICS - - - - - - - - - - - -	P-22
OBSTETRIC CLINICAL CHALLENGE EXAM (TITLE SHEET) -	OB-1
INSTRUCTIONS FOR TESTORS - - - - - - - - - - - -	OB-2
PART I - CARE OF THE NEWBORN	
OBJECTIVES, METHOD, SELF-STUDY MATERIALS - - -	OB-3

TABLE OF CONTENTS

(Cont'd)

	PAGE NO.
ROUTINE ORDERS FOR ALL NEWBORNS ADMITTED TO THE HOSPITAL TRANSITIONAL NURSERY - - - -	OB-5
DUBOWITZ TEST FOR GESTATIONAL AGE OBJECTIVES, METHOD, SUCCESSFUL COMPLETION- -	OB-8
DUBOWITZ TEST FOR GESTATIONAL AGE DESCRIPTION - - - - - - - - - - - - - - - - -	OB-9
STATEMENT OF TOPICS - - - - - - - - - - - - - - -	OB-10
NEWBORN ADMISSION PERFORMANCE EVALUATION CHECKLIST - - - - - - - - - - - - - - - - -	OB-11
PART II - CARE OF A WOMAN DURING PREGANCY, LABOR, DELIVERY AND POST PARTUM	
OBJECTIVES, METHOD, SELF STUDY MATERIALS - - -	OB-14
OBJECTIVES FOR PRENATAL EXPERIENCE - - - - - -	OB-16
CLINICAL OBJECTIVES - OBSTETRICS - - - - - - -	OB-17
PRENATAL PERFORMANCE EVALUATION CHECKLIST - -	OB-18
CARE OF PATIENT IN LABOR AND DELIVERY PERFORMANCE EVALUATION CHECKLIST - - - - - -	OB-20
CLINICAL OBJECTIVES, NURSING CARE OF THE PATIENT ON POST PARTUM UNIT - - - - - - - -	OB-22
CARE OF PATIENT IN POST DELIVERY RECOVERY ROOM PERFORMANCE EVALUATION CHECKLIST - - - - -	OB-23
GIVING CARE TO PATIENT ON POST PARTUM UNIT PERFORMANCE EVALUATION CHECKLIST - - - - -	OB-25
CARE OF WOMAN DURING THE PREGNANCY CYCLE QUESTION TOPICS - - - - - - - - - - - - - - -	OB-28
GERIATRIC CLINICAL CHALLENGE EXAM (TITLE SHEET)	G-1
INSTRUCTIONS FOR TESTOR - - - - - - - - - - - -	G-2
GERIATRIC CLINICAL LAB CHALLENGE EXAM - - - -	G-3

TABLE OF CONTENTS

(Cont'd)

	PAGE NO.
GERIATRIC SELF STUDY GUIDE - - - - - - - - - - -	G-5
GERIATRIC CLINICAL LAB CHALLENGE EXAM OBJECTIVES - - - - - - - - - -	G-6
GERIATRIC CLINICAL LABORATORY OBJECTIVES - - -	G-7
SENSORY STATUS SURVEY - STUDY GUIDE - - - - - -	G-8
GROSS INTELLECTUAL OVERVIEW SURVEY - - - - - -	G-12
GROSS INTELLECTUAL OVERVIEW SURVEY STUDY GUIDE - - - - - - - - - -	G-13
GIVING CARE TO A GERIATRIC PATIENT PERFORMANCE EVALUATION CHECKLIST - - - - - -	G-16
GERIATRIC QUESTION TOPICS - - - - - - - - - - -	G-23
APPENDIX A	
NURSING CARE PLAN - FORM - - - - - - - - - - - -	A-1
NURSING CARE PLAN GUIDELINES FOR CONSTRUCTION - - - - - - - - -	A-2
NURSING CARE PLAN INSTRUMENT EVALUATION CHECKLIST - - - - - -	A-4
IV FLUIDS PERFORMANCE EVALUATION CHECKLIST - - - - - -	A-6
TEACHING AND LEARNING PERFORMANCE EVALUATION CHECKLIST - - - - - -	A-9
ADMINISTRATION OF MEDICATIONS SELF STUDY GUIDE - - - - - - - - - - - - - - -	A-11
ORAL MEDICATION ADMINISTRATION PERFORMANCE EVALUATION CHECKLIST - - - - - -	A-13
PATIENT PROBLEMS ANALYSIS - - - - - - - - - - -	A-16
PATIENT PROBLEMS ANALYSIS PERFORMANCE EVALUATION CHECKLIST - - - - - -	A-19

TABLE OF CONTENTS

(Cont'd)

	PAGE NO.
MODEL OF CLINICAL CHALLENGE EXAM (TITLE SHEET) - - - - - - - - - - - - - - - - - -	A-20
GIVING CARE TO A PATIENT PERFORMANCE EVALUATION CHECKLIST- - - - - - -	A-21
APPENDIX B (Will not be included in student packet)	
I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING- - - - - - - - - - - - - -	B-1
II. FORM I AND TABULATED RESULTS - - - - - - - -	B-8
III. FORM II - TABULATED RESULTS - - - - - - - - -	B-12
FORM II - QUESTIONNAIRE - OBSTETRICS - - -	B-17
FORM II - QUESTIONNAIRE - PEDIATRICS - - -	B-21
FORM II - QUESTIONNAIRE - GERIATRICS - - -	B-26
APPENDIX C	
LETTER OF JULY 3, 1974. - - - - - - - - - - - - - -	C-1
NARRATIVE SUMMARY OF PROJECT IN OPERATION - - -	C-2

SUMMARY

This project is the second of a two-part project. In Part I the need for specific clinical laboratory challenge examinations was substantiated by the literature. In Part I challenge exams were developed for clinical laboratory in Nursing II (Obstetrics, Pediatrics and Geriatrics). This was done from April 1, 1974 to June 30, 1974. Consultation was obtained on examination design from Karen Tyler, M. S. and James Eubanks, Ed.D., Specialists in Educational Technology from Arizona State University and from Betty Ord, Nursing Consultant to the Pima Community College Nursing Program, on nursing content. Nursing II is the second of four nursing courses in a career ladder practical nursing, associate degree nursing program. Both practical nursing and associate degree nursing students take this course. The course is the second of three courses for practical nursing students. The pediatric and obstetric parts are oriented toward the A.D.N. level. The geriatric examination can have a practical nursing or associate degree nursing orientation.

Part II involved testing the instruments and using the challenge exams and related performance evaluation tools for a clinical challenge by students enrolled in Nursing II in Fall, 1974 and Spring, 1975.

Testing the Instruments

Each test: "Obstetrics challenge exam"
"Geriatric challenge exam"
"Pediatric challenge exam"

was administered to two different student consultants who had previously challenged the clinical portion of the course prior to the development of these instruments. One student took all three exams and three other students took one exam each. The time frame stated for each test was met in each test. (Normal: 2 days @ 4 hours per day). All students successfully completed the challenge exam.

The one student consultant who had previously challenged all three clinical components commented that being presented with the total challenge packet for all tests was overwhelming. Another student consultant declined to take all three portions of the tests due to the large packet and the amount of time implied by the volume of the exams. In response to the above, packets were separated; students challenging one part were given that part only.

Sample Comments of the Student Consultants

"It did not take as much time as I thought"

"There is a great deal of written work" (Geriatric exam)

"It is hard not to know how you are doing as you go along"

"It is different than a regular clinical lab"

"The questions are about 'medium' - not too hard or too easy"

"Am I all finished?" "I think I have done everything"

"This is like when I tested out, except I knew more what was expected of me"

All four student consultants stated that the tests could be used with other students and were an equitable representation of their performance.

In Part I, during April, 1974, a questionnaire was used to gather information about past educational and work experience of the students in Nursing II to determine if potential test population had the background to successfully challenge the three nursing clinical areas. A summary of these findings is appended in Part I.

As an experiment, the project directors decided to permit those students who wished to challenge,without stating prior education or experience, either obstetric and/or pediatric and/or geriatric nursing to do so in Fall, 1974 and January/ February, 1975. The results were:

	CLINICAL EXAMS SUCCESSFULLY CHALLENGED	CLINICAL EXAMS NOT SUCCESSFULLY CHALLENGED
Geriatrics	7	2
Pediatrics	0	1
Obstetrics	0	0

Faculty administering the examinations were not limited to those who designed them. Three other faculty administered examinations to students for challenge.

Selected Performance Evaluation Tools and Data Analysis

The following performance evaluation tools were used by students in three nursing courses:

IV Fluid Administration

Teaching/Learning

Medication Administration (Oral)

Approximately 120 students had the opportunity to use these tools.

The following performance evaluation tools were used by students in Nursing II (approximately 36 students):

Nursing Care Plan (for three assignments)

DDST (once or twice)

The questionnaires reflect the students and faculty verbal comments about use of the specific performance evaluation tools. Events that occurred with use of the tools which were not preplanned included:

1. Student self-rating
2. Instructor rating after the fact of performance
3. Independent student/faculty rating without preplanning.

It is interesting that since the tools provide considerable structure, they were used flexibly.

There was general faculty and student concensus about the use and nature of the performance evaluation tools. While statements on the questionnaire are not exactly the same, there are correlations between certain statements:

STUDENT STATEMENT		FACULTY STATEMENT
1	Correlates with	1
2	Correlates with	2
4	Correlates with	3
5	Correlates with	4
6	Correlates with	5
7 & 8	Correlate with	11
9	Correlates with	8
10	Correlates with	7
11 & 14	Correlate with	11
12	Correlates with	9
13	Correlates with	10
15	Correlates with	12

After these tools were developed, performance evaluation tools for other experience were designed by the general course faculty and used during the Fall Semester, 1975. A tool for IM and subcutaneous medication administration was developed. In January, 1975 a performance evaluation tool incorporating medication administration by all routes, except IV, was developed.

Common use of language in a specific tool is helpful to students in knowing performance expectations; it is also helpful to faculty to know that other instructors are using the same device to measure student performance.

The use of these tools simplifies and reduces bulk in student records, if a note is made that student completed a specified number of specific performance evaluation tools. Individual performance evaluation tools are retained in student files beyond the semester, on a special basis only (e.g. student needed three trials to complete oral medication administration performance evaluation tool satisfactorily).

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET)

TOOL: **D. D. S. T.**

QUESTIONS	STUDENT RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	2	7	1					
2. Use of tool let me know when my performance was not satisfactory	2	6	1		1			
3. Use of tool let me know how my performance was not satisfactory		8	2					
4. When I read the PET before assignment, I knew what was expected of me	4	5	1					
5. I would change the language of this PET to make it more clear	1	1	6	1				
6. The style & format of the PET was easy to follow	1	7	1					
7. The specific PET was based on information I knew		7	1		1			
8. The specific PET was based on information I knew nothing about			5	3	1			
9. I rated myself on the Performance Evaluation Tool						5	4	
10. My instructors evaluated me on the Performance Evaluation Tool						7	1	1
11. I suggest that these PETs be used with other students						7		1
12. The tool tests only manual skills		1	6	3				
13. The tool includes items that relate to a patient's individuality	1	7	1		1			
14. The tool is useful to students at my course level	1	6			1			
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET						3	4	2

*KEY:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

N = No Opinion

B = Blank

+ COMMENTS: BACK OF SHEET

COMMENTS:

Advocates use with other students, but not as necessary part of diary or to be turned in for course grade.

Turns into a hassle.

Good but not outstandingly helpful.

Verbal evaluation in addition could be helpful.

Comment on use of D.D.S.T. with very sick child - inappropriate.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) TOOL: **TEACHING/LEARNING**

QUESTIONS	STUDENT RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	1	2						
2. Use of tool let me know when my performance was not satisfactory	1	2						
3. Use of tool let me know how my performance was not satisfactory		2						
4. When I read the PET before assignment, I knew what was expected of me	1	1						
5. I would change the language of this PET to make it more clear		1	1					
6. The style & format of the PET was easy to follow			1		1			
7. The specific PET was based on information I knew	1	1						
8. The specific PET was based on information I knew nothing about								
9. I rated myself on the Performance Evaluation Tool						2		
10. My instructors evaluated me on the Performance Evaluation Tool						1		
11. I suggest that these PETs be used with other students						1		
12. The tool tests only manual skills			2					
13. The tool includes items that relate to a patient's individuality		2						
14. The tool is useful to students at my course level		3						
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET							1	2

*KEY:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

N = No Opinion

B = Blank

+COMMENTS: BACK OF SHEET

COMMENTS:

The checklists help you remember how you performed at certain times - refresh memory at evaluation time.

Waste of time - didn't feel it helped in an instructional way.

I felt at times that individual personal communication is a better process than the tool, but find that all aspects are better covered in the checklist. The tool being evaluated by instructor helped me to become aware of areas in which I needed assistance and more experience. The tool is worthwhile.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) TOPIC: **NURSING CARE PLAN**

QUESTIONS	STUDENT RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	3	3		1+				
2. Use of tool let me know when my performance was not satisfactory	3	3		1+				
3. Use of tool let me know how my performance was not satisfactory	3	3		1+				
4. When I read the PET before assignment, I knew what was expected of me	1	5		1+				
5. I would change the language of this PET to make it more clear		2	5					
6. The style & format of the PET was easy to follow	1	5						
7. The specific PET was based on information I knew	1	4	1					
8. The specific PET was based on information I knew nothing about			4	2				1
9. I rated myself on the Performance Evaluation Tool						6		
10. My instructors evaluated me on the Performance Evaluation Tool						6		
11. I suggest that these PETs be used with other students						4		1
12. The tool tests only manual skills			4	2				
13. The tool includes items that relate to a patient's individuality	2	2	2					
14. The tool is useful to students at my course level	1	5						
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET							1	5

*KEY:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

N = No Opinion

B = Blank

* COMMENTS: BACK OF SHEET

COMMENTS:

+ This student stated did not help learning process at all

Use as a study guide of what is to be included, not as evaluation

(Answered 1 through 4 only)

Advocates use with other students, but not as necessary part of diary or to be turned in for course grade.

Turns into a hassle.

Optional = 2 responses

#11 Suggest the evaluation tool be used only for students that need improvement, if doing satisfactory job. Paperwork is unnecessary if you already know instructor's opinion

Great to aid in improving yourself but a lot of work if not necessary.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) TOOL: **IV FLUID ADMINISTRATION**

QUESTIONS	STUDENT RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	4	2						
2. Use of tool let me know when my performance was not satisfactory	3	3						
3. Use of tool let me know how my performance was not satisfactory	3	2	1					
4. When I read the PET before assignment, I knew what was expected of me	5	1						
5. I would change the language of this PET to make it more clear			5					1
6. The style & format of the PET was easy to follow	1	2	2					1
7. The specific PET was based on information I knew	2	3						1
8. The specific PET was based on information I knew nothing about			3	1				2
9. I rated myself on the Performance Evaluation Tool						5		1
10. My instructors evaluated me on the Performance Evaluation Tool						5		1
11. I suggest that these PETs be used with other students						5		1
12. The tool tests only manual skills		2	2	1				
13. The tool includes items that relate to a patient's individuality	1	1	3					1
14. The tool is useful to students at my course level		5						1
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET							5	1

*KEY:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

N = No Opinion

B = Blank

* COMMENTS: BACK OF SHEET

COMMENTS:

Some of the criteria was not always available or applicable and the "essentialness" of some of the criteria were not always met and this caused great anxiety to the student. Rewording of some of the objectives would eliminate this anxiety. It is not always applicable.

QUESTIONNAIRE 5
PERFORMANCE EVALUATION TOOL (PET)

TOPIC: **MEDICATION ADMINISTRATION (ORAL)**

QUESTION*	STUDENT RESPONSES TO QUESTIONS							
	SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	6	5						
2. Use of tool let me know when my performance was not satisfactory	6	6						
3. Use of tool let me know how my performance was not satisfactory	3	7			1			
4. When I read the PET before assignment, I knew what was expected of me	8	2						
5. I would change the language of this PET to make it more clear	1	1	6	2	1			
6. The style & format of the PET was easy to follow	4	6		1				
7. The specific PET was based on information I knew	2	7	3		1			
8. The specific PET was based on information I knew nothing about				5	1			
9. I rated myself on the Performance Evaluation Tool							9	1
10. My Instructors evaluated me on the Performance Evaluation Tool							10	
11. I suggest that these PETs be used with other students							8	
12. The tool tests only manual skills			5	3	1			
13. The tool includes items that relate to a patient's individuality	2	5	4		2			
14. The tool is useful to students at my course level	3	6	1					
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET							3	7

*KEY:
SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
N = No Opinion
B = Blank

* COMMENTS:
BACK OF SHEET

COMMENTS:

Students who used faculty form to answer believed checklist helpful in proper and required criteria for passing medications.

Some Criteria hard to understand.

Lack of freedom to write special incidents and feelings about how you felt you did.

Sometimes a verbal evaluation explains more:

1. Student/instructor interaction

2. A fuller understanding of right and wrong

Very helpful

How about a verbal evaluation in conjunction with written performance evaluation tool.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET)

TOOL: **Unspecified (0 of 5 Specified)**

QUESTIONS	STUDENT RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of tool let me know if my performance was satisfactory	2	1	1					
2. Use of tool let me know when my performance was not satisfactory	1	2	1					
3. Use of tool let me know how my performance was not satisfactory	1	2	1					
4. When I read the PET before assignment, I knew what was expected of me	2	2		1				
5. I would change the language of this PET to make it more clear		1	2					
6. The style & format of the PET was easy to follow		4		1				
7. The specific PET was based on information I knew		4						
8. The specific PET was based on information I knew nothing about		1	2					
9. I rated myself on the Performance Evaluation Tool						4		
10. My instructors evaluated me on the Performance Evaluation Tool						4		
11. I suggest that these PETs be used with other students						4		
12. The tool tests only manual skills			3	1				
13. The tool includes items that relate to a patient's individuality		3	1					
14. The tool is useful to students at my course level		3		1				
15. I would prefer that an instructor give me a verbal evaluation of my performance without the use of the PET						1	3	

*KEY:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

N = No Opinion

B = Blank

+ COMMENTS: BACK OF SHEET

COMMENTS:

IV FLUID CHECKLIST

Some questions hard to understand

Generally good evaluation of performance

Instructors should really ask if students do understand the objectives stressed. Also make it a point to say some objectives are not applicable because the situation does not arise.

Use verbal evaluation with checklist.

SURVEY QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET)

QUESTIONS	FACULTY RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of the tool let my students know their performance was satisfactory	1	5						
2. Use of tool let my students know when their performance was not satisfactory	1	5	1					
3. When students read tool in advance, they demonstrated knowledge of what was expected of them	2	1	3		1			
4. I would change the language of this PET to make it more clear		3	3					
5. The style and format of the Tool was easy for me to follow in evaluating the student		5	1					
6. The Tool is based on material contained in the nursing curriculum	1	4	1					
7. I rated students using the Performance Evaluation Tool						4		1
8. My students rated themselves on the Performance Evaluation Tool						3	4	
9. The tool tests only manual skills			3	3				
10. The tool includes items that relate to a patient's individuality	3	2		1				
11. The Tool is useful to students and faculty at the course level I teach	2	3	1					
12. I would prefer to give a verbal evaluation on student performance without use of the PET						2	4	
13. I used the comments column frequently						3	3	
14. I used the comments column rarely, or not at all						2	3	1
*KEY: SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree N = No Opinion B = Blank					* COMMENT: NACP ON SHEET			

COMMENTS:

#2 needed interpretation, especially in creative abstract content vs. mechanical.

Study guide needs revising.

#7 - trouble understanding what each instructor wanted out of this assignment. Each has strong ideas and they differ. Sometimes more from head than criterion on tool.

#10 - Circled 3 times for emphasis.

#12 - Written <u>proof</u> better

PET good. Student should read before doing NCP.

QUESTIONNAIRE ON
PERFORMANCE EVALUATION TOOL (PET)

TOOL: MEDICATION ADMINISTRATION (ORAL)

QUESTIONS	FACULTY RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of the tool let my students know their performance was satisfactory	3	5						
2. Use of tool let my students know when their performance was not satisfactory	2	5			1			
3. When students read tool in advance, they demonstrated knowledge of what was expected of them	3	3	1		1			
4. I would change the language of this PET to make it more clear		1	5	2				
5. The style and format of the Tool was easy for me to follow in evaluating the student	3	5						
6. The Tool is based on material contained in the nursing curriculum	3	5						
7. I rated students using the Performance Evaluation Tool						7	1	1
8. My students rated themselves on the Performance Evaluation Tool						7	2	
9. The tool tests only manual skills		2	4	2				
10. The tool includes items that relate to a patient's individuality	1	3	3	1				
11. The Tool is useful to students and faculty at the course level I teach	4	4						
12. I would prefer to give a verbal evaluation on student performance without use of the PET						2	5	1
13. I used the comments column frequently						8		
14. I used the comments column rarely, or not at all							6	2
*KEY: SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree N = No Opinion B = Blank					+ COMMENTS: BACK OF SHEET			

COMMENTS:

#4 - You can't make it any clearer.

Very valuable- Look over thoroughly before medication administration.

All evaluation lists fantastic.

This is perhaps best of any of our checklists.

I always add comments on how students related to patients as people.

#13 - Sometimes used comments column.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) — D.D.S.T.

QUESTIONS	FACULTY RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of the tool let my students know their performance was satisfactory	1	1						
2. Use of tool let my students know when their performance was not satisfactory	1	1						
3. When students read tool in advance, they demonstrated knowledge of what was expected of them	1	2						
4. I would change the language of this PET to make it more clear	2							
5. The style and format of the Tool was easy for me to follow in evaluating the student	2							
6. The Tool is based on material contained in the nursing curriculum	1	1						
7. I rated students using the Performance Evaluation Tool						1		1
8. My students rated themselves on the Performance Evaluation Tool							1	1
9. The tool tests only manual skills	1		1					
10. The tool includes items that relate to a patient's individuality	1	1						
11. The Tool is useful to students and faculty at the course level I teach	1							1
12. I would prefer to give a verbal evaluation on student performance without use of the PET						1	1	
13. I used the comments column frequently							1	1
14. I used the comments column rarely, or not at all						1		1

*KEY:
SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
N = No Opinion
B = Blank

+ COMMENTS: BACK OF SHEET

COMMENTS:

Not used in III

Skills lab with D.D.S.T. manual, plus explanation would help.

#4 - change language about age determination to make it more clear.

Perhaps faculty should write an introductory guide.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) TOOL: TEACHING/LEARNING

QUESTIONS	FACULTY RESPONSES TO QUESTIONS*							
	SA	A	D	SD	N	YES	NO	B
1. Use of the tool let my students know their performance was satisfactory	1	2	1					
2. Use of tool let my students know when their performance was not satisfactory	1	1	1		1			
3. When students read tool in advance, they demonstrated knowledge of what was expected of them		3		1				
4. I would change the language of this PET to make it more clear	1	1	2					
5. The style and format of the Tool was easy for me to follow in evaluating the student		2	1		1			
6. The Tool is based on material contained in the nursing curriculum	1	2	1					
7. I rated students using the Performance Evaluation Tool						1	1	2
8. My students rated themselves on the Performance Evaluation Tool						3		1
9. The tool tests only manual skills		1	3					
10. The tool includes items that relate to a patient's individuality		2		1				1
11. The Tool is useful to students and faculty at the course level I teach	1	2	1					
12. I would prefer to give a verbal evaluation on student performance without use of the PET						2	1	1
13. I used the comments column frequently						4		
14. I used the comments column rarely, or not at all							2	2

*KEY:
SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
N = No Opinion
B = Blank

* COMMENTS BACK OF PAGE

COMMENTS:

Cover sheet seems more geared to pediatrics and geriatrics, but could be revised for all types of teaching.

One faculty did not use tool, but plans to use it in the future.

QUESTIONNAIRE ON PERFORMANCE EVALUATION TOOL (PET) — TOOL: **IV FLUID ADMINISTRATION**

QUESTIONS	FACULTY RESPONSES TO QUESTIONS							
	*SA	A	D	SD	N	YES	NO	B
1. Use of the tool let my students know their performance was satisfactory	1	3			1			
2. Use of tool let my students know when their performance was not satisfactory	1	3			1			
3. When students read tool in advance, they demonstrated knowledge of what was expected of them	1	3		1				
4. I would change the language of this PET to make it more clear	1	1	1	1	1			
5. The style and format of the Tool was easy for me to follow in evaluating the student	3	2						
6. The Tool is based on material contained in the nursing curriculum	1	4						
7. I rated students using the Performance Evaluation Tool						2	2	1
8. My students rated themselves on the Performance Evaluation Tool						6	1	
9. The tool tests only manual skills	2	1	2					
10. The tool includes items that relate to a patient's individuality		1	2	1				1
11. The Tool is useful to students and faculty at the course level I teach	1	3			1			
12. I would prefer to give a verbal evaluation on student performance without use of the PET						3	1	1
13. I used the comments column frequently						3	2	
14. I used the comments column rarely, or not at all						2	2	1

*KEY:
SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
N = No opinion
B = Blank

* COMMENTS: BACK OF SHEET

COMMENTS:

#4 - Very Clear

#6 - More precise than curriculum.

#9 - Strongly agree and interpersonal relations also evaluated with criteria on tool.

Very helpful to student. Students know precisely what faculty look for when we evaluate them.

In addition, two copies of each exam were given to faculty at the Tucson Skills Center Practical Nursing Program for administration to two practical nurse students near the end of the specific clinical area being tested. Comments by faculty and students were:

OBSTETRIC EXAM

1. Beyond practical nurse level.

2. Statements on physical care of mother not sufficiently specific.

3. Students believed many statements involving evaluation of newborn status were in the realm of the physician.

4. Cultural and psychosocial aspects not considered as part of role.

PEDIATRIC EXAM

1. DDST omitted, since these students do not learn or use it.

2. All nursing care items completed.

3. Term "assessment" not understood.

GERIATRIC EXAM

1. Students were able to complete successfully.

2. Required a great deal of written work.

3. Some items on sensory status survey were difficult to measure.

The Tucson Skills Center uses a different format for objectives and some of the statements and language were not clear to these students.

The examinations have been revised, based on experience with them. The pediatric and obstetric exams will be retained. The geriatric exam will be used for nursing home clinical experiences if these are retained in the program.

The challenge exams were designed to measure performance of clinical objectives of an individual course in a single school. The philosophy of the nursing programs, the theoretical framework, the common faculty/student language and the student population all influenced the development and use of the examinations. The population for testing the examinations and the students tested were very limited. Generalizations about the examinations should include consideration of all of the above.

However, the belief that students with past work experience and education should have the opportunity to demonstrate and receive credit for what they know is widely held in nursing education. These examinations provide a method for systematic testing of clinical performance that is uniform for student and testor. They also provide students with knowledge of what is being tested. The tests are structured in such a way that a change in depth or emphasis of clinical objectives can be accommodated in the tests. The use of the nursing care plan and teaching/learning performance evaluation tools lay the groundwork for measurement of judgment when the student is actually giving nursing care to a patient. This judgment measurement is missing from many skills or tasks checklists. There is provision in all tests for developmental and psychosocial characteristics and needs of patients.

Testing provides an introductory component for patient assessment (observation and communication), then a plan of care utilizing patient information and other resources, then care given, and evaluation. Test design is closely related to the steps of the nursing process.

TESTING METHODS AND MODEL

I. Establishment of Prerequisites:

A. Past work experience

B. Past educational experience

C. Enrollment in specific course

II. Inform students of prerequisites and opportunity to challenge.

III. Provide student(s) with examination packet(s) to include:

A. Course clinical objectives

B. Challenge exam objectives

C. Self-Study Guide

D. Description of method of exam to include time involved, expected student behavior and statement of objectives.

E. List of instructions for testor.

F. "Giving Care to Patient" Performance Evaluation Tool.

G. Performance Evaluation Tools that might be used in test:

(1) Teaching/Learning

(2) Nursing Care Plan

(3) Oral Medication Administration

(4) IV Fluid Administration

H. Possible question topics.

IV. Provide conference opportunity for student to ask questions for clarification after student has received exam packet.

NOTE FOR INSTRUCTOR: Write questions and answers in advance of student experience to prevent bias in framing questions and answers, or develop a pool of questions that can be modified for specific patients.

V. Conduct exam and give student results orally. Record results in student record. A notation of pass by exam should suffice, if copies of exam are readily available to faculty; there is no need to keep individual copies on each student.

"GIVING CARE TO GERIATRIC PATIENT"

This is the Performance Evaluation Tool that offered the best model for adaptation to medical/surgical nursing. Assessment data for a specific patient or group of patients could be obtained by nursing history or other assessment methods, including a component for knowledge of pathology, physiologic state, diagnostic tests and studies, treatment and medication. The P.P.A. could be used with all age groups. The N.C.P. could be used without modification. The model "Giving Care to a Patient" Performance Evaluation Checklist is in Appendix "A", Pages A-21 through A-28.

RECOMMENDATIONS

1. Statement of objectives, methods, and each item of every performance evaluation tool employed should be in language that is meaningful to the faculty/student population involved.

2. If several faculty are involved, testing should be uniform in administration and scoring.

3. Testing for challenge should be done at a specified time when instructor is not responsible for regular clinical students. Three students would be an optimum number for challenge.

4. Performance Evaluation Tools can be used for diagnostic purposes with student already in the course. Students can self-rate themselves. Faculty can rate students.

5. The Performance Evaluation Tools are very useful with average, unknown, borderline students. The creative, or exceptional student, may be bored by the Performance Evaluation Tools. However, these tools are designed to set minimums.

6. These challenge exams should be used with a larger test group for validation and standardization.

STUDENT

CLINICAL LABORATORY CHALLENGE EXAM PACKET

FOR

NURSING II

PEDIATRIC NURSING

OBSTETRIC NURSING

GERIATRIC NURSING

INTRODUCTION

This challenge exam has been developed for those of you with previous experience in obstetrical, pediatric and geriatric nursing. In order to successfully complete this exam, you must meet terminal clinical objectives of the course being challenged. The method to test mastery of these objectives is included in this packet.

This packet refers only to clinical challenge: to challenge theory, you must make arrangements through your instructor.

Criteria necessary to begin this challenge includes successful completion of previous nursing course. If you have past education or work experience in obstetric, pediatric or geriatric nursing, you may challenge any one or all of these areas.

Students who do not successfully complete the challenge exam must meet the clinical objectives in the same manner as other students.

Directions for each exam are contained with the materials for that clinical area. The appendices contain all materials which are used in more than one area.

Each of the three clinical exams have two or more parts. Students must pass all parts of the exam. Failure on any part terminates that area's exam. Only one opportunity will be given for each part.

The instructor evaluating you will be familiar with the packet and will follow instructor's guide, insuring equality in testing.

You will note on Performance Evaluation instruments that satisfactory completion level is indicated by specific numbers or letters or items are set in italics.

PEDIATRIC CLINICAL

CHALLENGE EXAM PACKET

INSTRUCTIONS FOR TESTORS

(A copy of this is provided to students)

GENERAL NOTE TO TESTORS

The testor (instructor) should intervene in patient care only when safety matters are concerned.

GIVING CARE TO A PEDIATRIC PATIENT

INSTRUCTIONS TO THE TESTOR

After the student has been introduced to the staff members, given a brief tour of the facility and chosen the patient with the instructor, no directions from the testor should be given. Questions about location of supplies or agency policy may be answered. The testor should be careful not to cue student in giving patient care. No cues should be given for DDST administration or scoring.

PEDIATRIC CLINICAL LAB CHALLENGE EXAM

METHOD

By prearrangement between faculty and student; student will plan two to three days for this experience. This would include

(Day 1) Thursday 1:00 PM - 5:30 PM

(Day 2) Friday 7:00 AM - Noon

- and possibly -

(Day 3) Monday 7:00 AM - Noon

Student is to wear college uniform and name pin. Cap is not necessary. Bring pen, paper and any books you consider necessary for reference.

Come to _____ hospital lobby at 12:55. You will be met and escorted to the Pediatric Unit.

DAY 1 ACTIVITIES

1. Introduction of student to key staff members by faculty.
2. Brief tour of unit by faculty.
3. Assigned patient by faculty.
4. Administer DDST to assigned patient.
5. Begin to gather information for Nursing Care Plan and for nursing care to begin the next day. (You will find this in the Appendix.)
6. You will leave unit at a time mutually agreed upon by student and faculty member.

DAY 2 ACTIVITIES

1. At 7:00 AM obtain report on your patient from team leader.
2. Show care plan to faculty member.
3. Begin care using care plan and according to guidelines on Giving Care to a Pediatric Patient Performance Evaluation Checklist.
4. Attend post conference.

After post conference, you and the instructor will decide if an additional day is necessary.

PEDIATRIC CLINICAL LAB
CHALLENGE EXAM OBJECTIVES

OVERALL OBJECTIVES:

The student will meet the pediatric clinical laboratory objectives in a specific time frame, mutually decided by student and faculty.

SPECIFIC OBJECTIVES:

1. A. The student will evaluate the developmental level of a child under six, using the Denver Developmental Screening Test: Summary and Supplemental Information Form.

   - OR -

   B. The student will evaluate the developmental level of a child over six or an adolescent using the required form and the Denver Developmental Screening Test: Summary and Supplemental Information Form.

2. The student will construct a written nursing care plan on Nursing II Nursing Care Plan form for a pediatric patient chosen by the faculty. If nursing care plan prescribes patient or family teaching, it will meet criteria specified on Teaching Learning Performance Evaluation.

3. The student will care for a pediatric patient, using self constructed nursing care plan demonstrating activities included on "Giving Care to a Pediatric Patient" performance evaluation tool. If Nursing Care Plan includes IV fluids, student will meet criteria specified on IV Fluids Performance Evaluation.

4. Given 10 questions posed by the faculty, based on "Pediatric Question Topics," the student will verbally answer with 80% accuracy.

5. The student will participate orally in a post-conference session -

   (1) Describing patient, care given and results.

   (2) Identifying and discussing #16 of Pediatric Clinical Lab Objectives.

   (3) Discusses family interactions observed with special reference to the following Overall Objectives:

(a) Having read and discussed the more common individual and family reactions to selected stressors, applies this knowledge to real nursing situations.

(b) Identifies ways in which religious and cultural influences of the ethnic groups of Arizona influence the family in its consept of wellness and health care and assesses these influences with selected patients and families.

(c) Having read and discussed generalized individual and family reactions to the stress of physical illness, hospitalization, surgical intervention, applies this knowledge to specific real situations by preparing or maintaining written and verbal nursing care plans for specific patients.

PEDIATRIC CLINICAL LABORATORY OBJECTIVES

The student will:

1. Evaluate the developmental level of a child under six years using the Denver Developmental Screening Test and accompanying data form.

2. Prepare, use and evaluate a nursing care plan for a pediatric patient, using Nursing II care plan form and guidelines.

3. Gather pertinent information about patient from cardex, medex, chart, staff, family, patient, and other resources and demonstrate use of the information in patient care: (e.g., patient refuses to eat hospital food; student has learned patient eats only vegetarian foods; student shares information with team leader and dietary department).

4. Demonstrate ability to adapt methods of observation and assessment to pediatric patients by charting pertinent data discussing pertinent data in post conference, reporting significant data and charting care given; (e.g., listlessness in a nine-month-old child who has been active and responsive earlier in the day).

5. Use tools and tasks of individual child to plan, give, and evaluate nursing care (refer to tools and tasks in Nursing II Syllabus, Unit I).

6. Communicate effectively with children and families in most routine situations, (e.g., offer reality reassurance, recognize and record/report information that relates to present/past illnesses or hospital experiences, using terms parents and child understand).

7. Adapt nursing techniques to meet special needs of children based on the child's developmental level, and demonstrate this in writing on Nursing Care Plan.

8. Adapt nursing techniques to meet child's needs based on medical or surgical problem and child's physiologic state, and show this in writing on Nursing Care Plan.

9. Utilize at least two health team members by appropriate written and/or oral contact with them (e.g., student must give medication to patient; no information on drugs is in any text on this unit, student calls pharmacist).

10. Accurately prepare and administer medications to pediatric patients according to Nursing II medication guidelines.

PEDIATRIC CLINICAL LABORATORY OBJECTIVES - (Cont'd)

11. A. Administer an oral medication to a child under five years in a manner appropriate to the child's developmental level (e.g., use positive approach vs. "Do you want to take your medicine now?").

- OR -

B. Obtain the cooperation of a child under five in a necessary treatment or activity in a manner appropriate to the child's developmental level.

12. Use medical aseptic technique, isolation technique, and surgical asepsis, according to agency procedures or skills lab guidelines.

13. Identify and discuss orally the philosophy and policies of the pediatric unit and staff in post conference.

14. Admit a patient and family to the unit and obtain information required by that pediatric unit, dependent on availability of patients.

PEDIATRICS

SELF STUDY MATERIALS

1. Self Study Guide for Administration of Medications.

2. Trainex on Preparing Child for Treatments and Procedures.

3. Coffin, Margaret. Nursing Observation of the Young Patient, Chapter 3.

4. Denver Developmental Test Descriptive Packet.

5. Suggested reading on growth and development, signs and characteristics of illness in children and adolescents from any one of the following, or selected books of your choice.

   A. Blake, et al Nursing Care of Children, 1971

   B. Marlow, Pediatric Nursing, 1972

   C. Barber-Stokes-Billings, Adult and Child Care: A Client Approach to Nursing, 1973

GUIDELINES FOR ADMINISTRATION

OF THE

DENVER DEVELOPMENTAL SCREENING TEST

1. Read pages 1 through 14 of the Denver Developmental Screening Test Manual, Revised 1970 Edition.

2. Note the descriptions of Personal-Social, Fine Motor-Adaptive Language, and Gross Motor Behaviors.

3. Make a note of any questions you have regarding how to calculate age, administer test, score test.

4. In some settings, you will not have the Standard Test Kit All testing items can be substituted in the settings where you will be tested.

5. Clarify any points you don't understand with faculty before you administer test.

THE DENVER DEVELOPMENTAL SCREENING TEST

DESCRIPTION

This test is in wide use in hospitals, nurseries and pre-school programs. It is a one-page gross screening device to identify problems in development of the individual child. Two distinct advantages are:

(1) It is easily administered by adults after a brief orientation period

(2) It covers the four major fields of behavior in children aged 1 one month to six years

You may obtain copies of the testing form in Skills laboratory or in hospital laboratory.

PERFORMANCE EVALUATION FOR DDST ADMINISTRATION

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
1. *Uses DDST Form*				
2. *Tests a child who is within 1 day to 6 years of age* - *OR* - *Tests a child who is chronologically over 6 years who exhibits slow development*				
3. *Calculates age correctly for current date*				
4. *Draws vertical line to indicate age on form*				
5. Fills in top 4 heading of form (3 of 4 acceptable)				
6. *Introduces self to child*				
7. *Administers test at appropriate* time in an appropriate* place*				
8. Brings all necessary equipment to testing area selected before beginning test				
9. *Tests child on all items bisected by vertical lines*				
10. Tests child on items one inch to left and right of vertical lines				
11. *Uses "P" and "F" notations appropriately on form (100%)*				
12. Uses "R&O" notations appropriately (80%)				
13. *Interrupts or stops test administration, if appropriate* (100%)*				
14. *Brings significant findings to attention of charge nurse/physician.*				

*NA-Not Applicable

PERFORMANCE EVALUATION FOR DDST ADMINISTRATION

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
15. Completes all items on DDST: summary and supplemental information form				
16. Returns completed DDST form and DDST summary and supplemental information form to instructor within 3 days of test administration				
* Guidelines for "appropriateness" will be found in test instructions				

*NA-Not Applicable

DENVER DEVELOPMENTAL SCREENING TEST:
SUMMARY AND SUPPLEMENTAL INFORMATION

1.a. Date_____ 1.b. Student's Name_____

2. First name of child_____

3. Age of child (using DDST formula)_____

4. Child's diagnosis_____

5. Day of hospitalization_____

6. Describe circumstances under which test was given_____

_____

7. What is your evaluation of the developmental level of the child tested in each of the following areas:

   a. Personal-Social_____

   b. Fine-motor-adaptive_____

   c. Language_____

   d. Gross motor_____

8. What is your overall evaluation of the developmental level of the child tested?

_____

_____

_____

9. How would you expect this child to rate on the DDST at home?

_____

When he/she is well?_____

Why?_____

_____

10. Additional comments:_____

_____

_____

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Items in italics are essential)	YES	NO	*NA	COMMENTS
I. INTRODUCTORY/PLANNING & COMMUNICATION PERIOD *(Items in Italics essential + 1 more)*				
A. *Introduces or reintroduces self to child and/or parents*				
B. *Modifies nursing care plan based on patient condition/new information*				
C. *Omits nursing actions on NCP not appropriate at this time*				
D. *Talks with child in language to which he/she responds with understanding consistent with developmental level*				
E. *Discovers child's present interest/ concerns*				
F. *Meets child's present interest/concerns*				
G. *Discusses treatment activities of morning with child*				
H. Discusses treatment activities of morning with parents, if present				
I. Meets parents' present interests/ concerns				
J. Talks with parents in language they understand				
II. ASSESSMENT AND ACTION PERIOD (Success level:) Child ↓ 6 - #1,2,3,8,9,10 or 11 *(6 of 7)* Child ↑ 6 - #1,4,5,6,7,8,9,10 or 11 *(8 of 9)*				
A. Personal Hygiene (Mouth & Skin Care)				
1. *Gives, or assists with mouth care for children with full baby teeth or secondary teeth*				
2. *Bathes children under 6 years in tub or sink, depending on child's size*				

*NA=Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
3. *Encourages child to assist with bath according to motor skills previously established on DDST*				
4. *Provides children and adolescents over 6 years with bath materials and clean clothes, and assists them in filling tub or adjusting shower to comfortable temperature*				
5. *Asks child/adolescent if he/she wants privacy*				
6. *Remains with child over 6 and/or adolescent, if child's physical condition requires this, or if child requests this*				
7. *Remains in room outside bathroom until child over 6 or adolescent is finished with bath/shower and has left bathroom, and informs child/adolescent nurse will do this*				
8. *Omits bath/shower if warranted by child's physical/emotional condition*				
9. *Demonstrates use of time by assembling all materials for bath/shower and change of clothes prior to beginning bath/shower*				
10. *Demonstrates safety considerations by assembling all materials for bath/shower and change of clothes prior to beginning bath/shower*				
11. *Gives bed-bath according to Skills Lab guidelines or agency guidelines*				
B. <u>Personal Hygiene (Elimination)</u> <u>For Children in Diapers</u> *(All items in italics are essential)*				

*NA-Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(Items in italics are essential)	YES	NO	*NA	COMMENTS
1. *Removes wet or soiled diaper as soon as it is discovered*				
2. *Washes lower abdomen, genitalia, thighs and buttocks with water*				
3. *Removes soap by rinsing, if soap is used*				
4. *Drys genitalia and buttocks -applies lotion or A & D Ointment, as necessary*				
5. *Rash on lower abdomen, thighs, genitalia and buttocks reported to team leader and included in nurses notes*				
6. *Applies clean diaper, according to Skills Lab procedure*				
III. NUTRITION (FOOD & FLUIDS)				
A. For children 9 months to 3 years *(All items in italics are essential, plus one more)*				
1. *Discovers what child can feed self*				
2. *Nurse feeds child if child cannot feed self*				
3. *Nurse feeds child: (Must do 5 of 7)*				
3.1 *At pace comfortable for child*				
3.2 *Amounts child can handle one at a time*				
3.3 *Alternates bites or spoonsful of different foods*				
3.4 *Talks with/to child while feeding him/her*				
3.5 *Permits child to feed self items he/she can handle*				
3.6 *Replaces food with equivalent substitute to encourage adequate food intake*				
3.7 *Uses spoon or fork in relation to food*				

*NA=Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(items in italics are essential)	YES	NO	*NA	COMMENTS
4. *If child feeds self: (3 of 6)*				
4.1 Nurse provides spoon of proper size for hand				
4.2 Nurse provides fork of proper size for hand (if child can use it)				
4.3 Nurse cuts food into bite size pieces, as necessary				
4.4 Nurse offers help based on child's five motor adaptive ability, previously established by DDST				
4.5 Nurse offers help/modifies feeding technique to meet skill regression of child				
4.6 Nurse talks with child while he is eating				
5. Regular nipple used on bottle of milk or other fluid, if bottle is used				
6. If preemie nipple is used, student can state physiologic reasons for use of this type of nipple				
7. *If child is in high chair, strap is secured, tray locked in place*				
8. *Student can describe amount and kind of food and fluid consumed*				
9. Food and tray are removed at conclusion of feeding				
B. Children 3 years through adolescence *(All items in italics are essential, plus 2 more)*				
1. *Nurse provides child with food and necessary silverware*				

*NA=Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
2. Nurse makes equivalent substitutes to encourage adequate food intake				
3. *Nurse talks with child during meal in a social manner*				
4. Nurse offers help to child under six, based on five motor adaptive abilities established on DDST				
5. Nurse provides privacy during meal if child or parents request this				
6. *Nurse can describe amount and kind of food and fluid consumed*				
7. Food and tray are removed at conclusion of feeding				
C. <u>Fluids (Oral)</u> *(All items is italics are essential, plus 1 more)*				
1. *Nurse determines amount of fluids necessary to child's physiologic state:*				
1.1 Checks physician order sheet for fluid orders, amounts and kind per 8 or 24 hour period				
1.2 Counts usual amount of sleep in hours during 24 hour period from nurses' notes in chart				
1.3 From 1.1 and 1.2, estimates fluids necessary to physiologic state during waking hours				
1.4 Estimates fluids provided with meal tray based on diet order for 24 hour period				
1.5 Provides amount of fluids for age (use text)				

*NA-Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
1.6 Provides amount of fluids required and/or limited by physical condition for 3-hour child care period, based on Items 1.3, 1.4, and 1.5				
2. Nurse provides milk, permitted juices, carbonated or other beverages to child on request unless contraindicated medically				
3. Nurse provides ordered formula for child on schedule for age				
4. Nurse provides popsicles and/or ice cream to increase fluid intake unless contraindicated medically				
5. Nurse offers permitted kind and amount of fluids at hourly intervals during morning				
6. Nurse offers fluids based on child's preference				
7. Nurse offers fluids based on child's medical, surgical condition				
D. Other Activities *(All items in italics are essential, plus 2 more)*				
1. Takes vital signs:				
1.1 Pulse accurate ± 3 beats/minute *1.2 Respiration accurate ± 6 respiration/minute* *1.3 Temperature accurate ± 2/10 degree, standard thermometer* *1.4 Temperature accurate 100% electronic thermometer* *-or-* *Oral, rectal, axillary temperature taken, depending on child's age, ability and condition*				

*NA=Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
1.5 B/P accurate ± 4mm. mercury systolic; 6mm. mercury diastolic				
1.6 Uses B/P cuff of proper size for age and arm circumference				
2. Reports and records abnormalities in vital signs within 15 minutes of findings				
3. Performs treatments according to agency procedure book or Skills lab guidelines				
4. Provides for periods of rest				
5. Maintains silence with child appropriately				
6. Maintains silence with parents appropriately				
7. Gives medicine to child using Medication Administration Performance Evaluation				
8. Charts medicine goven on agency forms, according to agency procedure				
9. Checks for effect of medicine/ treatment on patient within 30-45 minutes of administration				
10. Care reflects evaluation of developmental status, as determined by the DDST or other test				

*NA=Not Applicable

GIVING CARE TO A PEDIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
E. **Reporting and Recording** *(All items in italics are essential)*				
1. *Records on nurses notes chart, according to agency procedures:*				
1.1 *Care given*				
1.2 *Child's physical status*				
1.3 *Child's behavior*				
1.4 *Food and fluid intake - amount and kind*				
1.5 *Urine output expressed in number of times or measured amounts*				
1.6 *Stools: amount and description*				
1.7 *Accurate intake and output, if ordered or agency policy*				
1.8 *Signs note*				
2. *Gives brief verbal report to team leader on Items 1.1 through 1.7 before leaving unit*				

*NA-Not Applicable

"PEDIATRIC QUESTION TOPICS"

LIST OF SPECIFIC NURSING ACTIONS FOR PEDIATRICS
(2 months through 18 years)

1. Providing for emotional support
2. Fluids administration, oral and IV
3. Range of motion, active and passive
4. Positioning
5. Nose and throat culture
6. Collection of urine specimen (unsterile and clean catch)
7. Hygiene measures (bath, bed-changing, mouth care, grooming)
8. Providing for periods of activity and rest
9. Providing for developmental environmental stimulation through environment.
10. Feeding
11. Administration of O_2
12. Vaporization, humidification of air
13. Giving an enema
14. Taking vital signs
15. Clinitest and acetest
16. Giving an oral medication
17. Giving an IM or subcutaneous injection
18. Giving a rectal suppository

QUESTION TOPICS

1. Modification of specific nursing actions for different age groups.
2. Providing diversional activities for children of age group different than patient.

QUESTION TOPICS - (Cont'd)

3. How to explain a common procedure, such as collection of a nonsterile urine specimen to a child old enough to cooperate and to parents of children.

4. Nursing observation, assessment and communication directed toward planning nursing actions for a child using child and parents as sources of information. (Age of child to be specified by faculty.)

5. Modification of specific nursing actions for a child at different points in illness (e.g., acute phase, late convalescent phase).

6. Modifications of specific nursing actions for children of different sexes when cared for by a male nurse or a female nurse.

7. How and why to modify specific nursing actions that would be used with an adult (any nursing action used in first nursing course).

OB CLINICAL

CHALLENGE EXAM PACKET

PART I - CARE OF THE NEWBORN

PART II - CARE OF A WOMAN DURING
PREGNANCY, LABOR,
DELIVERY AND POST-PARTUM

INSTRUCTIONS FOR TESTORS

(A copy of this is provided to students)

GENERAL NOTE TO TESTORS

The testor (instructor) should intervene in patient care only when safety matters are concerned.

OBSTETRICS

PreNatal

Written assignment will be handed in on/by third day after the experience. The student will be asked to verify having completed the time in the experience. If there is any doubt in the instructor's mind, she/he will call the institution where the experience was assigned to check on the student's attendance.

Care of Patient in Labor and Delivery

Test will begin after student has changed into scrub dress/suit and is shown to the labor and delivery suite. No further instructions are to be given. Student questions regarding unit policies and location of supplies may be answered. Patient selected for this test should not have any problems which would require knowledge above that being tested. Student is not expected to make correlations beyond the material being tested.

Care of Patient in Post Delivery Recovery Room

Time permitting, students should care for the same person in the recovery room as in labor and delivery. If not, a patient as similar as possible should be chosen. Students are not to give any medications. After they are shown to the area, no further directions are to be given. Student questions relating to policies and location of equipment may be answered. Charting format also may be discussed without penalty.

Giving Care to a Patient on Post Partum

When possible, student should be assigned to same patient cared for in labor and delivery. After orientation to unit and report from Team Leader, student is to receive no further instructions. Questions regarding location of materials and charting may be answered. Medications given will be checked on the Giving Medications Guidelines.

PART I - CARE OF THE NEWBORN

I. OBJECTIVES

The student will meet all clinical objectives on care of the newborn, except 3 and 4. To fulfill this objective, the learner will complete the objectives by:

A. Admitting a newborn to the nursery, using appended procedures accurately, and discussing the rationale for these procedures with the instructor.

B. Responding orally to 80% of ten questions asked by the instructor, relating to care and characteristics of the newborn.

II. METHOD

The student will come to the newborn nursery at the clinical facility at the designated time prepared to admit a newborn from the delivery room to the transitional nursery. The student will admit the newborn following the admission procedure. This includes Numbers 1 through 8 on the Routine Orders attachment.

These procedures will be graded according to the Newborn Admission Performance Evaluation Checklist.

The student will also be asked to identify and describe characteristics of newborns and nursing care given to newborns. These questions will be based on Objectives 1, 3, 6, 9, and 12, taken from the list of topics.

III. SUCCESSFUL COMPLETION of Part I of the OB Challenge Exam requires passing both the admission procedure and satisfactorily responding to the questions.

All items on the Admission Checklist must be successfully completed. The minimum acceptable score for each item is printed on the checklist.

Eighty percent (80%) accuracy is the minimum passing score for the responses to the questions.

IV. SELF STUDY MATERIALS

A. Self Study materials pertinent to this area include:

1. Transitional Nursery Admission Procedure

2. Transitional Nursery Flow Sheet (Nurses Notes)

3. Dubowitz Test for Gestational Age

4. Self Study Guide for the Administration of Medications

5. Concept Media on Characteristics of a Normal Newborn (in Skills Lab)

6. Trainex on Passing a Nasogastric Tube (in Skills Lab)

B. Suggested reading material would include chapters relating to the Characteristics and Nursing Care of the Newborn from any of the following sources:

1. Clausen, et al. Maternity Nursing Today

2. Fitzpatrick. Obstetrics for Nurses

3. Blake. Nursing Care of Children

4. Moore. The Nurse and the Newborn

5. Marlow. Pediatric Nursing

ROUTINE ORDERS

FOR ALL NEWBORNS

ADMITTED TO THE HOSPITAL TRANSITIONAL NURSERY

1. Place in warmer and attach monitor chest leads and rectal/skin temperature probe.

2. Nurse to record vital measurements:

   a. Weight
   b. Length
   c. Head circumference
   d. Chest circumference

3. Examine baby for abnormalities:

   a. Respiratory distress
   b. Heart murmer
   c. Cyanosis
   d. Signs of infection
   e. Fractured clavicles
   f. Congenital hip
   g. Cleft lip or palate

4. Examine baby for anomilies:

   a. Pass catheter through both nostrils and into stomach, aspirating stomach contents
   b. Count vessels in cord
   c. Confirm patency of the rectum

5. Examine baby and determine if appropriate for gestational age:

   a. Dubowitz exam
   b. Plot on Colorado Growth Graph

6. Record vital signs q 30 minutes X 3; then 1 hour X 4

   a. Rectal/skin temperature
   b. Respiratory status and rate
   c. Activity level
   d. Tone

MAINTAIN TRANSITIONAL NURSERY FLOW SHEET

7. Aqua Mephyton 1 mg. IM in anterior thigh upon admission.

8. Aspirate stomach contents; notify House Officer if greater than 14cc, and send slides to Lab for Polys on all babies at risk for:

   a. Intra-uterine infection:

      (1) Mother recently febrille or treated for any infection
      (2) Premature rupture of membranes more than 24 hours
      (3) Foul-smelling amniotic fluid

b. SGA babies
c. Meconium staining of amniotic fluid
d. Prolonged 2nd stage of labor - more than 2 hours
e. All C-Section babies
f. Walk-in mothers - Twins

9. Destrostix glucose determinations q 1 hr. X 4 on all infants that are:

a. SGA
b. LGA
c. Premature less than 2300 gms.
d. Infant of diabetic mother
e. Eclamptic mother
f. Postmature and plethoric
g. Jittery
h. Cyanotic
i. Lethargic

If Dextrostik less than 25 mg.%, order STAT blood glucose from clinical lab and notify House Officer at time sample sent and of the lab results.

10. Heelstick Hct. to be performed on all infants that:

a. Had history of intra-partum bleeding
b. Are premature less than 2300 gms. (5 lbs.)
c. Are LGA
d. Infant of diabetic mother
e. SGA
f. Postmature more than 42 weeks
g. Twins
h. Infants of toxemic mothers

If Hct. (heelstick) is more than 65 or less than 50, order STAT Hct. and Hgb. from lab and notify House Officer of results if Hct. more than 60 or less than 50%.

11. Total Serum Proteins are to be determined (from plasma portion of Hct. tube) in all infants who:

a. Have Rh Neg mothers
b. Have visible bruising
c. Show any signs of respiratory distress
d. Weigh less than 2500 gms. (5 lbs. 8 oz.)

If TSP less than 5.5 gms.%, notify House Officer.

12. Withhold initial bath until skin/core temperature is more than 36 degrees C/ 96.8F. for a minimum of 30 minutes (usually around the fourth hour).

13. Several sips of sterile water to be offered as first feeding followed immediately with 5% glucose - 4-6 hours of age. Record any complications.

14. At conclusion of 6 hour transitional period, summarize important observations and declare the child either:

    a. Healthy
    b. Questionable
    c. Definitely abnormal

    Transfer child to regular nursery if healthy, and contact responsible physician if either questionable or definitely abnormal.

15. Notify responsible physician immediately if pathology posing an immediate threat to the infant is noted.

DUBOWITZ TEST FOR GESTATIONAL AGE

I. OBJECTIVE

The student will administer the Dubowitz Test to a newborn selected by the faculty and will choose categories within one of those chosen by faculty.

II. METHOD

Having become familiar with the materials of the Dubowitz Test, the student will administer the test to a faculty-selected newborn.

III. SUCCESSFULL COMPLETION

This assignment requires 80% accuracy on each of the two pages.

An answer will be considered correct if it is within one box of the answer chosen by the instructor:

Example:

Square window 0 1 2 3 4

If instructor assigns the newborn a "2" the student will be considered correct with a "1", "2", or "3".

DUBOWITZ TEST FOR GESTATIONAL AGE

DESCRIPTION

The Dubowitz Test involves testing and scoring the newborn on neurological criteria to assess gestational age. Materials describing the test can be found in the Skills laboratory and in the newborn nursery.

Additional reference: Dubowitz, L.M.S., Dubowitz, Vi and Goldberg, C.; J. Pediatrics 77:1, 1970.

STATEMENT OF TOPICS

1. Physical characteristics of newborns.

2. Reflexes of newborns.

3. Differences in levels of newborn activity, based on maternal analgesia or anesthesia.

4. Nursing actions for:

   A. Difficult respirations

   B. Jitteriness

   C. Lethargy

5. Describe normal stools of newborn.

6. Describe the cry of a normal newborn.

7. Describe nursing care given during the newborn's first few days of life.

8. Describe feeding principles applicable to newborns.

9. Describe characteristics of premature newborns as they differ from "normal" newborns.

10. Describe the following and their influence on nursing care:

    A. Hyperkinemia

    B. Phenylketonuria (PKU)

    C. Coombs Tests

    D. Phototherapy

11. Describe nursing care for high risk newborns.

12. Describe newborn's need for psychosocial stimulation.

NEWBORN ADMISSION
PERFORMANCE EVALUATION CHECKLIST

INSTRUCTIONS FOR TESTOR:

Test will begin after student has changed into scrub dress/suit and is shown to transitional nursery. No further instructions will be given. Questions may be answered regarding location of materials. Baby selected should not have any problems requiring knowledge above that being tested. Student is not expected to make correlations beyond the material being tested.

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. DEMONSTRATES PRINCIPLED OF ASEPSIS *(2 of 3)*				
A. Scrubs or asks about procedure upon entrance to unit. B. Washes hands appropriately during procedures. C. Recognizes clean and dirty items during procedure (eg-scale).				
II. WEIGHS BABY ACCURATELY AND SAFELY (3 of 3)				
A. Handles baby safely while unwrapping *B. Weighs baby accurately* *C. Takes safety precautions while baby is on scale*				
III. GROSSLY EXAMINES NEWBORN PRIOR TO BEGINNING THE ADMISSION *(A and B and 2 more)*				
A. Checks respiration for signs of distress. *B. Checks clamp for oozing* C. Checks cord for number of vessels D. Observes baby for gross anomalies E. Observes baby's level of activity				
IV. TAKES VITAL SIGNS ACCURATELY AND IN AN AGE-RELATED MANNER (3 of 3)				
A. Takes temp rectally and obtains same value as instructor *B. Takes pulse apically and obtains reading within 10 of instructor* *C. Takes respirations accurately, obtaining reading within 5 of instructor*				
V. COMPARES VITAL SIGNS TO NORMAL VALUES (3 of 3)				
A. States normal temp range for newborn *B. States normal pulse for a newborn* *C. States normal respiratory rate for newborn*				

OB-11 *NA=Not Applicable

NEWBORN ADMISSION
PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
VI. *MEASURES BABY'S LENGTH, HEAD AND CHEST ACCURATELY (3 of 3)*				
A. Measures head circumference within 1 cm of instructor *B. Measures chest circumference within 1 cm of instructor* *C. Measures length within 1" of instructor*				
VII. INSERTS NASOGASTRIC TUBE THROUGH NOSTRILS AND MOUTH USING TECHNIQUE AS DEMONSTRATED IN TRAINEX *(A and B and 1 more)*				
A. Measures length of tube to be inserted *B. Checks location of tube by one of three acceptable methods (on Trainex)* *C.* Aspirates, using Trainex technique *D.* States rationale for aspiration of stomach contents				
VIII. GIVES INTRAMUSCULAR INJECTION OF VITAMIN K, USING SELF STUDY GUIDE (3 of 3)				
A. Prepares correct dosage and checks label according to medical guide *B. Draws medication into syringe, using technique on medical guide* *C. Gives the injection in the proper site and using proper technique*				
IX. ADMINISTERS THE DUBOWITZ TEST FOR GESTATIONAL AGE APPROPRIATELY & ACCURATELY (3 of 3)				
A. Checks baby's condition prior to and during administration *B. Checks appropriate response on checklist within one box of instructor with 80% accuracy on each page* *C. Handles baby safely while administering test*				

*NA=Not Applicable

NEWBORN ADMISSION
PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
X. *UTILIZES FLOW SHEET TO RECORD AND REPORT ACCURATELY AND COMPLETELY (4 of 4)*				
A. Records all statistics in proper form and proper place *B. Records all pertinent information from mother's chart and from health team members* *C. Reports any variations from normal immediately to resource person* *D. Reports baby's status to transitional nursery nurse after completing admission on condition of baby*				

*NA=Not Applicable

PART II. CARE OF A WOMAN DURING PREGNANCY LABOR, DELIVERY AND POST PARTUM

I. OBJECTIVES

The student will meet all the clinical objectives for the Pre-Natal Experience, Nursing Care of the Woman in Labor and Delivery, Nursing Care of the Woman During Post Partum, and Objectives 3 and 4 on Care of the Newborn. The learner will fulfill this objective by:

A. Attending a prenatal clinic (private or public) of his/her choice, with faculty approval, describing in writing the topics on PreNatal Experience Checklist.

B. Assessing the needs of a woman in labor and delivery, using the Patient Problems Analysis.

C. Giving basic care to a woman in labor and delivery, according to the Labor and Delivery Performance Checklist.

D. Caring for this woman in the Recovery Room, according to the Recovery Room Performance Checklist.

E. Constructing a Nursing Care Plan for this woman (currently in labor) to be used the following day on post partum.

F. Caring for the woman on post partum using the constructed nursing care plan, demonstrating activities included on the "Giving Care to a Post Partum Patient" Performance Checklist. If the care plan prescribes teaching, this must meet criteria on Teaching-Learning Activity Plan and Checklist.

G. Verbally answering eight (8) of ten (10) questions correctly, based on "Care of Woman in Pregnancy Cycle Question Topics" posed by instructor.

II. METHOD

The student, together with instructor, will decide where and when the prenatal experience will take place. By 3 days after the experience, the student will hand in a written report. This report will be graded according to the PreNatal Experience Checklist

The student will come to the clinical facility at the designated time prepared to care for a woman during her labor, delivery and recovery periods. During this time the student will assess the patient's needs using the Patient Adaption to Environment and construct a Nursing Care Plan for this patient to be used on post partum unit. All actions (nursing care and written work) will be judged by the pertinent checklists.

The student will be evaluated using the Fluid Checklist if the patient has an I.V. The guideline is in the Appendix.

The student will return to the clinical facility the following day at the designated time to care for the patient on the post partum unit. At this time the student will meet Care of the Newborn Objectives 3 and 4, as well as the post partum objectives. The student's performance will be evaluated using the "Giving Care to a Post Partum Patient Performance Checklist." Teaching will be evaluated using the "Teaching-Learning Performance Checklist". The Teaching-Learning Guide is in the Appendix.

During the two days in the clinical setting the student will be asked fifteen (15) questions. These questions will be taken from the Care of the Woman During the Pregnancy Cycle Question Topics. Five questions will relate to the Pregnant Woman, five will relate to The Woman During Labor, Delivery and Recovery, and five will relate to the Woman on the Post Partum Unit.

III. SUCCESSFUL COMPLETION

Successful completion of Part II of the OB Challenge Exam requires a passing score on all checklists and satisfactorily responding to the questions. Twelve of the fifteen questions asked must be verbally answered correctly (80%).

Each item of the checklist must be answered correctly. The minimum acceptable score for each item is printed on the checklist.

IV. SELF STUDY MATERIALS

A. Self study materials pertinent to this area include:

1. Slide-tape presentation "Tomorrow Happens Today" (in Skills Lab).

2. Review Anatomy and Physiology of the Reproductive System.

3. Filmstrips on vaginal deliveries (in Skills Lab).

4. Trainex on Bathing and Feeding Newborns, Breastfeeding, Post Partum Care.

B. Suggested reading would include chapters relating to care of a patient, during pregnancy, labor and delivery, recovery and post partum, as well as the physiology of these events from any of the following sources:

Clausen, et al	Maternity Nursing Today
Fitzpatrick	Obstetrics for Nurses
Van Blarcom	Obstetrics for Nurses

OBJECTIVES FOR PRENATAL EXPERIENCE

INTRODUCTION

It is important for the nurse to understand the anatomical, physiological, embryological and psychological changes of pregnancy. Since these changes start with conception, they point to the importance of early prenatal care and the continuity of care throughout the pregnancy.

Adequate health guidance and counseling by the health team in the period of pregnancy contributes greatly to the preservation of life and health of future mothers and children.

Early prenatal care can detect and make compensation for abnormalities that appear unimportant or do not hamper the woman in a non-pregnant state, but that can become serious and can cause disease or even death for this woman during pregnancy.

Interviews and examinations during pregnancy should center on the month by month changes that are taking place in the woman, to help her understand them, individually, and take steps to remain healthy and comfortable in spite of the discomforts involved.

The most important thing to remember in assisting a pregnant woman is to keep open the lines of communication and help the patient to express fully whatever thoughts and feelings are bothering her.

All nurses must understand the normal physiological and emotional changes that occur in pregnancy and be able to adapt this knowledge to each pregnant woman with whom they come in contact.

OBJECTIVES

1. To demonstrate communicative skills through written interactions.

2. To ascertain any psychological aspects that might be culturally inspired or family-connected, and list these in the written interactions.

3. To list the procedures carried out for each expectant mother and the purpose of each procedure in terms of benefits to mother and baby.

4. To discuss the importance of prenatal care as a way of insuring a reasonably healthy mother and baby.

5. To identify the approach of the nursing staff toward the patient and vice versa and state, in writing, the therapeutic approach you would have used had the patient been assigned to you, supporting these statements with rationale or principles.

CLINICAL OBJECTIVES
OBSTETRICS

NURSING CARE OF THE WOMAN IN LABOR AND DELIVERY

Given a patient in labor, the student will:

1. Describe the behavioral characteristics and physiological changes taking place.
2. Describe the nursing care given during labor.
3. Identify the need for and provide health teaching to mother and significant others.
4. Take and report vital signs.
5. Time length, intensity, and frequency of contractions and report to instructor and staff.
6. Provide for comfort and safety of mother, fetus, and members of family present, using appropriate techniques.

Given a patient in delivery room, the student will:

1. Observe the delivery of a baby.
2. Demonstrate knowledge of sterile technique.
3. Describe delivery room experience in post conference.

Given a patient in the Post Delivery Recovery Room, the student will:

1. Take vital signs.
2. Check consistency and location of fundus.
3. Check vaginal discharge - color, amount and odor.
4. Check perineum - color, hematoma, edema.
5. Check for signs of bladder distention with appropriate nursing intervention.
6. Care for patient receiving I.V. fluids, according to I.V. Checklist
7. Observe level of consciousness.
8. Meet physical needs of patient for comfort and safety.
9. Meet emotional needs of patient and/or family.
10. Record and report accurately, using Recovery Room Record.

PRENATAL

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. *The student spends three hours in the prenatal situation agreed upon by student and instructor.*				
II. The student describes, in writing, the environment (facilities) observed in the setting: *(4 of 5)*				
A. Number of patients				
B. Patient's activities while waiting				
C. Facilities available in waiting area				
D. Length of time patients were in waiting area				
E. Learning opportunities present in waiting area				
III. The student describes the attitudes of a woman of her choosing toward pregnancy, labor and delivery:				
A. Includes description of patient's: *1. Age* *2. Socioeconomic status* *3. Family roles* *4. Pregnancies*				
B. Includes cultural, religious and family beliefs relating to pregnancy (2 of 3): 1. Cultural 2. Religious 3. Family				
C. Includes how these beliefs reflect in prenatal care				
IV. Having followed a patient through the prenatal exam, the student will describe: A. Examination given B. Any teaching done C. Role of the nurse in this setting				

*NA=Not Applicable

PRENATAL

PERFORMANCE EVALUATION CHECKLIST

(CON'T)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
V. *The student will list 5 recommendations for changes which he/she would make in prenatal care system observed.*				

*NA=Not Applicable

CARE OF PATIENT IN LABOR AND DELIVERY

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
I. DESCRIBES BEHAVIORAL CHARACTERISTICS AND PHYSIOLOGICAL CHANGES TAKING PLACE AND RELATING THEM TO PATIENT'S LABOR STATUS *(60% of those present)*				
A. Anxiety level B. Restlessness C. Transition D. Perineal/rectal pressure E. Urge to push				
II. PROVIDE FOR PHYSICAL AND PSYCHOLOGICAL COMFORT OF PATIENT BY INSTITUTING APPROPRIATE MEASURES *(60% of those needed)*				
A. Giving Encouragement B. Assisting patient with breating technique C. Applying cool cloth to forehead D. Rubbing/pressing lower back E. Giving ice chips/cloth/fluids, as allowed F. Describing process of labor to patient G. Changing linen as needed H. Checking for bladder distention				
III. PROVIDE FOR SAFETY OF PATIENT BY INSTITUTING OR CARRYING OUT APPROPRIATE MEASURES *(60% of those present)*				
A. Taking vital signs appropriately B. Taking FHT appropriately C. Maintaining sterile technique during procedures D. Elevating siderails after medications E. Maintaining appropriate level of activity F. Reporting any changes in condition or problems immediately				

*NA-Not Applicable

CARE OF PATIENT IN LABOR AND DELIVERY

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
IV. CONTINUE TO PROVIDE SAFETY AND COMFORT MEASURES IN DELIVERY ROOM *(60% of those present)*				
A. Secure patient on delivery table B. Position legs in stirrups C. Take FHT appropriately D. Assist patient with breathing technique E. Maintain sterile technique F. Describe process of labor/delivery				
V. REPORT DELIVERY ROOM EXPERIENCE TO INSTRUCTOR OR IN POST CONFERENCE, INCLUDING: *(4 of 4)*				
A. Physiology of delivery *(1) Presentation* *(2) Apgar Score at 1 minute and 5 minutes* *B. Reaction of mother and/or significant other* *C. Role of the nurse* *D. Practice of asepsis*				

*NA=Not Applicable

CLINICAL OBJECTIVES

NURSING CARE OF THE PATIENT ON POST PARTUM UNIT

Given a selected patient who has recently delivered a baby, the student will:

1. Demonstrate knowledges and skills in the care of a post partum patient using self constructed nursing care plan.
2. Teach patient according to needs, defined by patient and student and using Teaching-Learning Guide.
3. Demonstrate knowledge of medical asepsis in giving nursing care.
4. Report and record appropriately.
5. Identify the abnormal based on knowledge of normal and report immediately to proper person.
6. Participate in post conferences discussions of patients and issues.
7. Demonstrate ability to organize day's activities.
8. Demonstrate knowledge of comfort and safety measures applicable to the post partum patient.
9. Demonstrate handling and fee.
10. Successfully complete checklists on Nursing Care Plan and Teaching-Learning.

CARE OF PATIENT IN POST DELIVERY RECOVERY ROOM

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
I. TAKES VITAL SIGNS APPROPRIATELY				
A. Takes BP, P & R q.15 Min. X4				
B. Obtains results within 4 of instructor				
C. Records results on Recovery Room record				
II. CHECKS OPERATIVE SITES				
A. Checks level & position of fundus				
B. Checks consistency of fundus				
C. Checks suture lint (episiotomy)				
D. Checks amount & odor of vaginal discharge				
E. Checks perineum for anomalies				
F. Reports & records all observations				
G. Reports all deviations immediately				
III. MEETS SAFETY AND PHYSICAL NEEDS OF THE PATIENT				
A. Maintains airway				
B. Checks for bladder distention				
C. Applies ice glove when ordered				
D. Raises side rails				

OB-23 *NA-Not Applicable

CARE OF PATIENT IN POST DELIVERY RECOVERY ROOM

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
E. Checks IV fluid according to IV check-list				
F. Maintains temperature				
G. Modifies nursing care to patient's condition				
IV. MEETS PSYCHOLOGICAL NEEDS OF THE PATIENT				
A. Orients patient to place & situation				
B. Participates in discussion of delivery experience with patient and/or family as needed				
V. PREPARES & TRANSFERS PATIENT TO POST PARTUM UNIT				
A. Records all recovery data				
B. Demonstrates perineal care, if patient is awake				
C. Gives perineal care to patient using aseptic techniques				
D. Reports to Post Partum Team Leader on status of patient				

*NA=Not Applicable

GIVING CARE TO PATIENT ON POST PARTUM UNIT

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. Modifies nursing care identified on Nursing Care Plan to patient situation				
II. Omits actions on NCP not appropriate at this time				
III. Identifies abnormal conditions:				
A. Excessive bleeding				
B. Foul-smelling discharge				
C. Bladder distention				
D. Boggy uterus				
E. High-level anxiety				
IV. Reports any deviation from normal immediately				
V. Demonstrates organizational ability by completing assignment on time:				
A. Explains nursing routine to patient				
B. Develops a plan with patient				
C. Carries out devised plan				
D. Changes plan based on patient condition or situation				

08-25 *NA=Not Applicable

GIVING CARE TO PATIENT ON POST PARTUM UNIT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
VI. Gives care according to NCP				
A. *Assists patient with shower*				
B. *Gives treatments as ordered according to hospital procedure*				
C. *Checks post partum condition*				
1. *Breasts*				
2. *Fundus - level & consistency*				
3. *Lochia - amount & type*				
4. *Episiotomy*				
D. *Teaches, reassures, listens, as indicated*				
VII. Provides for safety of patient by:				
A. *Assisting her to ambulate*				
B. *Remaining nearby when patient is in shower*				
C. *Using aseptic technique when caring for patient:*				
1. *Handwashing appropriately*				
2. *Changing peri pad from front to back*				
3. *Using only clean items in care of mother*				
VIII. Provides for comfort of patient by:				
A. *Giving pain medication as needed and ordered*				
B. *Demonstrating to patient "how to sit with an episiotomy"*				

OB-26 *NA=Not Applicable

GIVING CARE TO PATIENT ON POST PARTUM UNIT

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
C. Teaching importance of wearing bra				
D. Listening to patient concerns				
E. Acting to relieve patient concerns				

*NA=Not Applicable

CARE OF THE WOMAN DURING THE PREGNANCY CYCLE

QUESTION TOPICS

Describe importance of prenatal care for:

- mother
- fetus
- society

Define:

1. High Risk Pregnancy and give examples
2. Mechanisms of labor (descent, flexion, etc.)
3. Episotomy

Describe:

1. Differences between true and false labor
2. Signs which signal onset of labor
3. Four stages of labor
4. Signs of imminent delivery
5. Signs of placental separation
6. Apgar Scoring System
7. LaMaze Breathing Techniques
8. Types of analgesia used during labor
9. Types of anesthesia used for delivery
10. Immediate (delivery room) care of the newborn
11. Role of the father in the labor and delivery room
12. Role of the nurse in natural childbirth
13. Toxemia and its effects on mother and fetus
14. Pros and cons of "rooming-in"
15. Advantages of early ambulation
16. Advantages and disadvantages of early discharge
17. Role of post partum nurse in family planning

GERIATRIC CLINICAL

CHALLENGE EXAM PACKET

INSTRUCTIONS FOR TESTORS

(A copy of this is provided to students)

GENERAL NOTE TO TESTORS

The testor (instructor) should intervene in patient care only when safety matters are concerned.

GIVING CARE TO A GERIATRIC PATIENT

INSTRUCTIONS TO THE TESTOR

After the student has been introduced to the staff members, given a brief tour of the facility and chosen the patient with the instructor, no directions from the testor should be given. Questions about location of supplies or agency policy may be answered. The testor should be careful not to cue to student in giving patient care.

GERIATRIC CLINICAL LAB CHALLENGE EXAM

METHOD

By prearrangement between faculty and student, student will plan two to three days for this experience. This would include:

(Day 1) Thursday 1:00 PM - 5:30 PM

(Day 2) Friday 7:00 AM - Noon

- and possibly -

(Day 3) Monday 7:00 AM - Noon

Student is to wear college uniform and name pin. Cap is not necessary. Bring pen, paper and any books you consider necessary for reference.

Come to nursing home lobby at 12:55.

DAY 1 ACTIVITIES

1. Introduction of student to key staff members by faculty.
2. Brief tour of nursing home by faculty.
3. Patient chosen by student and faculty.
4. Begin to become acquainted with patient and gather information using:
   - Patient Problems Analysis
   - Sensory Status Survey
   - Gross Intellectual Overview Survey
   - Patient Chart
   - Nursing Care Plan
5. You will be told which patients (two or more) you will give medicines to in AM. Begin research on patient condition and medicines.
6. You will leave unit at a time mutually agreed by student and faculty member.

DAY 2 ACTIVITIES

1. Show Nursing Care Plan to faculty member.

2. Join your patient for breakfast.

3. Give medicines to patients as assigned.

4. Begin care, using care plan and according to guidelines on Giving Care to Geriatric Patient, Performance Evaluation Checklist.

5. Attend post conference. After post conference, you and instructor will decide if an additional day is necessary.

GERIATRIC SELF STUDY GUIDE

1. Trainex on "Giving Care to the Geriatric Patient"

2. Lamy, P. "Drugs and the Geriatric Patient," Journal of the American Geriatric Society January, 1971, XIX, p. 23-33

3. Schwab, Sister Marilyn, et al "Caring for the Aged", AJN (73-12) December 1973, pp. 2049-2066 This is a series of articles

4. The Nursing Clinics of North America (7:2) June, 1972 "Physiologic Functioning in the Elderly" pp. 237-252

GERIATRIC CLINICAL LAB
CHALLENGE EXAM OBJECTIVES

OVERALL OBJECTIVE

The student will meet the geriatric clinical laboratory objectives in a specific time frame mutually decided by student and faculty.

SPECIFIC OBJECTIVES

1. The student will evaluate and report in writing the sensory, intellectual, psycho-social and physical status of a patient chosen by the faculty, using:

    (1) Patient Problems Analysis

    (2) Sensory Status Survey

    (3) Gross Intellectual Overview Survey

    (4) Patient chart on Nursing Care Plan Form

2. The student will construct a nursing care plan on Nursing Care Plan Form for a geriatric patient, as assigned by the faculty. If Nursing Care Plan prescribes teaching, it will meet criteria specified on Teaching-Learning Performance Evaluation.

3. The student will care for a geriatric patient, using self-constructed Nursing Care Plan demonstrating activities included on "Giving Care to a Geriatric Patient" performance evaluation tool.

4. The student will give medications, according to Medication guidelines, to two or more patients selected by the faculty.

5. Given 15 questions posed by the faculty, based on "Geriatric Question Topics" the student will verbally answer with 80% accuracy.

6. The student will participate orally in a post conference session.

    (1) Describing patient care given, including description of patient obtained in Objective 1, and results.

    (2) Identifying and discussing the philosophy and policies of the nursing home facility and staff ("Geriatric Clinical Objective #7").

GERIATRIC CLINICAL LABORATORY OBJECTIVES

The student will:

1. Evaluate and record in writing sensory status, physical status and intellectual and psychosocial status of individual patient(s) using course materials.

2. Use patient's physical, sensory, intellectual and psychosocial abilities and characteristics to plan, give and evaluate nursing care; (e.g., identify with patient individual bowel and bladder elimination patterns and provide bedpan or access to bathroom at specific times).

3. Prepare, use, evaluate, and modify or update a nursing care plan for the chosen nursing home resident.

4. Accurately prepare and administer medications to geriatric patients, according to Medication Administration Performance Evaluation.

5. Demonstrate in care of patient at least two nursing techniques to meet special needs of the elderly, based on body changes due to aging.

6. Demonstrate ability to adapt methods of observation and assessment to nursing home (geriatric) patients by charting pertinent data, and reporting significant data to appropriate persons.

7. Identify and discuss verbally the philosophy and policies of the nursing home facility and staff in post conference.

8. Gather pertinent information about patient from cardex, medex, chart, staff, family, patient, and other resources and demonstrate use of the information in patient care.

9. Demonstrate recognition of health team members by appropriate written and/or verbal contact with other health team members.

10. Communicate effectively with nursing home residents and families and friends in most routine situations.

11. Recognize need for patient and family teaching; teach patient according to criteria of Teaching-Learning Performance Evaluation.

12. Use medical aseptic technique continuously, isolation technique and surgical asepsis, as indicated by patient condition and ordered treatments.

13. Record nursing care and observations of patient in appropriate forms clearly and concisely

SENSORY STATUS SURVEY

STUDY GUIDE

Directions: The information gathered in this survey should be incorporated in your Nursing Care Plan. The survey does not have to be turned in.

A. HEARING

1. Deaf both ears without hearing aid.
2. Deaf right ear without hearing aid.
3. Deaf left ear without hearing aid.
4. Uses hearing aid in left ear.
5. Uses hearing aid in right ear.
6. Can hear when facing speaker.
7. Hears.
8. Can hear when spoken to clearly.
9. Can hear when spoken to in a slower than normal rate.
10. Listens to radio.
11. Listens to T.V.
12. Responds to speech of others.
13. Additional comments: (Include what patient says about his/her speech)

_____

_____

B. VISION

1. Is blind both eyes.
2. Is blind right eye.
3. Is blind left eye.
4. Can see only light and dark.

SENSORY STATUS SURVEY

STUDY GUIDE

(Cont'd)

B. VISION - (Cont'd)

5. Can distinguish shapes.

6. Uses glasses at all times when awake.

7. Uses glasses for reading.

8. Can describe bedside table contents on sight.

9. Can describe room contents on sight.

10. Can describe people and things outside window.

11. Reads books, magazines of large type print.

12. Reads newspaper.

13. Additional comments: (Include what patient says about his/her sight)

_____

_____

C. SMELL

1. States cannot tell different smells.

2. Describes odors as pleasant.

3. Describes odors as unpleasant.

4. Describes or discusses:

4.1 Odors of cigarette, cigar smoke.

4.2 Food odors with garlic.

4.3 Perfume.

4.4 Perfumed powder/soap/lotion.

4.5 Odor of urine or feces.

5. Additional comments: _____

_____

SENSORY STATUS SURVEY

STUDY GUIDE

(Cont'd)

D. TOUCH

1. Describes or shows physical reaction to:

   1.1 Pain.

   1.2 Pressure.

   1.3 Movement of body parts.

   1.4 Distinguishes hot and cold water to touch of hands, feet, or face.

2. Shakes hands.

3. Touches others.

4. Touches self (e.g., hair, face, etc.)

5. Dresses or asks to dress suitable to weather.

6. Uses hand rails in hallways.

7. Can tell you if your hands are warm or cold to the touch.

8. Additional comments: _____

_____

E. TASTE

1. Describes taste of two different foods eaten that day.

2. Foods:

   2.1 Names at least 3 preferred foods and fluids.

   2.2 Can describe/discuss items in #2.1, above.

3. Describes how he/she likes coffee or tea.

   3.1 What coffee or tea would taste like with milk,sugar.

   3.2 What coffee or tea would taste like without milk and/or sugar.

SENSORY STATUS SURVEY

STUDY GUIDE

(Cont'd)

E. TASTE - (Cont'd)

4. Discusses how special diet compares to preferred diet.

5. Makes statements about taste that indicate taste preferences.

6. Makes statements about taste that indicate patient cannot distinguish different tastes.

7. Additional comments: _____

_____

_____

GERIATRIC CLINICAL LAB

GROSS INTELLECTUAL OVERVIEW SURVEY

INTRODUCTION

This survey will help you gain information about the patient's orientation to time, place, person. It is not an intelligence test. It will tell you chiefly where the patient is, in relation to the "here and now."

DIRECTIONS

For your convenience, this form is in checklist format. Do not take it with you to patient and go down the form in a mechanical fashion. First read form, visit with the patient, observing and discussing topics, then fill out form and obtain additional information in another conversation.

The narrative statement, Part II, #5, should include at least four nursing actions that would utilize patient's intellectual functioning at highest level possible for patient and/or to provide for improved intellectual functioning.

GROSS INTELLECTUAL OVERVIEW SURVEY

STUDY GUIDE

DIRECTIONS: The information gained on this study guide should be incorporated into the Nursing Care Plan.

I. SPECIFIC TOPICS

1. Patient knows where he/she is.
2. Indicates verbally knows he/she is in nursing home.
3. Knows he/she is in (name of town).
4. Knows own name.
5. Patient knows own age.
6. Patient describes present surroundings accurately.
7. Patient knows who you are after introduction.
8. Patient knows who you are 2 hours after introduction.
9. Patient identifies and describes staff accurately as members of staff.
10. Identifies other patients by name or description.
11. Patient knows:
    - 11.1 Day
    - 11.2 Date
    - 11.3 Season
    - 11.4 Time of day
    - 11.5 Year
12. Patient discusses health problems of the last six months or year, that correspond with chart and staff data.
13. Patient discusses health problems of the day or week.
14. Patient discusses occupation.
15. Patient discusses place of birth, growing up.

GROSS INTELLECTUAL OVERVIEW SURVEY

STUDY GUIDE

(Cont'd)

I. SPECIFIC TOPICS - (Cont'd)

16. Patient discusses adult life.

17. Patient discusses children and/or other relatives.

18. Patient discusses objects or clothing in room.

19. Patient level of education:

    19.1 Grade school or under

    19.2 Post grade school

    19.3 Post high school

    19.4 Post college, undergraduate

    19.5 Other

20. Can carry on two-way conversation for 5-15 minutes when not fatigued.

21. Discussion current activities or events:

    21.1 Nursing home activities

    21.2 Personal care (hygiene) activities

    21.3 Current news events

    21.4 Books you both read

    21.5 TV programs both watched

II. BRIEF SPECIFIC STATEMENTS OF YOUR GENERAL IMPRESSIONS OF PATIENT, BASED ON THIS SURVEY

1. Patient orientation to time _____

_____

_____

2. Patient orientation to place _____

_____

_____

3. Patient orientation to persons, including him/her self.

_____

_____

_____

4. Patient's memory _____

_____

_____

5. Narrative Statement:

_____

_____

_____

_____

_____

_____

_____

_____

_____

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. INTRODUCTORY/PLANNING AND COMMUNICATION PERIOD				
A. Reintroduces self to patient				
B. Modifies nursing care plan, based on patient condition/new information				
C. Omits nursing actions on NCP not appropriate at this time				
D. Talks with patient at level of patient understanding				
E. Discovers patient's present interests/ concerns				
F. Meets patient's present interest/ concern				
G. Plans treatment activities of morning with patient - OR -				
H. Explains treatment activities to patient				
I. Talks with patient in a way that corresponds to patient's sensory abilities				
J. Uses touch, gestures, verbal instructions to meet specific sensory deficits				
II. ASSESSMENT AND ACTION PERIOD				
A. Personal hygiene (mouth & skin care)				
1. Gives, or assists with mouth care: 1.1 Prior to breakfast 1.2 Following breakfast				
2. Bathes patient in tub/shower, depending on agency policy & patient need				

*NA=Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
3. Encourages patient to assist with bath according to activity ability previously established on Patient Problem Analysis				
4. *Omits bath/shower if warranted by patient's physical/emotional condition*				
5. Demonstrates use of time by: assembling all materials for bath/shower and change of clothes prior to beginning bath/shower				
6. *Demonstrates safety considerations by assembling all materials for bath or shower and change of clothes prior to beginning bath/shower, if given*				
7. Gives bed-bath according to Skills Lab guidelines or agency guidelines if condition warrants				
8. Demonstrates safety considerations by obtaining help from other staff when necessary to move patient: *8.1 Into/out of tub* *8.2 From bed to wheelchair* *8.3 From wheelchair to bed* *8.4 To or from toilet*				
B. Personal hygiene (elimination)				
1. Patient has bowel and bladder control: provides opportunity for voiding and defecation				
1.1 Asks patient usual time for voiding and takes to toilet at this time				
1.2 Asks patient usual time for defecation and takes to toilet at this time				

*NA=Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
1.3 Takes to toilet or provides bedpan after meal				
1.4 Takes to toilet or provides bedpan after nap				
1.5 Gives treatments as necessary, according to agency procedure (e.g., rectal suppository, digital removal of feces, perineal care				
1.6 Gives skin care to genital area, lower abdomen, thighs and buttocks, as necessary				
2. Patient is incontinent of urine or feces: Checks patient for soiling:				
2.1 Upon entering room				
2.2 At hourly intervals				
2.3 When patient says he/she is soiled				
2.4 When there is fresh odor of urine or feces				
3. Gives treatments as required:				
3.1 Irrigates indwelling catheter, according to agency procedure or Skills Lab guidelines				
3.2 Maintains accurate I&O, as prescribed				
III. NUTRITION (FOODS AND FLUIDS)				
A. FOOD				
1. Accompanies patient to breakfast				
2. Discovers what patient can feed self				

*NA=Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
3. Nurse feeds patient if cannot feed self				
4. Nurse feeds patient: *(5 of 7)*				
4.1 At pace comfortable for patient 4.2 Amounts patient can handle one at a time 4.3 Alternates bites or spoonfuls of different foods 4.4 Talks with/to patient while feeding him/her 4.5 Replaces food with equivalent substitute to encourage adequate food intake 4.6 Uses spoon or fork in relation to food 4.7 Nurse modifies feeding to correspond to physical problems (e.g. paralysis left side body - feel on right side of mouth)				
5. If patient feeds self: *(3 of 6)*				
5.1 Nurse provides spoon of proper size and utilization for hand				
5.2 Nurse provides fork of proper size and utilization for hand				
5.3 Nurse cuts food into bite size pieces as necessary				
5.4 Nurse offers help based on motor abilities of patient				
5.5 Offers help/modifies feeding technique to meet physical/neurological problems				
5.6 Talks with patient while he eats				

*NA-Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
6. Student can describe amount and kind of food and fluid consumed				
7. Food and tray are removed at conclusion of feeding				
B. Fluids (Oral)				
1. Nurse determines amount of fluids necessary to patient's physiologic state:				
1.1 Checks physician order sheet for fluid orders, amounts and kind per 8 or 24 hour period				
1.2 Counts usual amount of sleep in hours during 24-hour period from information gained from staff				
1.3 From 1.1 and 1.2, estimates fluids necessary to physiologic state during waking hours				
1.4 Estimates fluids provided with meal tray based on diet order for 24 hour period				
1.5 Provides amount of fluids required and/or limited by physical condition for 3-hour patient care period based on Items 1.3, 1.4.				
IV. OTHER ACTIVITIES				
1. Takes vital signs accurately, as judged by instructor				
2. Reports & records abnormalities in vital signs				

*NA=Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
3. *Performs treatments according to agency procedure or Skills Lab guidelines*				
4. *Provides for periods of rest*				
5. *Maintains silence with patient appropriately*				
6. *Gives medicine to patients (2 or more) using Medication Guidelines*				
7. *Care reflects evaluation of physical, psychosocial, intellectual, sensory status, as determined by Patient Problems Analysis, SSS and G.I. Overview and chart*				
8. Does patient teaching, according to teaching instrument performance evaluation, as necessary				
V. REPORTING AND RECORDING				
1. Records on nurses notes, chart, or as directed, and according to Skills Lab guidelines:				
1.1 Care given				
1.2 Patient's physical status				
1.3 Patient's behavior				
1.4 Stools; amount and description				
1.5 Accurate intake and output, if ordered or agency policy				

*NA=Not Applicable

GIVING CARE TO A GERIATRIC PATIENT

PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
1.6 Signs note				
2. Gives brief verbal report on Items 1.1 through 1.5, above, to Team Leader				

*NA = Not Applicable

GERIATRIC QUESTION TOPICS

1. Discuss the following drugs in terms of patient need for drug, desired effect of drug and actual effect of drug on patient:

   Digoxin

   Lasix

   Mellaril

   Elavil

   Nembutal

   Kaon

   Chloralhydrate

2. Describe verbally how you would modify any nursing procedure from the initial nursing course to provide for altered reaction time in the elderly.

3. Describe a weekly routine of personal hygiene for a nursing home resident chosen by the faculty.

4. Compare the significance of blood pressure reading, apical and radial pulse readings in the aged with those found in middle aged adults.

5. Describe verbally what information about a patient's physical status you would put on a referral form for a patient going to a general hospital for elective abdominal surgery.

6. Given an example of a patient with sensory impairment, describe how you would plan and give nursing care to such a patient.

7. Describe bladder training program for elderly patients with urinary elimination problem.

8. Describe physiologic changes of aging in the gastrointestinal tract which may contribute to impaired nutrition and elimination.

9. Describe how physical setting and social routines of nursing home could be modified to better meet the needs and desires of your patient/patients in general.

APPENDIX

"A"

NURSING CARE PLAN

I. INTRODUCTION TO PATIENT

Pt _____ Age _____ Sex _____ Diagnosis _____

Day of hospitalization _____

Additional data _____

II. SHORT TERM GOAL

_____

LONG TERM GOAL

_____

III. CARE PLAN:

NEED AND PROBLEM	"WHY'S" OF PROBLEM (Physiologic data)	NURSING ACTION AND PRINCIPLES	RESULTS OF NURSING ACTION

GUIDELINES
for
CONSTRUCTION OF NURSING CARE PLAN
in
NURSING II

INSTRUCTIONS: Have a copy of Work Sheet Nursing Care Plan for reference as you read these guidelines. Read entire guidelines, then ask instructor for clarification, as needed.

KEY POINTS in Construction of Nursing Care Plan.

NOTE: The words "pertinent information" are used. "Pertinent information" is that information which applies to the patient's physical, emotional and developmental status and nursing care required to meet physical, emotional and developmental needs of this patient.

1. Complete Items I and II of Nursing Care Plan.

2. Fill in need and problem, the "whys", and nursing action and principles.

3. Nursing Care Plan includes:

   A. Pertinent information from the following sources:

      Chart
      Cardex
      From Agency Staff
      From patient (Nurse may use observation, communication, assessment)
      From family

   B. List categories of basic needs, as defined by Maslow.* (Any order may be used.) State problems under categories of needs in standard medical terminology.

   C. Nursing action** and principle on which nursing action is based, consistent with patient's age and abilities.

   D. Nursing action and principle(s) consistent with physical condition of patient.

   E. Nursing action and principle(s) consistent with patient/family preferences at their limits of safety for patient.

* Mitchell P. Holsclaw, Concepts Basic to Nursing, 1973,pp 52-53
** Nursing actions are clear, specific, and frequency is stated.

GUIDELINES FOR CONSTRUCTION OF NURSING CARE PLAN - (Cont'd)

F. Nursing action and principles correspond to policies of agency unit.

G. Nursing actions will be stated in specific terms including what, when, how, how much, how often.

H. Nursing rationale will explain in principles why a specific action is stated.

4. After application of nursing action, record results of nursing action on Care Plan and continue nursing action, or state a different nursing action, as necessary to meet need or resolve problem.

"CONSTRUCTION OF NURSING CARE PLAN"
INSTRUMENT EVALUATION CHECKLIST

(All items in italics are essential) (plus 3 other items)	YES	NO	*NA	COMMENTS
1. *Uses Nursing Care Plan form*				
2. *Completes Items I & II of NCP Form*				
3. *States all basic needs, as defined by Maslow's Terminology*				
4. States all problems in standard medical terminology				
5. *Statement of problem includes chief physical problem*				
6. Statement of problem includes emotional needs & problems caused by chief physical problem				
7. *Statement of problem includes all major physical problems[1] caused by, or related to, chief physical problem*				
8. Statement of problem includes emotional needs and problems caused by related physical problem				
9. *Statement of problem includes overt emotional & development needs & problems unique to individual patient*				
10. *Statement of problem includes emotional/ development needs based on patient's age*				
11. *"Whys" or physiologic data of problem are related to problem stated*				
12. Nursing care is stated in terms of specific actions				
13. *Nursing principle is consistent with stated nursing actions*				
14. *Nursing action & principles are consistent with physical condition of patient*				

[1]*Major Physical Problems are those which interfere with basic needs.*

*NA=Not Applicable

"CONSTRUCTION OF NURSING CARE PLAN"
INSTRUMENT EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential) (plus 3 other items)	*YES*	*NO*	**NA*	*COMMENTS*
15. Nursing action & principles are consistent with patient's age and abilities				
16. Nursing action & principles are consistent with patient/family preference within limits of safety				
17. Nursing action & principles correspond to policies of unit				
18. NCP shows all pertinent information on physical status from: *CHART* *CARDEX* *PATIENT* *FAMILY* *STAFF* *special evaluation instruments*				
19. NCP shows pertinent information on emotional and developmental status from: CHART CARDEX PATIENT FAMILY STAFF DEVELOPMENTAL TESTS				
20. NCP shows results of all stated nursing actions				
21. NCP shows a new nursing action if previous action did not resolve problem				
22. Nursing Care Plan corresponds to short-term goal				
23. Nursing Care Plan corresponds to long-term goal				

*NA Not Applicable

IV FLUIDS PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
1. *Checking Fluid Rate:*				
1.1 Checks for amount of fluid per hr/min in physician record sheet				
1.2 If rate per minute is not designated, student does math computation to determine rate per minute for equipment used				
2. *Counts rate of IV Drip: (Must include 2.3, 2.6 and 3 more)*				
2.1 Compares own count with IVAC control, if used				
2.2 If discrepancy exists, adjusts IVAC or reports discrepancy to Team Leader				
2.3 When first sees patient				
2.4 After patient changes position				
2.5 After patient increases/decreases activity				
2.6 At hourly intervals during patient care				
3. *Student adjusts IV to proper rate as necessary, according to Agency procedure or policy*				
4. *Notifies Team Leader if flow rate is 10 drops above or below ordered rate' index (microdrip)*				
5. *Checks infusion site for:*				
5.1 Correct placement of needle				
5.2 Adequate anchoring of needle				
5.3 Signs of infiltration according to test				

*NA=Not Applicable

IV FLUIDS PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
5.4 Notifies team leader if problem exists				
6. Use of restraints				
6.1 Use restraint for limb with needle and other limbs to prevent accidental or intentional removal of needle				
6.2 Release restraint and permit and/or provide movement of limbs every 2 to 3 hours				
7. Check for desired results				
A. IV tubing is free of kinks or pressure				
B. Determine state of hydration: (5 of 8 essential)				
B.1 Inspection of mucous membrane of mouth				
B.2 Palpation for skin tissue turgor				
B.3 Inspection of tissues of face (esp. around eyes)				
B.4 Palpation of anterior fontanel in child ↓ 18 months				
B.5 Palpation for edema of extremeties				
B.6 Question patient about thirst absent/present				
B.7 Verbally identify signs of overhydration to instructor				
B.8 Compare urine output with IV fluid intake over 2-hour period				

*NA=Not Applicable

IV FLUIDS PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
8. Determine if patient has discomfort at IV site by: (2 of 3)				
8.1 Questioning				
8.2 Inspection				
8.3 Palpation of site				
9. Discontinue IV on physician's order according to skills lab guidelines with instructor present				
10. Add IV bottle on physician's order at conclusion of present bottle, according to skills lab guidelines with instructor present				
11. Chart addition or completion of IV fluids on proper chart form				
12. Chart amount of fluid infused during period of time student gave care on proper form				
13. Include report on Items 11, 12 and 13 in report to team leader before leaving unit				

*NA=Not Applicable

TEACHING AND LEARNING

PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. The student performs the assignment and, when appropriate, hands in description 3 days after the experience				
II. The student "knows" the learner's: *(Essential 4 of 6)* A. Age B. Education C. Sociocultural status D. Degree of illness E. Degree of anxiety F. Previous knowledge/experience with teaching topic G. Place in health-illness continuum				
III. The student gathers additional information about learner & material to be taught: (Essential 2 of 2)				
A. Has basic knowledge relating to topic to be taught *B. Has researched client's feeling and knowledge related to topic*				
IV. The student designs a method for giving the material to the learner: *(1 of 2)*				
A. Selects time and place where learning can occur B. Selects materials (i.e. chart, dolls) to use in presentation				
V. Student implements plan: *(1 of 2)*				
A. Modifies plan according to patient condition B. Modifies plan according to patient environment				
VI. The student tests to see if learner has retained material by: *(1 of 2)*				
A. Asking questions on material demonstrated B. A return demonstration				

*NA=Not Applicable

TEACHING AND LEARNING

PERFORMANCE EVALUATION CHECKLIST

(CONT'D)

(All items in italics are essential)	YES	NO	*NA	COMMENTS
VII. The student evaluates the results of teaching in terms of effectiveness: *(Essential 3 of 3)*				
A. In relation to materials used				
B. In relation to time and place				
C. In relation to learner's anxiety level				
VIII. Based upon 5 and 6 (if necessary) student will describe revised plan				
IX. The student will research questions asked by learner to which he cannot respond: *(Essential 2 of 2)*				
A. Seeks resources				
B. Returns with information to the learner				

*NA-Not Applicable

ADMINISTRATION OF MEDICATIONS

SELF STUDY GUIDE

The student will demonstrate the application of knowledge, principles, and skills from the basic pharmacology and the administration of medications by completing the following objectives:

A. Prior to clinical assignment:

1. Review basic pharmacology and the administration of medications.

2. Review and practice any necessary skills in the skills lab.

B. Prior to administration of medications:

1. Obtain necessary information about the patient(s) and the medications.

2. Obtain the necessary equipment and supplies for preparation and administration of medications.

3. Arrange for observation by your instructor.

C. Implementation Objectives:

DRUG ADMINISTRATION (*)

Given a selected patient for whom medications have been ordered, the student:

1. Gives the right medication.

   a. Uses reliable pharmacological resources to obtain information about dose, therapeutic and side effects, toxicity, channels of administration, and precautions to be observed for drugs with which she is unfamiliar.

   b. Reports discrepancies among pharmacological information, patient's condition, and doctor's order.

   c. Checks medication card against container.

2. Gives medication at the right time.

   a. Schedules time of administration to maintain constant blood level when indicated.

   b. Reports symptoms of untoward side effects, toxicity, and addiction.

   c. Administers p.r.n. medications to achieve desired effect.

   d. Uses nursing measures to reduce need for and enhance therapeutic effect of medications.

3. Prepares the right dose.

   a. Uses tables of equivalents to make conversions, if necessary.

   b. Applies mathematical skills to compute doses when amount ordered is different from dispensing unit.

4. Uses safe and effective techniques for administering medications via appropriate channels of administration:

   a. inhalation
   b. oral (capsule, pill, liquid)
   c. rectal
   d. subcutaneous
   e. intramuscular
   f. intradermal
   g. intravenous
   h. instillation of drops

5. Gives medications to the right person.

   a. Uses agency's method of identification of medications.

   b. Uses agency's method of patient identification.

6. Charts, records, and reports medications given using the agency's forms and channels of communication.

7. Makes planned and incidental observations of patients' response to medication.

8. Explain reasons for nursing actions.

D. Evaluation Phase

1. Reflect upon your experience. (e.g., "Would you do the same in the future?" "What would you do differently?" "What suggestions would you make to other students having a similar experience?")

2. Discuss your experience in post conference.

3. Include comments about your experience in your diary.

4. Make medication cards on those medications that are new to you.

(*) There may be special arrangements or additional factors in different clinical situations. You will be told about this in advance.

NOTE: These objectives are on-going and you will repeat them whenever you are assigned to administer medications.

ORAL MEDICATION ADMINISTRATION
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. PREPARATION PHASE				
1. The student can state verbally for each drug to be given: *(Essential 5 of 6)*				
1.1 Drug name 1.2 Drug action 1.3 Drug dose 1.4 Relationship between ordered drug dose and recommended dose for patient's age and condition 1.5 Relationship of drug to patient's condition 1.6 Precautions, side effects and toxicity				
2. Pouring drugs for patients: *(All of each section that applies is essential)*				
A. Checks medication card against container: A.1 before pouring A.2 after pouring A.3 when replacing container in usual place				
B. Pouring liquids: B.1 Pours away from label side B.2 Wipes bottle top before replacing cap B.3 Checks liquid measure at eye level with container on stable surface B.4 Liquid measure is 100% accurate with instructor measurement B.5 Inpalatable liquid medicines are mixed with 1 oz to 4 oz of compatible fluid				
C. Special procedures: C.1 Divides tablets using knife or other suitable instrument on clean surface				

*NA=Not Applicable

ORAL MEDICATION ADMINISTRATION
PERFORMANCE EVALUATION CHECKLIST

(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
C.2 Divided tablet to be administered contains correct dose C.3 Crushing of tablets is done with mortar and pistal or "drug crusher" on clean surface C.4 Tablet or capsules mixed with semi-solid food or fluids are stirred/shaken for adequate dispersion				
D. Medical asepsis is maintained throughout procedure				
E. Drug tray is arranged so medicine cards and medicines for patients are clearly together, to avoid error				
II. ADMINISTRATION PHASE				
1. Patient identification *(Essential: 1.1 & 1.2 OR 1.1 & 1.3)*				
1.1 Asks patient his/her name 1.2 Checks armband against medical card 1.3 Asks staff to positively identify patient without armband				
2. Giving medicine to patient: *2.1 Presents medicines with water or other permitted liquid* *2.2 Helps patient take medicine, if necessary* *2.3 Observes patient swallowed medicine* *2.4 At right time* *2.5 Takes vital signs, in proper manner prior to medicine administration, according to drug prescribed* *2.6 Withholds oral medicine if patient condition warrants* *2.7 Reports 2.6 to instructor and team leader and records omission on agency medication form and/or agency nurses notes*				

*NA=Not Applicable

ORAL MEDICATION ADMINISTRATION
PERFORMANCE EVALUATION CHECKLIST
(Cont'd)

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
III. RECORDING AND OBSERVATION PHASE				
1. *Returns all materials to proper place and leave clean work surface*				
2. *Records medicines given according to agency procedure or agency medicine forms*				
3. *Returns to patient to observe drug effect/general condition within 30 minutes/one hour after administration*				

*NA=Not Applicable

Patient Information

STUDENT NAME_____

NAME_____

DATE:_____

AGE_____SEX_____

PROBLEM/CONDITION_____

_____

ADDITIONAL DATA_____

_____

PATIENT PROBLEMS* ANALYSIS

WHAT PROBLEM BOTHERS THE PATIENT OR WHAT PROBLEM ENDANGERS HIS HEALTH OR LIFE?

Fluids
What problem interferes with his patient getting needed fluids?

Does this patient have a problem with fluids which endanger his health or life? (Edema of body tissues, dehydration)

Aeration
Does this patient have a problem getting enough oxygen to meet his needs?

What preventive measures does he require to prevent interference with his oxygenation?

Nutrition
What problems does this patient have in relation to supplying his body need for protein, carbohydrates, fats, minerals, and vitamins?

What problems in meeting his nutritional needs offer a threat to his health or life?

* Form composed by M. O. Wolanin

Communication
What interferes with this patient's ability to understand others?

What interferes with his ability to be understood?

Does a problem in communication interfere with his health or life?

Activity
What interferes with this patient's ability to move about as he wishes?

In what way is his inability to move a threat to his life or health?

Pain
Is this patient having pain?

What meaning does the pain have for him?

What comforting measures does he ask for?

Does the pain indicate a threat to his life or health?

Elimination
What is disturbing the patient in relation to emptying his bladder?

Does a problem exist in emptying his bladder which is a threat to his life or health?

What problem does the patient feel is present in relation to emptying his bowel?

Is there a threat to his health or life?

Socialization

Can this person sustain a meaningful relationship with another patient or person?

What does he feel interferes with such a relationship?

What problems do you feel interfere with the patient's ability to share experiences with another person?

Is this patient apathetic? depressed? frightened?

PATIENT PROBLEMS ANALYSIS
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. Uses Patient Problems Analysis Form				
II. *Fills in heading of form:*				
A. Own name *B. Date* *C. Patient name* *D. Patient age* *E. Patient sex* *F. Patient problem or condition* *G. Patient additional data*				
III. Obtains data to answer questions from: *(5 of 6 essential)*				
A. Patient B. Patient's family C. Team leader D. Other staff members E. Chart F. Kardex				
IV. Answers all questions: *A. Answers relate to specific patient and his/her condition* *B. Questions not applicable to the patient are marked as such*				
V. Returns Patient Problems Analysis to instructor within 3 days of assignment				

*N.A=Not Applicable

MODEL OF CLINICAL CHALLENGE EXAM

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

DEVELOPED BY:

MARY JANE HATTSTAEDT AND MARGARET M. ISAAC

UNDER

VOCATIONAL EDUCATION RESEARCH MINI GRANT

PROJECT NO. 75-RMG-1301

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
I. INTRODUCTORY ASSESSMENT AND PLANNING PERIOD				
A. *Introduces self to patient*				
B. *If necessary, modifies nursing care plan, based on patient condition/new information*				
C. *Omits nursing actions on NCP not appropriate at this time*				
D. *Talks with patient at level of patient understanding*				
E. *Discovers patient's present interests/concerns*				
F. Meets patient's present interest or concern				
G. *Plans treatment activities of morning with patient - OR -*				
H. *Explains treatment activities to patient*				
I. *Talks with patient in a way that corresponds to patient's sensory abilities*				
J. *Uses nonverbal behavior consistent with/or supplementary to verbal communications*				
II. NURSING INTERVENTION (ACTION) PERIOD (Includes ongoing evaluation)				
A. Personal hygiene (mouth and skin care)				
1. *Gives, or assists with mouth care:* *1.1 Prior to breakfast* *1.2 Following breakfast*				
2. Bathes patient in bed, tub or shower, depending on agency policy and patient need				
3. *Encourages patient to assist with bath according to activity ability (established PPA)*				

*NA=Not Applicable

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
B. Patient is incontinent of urine or feces: *(All essential)*				
1. Checks patient for soiling: *1.1 Upon entering room* *1.2 At hourly intervals* *1.3 When patient says he/she is soiled* *1.4 When there is fresh odor or urine or feces*				
III. NUTRITION (FOOD AND FLUIDS)				
A. Food *1. Withholds food, if ordered*				
2. Accompanies patient to breakfast or provides patient with food on tray				
3. Discovers what patient can feed self				
4. Feeds patient if cannot feed self				
5. Nurse feeds patient: *(Essential 5 of 8)*				
5.1 At pace comfortable for patient 5.2 Amounts patient can handle one at a time 5.3 Alternates bites or spoonfuls of different foods 5.4 Talks with/to patient while feeding him/her 5.5 Replaces food with equivalent substitute to encourage adequate food intake 5.6 Uses spoon or fork in relation to food 5.7 Modifies feeding to correspond to physical problems (e.g. paralysis left side body - feed on right side of mouth) 5.8 Encourages consumption of foods important to physiologic functioning based on patient's condition				

*NA-Not Applicabl

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
6. If patient feeds self, nurse: *(Essential 4 of 7)*				
6.1 Provides spoon of proper size and utilization for hand				
6.2 Provides fork of proper size and utilization for hand				
6.3 Cuts food into bite-size pieces as necessary				
6.4 Offers help based on motor abilities of patient				
6.5 Offers help/modifies feeding technique to meet physical/neurological problem				
6.6 Talks with patient while he eats				
6.7 Encourages consumption of foods important to physiologic functioning based on patient's condition				
7. Student can describe amount and kind of food & fluid consumed:				
7.1 Adequacy in relation to ordered diet				
7.2 Adequacy in relation to patient's physical and sociocultural needs				
8. Food and tray are removed at conclusion of feeding				
9. If manual feeding by mouth is contraindicated, feedings are given as ordered:				
9.1 By gavage				
9.2 By hyperalimentation				
9.3 Feedings are of composition ordered				
9.4 Feedings are given in correct amounts, at correct temperature, at accurate rate				

*NA=Not Applicable

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	*YES*	*NO*	**NA*	*COMMENTS*
B. Fluids (Oral)				
1. Fluids withheld if ordered				
2. Checks physician order sheet for fluid orders, amounts and kind per 8 or 24 hour period.				
3. *Provides amount of fluids required and/or limited by physical condition for 3-hour patient care period.*				
4. *Provides amount of fluids for age and condition*				
5. If fluids given by IV, use IV Fluid Performance Evaluation Checklist				
IV. OXYGENATION				
1. Determines adequacy of patient O^2 exchange *(All essential)*				
1.1 Counts respirations.				
1.2 Inspects mucous membranes for signs of cyanosis				
1.3 Checks color of nailbeds, uses pressure to check adequate capillary return				
1.4 Inspects dependent body parts for adequate oxygenation				
1.5 Uses stethoscope to listen to chest sounds-describes normal: reports abnormal				
2. Takes measures to maintain adequate O^2 exchange:				
2.1 Positioning at intervals				
2.2 Having patient cough, turn, deep-breathe				
2.3 Provides for exercise (active and/or passive)				
- OR -				
3. Takes measures to provide for adequate O^2 exchange *(All essential)*				
3.1 Maintains O^2 delivery through nasal catheter, tent, etc. at ordered intervals				
3.2 Notes response to 3.1 at hourly intervals				

*NA=Not Applicable

(All items in italics are essential)	YES	NO	*NA	COMMENTS
3.3 Counts respirations and notes characteristics of respirations visualized and heard by stethoscope.				
3.4 Maintins humidification of room by tent or other devices as ordered				
3.5 Maintains respiration rate and characteristics at levels normal for age and condition				
3.6 Reports inability to meet 3.5 to Team Leader or appropriate other				
V. PERSONAL HYGIENE (ELIMINATION)				
1. Patient has bowel and bladder control: nurse provides opportunity for voiding and defecation:				
1.1 Asks patient usual time for voiding and takes to toilet at this time				
1.2 Asks patient usual time for defecation and takes to toilet at this time				
1.3 Takes to toilet or provides bedpan after meal				
1.4 Takes to toilet or provides bedpan after nap				
1.5 Gives treatments as necessary or ordered, according to agency procedure; e.g., rectal suppository, digital removal of feces, perineal care				
1.6 Gives skin care to genital area, lower abdomen, thighs and buttocks, as necessary				
2. Does patient teaching, according to teaching performance evaluation tool, as necessary				
3. *Maintains medical and surgical asepsis appropriately throughout period of care*				

*NA=Not Applicable

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
VI. OTHER ACTIVITIES				
A. Takes vital signs - comparison with instructor findings are:				
1. *Pulse accurate ± 2 beats/min*				
2. *Takes apical, radial, or femoral pulse according to patient condition and information desired from pulse measurement*				
3. *Respiration accurate ± 2 respirations/min*				
4. *Temperature accurate ± 2/10° with standard thermometer*				
5. *Temperature 100% accurate with electronic thermometer*				
6. *Oral, rectal, temperature taken depending on patient's age, level of consciousness, condition*				
7. *B/P accurate ± 2mm. mercury systolic, ± 4mm mercury diastolic*				
B. *Reports and records abnormalities in vital signs within 15 minutes of findings:*				
1. *Takes remedial action on abnormal findings*				
2. *Administers medication*				
C. *Performs treatments according to agency procedure book, skill lab guidelines or specific Performance Evaluation Test*				
D. *Provides for periods of rest and sleep as indicated by condition*				
E. *Maintains silence with patient appropriately*				
F. *Gives medicine to patients according to Medication Performance Evaluation Test:*				
1. *Gives PRN medications appropriately*				
2. *Withholds medications appropriately*				

*NA=Not Applicable

GIVING CARE TO A PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
G. *Care reflects evaluation of physical, psychosocial, intellectual, sensory status, as determined by Patient Problems Analysis, personal assessment, other required devices and chart*				
H. *Provides for activity, including ambulation, that is consistent with patient condition and patient desires within limits of safety*				
I. *Omits bath/shower if warranted by patient's physical/emotional condition*				
J. Demonstrates use of time by: assembling all materials for bath/shower and change of clothes prior to beginning bath/shower				
K. *Demonstrates safety considerations by assembling all materials for bath/shower and change of clothes prior to beginning bath/shower.*				
L. *Demonstrates safety considerations by obtaining help from other staff when necessary to move patient:*				
1. *Into/out of tub*				
2. *From bed to wheelchair or other mechanical devices*				
3. *From wheelchair or other mechanical device to bed*				
4. *To or from toilet*				

*NA-Not Applicable

GIVING CARE TO PATIENT
PERFORMANCE EVALUATION CHECKLIST

(All items in italics are essential)	YES	NO	*NA	COMMENTS
VII. REPORTING AND RECORDING				
A. Records on nurses notes chart, according to agency procedure and skills lab guidelines *(Essential 8 of 8)*				
1. *Care given, including treatments and medications*				
2. *Patient's physical status*				
3. *Patient's behavior*				
4. *Food and fluid intake-amount and kind*				
5. *Urine output expressed in number of times or measured amount*				
6. *Stools; amount and description*				
7. *Accurate intake and output, if ordered or agency policy*				
8. *Signs note*				
B. *Gives brief verbal report on Items 1 through 7, Item VII-A, above, to Team Leader*				

*NA=Not Applicable

APPENDIX

"B"

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING

II. FORM I AND TABULATED RESULTS

III. FORM II - OBSTETRICS, PEDIATRICS, GERIATRICS AND TABULATED RESULTS

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING

Associate Degree Education for Nursing: Information about State-Approved Associate Degree Programs in Nursing, N.L.N., 1973-1974 Pub. No. 23-1309 $.50

The pamphlet gives general information about Associate Degree Programs in Nursing. Listed by state, the pamphlet gives information about usual length of program, possibility of advanced placement, possibility of part-time study, possibility of evening classes, living arrangements, a breakdown of total program costs, and maximum number of freshman admissions. The contact person for application form/catalog is listed.

This pamphlet would be useful in counseling students and would be helpful to the student who knows characteristics of a program they would choose.

Boyle, Rena, "Articulation: From Associate Degree Through Masters" Nursing Outlook (20) October 1972, pp. 670-672

This article gives an account of examination of A.D. and Baccalaureate programs at the University of Nebraska to develop a curriculum in which A.D. graduates could enter upper division baccalaureate programs. There would be no duplication of material for the A.D.N. registered nurse studying for the baccalaureate, and the educational products of each program would be clearly distinct from each other. A curriculum proposal that provides progression from one level to the next A.D., baccalaureate, masters has been approved and funded by Project Grants Branch of the Division of Nursing. A.D. program courses could serve as foundation for upper division courses. R.N.s with an A.D. from NLN accredited schools will be admitted to BSN program - all students will be R.N.s. The article offers ideas for differentiation of work, and acceptance of post-educational experience.

Burnside, Helen, "Practical Nurses Become Associate Degree Graduates" Nursing Outlook (17:4) April 1969, p. 47

The one-page article tells how licensed practical nurses may receive credit at Cuyahoga Community College in Cleveland by taking mid-term and final examinations in Nursing 101, a fundamentals course of five credits. 153 students had taken the exam by June 1968 with 98 successful on the examination. Some thought was given to administering a practical examination prior to admitting students, but time prohibited this.

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING - (Cont'd)

"Career-Ladder Breakthrough - Now, an Associate Degree Without Attending College" R.N. December 1972, p. 50

Brief one-page description of University of State of New York internal degree program and the procedure for application to the Regents External Degree Program (REX) for an A.D. in nursing, available beginning in 1974, in which it is possible that all credit may be obtained by examination exclusively. The title of the article is deceptively simple, compared to the detailed information description that follows.

Chuan, Helen, "Evaluation by Interview" Nursing Outlook (20:11) November 1972, pp. 726-727

This article discusses the use of a structured interview questionnaire used to evaluate students' performance in the clinical situation. The interview evaluation tool elicits information that helped faculty determine how well students understood and were using the nursing process. The author states that the more commonly used observational methods do not allow systematic evaluation nor provide an accurate and reliable range of expected outcomes. The author is pleased with educational outcomes of her evaluation instrument. The interview questionnaire is included in the article and it looks like a useful and comprehensive device.

Corona, Dorothy, "A Continuous Progress Curriculum in Nursing" Nursing Outlook, January 1970, pp. 46-48

Individualized course of study in nursing at Arizona State University, College of Nursing at Tempe, is described in this article. Students are self-pacing and participate in a continuous progress curriculum that includes mastery of specific tasks and content. Independent study is very important. R.N. students find that they move at their own pace and build on what they know.

Credit by Examination in Nursing, Proceedings from a Western Regional Conference, 1972; Western Interstate Commission for Higher Education, September 1972, $2.00

This is an important resource for an overview of practices current in 1972. It also describes problems that challenge exams present. Paper and pencil types of examinations for credit are the types discussed in detail.

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING - (Cont'd)

DeChow, Georgina H. - "Future Directions for the A.D. Nurse" Nursing Outlook, February 1973, Vol. 21 #2, pp. 108-109

This article is an excerpt from a paper presented in March 1972 on the subject, "How Does the Associate Degree Nurse Fit into the Health Care Delivery System Now and in the 80's."

Greater freedom of movement within the educational system for A.D. graduate and for LPNs and nursing assistants is foreseen and recommended. Functions of the A.D. nurse and changes in health care delivery systems are explored with curriculum implications outlined.

"Directory of Career Mobility Opportunities in Nursing Education" 1974 National League for Nursing, Publication Number H 19-1485 $5.95

Important reference for those providing information about career mobility opportunities in nursing education. Offers a state-by-state listing of "open curriculum" programs in nursing. Lists educational institutions and important characteristics about the school and curriculum opportunities. It would be useful to LPNs, RNs seeking a BSN, Corpsmen, and others interested in nursing careers.

"Education for Nursing - The Diploma Way" (Information about NLN Accredited Diploma Programs in Nursing) National League for Nursing, Department of Diploma Programs; Publication #16-1314, 10 Columbus Circle, New York, New York 10019, 1973-1974

Pamphlet listing accredited NLN Diploma schools. Includes a listing of schools by states and provides information on advance placement possibilities for: "Other Nurse Education Programs", "Licensed Practical Nurses" and "Others". Recommends contacting each school for information. This implied that "Other" includes applicants from paraprofessional medical programs.

Finch, Alice Joyce, "For Students Only: A System for Learning", Nursing Outlook, (19:5) May 1971, pp. 332-333

The conceptual model which is used for the continuous progress curriculum at Arizona State University at Tempe is presented. There is emphasis on the students' role in independent learning and evaluation based on the individual student's achievement. Systems (and this model uses the system approach) provide the impetus to define objectives in measurable terms. The instructor participates in evaluation and promotes students' independent function. This article, with a diagram of the Student's Learning System is an appropriate companion article to Corona's "A Continuous Progress Curriculum in Nursing" cited elsewhere in the bibliography.

Ingles, Thelma and Montag, Mildred, "Debate: Ladder Concept in Nursing Pro and Con", Nursing Outlook (19:11) November 1971, pp. 726-730

Thelma Ingles presents the "pro" ladder concept giving examples from her work in Cali, Colombia with nurses and the Nursing programs of the University del Valle. Programs to upgrade education of nursing personnel were uniquely suited to the needs of the individual and the country. Inherent in the career ladder concept is that the system should be so ordered that what one learns at one stage has relevance and academic value at the next. Ms. Ingles urges continued experimentation and innovation in nursing education.

Mildred Montag gives a "con" argument to the ladder concept. She discusses the ladder in terms of concepts of status, lower versus higher, and the locked-in nature of a ladder as defined by standard dictionaries. She sees the ladder concept as denying the integrity of professions themselves and the varying kind of practice within a profession (e.g., is a general practitioner less than a specialist). Ms. Montag states she has yet to see a ladder curriculum which does what it purports to do. She states a belief that no one should be forced to repeat study in an area in which he is already knowledgeable, hence the use of challenge exams. Yet, if professional curriculums offer nursing at the upper division level, and they are truly professional in content and method, few would challenge successfully. If a student knows his future goal, he should be assisted to enter the program that most directly leads to that goal.

These companion statements offer challenging ideas to proponents of the ladder concept.

Katzell, Mildred E., "Upward Mobility in Nursing", Nursing Outlook (18:9) September 1970, pp. 36-39

This article quotes a 1970 statement by the National League for Nursing Board of Directors favoring the open curriculum. Provision for validation of previous education and experience is one stated belief of this group. The article contrasts institutional proficiency tests and nationally standardized tests. All proficiency tests discussed are paper and pencil tests and their use may include granting credit, advance placement, or diagnosis of learning gaps. Evaluation of clinical performance is suggested for practical nurses, aides and orderlies prior to diploma program admission.

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING - (Cont'd)

Lenberg, Carre E., Coordinator, New York Regents External Degree Nursing Program, Albany, New York, "Our Readers Speak", Nursing Outlook (22:6) June 1974, pp. 360-361

This letter responds to Sister Dorothy Sheehan's article, "Degree, Yes - Education, No". It refutes the article by describing how curriculum is designed, how tests are formed, and by describing the student population. The program is explicitly for the adult learner. It is for persons in nursing or allied health fields. It is an alternative for those who could not, or did not, begin in a collegiate setting or whose education was not completed. It is stated that the current program is for the ADN. A baccalaureate program is in the future. This letter is good companion reading to the article to which it responds.

Metz, Edith A. and McCleary, Carol M., "Knowing the Learner", The Journal of Nursing Education, January 1970, pp. 3-9

Identification of individual needs of the learner in order to make teaching more effective is the subject of this article. A questionnaire that provides a profile of learner characteristics and is titled, "Characteristics of Students Past Education Experience" is presented. The questionnaire and the basic principles that underly it could be adapted for a variety of programs. Adaptations of teaching to meet learners' needs are discussed.

Moore, Sister Anne Joachim, "The Ladder and the Lattice", Nursing Outlook May 1972, Vol. 20 #5, pp. 330-332

This article contains a strong argument for challenging exams to help experienced or talented workers move from a lower level to a new level. Another reason for challenge exams is to assist those students who want to transfer from an A.D. to a baccalaureate program, as opposed to making all general education courses transferable for those "few" students who choose to transfer. Current definitions of both ladder and lattice concepts are critiqued.

Nyquist, Ewald B., "The Regents External Degrees", Associate Degree Education - Current Issues, 1973, N.L.N. 1973 Publication #23-1495

Comprehensive overview of current and projected external degrees of the University of the State of New York. The prospect of the development of clinical assessment instruments is cited as having wide and important ramifications for nursing education and all allied health fields. Types of study materials and educational guidance useful to external degree candidates are discussed. This is a thought-provoking speech with many implications for post-secondary life-long education for the wide variety of learners that comprise our society.

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING - (Cont'd)

Nyquist, Ewald B., "The External Degree Program and Nursing", Nursing Outlook, June 1973, Vol. 21, No. 6, pp. 372-377

The theoretical and experimental background of external degrees offered by the University of the State of New York is presented. Difficulties of nurses in progressing up the career ladder in traditional academic fashion is one reason given for the development of an external degree; associate in applied science in Nursing to be offered by the University in late 1974. The demonstration of clinical competency in the clinical laboratory is an integral part of the program. Descriptions of the methods of designing and testing curriculum indicate that the tests of the clinical competency will be useful and widely tested instruments. Credit for what one knows is highlighted vs. how one learned what one knows.

"Selected Bibliography on Associate Degree Nursing Education", National League for Nursing: Department of Associate Degree Programs, 1974, Pub.No. 23:1369

This bibliography is a rich resource for faculty in associate degree programs. It incorporates the best of articles in the 1973 edition with the addition of new material.

Sheahan, Sister Dorothy, "Degree, Yes - Education, No", Nursing Outlook (22:1) January 1974

This article offers a far ranging critique of the external degree program. The author specifies the learner climate and type of educational questioning and socialization that are part of college or university based education. The author objects to nurses who are "degree'd" for their roles solely by examination, including practice examinations. While this article raises cogent points, the author seems to have selected the assistance of an external degree candidate who will take no campus work as the sole representative of the external degree group.

I. ANNOTATED BIBLIOGRAPHY ON CHALLENGE EXAMS IN NURSING - (Cont'd)

Schmiedel, Edna B., "One Rung at a Time - Up the Career Ladder", Nursing Outlook, June 1973, Vol. 21 #6, pp. 400-403

A vivid portrayal of the difficulties and gratifications encountered by a woman who at 35 years-plus started up the career ladder as a practical nurse student and obtained an A.D., B.S.N. and M.S. in nursing. She cites difficulties in obtaining needed scholarship monies based on age or program type restrictions. Also stated are both lack of challenging exams and the considerable amount of time required to study and take written exams upon moving from A.D. to baccalaureate level education. Repetition of nursing content was found in A.D. and B.S.N. programs. Statements made about self study while practicing nursing at all licensure (education) levels, indicate clinical exams of what was known with credit given would have helped speed this nurse's educational progress.

Wozniak, Delores, "External Degrees in Nursing" AJN Vol. 73 #6 June 1973, pp. 1014-1018

Historical development of external degrees through the Regents External Degree Program of the University of the State of New York is presented. The planning, curriculum and standardization process for the A.A.S. external degree in nursing is presented in enough depth to grasp content and process. Component is the final examination; it follows the completion of the four academic nursing area examinations.

The performance subcommittee is working on criteria that will result in testing student performance in patient care situations. A valid examination instrument, standardized to assess clinical performance at the technical level in nursing is the expected outcome. This has many implications for talented and experienced health workers who seek an A.D. in nursing. The legal structure and private and public resources of the University of the State of New York contribute greatly to the climate for the development of the external degree by examination.

CHALLENGE EXAM

FORM I

1. Do you currently use challenge exams for any clinical area of nursing? _____YES _____NO

   A. If yes, is there a standardized procedure for challenging? _____YES _____NO

   B. If yes, is the same evaluation tool used for all clinical areas?_____YES _____NO

2. Who may take the challenge examinations?

   _____R.N.s

   _____L.P.N.s

   _____Aides

   _____Anyone

   *_____People meeting criteria set by program

   *_____Other

3. When are challenge exams given?

   _____Before semester begins

   _____At the beginning of each semester

   _____Whenever need exists

   *_____Other

4. Are clinical challenge exams given separately from theory exams?

5. Are clinical challenge exams given in -

   _____Hospital labs

   _____Skills Centers

   *_____Other

*Please give details.

6. Do you retain statistics on the number of students taking the challenge exams? _____YES _____NO

   If yes, please answer:

   A. What percentage of the student population take the exams?

      _____Less than 10%

      _____10% - 25%

      _____25% - 50%

      _____50% - 75%

      _____More than 75%

   B. What percent of the students taking the exams successfully complete them?

      _____10% - 25%

      _____25% - 50%

      _____50% - 75%

      _____75% - 100%

   C. How successful have these students been in succeeding courses?

      _____Very successful (Above average)

      _____Successful (Average)

      _____Poor success rate (Below Average)

7. Any additional comments or materials would be gratefully appreciated.

NAME OF SCHOOL: _____

PERSON TO CONTACT: _____

TELEPHONE NO.: _____

CHALLENGE EXAM

62 Responses

FORM I

1. Do you currently use challenge exams for any clinical area of nursing? 34 YES 28 NO

   A. If yes, is there a standardized procedure for challenging? 31 YES 4 NO

   B. If yes, is the same evaluation tool used for all clinical areas? 12 YES 17 NO

2. Who may take the challenge examinations?

   11 R.N.s

   33 L.P.N.s

   9 Aides

   1 Anyone

   * 16 People meeting criteria set by program

   * 15 Other

3. When are challenge exams given?

   16 Before semester begins

   1 At the beginning of each semester

   15 Whenever need exists

   * 12 Other

4. Are clinical challenge exams given separately from theory exams?

   27 Yes 1 No

5. Are clinical challenge exams given in -

   20 Hospital labs

   17 Skills Centers

   * 6 Other

*Please give details.

6. Do you retain statistics on the number of students taking the challenge exams? 26 YES 11 NO

If yes, please answer:

A. What percentage of the student population take the exams?

20 Less than 10%

4 10% - 25%

1 25% - 50%

1 50% - 75%

2 More than 75%

B. What percent of the students taking the exams successfully complete them?

9 10% - 25%

4 25% - 50%

5 50% - 75%

10 75% - 100%

C. How successful have these students been in succeeding courses?

1 Very successful (Above average)

24 Successful (Average)

3 Poor success rate (Below Average)

7. Any additional comments or materials would be gratefully appreciated.

NAME OF SCHOOL: _____

PERSON TO CONTACT: _____

TELEPHONE NO. _____

FORM II

QUESTIONNAIRE

SUMMARY REPORT OF SIX STUDENT RESPONDENTS SPRING, 1974

EXPERIENCE WITH GERIATRIC PATIENTS (OTHER THAN CARE OF ELDERLY FAMILY MEMBERS AND ELDERLY PATIENTS IN NURSING I CLINICAL LAB)

1. Have you had previous experience working with geriatric patients? (Check one) 6 Yes ____ No

If yes, answer the following:

(a) Where did you work with geriatric patients? (Check appropriate items)

1 Nursing Home

3 Hospital Unit

0 Clinic

2 Physician's office

0 Rehabilitation center

3 During a nursing course not taken at PCC

2 Other (describe) Mental Institution

(b) How long did you work with geriatric patients?

1 1-3 months

4 4-9 months

1 10 months - 1 year

1 More than 1 year

(c) What kinds of nursing care have you given to geriatric patients? (Write in "rarely" or "frequently" on line for appropriate items)

R = rarely F = Frequently

6F		Taken vital signs
4F	1R	Given baths or showers
4F	1R	Given enemas
3F	2R	Inserted rectal suppositories
	6R	Inserted vaginal suppositories
5F		Given external catheter care
3F	3R	Irrigated, anchored (indwelling) catheter

3F	3R	Given oral medications
3F	3R	Given IM or subcutaneous medications
5F	1R	Given passive ROM to patients
5F	1R	Assisted patients in doing active ROM
5F	1R	Assisted patients with eating
5F	1R	Initiated and maintained communications with a patient who is hard of hearing
5F	1R	Initiated and maintained communications with a patient with visual handicap
6F		Used transfer and lifting techniques to assist patient from bed to wheelchair
6F		Used transfer and lifting techniques to assist patient on and off toilet seat
4F	2R	Changed dressings
4F	2R	Given wound care

(d) Have you done any of the following activities? (Write in "rarely" or "frequently" on line for appropriate items)

6F		Given nursing care to "confused" patients
4F	2R	Given nursing care to unresponsive patients
6F		Given nursing care to patients with partial paralysis
6F		Given nursing care to patients who must use canes and walkers
5F	1R	Given nursing care to patients who must use wheelchairs
4F	2R	Gained cooperation of patient for treatment of activity patient dislikes
5F	1R	Arranged items in the environment of a patient with limited mobility, so patient can reach and use need items
6F		Explained treatments and procedures to patients
4F	2R	Explained treatments, procedures, results to family of patient

6F		Reported or recorded significant observations of geriatric patients appropriately
5F	1R	Oriented patients to time, place and person
6F		Oriented patients to time and activities of the day
3F	3R	Taught patients the reasons for specific care, routines or treatments
		Taught patients a new procedure or activity (e.g. how to do clinitest)

(e) I have used the following sources of information to get pertinent information about a geriatric patient to give appropriate care:

Cardex	6 Yes	No
Chart	6 Yes	No
Medex	5 Yes	1 No
Patient	6 Yes	No
Family	6 Yes	No
R. N.	5 Yes	1 No
L. P. N.	5 Yes	1 No
Physician	5 Yes	1 No
Other Medical Workers	3 Yes	3 No
Hospital Dept Referral forms	3 Yes	2 No

(f) I have evaluated the sensory status of geriatric patients.

(Give examples) Touch, Hearing, Sight, Reflexes } All mentioned with no particular pattern

(Respondent) "I can't remember specifically doing it"

I have evaluated the physical status of geriatric patients.

(Give examples) 5 respondents specifically related physical status to patients' ability/ inability to care for self

1 respondent mentioned use of nursing care plan & physical signs of impending death

I have evaluated the intellectual and psychosocial status of geriatric patients.

(Give examples) Chiefly mentioned psychosocial and communication factors

1 mention of language ability; lack of education

2. Briefly list what you see as strong points in your previous nursing care of geriatric patients:

Wide variety of responses with no pattern

3. Briefly list what you see as gaps or areas of further experience needed in your care of geriatric patients:

5 mentions of specific treatment procedures (e.g. colostomy care)

1 mention of gaining patient cooperation in own care

1 = "None"

4. I would like to challenge the geriatric clinical lab objectives of Nursing II. (Check one)

5 Yes 1* No *This student wanted the extra experience and received a grade of B+ in the course

RESPONDENT NO.	COURSE GRADE
1	A-
2	B
3	B+
4	C
5	B+
6	B+

APPLICANT NAME: _____

ADDRESS: _____

PHONE NO.: _____

SIGNATURE: _____

DATE: _____

All students who challenged geriatric clinical laboratory Spring, 1974 did so successfully.

FORM II

QUESTIONNAIRE

PRIOR OB EXPERIENCE (OTHER THAN YOUR OWN PREGNANCIES)

1. Have you had previous experience with maternity patients? (Check one) _____Yes _____No

   If yes, answer the following questions:

   (a) Where did you have this experience?

   _____Prenatal clinic

   _____Doctor's office

   _____Family Planning Clinic

   _____Hospital Nursery

   _____Post partum unit

   _____Labor delivery unit

   _____Prenatal classes (childbirth education, LaMaze)

   _____Other (describe)_____

   (b) How long were you in this position?

   _____Less than one month

   _____1-3 months

   _____3-9 months

   _____9 months - 1 year

   _____More than 1 year

   (c) What was the nature of this experience?

   _____Hospital aide on post partum

   _____LPN on post partum

   _____Aide in the nursery

   _____LPN in labor and delivery

   _____Aide in labor and delivery

   _____LPN in the nursery

_____OB Tech

_____Clinic assistant

_____Doctor's assistant

_____Receptionist

_____Counselor

_____Patient advocate

_____Other (describe)_____

2. LPNs and those with prior experience in care of maternity patients in the hospital, please complete the following questions:

YES	NO	
____	____	I have admitted a labor patient to L & D (including prep and enema)
____	____	I have stayed with a patient through her entire labor and delivery
____	____	I have coached a patient in the breathing exercises of natural childbirth
____	____	I have remained with patients medicated with Scapalamine
____	____	I have assisted with patients who have had Pitocin infusions running
____	____	I have timed contractions and feel comfortable doing so
____	____	I have timed fetal heart tones and feel comfortable doing so
____	____	I have been present in the delivery room when the father was present
____	____	I have been with a patient in the OB recovery room
____	____	I have given medications in the recovery room
____	____	I have taken recorded vital signs, level of consciousness, fundal location and vaginal discharge in the recovery room
____	____	I have given a peri lite to a patient on post partum

YES	NO	
____	____	I have given a Sitz bath to a patient on post partum
____	____	I have checked post-partum patients for the following:
____	____	breast engorgement
____	____	bladder distention
____	____	amount of lochia
____	____	episiotomy repair
____	____	(with section incisions)
		I have given the following types of medications on post partum:
____	____	oral
____	____	intramuscular or subcutaneous
____	____	intravenous
____	____	suppositories
____	____	topical sprays
____	____	breast creams
____	____	I have assisted a mother to get up for the first time
____	____	I have assisted a mother to bottle-feed her newborn
____	____	I have assisted a mother to breast-feed her newborn
____	____	I have assisted a mother to change, bathe and handle her newborn
____	____	I have put antibiotic preparation in the newborn's eyes
		I have admitted a newborn to the nursery, including performance of the following procedures:
____	____	weighing
____	____	measuring

YES	NO	
____	____	taking vital signs
____	____	aspirating stomach contents
____	____	giving injection of Vitamin K
____	____	evaluating gestational age by testing
____	____	examining newborn for congenital anomalies
____	____	monitoring vital signs and conditions
____	____	I have bathed newborns, including giving of the first bath
____	____	I have taken care of premature and/or sick newborns
____	____	I have gonage-fed a newborn

3. Briefly list what you see as strong points in your previous maternity experience:

_____

_____

_____

_____

_____

4. Briefly list what you see as gaps or areas in which further experience is needed in the maternity area:

_____

_____

5. I would like to challenge all ( ) or part ( ) of the obstetrical clinical objectives of Nursing II. If part, check which part(s):

Labor & Delivery____ Nursery____ Post Partum_____

APPLICANT'S NAME: _____

ADDRESS: _____ PHONE NO. _____

DATE: _____ SIGNATURE: _____

FORM II QUESTIONNAIRE

PEDIATRIC EXPERIENCE (OTHER THAN CARE OF YOUR OWN CHILDREN OR BABY-SITTING)

1. Have you had previous experience working with well children? (Check one) _____Yes _____No

If yes, answer the following questions:

(a) Where did you work with well children? (Check one)

_____Clinic

_____Well Baby Clinic

_____Doctor's Office

_____"Free Clinic"

_____Other (Describe)

_____

(b) How long did you work with well children?

_____Less than one month

_____1-3 months

_____3-9 months

_____9 months - 1 year

_____More than 1 year

(c) What was the nature of your work with well children? (Check one)

_____Evaluating health status

_____Giving immunizations

_____Testing vision and hearing

_____Weighing and measuring

_____Testing growth and development

_____Assisting Physician

_____Assisting Nurse

_____Interviewing mothers

_____Counselling mothers

_____Other (Describe)

(d) What age children did you work with?

_____ 1 day to 1 month

_____ 1 month - 6 months

_____ 6 months - 2 years

_____ 2 years - 5 years

_____ 5 years - 9 years

_____ 9 years - 12 years

_____ 12 years - 15 years

_____ 15 years - 18 years

2. Have you worked with children who are ill? (Check one)
_____Yes _____No

If yes, answer the following questions:

(a) I have worked with sick children in the following settings:

_____ Hospitals

_____ Clinic

_____ Doctor's Office

_____ Health Agency

_____ Home

_____ Other (Describe)

(b) I have worked with the following age groups:

_____ 1 day to 1 month

_____ 1 month - 6 months

_____ 6 months - 2 years

_____ 2 years - 5 years

_____ 5 years - 12 years

_____ 9 years - 12 years

_____ 12 years - 15 years

_____ 15 years - 18 years

(c) How long have you worked with sick children?

_____Months

_____Years

(d) What kinds of nursing care have you given to sick children?

_____Taken vital signs on children of_____ages.

_____Given baths to children of_____ages.

_____Given oral medication to children of___ages.

_____Reported observations of sick children to team leader.

_____Recorded observations of sick children on work sheet or chart.

_____Given parentoral medications to children of _____ages.

_____Assisted at physical exam of children of _____ages.

_____Explained procedures to children of____ages.

_____Given pre-op care to children of_____ages.

(Give one example:_____)

_____Given post-op care to children of_____ages.

(Give one example:_____)

_____Accompanied children of_____ages and remained with them for X-rays and lab tests.

_____Planned and carried out play activities with sick children.

_____Worked with parents of children of_____ages.

(Explain in what way:_____)

_____Admitted children and families to a pediatric unit.

_____Discharged children and families from a pediatric unit.

_____Cared for sick children in isolation.

_____ Changed dressings on sick children.

_____ I feel that I can give good care to infants (1 day - 2 years) and meet their physical, emotional and growth-development needs.

_____ I feel that I can give good care to pre-schoolers and meet their physical, emotional and growth-development needs.

_____ I feel that I can give good care to school age children and meet their physical, emotional and growth-development needs.

_____ I feel I can give good care to adolescents and meet their physical, emotional and growth-development needs.

(e) I have used the following sources of information to get pertinent information about a child to give appropriate care:

Cardex	_____Yes	_____No
Chart	_____Yes	_____No
Medex	_____Yes	_____No
Patient	_____Yes	_____No
Family	_____Yes	_____No
R. N.	_____Yes	_____No
L. P. N.	_____Yes	_____No
Physician	_____Yes	_____No
Other Medical Workers	_____Yes	_____No
Hospital Dept's Diary	_____Yes	_____No

(f) _____ I have evaluated the developmental level of children, using standard tests, such as the DDST.

3. Briefly list what you see as strong points in your previous nursing care of children:

_____

_____

_____

_____

_____

_____

_____

4. Briefly list what you see as gaps or areas of further experience needed in your care of children:

_____

_____

_____

_____

_____

_____

_____

5. I would like to challenge the pediatric clinical lab objectives of Nursing II. (Check one)

_____Yes _____No

APPLICANT NAME: _____

ADDRESS: _____

PHONE NO.: _____

SIGNATURE: _____

DATE: _____

FORM II

QUESTIONNAIRE

EXPERIENCE WITH GERIATRIC PATIENTS (OTHER THAN CARE OF ELDERLY FAMILY MEMBERS AND ELDERLY PATIENTS IN NURSING I CLINICAL LAB)

1. Have you had previous experience working with geriatric patients? (Check one) _____Yes _____No

   If yes, answer the following:

   (a) Where did you work with geriatric patients? (Check appropriate items)

   _____Nursing Home

   _____Hospital Unit

   _____Clinic

   _____Physician's office

   _____Rehabilitation center

   _____During a nursing course not taken at PCC

   _____Other (describe)_____

   (b) How long did you work with geriatric patients?

   _____1-3 months

   _____4-9 months

   _____10 months - 1 year

   _____More than 1 year

   (c) What kinds of nursing care have you given to geriatric patients? (Write in "rarely" or "frequently" on line for appropriate items)

   _____Taken vital signs

   _____Given baths or showers

   _____Given enemas

   _____Inserted rectal suppositories

   _____Inserted vaginal suppositories

   _____Given external catheter care

   _____Irrigated, anchored (indwelling) catheter

_____ Given oral medications

_____ Given IM or subcutaneous medications

_____ Given passive ROM to patients

_____ Assisted patients in doing active ROM

_____ Assisted patients with eating

_____ Initiated and maintained communications with a patient who is hard of hearing

_____ Initiated and maintained communications with a patient with visual handicap

_____ Used transfer and lifting techniques to assist patient from bed to wheelchair

_____ Used transfer and lifting techniques to assist patient on and off toilet seat

_____ Changed dressings

_____ Given wound care

(d) Have you done any of the following activities? (Write in "rarely" or "frequently" on line for appropriate items)

_____ Given nursing care to "confused" patients

_____ Given nursing care to unresponsive patients

_____ Given nursing care to patients with partial paralysis

_____ Given nursing care to patients who must use canes and walkers

_____ Given nursing care to patients who must use wheelchairs

_____ Gained cooperation of patient for treatment of activity patient dislikes

_____ Arranged items in the environment of a patient with limited mobility, so patient can reach and use need items

_____ Explained treatments and procedures to patients

_____ Explained treatments, procedures, routines to family of patient

_____ Reported or recorded significant observations of geriatric patients appropriately

_____ Oriented patients to time, place and person

_____ Oriented patients to time and activities of the day

_____ Taught patients the reasons for specific care, routines or treatments

_____ Taught patients a new procedure or activity (e.g. how to do clinitest)

(e) I have used the following sources of information to get pertinent information about a geriatric patient to give appropriate care:

Cardex	_____Yes	_____No
Chart	_____Yes	_____No
Medex	_____Yes	_____No
Patient	_____Yes	_____No
Family	_____Yes	_____No
R. N.	_____Yes	_____No
L. P. N.	_____Yes	_____No
Physician	_____Yes	_____No
Other Medical Workers	_____Yes	_____No
Hospital Dept Referral forms	_____Yes	_____No

(f) I have evaluated the sensory status of geriatric patients.

(Give examples)_____

_____

_____

_____

_____

_____

I have evaluated the physical status of geriatric patients.

(Give examples) _____

_____

_____

_____

_____

_____

I have evaluated the intellectual and psychosocial status of geriatric patients.

(Give examples) _____

_____

_____

_____

_____

_____

2. Briefly list what you see as strong points in your previous nursing care of geriatric patients:

_____

_____

_____

_____

_____

_____

_____

_____

3. Briefly list what you see as gaps or areas of further experience needed in your care of geriatric patients:

_____

_____

_____

_____

_____

_____

_____

_____

4. I would like to challenge the geriatric clinical lab objectives of Nursing II. (Check one)

_____Yes _____No

APPLICANT NAME: _____

ADDRESS: _____

PHONE NO.: _____

SIGNATURE: _____

DATE: _____

APPENDIX

"C"

PIMA COLLEGE
2202 WEST ANKLAM ROAD
TUCSON, ARIZONA 85709

July 3, 1974

Dr. Beverly Wheeler, Director
Research Coordinating Unit
Research, Planning and Information Services
Arizona Department of Education
Phoenix, AZ 86007

RE: TITLE OF PROJECT: DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY NURSING II: PART I

Dear Dr. Wheeler:

This report includes the information requested in your letter of June 3. The quarterly report form was also used as a guide for this report. This report is not final because it involves testing instruments that have been constructed, but not administered to students. A final report will be given at the end of Part II, which emphasizes students taking the constructed tests. The financial report form is being completed by Fiscal Control and will be sent to you very shortly.

Part II revised time lines, activities and budget will be sent to you by separate letter.

I appreciate the consultation we have had by phone. It has clarified matters and facilitated the progress of this project.

Sincerely yours,

Mary Jane Hattstaedt,
Project Director

MJH:do

cc: Alison Dawson
Chuck Macon

NARRATIVE SUMMARY OF PROJECT IN OPERATION

DEVELOPMENT AND USE OF CHALLENGE EXAMS FOR CLINICAL LABORATORY

Many students who enter nursing courses have knowledge from previous experiences. Currently, these students must repeat these experiences in nursing clinical situations to complete the Nursing II course requirements in obstetrics, pediatrics and geriatrics. This repetition does not provide a satisfactory experience to the student and tends to utilize resources vitally needed for increasing numbers of students with lesser skills. The present absence of methodology and testing tools makes it impossible for faculty and students to adequately approach this problem.

From April 5 to June 30, 1974 we have been working on the development of challenge exams for clinical laboratory Nursing II.

Our objectives were:

1. To develop standardized tests to permit students, who have had work experience in any or all of the three clinical areas, to challenge clinical laboratory objectives in Nursing II.

2. To establish criteria which will permit students to challenge clinical objectives in Nursing II.

3. To identify parts of standardized tests for Nursing II that are unique to hospital-based pediatrics and obstetrics, and nursing-home-based geriatrics.

4. To provide a model for challenging clinical laboratory requirement in Nursing II that could be applied to all nursing courses with appropriate modifications.

A survey of the literature showed that there is little specific information on clinical challenge examinations available (see appended annotated bibliography).

Form I (blank form and results are appended) was used to gather information from other undergraduate nursing programs about existence and use of clinical challenge exams.

Of the 149 copies of Form I sent to undergraduate nursing programs in the Southwest and other selected institutions, 42 responded. Of these, 55% give some form of clinical challenge. Conclusions drawn from this survey show that there are no standard definitions for challenge exams; that they are new to most institutions; and that many institutions would like to use the tools which are being developed under this project.

Form II was used to gather information about students' past nursing experience. Because it was given so late in the semester (after April 5), there were not enough obstetric or pediatric questionnaires to yield significant data. Six Geriatric Form II questionnaires were returned and the summary results are appended. All students who challenged geriatric clinical laboratory were successful, and of that number, five had four or more months of experience with geriatric patients.

We have developed challenge methods, clinical challenge examination objectives, self study guides, and performance evaluation tools for pediatric, geriatric and obstetric clinical laboratory.

This has been done utilizing Nursing II course objectives, clinical objectives and content. Materials were reviewed with Betty Ord* on June 6 and June 13 from the viewpoint of nursing relevance, usefulness in testing nursing abilities, and communicating meaningfully to students.

Consultation on test design of all testing instruments was obtained on 6/18/74 and 6/24/74 from Dr. James Eubanks, Assistant Professor and Ms. Karen Tyler, M. S., Educational Technology Research Associate, both from the Arizona State University Educational Technology Department. These consultations constitute our evaluation at this point in the project. We are requesting further consultation in Part II of this project grant, for refinement of tools after students have taken the clinical challenge examinations. Challenge exam instruments have been developed within the philosophical framework of Pima Community College and the Nursing Program and come within the framework of Arizona State Board of Nursing Guidelines.

The appendix of this report contains performance evaluation tools for I.V. fluid therapy, giving oral medications, a nursing care plan, teaching-learning, and patient problems analysis. All of these instruments could be used in a variety of clinical settings and are not unique to obstetrics, pediatrics and/or geriatrics. However, these tools, like those which are clinically specific, have not yet been administered to students in the clinical area. Students will take the clinical challenge examinations in Part II of this project. Refinement and beginning standardization will take place at that time.

* Nursing Consultant to the nursing faculty at Pima Community College August 1973 - July 1974.

Performance evaluation tool competencies are based on end-of-semester performance (Spring Semester, 1974) by Nursing II students in all three clinical areas: obstetrics, pediatrics and nursing-home-based geriatrics.

The challenge examination packet contains all materials developed and is packaged as the student will receive it. In Part II of the project grant, after students have taken the examinations, modifications will be made and materials and results disseminated. Students will be advised at Fall registration of the opportunity to take the clinical challenge examinations (any, or all 3). Any student who has successfully completed the initial nursing course(s) and has past work or educational experience in obstetrics, pediatrics or geriatrics is eligible to take the challenge examination(s).

ACCESSION NUMBER: VT102065

TITLE: TWENTY-FIVE LESSON PLANS FOR DISTRIBUTIVE EDUCATION. VOL. 3.

PERSONAL AUTHOR: AUSTIN, GARY, AND OTHERS

DESCRIPTOR: *DISTRIBUTIVE EDUCATION; *LESSON PLANS; *TEACHING GUIDES; STUDENT DEVELOPED MATERIALS; MARKETING

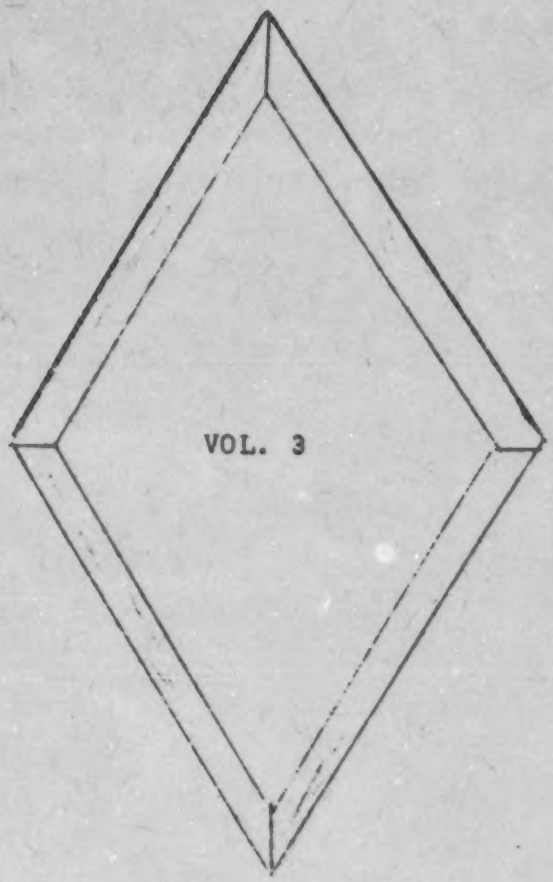
EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 68P.

ABSTRACT: THIS PUBLICATION WAS DEVELOPED BY VARIOUS DISTRIBUTIVE EDUCATION MAJORS ENROLLED IN THE METHODS OF TEACHING DISTRIBUTIVE EDUCATION CLASSES AT DELAWARE STATE COLLEGE. IT IS DESIGNED TO ASSIST DISTRIBUTIVE EDUCATION TEACHERS AND TEACHERS-TO-BE IN PREPARING CLASSROOM LESSONS. THE LESSON PLANS ARE CENTERED AROUND THE FIVE MAJOR AREAS OF INSTRUCTION: (1) THE FUNCTIONS OF MARKETING AND DISTRIBUTION, (2) FUNDAMENTAL SKILLS, (3) PRODUCT OR SERVICE TECHNOLOGY, (4) THE SOCIAL SKILLS AND HUMAN RELATIONS, AND (5) ECONOMIC UNDERSTANDINGS. EACH INDIVIDUAL PLAN CONTAINS THE TEACHING METHOD, GRADE LEVEL, AND THE SUBJECT MATTER TO BE TAUGHT. (AUTHOR/NJ)

INSTITUTION NAME: DELAWARE STATE COLL., DOVER. DEPT. OF EDUCATION.

VT 102 065



TWENTY-FIVE LESSON PLANS FOR DISTRIBUTIVE EDUCATION

DE

Delaware State College
Dover, Delaware
1974-1975

VT 102 065

PREFACE

Distributive Education is a vocational program of instruction in marketing, merchandising, and service occupations. The primary goal of the Distributive Education program is to train students who want and can profit from instruction and training for gainful employment or advancement in a distributive occupation.

Distributive Education includes various combinations of subject matter and learning experiences related to the performance of activities that direct the flow of goods and services. These activities include selling, and sales supporting functions as buying, transporting, storing, promoting, financing, market research, and management. Distributive occupations are also found in areas of retail and wholesale trade, finance, insurance, real estate, services and service trades, manufacturing, transportation, utilities and communications. Opportunities are made available through the work experience and the youth activity program known as the Distributive Education Clubs of America. (DECA)

This publication was developed by various D. E. majors enrolled in the Methods of Teaching Distributive Education classes and are designed to assist distributive education teachers and teachers to-be in preparing classroom lessons.

The lesson plans are centered around the five major areas of instruction:

1. The Functions of Marketing and Distribution
2. Fundamental Skills
3. Product or Service Technology
4. The Social Skills and Human Relations
5. Economic Understandings

Each individual plan contains the teaching method, grade level and the subject matter to be taught.

This publication was developed by the following distributive education majors under the direction of Dr. Raymond J. Grandfield, Teacher-Educator, Delaware State College.

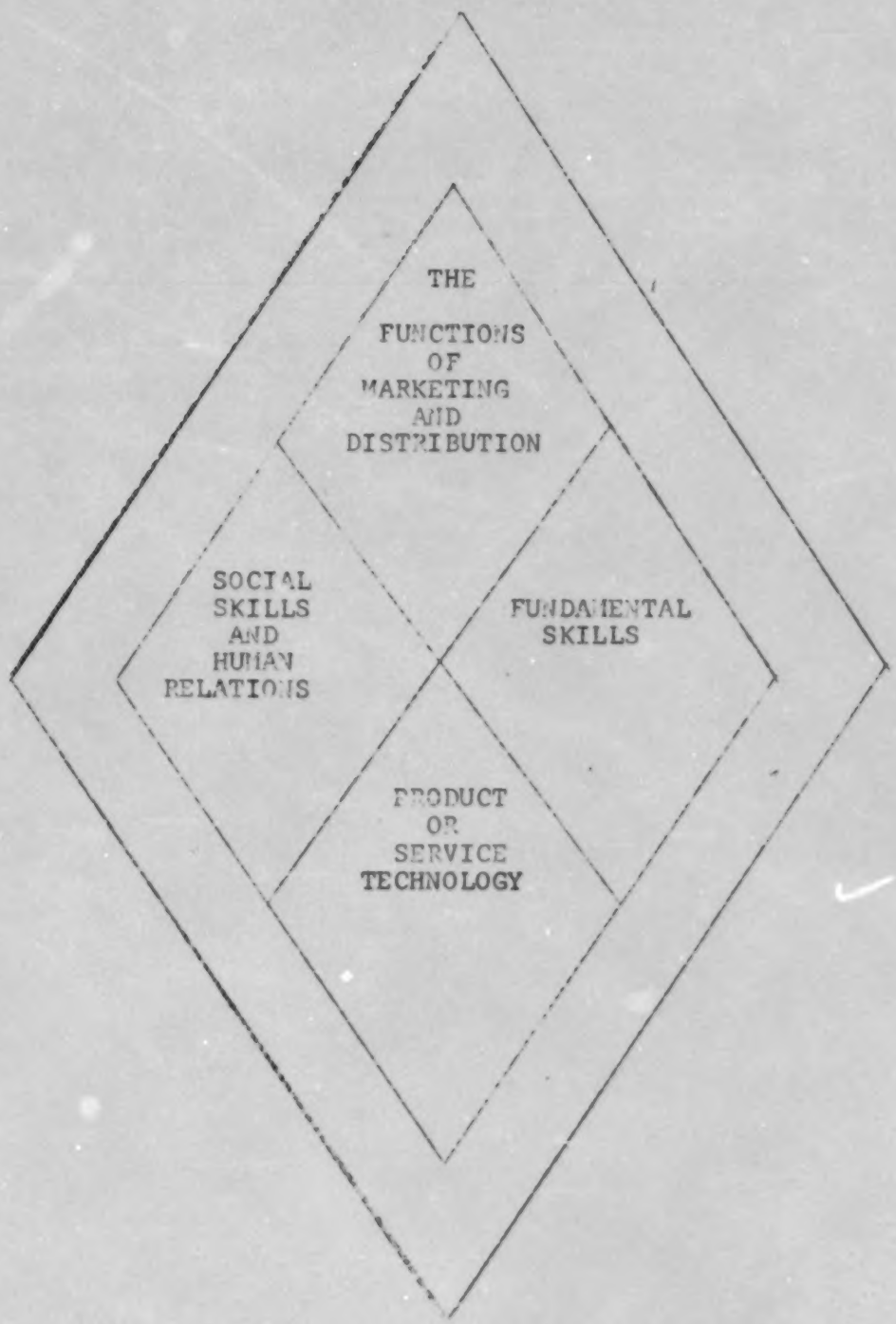
Gary Austin
Wilbert Cooper
William Holmes
Katherine M. Phillips
Pete Thompson

FIVE ELEMENTS OF A LESSON

LESSON

1. Aim
2. Introduction
3. Content
4. Summary
5. Evaluation

THE FIVE MAJOR AREAS IN DIST. ED.



THE FUNCTION OF MARKETING AND DISTRIBUTION

Topic: Merchandising Through Advertisement & Display

Method: Problem-Solving

Grade Level: 11 and 12

Aim

The students will be able to know the importance of advertising and display. They will also be able to set apart the difference between what advertising is and what display is. They will also know what the purposes of both are.

Introduction

Good morning class; this morning as I mentioned last week we are going to move into advertising and display of goods. Since they are such wide fields in themselves, we are only going to cover the importance of advertising and display, their purposes, and their differences today.

Content

Class, let's suppose we have a business and for one year we are doing tremendous business and all of a sudden business drops off to almost nothing. We know it is not the personnel, the location, or the goods that we are selling, but we know there is something wrong. What is it? Your absolutely correct. It has to be our advertising and our display of goods.

First what is advertising? (in your own words) Def. Advertising is any paid form of nonpersonal presentation and promotion of ideas, goods, or, services by an identified sponsor. Advertising is a form of mass preselling which carries out the following four steps:

1. Catches Attention
2. Arouses Interest
3. Creates Desire
4. Induces Action

Advertising seeks to persuade people to do someting call, look, buy, use, or, take other types of action. Advertising is the communications device between the business and the consuming public. Various media are used to accomplish this printed advertisements in newspapers, posters, mailpieces, magazines, and brochures, oral messages via radio and speeches and visual and oral messages through television, exhibits and movies.

What can advertising do?

1. Advertising can give a positive approach in selling.
2. Advertising can help a firm grow.
3. Advertising can make business come in more evenly.
4. Advertising can perform a shopping service for those customers who have a right to those services.
5. Advertising can make the firm a community personality.

Purposes of Advertising:

Advertising has a number of purposes and if properly used, will fulfill these purposes:

1. To tell people about the businessman, the firm, and what is being sold.
2. To build customer confidence, good will and a good reputation for the business.
3. To tell what the business merchandise will do for the customer, what it cost, and why the customer should buy from the business.
4. To increase sales and reduce expenses.
5. To stabilize merchandising methods and prices.

What is display? Ans. by students if possible

Display is most often defined as any form of nonpersonal presentation of goods or ideas to a group. It is a visible tool used by business to acheive two objectives.

1. To sell merchandise - promotional-and (2) to build good-will institutional. Display is usually categorized as window display or in-erior display.

Display uses various elements (background, props, merchandise units, merchandise accessories, floor coverings, and show cards) placed according to certain principles of arrangement (color, line, and design) to present a visual impression. Display, or visual merchandising as it is frequently called, provides the consumer with the opportunity to see how the product would look in actual use. The potential customer can view an array of related merchandise items at one time and judge what the store may have to offer in the way of merchandise. Display builds upon human curiosity in presenting new and useful items to the public.

Purpose of display:

Before setting up a display, the retailer should know what he is trying to accomplish. The purpose of display is:

1. To show the customer the merchandise that is for sale.
2. To create a desire to purchase by showing the goods as they might be used by the customer.
3. To sell the merchandise by showing it attractively, by making it easily identifiable, and by placing it within "feeling distance" of the shopper.
4. To project an image of the merchandise, the store, and the stores services to customers.

To accomplish the purposes of display, both the window and interior displays must be prepared from the customers point of view. The most effective window and interior displays feature similar merchandise.

With all the information given, it should be easy to suggest some possible solutions to our problems of the business that I have mentioned earlier. After going through all the information that I have mentioned, we are going to see if we can examin all the hypotheses and then come up with a conclusion that will solve our problem.

Summary

1. What is advertising? What is it's importance? What is it's purpose?
2. What is display? Why is display necessary? What is the difference between advertising and display?

Evaluation

Students will be able to present in written form the lesson presented today.

Topic: Making A Career In Retail Buying

Method: The Lecture Method

Grade Level: 11 & 12

AIM

Upon completion of this lesson, the student will be able to:

1. Identify the four kinds of retail buyers from a list of nine.

2. To enable the students to name and identify six of the eight types of stores which provide buying opportunities without the use of their study guides.

Introduction

Good afternoon class. Today's lesson will cover "making a Career in Retail Buying". You will learn the four kinds of Buyers, General Store Executive Buyer, Central Buyer, Resident Buyer and Specialized Buyer.

Content

1. Definition of terms.

A. The four kinds of retail buyers are:

1. General Store Executive
2. Specialized Store Buyer
3. Central Buyer
4. Resident Buyer

The general store executive is usually a small merchant who not only buys goods for resale, but runs his own store, taking care of all the functions usually associated with retailing.

The specialized store buyer is one who buys goods for one department of a large store.

The central buyer is one who buys for a chain or a cooperating group of retail stores.

The resident buyer is one who maintains his head quarters in the central markets and assist the general store executive buyer and specialized buyer to locate the most desirable merchandise at advantageous prices.

B. Eight types of stores providing buying opportunities are:

1. Independent Store
2. Chain Store
3. Side-Line Store
4. Food Stores
5. General Merchandise Store
6. Branch Store
7. Automotive Store
8. Speciality Store

Independent Stores - are stores controlled by their own individual management and operated to make a profit.

Chain Stores - are usually one of a group of retail stores of essentially the same type, centrally owned with some degree of uniformity of operation.

Side-Line Stores - are stores where the customer visits the place of business.

Food Stores - are small and offer a good opportunity for those who wish to go into business for themselves.

General Merchandise Stores - are a group which account for about 1/8th of all retail trades.

Branch Stores - are a part of the parent store.

Automotive Stores - are stores where consumers spend more on their cars than they do on clothing or on home furnishings.

Speciality Stores - handle a limited class of goods.

Summary

Are there any questions? Today's lesson covered the four types of buyers and their duties and the eight buyers of stores that provide buying opportunities. Repeat!

Evaluation

Students, please put all your notes and books away. We will have a twenty minute quiz. For your next assignment read chapter four and be able to discuss in class tomorrow.

Topic: Classified Advertising Usage

Method: Unit

Grade Level: 11 & 12

Aim

The student will be able to identify thirty-three abbreviations used in classified advertising.

Introduction

Have any of you ever read a classified ad? Did you understand what the abbreviations, slogans, and symbols meant? As a high school student you will probably be looking around for work in the near future, and this could be very important to you. Becoming familiar with these meanings will not only save you time and frustration, but will also help you in selecting a job that fits your interests and qualification.

To find out how many abbreviations you already know, I am going to give you a test. This test will not be graded.

Content

Pass out the test to the students. At the end of ten minutes ask everyone to exchange papers with his neighbor.

Summary

Read the answers to the students. The student will indicate the wrong answer by placing an "X" in the left column next to the question number. As you read back the correct answers, be sure to cite examples to clarify any minunderstanding.

Have the students pass the test papers back to its owner. After each student has had sufficient time to look at his paper, collect them.

Evaluation

Ask questions on the material covered by the test. Ask the students if they have any questions.

Now, pass out test #2. This is exactly the same as the first test. Tell the students they have the remainder of the period in which to complete this test. Also tell your students that test #1 was given just to see how much they knew before being given the correct terms, and that this test will not be recorded. Test #2 will be corrected by the teacher and the test scores will be recorded.

Encourage the student to get a classified section of a newspaper (preferably from the Sunday paper of a large city) and look for the terms covered by the test.

Administer test #3 on the next day of class.

Note: Friday would be a good day to initiate this lesson. This way the students could watch assignments over weekend and holidays to review classified ads.

CLASSIFIED ADVERTISING USAGE

1.	agcy	agency
2.	altns	alterations
3.	arch	architect
4.	begnnr	beginner
5.	bio	biology
6.	B. deg	Bachelor's degree
7.	Chem	Chemical
8.	Coll Grad	College Graduate
9.	dept	department
10.	equal opportunity employer	does not discriminate - race, color, creed
11.	no exp nec	no experience nec.
12.	expd	experienced
13.	fcty	factory
14.	fee	fee must be paid to employment agency
15.	fee neg	fee negotiable
16.	fee pd	fee is pd by employer
17.	GED	Gen.Equiv. Diploma
18.	HSG	high school graduate
19.	hgwy	highway
20.	lic	license
21.	lino	linotype
22.	M	thousand
23.	MA	Master of Arts
24.	mech'l	mechanical
25.	mgr	manager
26.	mgmt	management
27.	opty	opportunity
28.	R & D	research & development
29.	resch	research
30.	tech	technical
31.	trng	training
32.	trnee	trainee
33.	w/wo	with or without

Test

Classified Advertising Usage

Instructions: In the blank spaces fill in the correct meaning of abbreviation, symbol, or slogan.

1. agcy . . . . . _____
2. altns . . . . . _____
3. arch . . . . . _____
4. begnnr . . . . . _____
5. bio . . . . . _____
6. B. deg . . . . . _____
7. chem . . . . . _____
8. Coll Grad . . . . . _____
9. dept . . . . . _____
10. equal opportunity employer . . . _____
11. no exp nec . . . . . _____
12. expd . . . . . _____
13. fcty . . . . . _____
14. fee . . . . . _____
15. fee neg . . . . . _____
16. fee pd . . . . . _____
17. GED . . . . . _____
18. HSG . . . . . _____
19. hgwy . . . . . _____
20. lic . . . . . _____
21. lino . . . . . _____
22. M . . . . . _____
23. MA . . . . . _____
24. mech'l . . . . . _____
25. mgr . . . . . _____
26. mgmt . . . . . _____
27. opty . . . . . _____
28. R & D . . . . . _____
29. resch . . . . . _____
30. tech . . . . . _____
31. trng . . . . . _____
32. trnee . . . . . _____
33. w/wo . . . . . _____

Topic:- Store Fronts

Method: Munich

Grade Level: 11 and 12

Aim

The students will learn the important points to consider in designing a store front. They will apply this knowledge by designing a store front for the business they picked for their project and the completed design will be placed in their project notebook.

Introduction

Up to this point, we selected a community, selected a location within the community, selected a street location, and have found a suitable building. Yesterday, we discussed the suitability of the building for your business and made check lists and placed it in your project notebook. Today, we will discuss and design a front for your building.

Content

The important points to consider in designing a store front.
1. Attract attention
2. simple - don't detract from displays
3. no steps
4. entrance displays
5. height of windows
6. space for signs or electric displays
7. color schemes
8. store fronts help give the store its personality

The Store Windows
1. suited to the merchandise to be displayed
2. window backgrounds
   (a) closed
   (b) semiclosed
   (c) open

The store entrance
1. wide enough & numerous enough
2. lighting
3. type door - revolving/swinging
4. electric beam
5. glass doors

Summary

Review objective of the lesson. Review the main points and answer questions.

Evaluation

Have students make the design for their store front.

Topic: Credit in Business

Method: Lecture

Grade Level: 11 and 12

Aim

At the end of this lesson the student will be able to:

1. List and define the 3 usages of the term "credit" within a 10 minute period.
2. List and briefly explain 3 advantages of credit business and 3 disadvantages of credit business pertaining to the retailer within a 20 minute period.

Introduction

What does credit mean? Credit comes from the latin word "Creditum" meaning trust. Credit is trust and without this trust, there would be no credit. What is credit? Credit can be explained as the power to obtain goods and services by giving a promise to pay or as the permission to use anothers capital. Credit is simply buy now and pay later.

All of us should be aware of the role of credit in business. 90% of all sales made by manufacturers and wholesalers are credit sales. The American public by the end of 1960 owed 5 billion dollars on charge accounts, nearly 18 billion on auto loans, over 11 billion in personal loans and almost 56 billion in mortgages.

All of us will utilize credit in some form or other in our lives. Auto loans, large and small appliances for the home, gas for our cars etc.

Content

There are 3 common usages of the word "credit"

1. Credit transaction - this is when the buyer (or borrower) asserts his power or influence to obtain the permission of the seller (or lender) to use his capital.
2. Credit standing - this is the acceptability of the buyers promise to pay or the sellers willingness to trust in the buyers promise.
3. Credit instrument - this is the documentary promise to pay that evidences a formal credit transaction.

Since credit is so widespread in our economy we should examine the advantages and disadvantages of credit business in the retailing field.

Advantages of Credit Business

1. Credit makes regular customers
2. Credit sales on the average are larger
3. Credit customers buy more freely
4. Credit builds confidence
5. Credit attracts a better trade
6. Credit smooths out business peaks
7. Credit is a customer convenience
8. Credit increases sales

Disadvantages of Credit Business

1. Credit ties up capital
2. Some credit losses are inevitable
3. Credit requires an attention to detail and a firmness with people
4. Credit increases the cost of doing business

Summary

Review the 3 usages of the word "credit" and review the advantages and disadvantages of credit business. Raise questions to be answered by random students and welcome any questions from the class. Credit adds flexibility to supply and demand, makes capital more productive, speeds up production and distribution, increases the bolume of business, raises the standard of business conduct and facilitates the transfer of money.

Evaluation

Each student will be given 30 minutes to list and define the usages of the term "credit" and to list 3 advantages and 3 disadvantages of credit business.

FUNDAMENTAL
SKILLS

Topic: Good Sales Courtesey by Knowing Your Customer

Method: Discussion

Grade Level: 11 & 12

Aim

At the end of this discussion the students are expected to be able to repeat the ten basic points that should be considered when they are in the act of completing a sale.

Introduction

Good morning class, today we are going to take a look at some basic steps that are essential when it comes to selling. I'm sure we all have been a customer at one time or another and I know you have encountered a salesman or woman you didn't particularly care for. It should be interesting for you to put yourself in the customer's shoes, and see why the salesman or woman didn't get their sale due to the lack of understanding the customer, by using the wrong approach, or not listening to the customers requests, etc.

Content

(1) Do How vs Know What:

The Vice-President pays funeral expenses for Bowery Bum example

(2) Do people "Get you down" or help you up?
If it seems to you that customers get you down rather than help you up, it will pay to examine two main things you can do.
(1) You can treat them so that selling is a highway to your personal success, that is, you will have to understand why Humans act the way they do - People don't always grow up, they: (explain)

(1) Show concern for his own welfare.
(2) Despise the rule that thwart their desire.
(3) Has contempt for what he does not understand.
(4) Destroys property without regard for the consequences.
(5) Gains satisfaction from the misfortune of others.
(6) Takes advantage of others, so long as he can get away with it.

(2) You can treat them as a necessary evil - (explain)

(3) People feed on commendation:

When people don't get the commendation they have earned, they may grin and bear it. But when they know they deserve it and then get blamed instead, they may get downright mean and vindictive. Sometimes people will go far out of their way to get even with those who pay off with criticism when praise is due. On the other hand, when people deserve commendation and get it, they often go out of their way to find additional reasons for liking those who pay them their just due.

(4) People resent being driven:

At the same token people oddly enough like to boss other people around as much as we resent being the victim of bossing (give example of no smoking sign).

(5) Sell others the way you like others to sell you:

You don't know how to treat a customer when you are the salesman until you can put into crystal-clear language just how you like to be treated when <u>you</u> are the customer. When you step into a store as a customer, how do you like to be welcomed? Maybe you've never thought of it before, but you like to be treated as a person of consequence so rule no. 1 for salesmen is:

1. Roll out the red carpet.
2. Treat customer as a Rich Uncle or even Santa Clause. Because the customer really doesn't have to shop there.

(6) Stop, Look, Listen:

To customers questions attentively; nothing makes a customer more irritated when a salesman is looking all around when he is talking to them, or daydreaming, or monitoring another persons conversation.

(7) Don't Interrupt:

While standing in the customer shoes it is often irritating, in some cases, to have a salesman assume he knows what you want and interrupt your story to tell you in his words what you are trying to tell him in your words. Let the customer talk until finished. The salesman usually does it with best of intentions like this: I think I know what you want. What you want is...

(8) When you have reached the point of decision but are in doubt, the salesman should stand beside you as a friend and <u>Not Push From Behind</u>. Let friends of the customer help make the decision.

(9) Words are the salesmans "Tool of The Trade", use words as short cuts - not short circuits. Some people say salesmen have a gift of gab, but did you ever stop to realize that not a word or phrase you use in selling ever comes from your tongue until it is first inside your head? Your store house, the mind, is the starting point; Your tongue is merely the delivery service of the mind. And what your mind knows about the product you sell; it knows mostly in terms of words. Words, like soldiers, need skillful commanding in selling.

(10) Use your polish - to sell your brass:
When training yourself has enabled you to place yourself in the good classification, you are ready to sell yourself. You are ready to use your newly acquired "Polish to sell your brass:

Summary: Review

(1) Do How vs Know What.
(2) Do People get you down or help you up?
(3) People feed on commendation.
(4) People resent being driven.
(5) Sell others the way you like others to sell you.
(6) Stop, Look, Listen.
(7) Don't Interrupt.
(8) Don't Push from behind.
(9) Words are the salesmans tools of the trade, Use words as short cuts - not short circuits.
(10) Use polish - to sell your brass.

Evaluation

Oral questioning for class to answer at random; also students will know what does it mean to understand? How will you measure the customers side of the coin if these basic steps are taken into consideration?

Topic: Credit in Business

Method: Lecture

Grade Level: 11 & 12

Aim

At the end of this lesson the student will be able to:

1. List and define the 3 usages of the term "credit" within a 10 minute period.

2. List and briefly explain 3 advantages of credit business and 3 disadvantages of credit business pertaining to the retailer within a 20 minute period.

Introduction

What does credit mean? Credit comes from the latin word "Creditum" meaning trust. Credit is trust and without this trust, there would be no credit. What is credit? Credit can be explained as the power to obtain goods and services by giving a promise to pay or as the permission to use anothers capital. Credit is simply buy now and pay later.

All of us should be aware of the role of credit in business. 90% of all sales made by manufacturers and wholesalers are credit sales. The American public by the end of 1960 owed 5 billion dollars on charge accounts, nearly 18 billion on auto loans, over 11 billion in personal loans and almost 56 billion in mortgages.

All of us will utilize credit in some form or other in our lives. Auto loans, large and small appliances for the home, gas for our cars etc.

Content

There are 3 common usages of the word "credit"

1. Credit transaction - this is when the buyer (or borrower) asserts his power or influence to obtain the permission of the seller (or lender) to use his capital.
2. Credit standing - this is the acceptability of the buyers promise to pay or the sellers willingness to trust in the buyers promise.
3. Credit instrument - this is the documentary promise to pay that evidences a formal credit transaction.

Since credit is so widespread in our economy we should examine the advantages and disadvantages of credit business in the retailing field.

Advantages of credit business

1. Credit makes regular customers
2. Credit sales on the average are larger
3. Credit customers buy more freely
4. Credit builds confidence
5. Credit attracts a bitter trade
6. Credit smooths out business peaks
7. Credit is a customer convenience
8. Credit increases sales

Disadvantages of credit business

1. Credit ties up capital
2. Some credit losses are inevitable
3. Credit requires an attention to detail and firmness with people
4. Credit increases the cost of doing business

Summary

Review the 3 usages of the word "credit" and review the advantages and disadvantages of credit business. Raise questions to be answered by random students and welcome any questions from the class. Credit adds flexibility to supply and demand, makes capital more productive, speeds up production and distribution, increases the volume of business, raises the standard of business conduct and facilitates the transfer of money.

Evaluation

Each student will be given 30 minutes to list and define the usages of the term "credit" and to list 3 advantages and 3 disadvantages of credit business.

Topic: Key Points in Writing a Press Release

Method: The Vincentian Method

Grade Level: 12

Aim

Upon completion of this lesson, the students will be able to write facts clear, and to the point, check for accurately more than one source.

List and define the six basic questions to be asked in reporting: Who, What, Where, When, Why, and How.

Introduction

Good afternoon class. For our lesson today we will learn the "Key points in writing a press release." You will learn how to include the six basic items in writing a press release.

Content

1. Definition of terms.

A. The six basic items are:

1. Who, What, Where, When, Why, and How. (see sample news release).

2. Other key points:

1. Check your titles, dates, full names, addresses, and identification of all the persons you mention.

2. Be sure your story is news-worthy.

3. Concentrate on facts.

4. Double-space your material on regular 8 1/2 X 11" paper.

5. Type on one side only, leave at least 1 1/2" margin on each side.

6. Give an option on the release i.e., FOR IMMEDIATE RELEASE, FOR RELEASE NOVEMBER 26, P.M., FOR RELEASE AT WILL. Indicate today's date.

7. Your copy always begins with a dateline, even when it's your own hometown.

8. If more than one page put the word "more" at the foot of the continuing page as well as putting the next page number at the top of the following page.

9. At the conclusion of your piece, type "30" in the middle of the page. This indicates the end.

Summary

Are there any questions? We have covered the key points in writing a news release. Go over sample news release. Repeat!!

Evaluation

Basic questions to make sure the students know the key points in writing a news release. Questions.

P9 1-
NAACP NEWS

SAMPLE NEWS RELEASE

November 26, 1976

FOR IMMEDIATE RELEASE:

DOVER --Arthur B. Doe (who) honorary president of the National Association for the Advancement of Colored People, was awarded the degree of Humane Ketters (what) honor is caused by Delaware State (where) at its Commencement exercises, June 3. (when)

Mr. Doe began his association with the NAACP in 1921 when he volunteered his services as an attorney, and constituted the entire legal staff of the Association at that time. From 1939 through 1970, he served as president of the Association.

His citation read in part, "we view your long and (why) distinguished record of service to the cause of equal rights as a substantial contribution to the cause of equal rights as a substantial contribution to the development of democracy in our land."

Topic: Applying for a job

Method: Audio-Visual

Grade Level: 11 and 12

Aim

Students will be able to:
1. Fill out a job application completely, accurately and neatly.
2. Know what a work permit is and where to get one.
3. Know what to do and what to expect at a personal interview.

Introduction

Applying for a job is very important to all of us. In our next few class periods we will discuss the things we need to do and the things to expect when applying for a job. We will learn about applications, personal interviews, work permits, and discuss the do's and don'ts of applying for a job. Today we will fill out a sample application from A&P and Acme stores, discuss them, and make a list of questions of the things we do not understand. You will critique other students personal data sheets on the basis of completeness and accuracy of the information. We will look at a sample work permit and discuss it. Although we may not have time today, we will listen to some tapes about what you need to know to fill out an application form which should help us to answer our questions about applications. As a group we will set up some interviews to practice what to do and what not to do. The test will consist of a job application to be filled out by each student and will be graded on completeness, accuracy and neatness.

Content

Materials needed: Sample job applications, a sample work permit, Over-head projector and transparenciew, tapes from "The World of Work" and tape player.

Using the over-head projector, we will learn the do's and don'ts when applying for a job. Also some questions to expect at a personal interview. Examine the work permit and discuss. Fill out an application and discuss.

Summary

Review do's and don'ts
Review personal interview questions.

Evaluation

Through questions and answers, find out what points need to be stressed and gone over again before they fill out their test application to be graded.

Topic: The Employment Interview

Method: Scholastic

Grade Level: 11

Aim

At the end of this lesson each student will be able to:

1. List 7 of the possible 14 "DON'TS FOR APPLICANTS" within a 10 minute period without the aid of references.
2. List and explain the 5 recommended practices for job interview and explain why they are important.
3. Make a list of 10 questions that may be asked during a typical interview.
4. Conduct a job interview with a fellow student.

Introduction

Today we will learn the important practices to be remembered when going for an employment interview. The application form which we completed yesterday would normally be used as a reference by the interviewer. You will learn what to expect during the interview and what will be expected of you by the individual questioning you.

Content

1. Question the students as to their knowledge of the Employment Interview.
2. Explain how "being yourself" or "being your own man" is not what the employer is really looking for.
3. Distribute the handout concerning the "14 DON'TS FOR APPLICANTS" at this time.
4. Discuss why these attributes are unfavorable.
5. Question students as to what the employer is looking for in an employee. Are first impressions important?
6. Hand out the 5 recommended practices.
7. Explain:
   a. promptness
   b. being prepared
   c. neatness
   d. consideration for others
   e. patience

8. Question students as to the types of questions they feel will be asked during the interview.
9. Give the students examples of questions to be expected.
   a. What are your vocational plans?
   b. How do you spend your spare time?
   c. In what school activities have you participated?
   d. In what type of position are you most interested?
   e. Why do you think you might like to work for our company?
   f. What jobs have you held? How were they obtained?
   g. Why did you choose your particular field of work?
   h. What percentage of your college expenses did you earn?
   i. What do you know about our company?
   j. What extra cirricular offices have you held?
10. Have students make a list of 10 questions that they think would be asked during an interview and have them interview other students in the class.

Summary

The employment interview is probably the most influential tool that you as a job seeker should master. Review the "14 DON'TS FOR APPLICANTS" and the 5 recommended practices.

Evaluation

Each student will be expected to list 7 of the possible 14 "DON'TS FOR APPLICANTS" and list and briefly explain the 5 recommended practices for job interview.

14 DON'TS FOR APPLICANTS

1. Don't bragg
2. Don't use horse & buggy language (street language)
3. Don't use flowery words
4. Don't sound stiff, insincere or artificial
5. Don't play on sympathy
6. Don't assume a know-it-all attitude
7. Don't use company letterhead if employed (letters of application)
8. Don't use social, club, hotel, or fancy paper
9. Don't use a post card
10. Don't let it sound like wholesale broadcast
11. Don't generaleze, be specific
12. Don't be dull
13. Don't make statements you can't back up in an interview
14. Don't copy application from a model book

5 RECOMMENDED PRACTICES

1. BEING PREPARED - Know something about the company before you apply. Make certain all of your materials are in order. Know what is expected of you.
2. BE PROMPT - It is common courtesy to be on time for appointments. The interviewer is probably working on a tight schedule and if you waste his time he is bound to make a mental note of this which will probably limit your chances.
3. BE NEAT - Neatness and good grooming are important because of the general impression you will make. Poor dress can create the feeling that you might be the same way in your work habits.
4. BE CONSIDERATE - You will create a much more favorable impression with the interviewer if you show consideration for him as a person and recognize the limitations of time. Talk about essentials and avoid aimless chatter.
5. BE PATIENT - Be patient when waiting for a reply from a company. The hiring process is usually long. A follow-up letter can work wonders in leaving a good feeling with the interviewer.

Topic: Cash Register Procedure

Method: Demonstration

Grade Level: 10th

Aim

The student will be able to set up a cash drawer and handle cash register transactions.

Introduction

As a cashier you play an extremely important role in the success story of a business. You are charged with collecting the correct amount of money from your customer and giving her back the correct amount of change. Today, you are going to learn how to set up a cash drawer and correctly handle the money transaction for a sale. You will have the opportunity to practice these skills.

Content

The cash drawer has a tray with front compartments for coins and back compartments for bills and rolls of coins.

In the front compartments, put the coins from right to left in ascending value. Put the bills in the back compartments in the same manner. All bills should be arranged face up.

Make sure your drawer is always neat, with the coins and bills in the correct compartments, and the bills neatly arranged under the clips.

After you have your drawer set up, close it, and now you are ready for your first customer-----

1. Ring each item at the price marked (call for a price check if unmarked).
2. After all items are rung up, take a sub-total.
3. Tell your customer the amount of the sale.
4. When the customer gives you the money, total the sale. Put the money on top of the drawer and call the amount of the sale and the amount of money given to you.
   Example: "That will be $3.63 out of $10.00."
5. From the drawer count (to yourself) the change from the amount from the amount given you by the customer.

Example:	$3.63	+ $	.02 =	$ 3.65
		+	.10 =	3.75
		+	.25 =	4.00
		+	1.00 =	5.00
		+	5.00 =	10.00

6. Count the change back to the customer: "3.63-3.65-3.75-4.00-5.00-10.00".
7. Put your customer's money into the drawer and close it.
8. Thank the customer for shopping in your store.

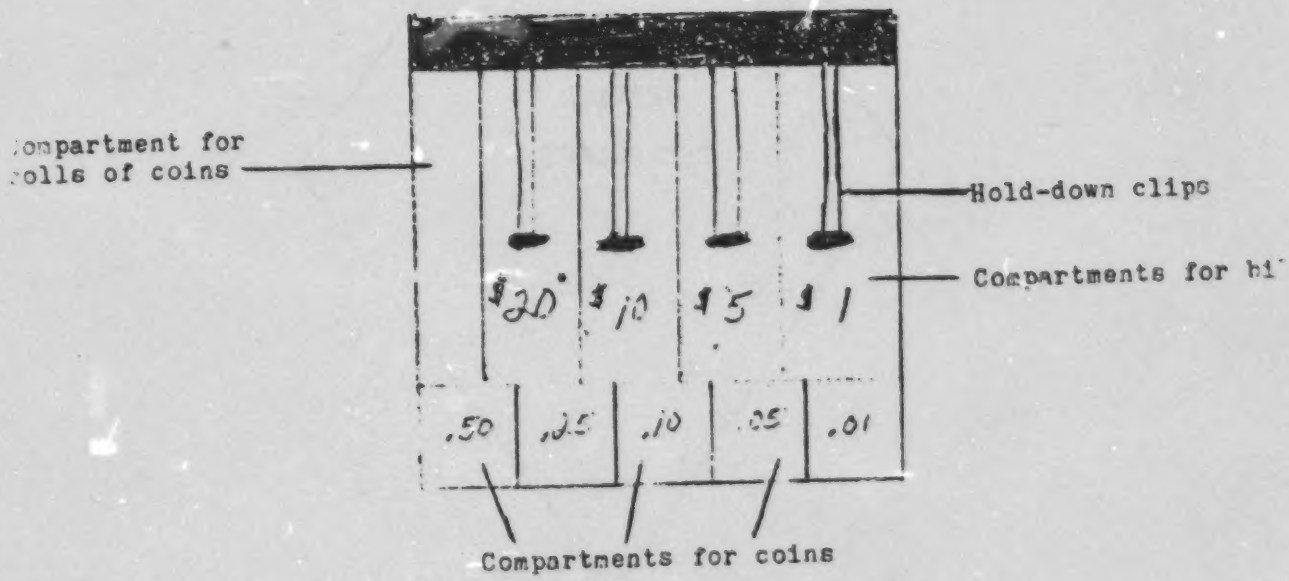
Summary

The students will participate in the demonstration of the correct cash register procedure.

Evaluation

Each student will demonstrate his ability to set up the cash register drawer and complete a cash sale.

Your Cash Draw



* For bills over $ 20.00, put under cash draw. Do not ever mix with bills of another demonation.

PRODUCT

OR

SERVICE

TECHNOLOGY

Topic: How to take a Customer's Credit Application

Method: Audio-Visual

Grade Level: 11th

Aim

The student will be able to complete a credit application and will know the importance of obtaini-g accurate information from the customer.

Introduction

Credit is a day factory in business today. Purchasing on time is an accepted way of life for many people, and for many it is a necessity. (cite examples). Some stores have their own credit system and others accept major national charge cards. It is a fact that a customer will shop at stores where he has credit.

Today we are going to go through the steps in completing a credit application just as if you were working as a clerk in the credit department of a department store.

Content

Distribute a sample credit application to each student. The overhead projector will be used to project the master sample. The student will follow the step by step procedure in completing this application. The student will provide the information for each blank using real or fictious information. After each student has a sample application turn on the overhead projector and proceed to have each student complete the application following your instructions. (Use a cover sheet on the sample and reveal only the blanks as you progress.)

1. Circle Mr., Mrs., Miss. print the customer's last name, first name, and middle initial. (If married, enter the husband's name)
2. Enter the customer's age.
3. Print spouse's name.
4. Print customer's home address. Be sure to enter Zip Code.
5. Enter the number of years customer has lived as this address and circle whether he owns or rents his home.
6. Enter area code and phone number.
7. Enger number of dependents.

8. Enter customer's Social Security Number.
9. Enter customer's previous address. (Usually only if customer has been at present address less than 3 years.)
10. Enter the number of years at previous address.
11. Enter customer's nearest relative not living with him.
12. Enter relative's address.
13. Enter relative's phone number and area code.
14. Enter customer's employer, address, and nature of business.
15. Enter years with firm.
16. Enter business phone number and zip code.
17. Enter customer's position.
18. Enter customer's annual earnings.
19. Enter spouse's employer, addres, and phone number.
20. Enter customer's previous employer and address. (Usually if less than three years.)
21. Enter nature of previous employment.
22. Enter name of bank customer deals with, the branch address, and the type of account.
23. Enter customer's credit references, their address, the type of account (30-day, budget, revolving), the amount of the monthly payment, and the current balance. It is usually best to list references from the larger institutions.
24. Make sure the customer reads and understands the terms and conditions of his credit account if his application is accepted. Then have the customer sign and date the application. Be sure not to forget this last step.

Summary

If you have followed each step accurately, the application is ready to be processed. It is extremely important that no information is omitted from the customer's application as this could lead to his credit being rejected. If the customer does not provide the necessary information while he is with you, ask him to take the application home with him and return it as soon as possible. This happens in cases where the wife applies for credit and does not know all the information pertaining to her husband.

Evaluation

At the end of the instruction, ask the student general questions about the subject matter.

CREDIT APPLICATION

Mr. Mrs. Miss	Last Name	First	Middle	Age	Spouse's Name

Home address	Street	City	State	Zip Code

Years at Present Address	Own Rent	Phone	No. of Dep.	Soc.Sec.Number

Previous Home Address	Street	City	State	How Long

Nearest Relative-Name	Address	Phone

Employer	Address	Nature of Business

Years with firm	Phone	Position	Annual Earnings

Spouse's Employer	Address	Phone

Previous Employer	Address	Nature of Business

Bank	Branch	Type(s) of Account

Credit References	Address	Type of Account	Payment	Balance
1.				
2.				
3.				

If this credit application is accepted and a charge card issued, I promise to pay all charges incurred, and agree to the terms and conditions accompanying the card. I understand that the credit card is and shall remain the property of THOMPSON'S DEPARTMENT STORE and shall be promptly returned upon request.

Signature of applicant Date

Topic: Use of the Credit Card

Method: Industrial

Grade Level: 11 and 12

Aim

Students will be able to understand the use of a credit card from the employer's point of view or the business man's point of view. He will be able to apply for a credit card, learn how to use a credit card, be able to fill out a charge slip and be able to operate a credit card machine.

Introduction

The use of credit cards is a customer service used not only in our country buy world-wide. It has almost come to the point that if you have a good credit rating, you can travel around the world without a dime in your pocket. The Carte Blanche Card and the Bank Americard are honored almost everywhere. You can use them for food, lodging, traveling, gas, oil, car rentals, plane and train fares, etc. Many businesses today use the cards to cut the costs of record keeping. The sales slips in this case are sent to the recording firm which does all the billing for the business. This is all done by computers and the firm may even be located in another town or city, miles from where the sale was made.

Content

Materials needed: Different kinds of credit cards, applications, sales slips and a credit card machine

Have students examine different credit card applications and fill one out.
Explain how to: Fill out a sales slip and use the credit card machine.

Summary

Review the use of credit cards, demonstrate the machine and ask for questions about the applications, sales slips, how to use the card from both the customer and businessman's point of view.

Evaluation

List several items on the board and have the students fill out a sales slip and operate the machine.

Topic: "Interview and Questionnaire Design"

Method: Vincentian Audio-Visual

Grade Level: 11th & 12th

Aim

By the end of this lesson, all students will be able to construct simple, but "bias free" questions for either a questionnaire or an interview schedule. In addition, students will be able to list three principles of questionnaire design and the ten necessary steps for implementation and completion of a questionnaire or interview research project.

Introduction

Brief review of previous introductory lesson on market research.

Describe the nature of today's lesson:
- Interview vs. questionnaire
- Advantages vs. disadvantages
- Problems
- Examples of questions
- Example of project

Explain reasons for today's lesson
- Some students interested in advertising and sales - all interested in marketing
- Your manuals, if you choose to do one
- Consumer point of view

Explain how students will accomplish lesson objectives
- Use of transperancies
- Use of examples
- Practice writing questions

Explain how students will know they've accomplished objectives
- By writing acceptable questions
- By listing principles and steps for research

Relate lesson to past experiences and future needs

Ask for questions

Content

Show and explain transperiences - one thru nine

At end of each example, question students for other areas of application

Summary

Given a subject, select students to answer questions and orally construct different types of questions. Going from student to student, list the ten steps to a questionnaire project. Have a student record them on the board.

Going from student to student, list the principles of questionnaire design. Have a student record them on the board.

Evaluation

On paper have all students -

1) Write questions on a given subject
2) List steps to questionnaire project
3) List principles of questionnaire design

Topic: Operation of the Electronic Calculator

Method: Vincentian

Grade Level: 11

Aim

The students will be able to:
1. Solve 8 problems utilizing addition, subtraction, multiplication, and division with the calculator within a 5 minute period.
2. List and identify the major keys and thier function.
3. Clear the machine.
4. Clear the last entry on the machine.

Introduction

In this lesson the students will be taught how to operate an electric calculator. The calculator will add speed and accuracy to students computations in all phases of business.

Content

1. Identification of Keys and their function
2. Simple addition(10 + 12 = 22)
3. Addition of more than two figures (5 + 20 + 58 + 72 = 155)
4. Simple subtraction (15 - 4 = 11)
5. Continuous subtraction (28 - 7 - 2 = 19)
6. Multiplication (14 x 7 = 98)
7. Successive multiplication (12 x 42 x 58 = 29,232)
8. Division (125 ÷ 5 = 25)
9. Successive division (54 ÷ 6 ÷ 3 = 3)
10. How to correct mistakes (C) and (CE)

Summary

Review the keys and their functions in addition, subtraction, multiplication, and division. Review the step by step process to get the correct answers.

Evaluation

Each student will be given 5 minutes to solve 8 problems. The test will consist of 2 problems from each of the four categories (addition, subtraction, multiplication and division).

SOCIAL SKILLS AND HUMAN RELATIONS

Topic: Communications

Method: Vincentian

Grade Level: 11th & 12th

Aim

The students will be able to list and define or be able to write the definition of their reasons why communications are the nature, importance in industry.

Introduction

Good morning class, yesterday, we touched lightly on selling as a customer sees it. Today, I would like to introduce a very important area, Human Relations as applied to communication in small industry. It will be interesting for you to note, how things can get fouled up due to poor communications.

Content

Human Relations is a process. "It's name is communication". Imagine yourself if you will, as the head of a company who arrives at the office one morning to find that a wizard has cast a spell. Under this spell, no two people can communicate with each other, by speech, writing or gesture. Typewriters and telephones have been whisked away along with every piece of paper, every label and tag. Question: What would happen? The machines are still in place. Raw materials are at hand, manpower is standing by nothing has changed, except the ability to communicate. You're right!

The plant can't operate for without communications, there could be no plant, no society, no civilization for that matter. It may sound funny, but, in industry, the process of communications are neglected or abused at times, and when it fails the blame is often placed elsewhere, from the highest to the lowest personnel.

Way of Communicating

Communication embraces the myriad(very many) ways in which men give and receive facts, ideas, impressions, hints, concepts of all kinds, some never phrased in words. Communication takes place through the lift of an eyebrow, the closing of a door, the set of amans shoulders.

Communication is a continuing, inevitable process. Often men try to avoid it. They close their mouths, but they cannot close other men's minds and their silence can be far more eloquent than words. Here is management unwilling to reveal it's profits to employees, fearful that they might demand a wage increase, but surely employees will not assume that profits are low, when the information is kept secret. Why is management afraid to tell the trugh? It must be because profits are exceptionally high.

Interpretation: is a major phase of communication. During contract negotiations, one plant prepared to ship a number of tools to a tool and die shop for modifications. A staff man urged the President to explain to the Union what was going on. "Heck No", the President declared. "Do I have to give them an explanation everytime we do something? Question: The Question is unanswereable of course, he doesn't have to explain (poor communications) but the union is equally free to conclude that the tool are being shipped out so that production will continue elsewhere in case of a strike. The union may strike immediately, before the dies can be shipped. So class, the President's good intentions aren't enough, nor even well phrased language. What he intends to communicate is not the determinant; what matters is the ultimate interpretation.

The Two-Way Principle:

Now class, Imagine again if you will, a machine housed in an opaque, sound proof case. Outside the case there is a push button to put the machine into operation. But when the button is pushed, there is no way for the operator to know whether the machine is, in fact, operating. Surely, an engineer would find this condition unsatisfactory. He would provide a control signal of some kind-perhaps a red light-beside the push button to inform the operator that all was well. He would in other words, provide for two-way communication. The operator would signal the machine to start. The machine would by means of the light, signal that it had started. (Question) What if there were no red light? Would the operator be satisfied to push the button once and go away? Probably not, he'd want to be sure. The best he could do would be to push the button three or four times.

Verbal Communications:

Small firms rely on verbal communications much more heavily than the large. The size and intricacy of the large firm forces it to use extensive written communications: For example: one phone call maybe easier to make than writing a memo with copies is easier than eighteen telephone calls. In many small firms even the telephone loses its appeal. If the man you want is just

across the hall, it often seems more satisfactory to go to him (you'd probably also like to know how many fish he caught yesterday; and maybe he heard a new story last night.

So class verbal communication is a fine thing to be sure. All advocates of Better human relations emphasize that verbal communication is rapid for small industries, but for the large organizations word of mouth can be shot through with errors.

Summary

1. Communications
2. Way of communicating
3. Interpretation
4. Two-way principle

Communication can be put into practice in any industry if it is treated the necessary way as I have indicated in our lesson today.

Evaluation

Question on why businesses need communications to perform their necessary tasks. Students will be selected at random to answer. Students will be able to--have the basic idea of terms used in today's lesson.

Topic: The "Why" of Parliamentary Law

Method: Discussion

Grade Level: 11 & 12th

Aim

To teach the students the purpose of Parliamentary Law.

1. To enable an assembly to transact business with speed and efficiency.
2. To protect the rights of each individual.
3. To preserve a spirit of harmony within the group.
4. Students will be able to chair a meeting using parliamentary procedure as outlined in Robert's Rule of Order.

Introduction

Good afternoon class. Today, you will learn the "Why" of Parliamentary Law. Parliamentary Law is simple in principle. It is based largely on mere common sense and courtesy.

Content: (A) The purpose of Parliamentary Law.

1. To enable an assembly to transact business with speed and efficiency.
2. To protect the rights of each individual.
3. To preserve a spirit of harmony within the group.

(B) The five basic principles of Parliamentary Procedure:

1. Only one subject may claim the attention of the assembly at one time.
2. Each proposition presented for consideration is entitled to full and free debate.
3. Every member has rights equal to every other member.
4. The will of the majority must be carried out, and the rights of the minority must be presented.
5. The personality and desires of each member should be merged into the larger unit of the organization.

Summary

You have learned the purpose of Parliamentary Law, and the five basic principles of Parliamentary procedure. Repeat!

Evaluation

Are there any more questions? More discussion if necessary. Possible a short quizz.

Topic: Shoplifting

Method: Lecture and Case-Study

Grade Level: 10th

Aim

1. To list and define six classes of shoplifters.
2. Review a case-study and give an analysis of the case.

Introduction

Shoplifting today has become so big that it is a 2-3 billion dollar business. Today's retail trends place stress on self-service selling, which has invited more and more loss from shoplifting. The best protection against shoplifting is an alert salesperson who knows exactly what to do in a given shoplifting situation. States vary in their shoplifting laws, so it would be a good idea to become familar with the laws of the state in which you will be working.

There are six classes of shoplifters. Here they are:

1. Kleptomaniac: This shoplifter comes from all walks of life. They do not steal from need. He does not fear being caught and will repeat the offense after being caught several times.

2. Amateur: They steal from need or to "keep up with the Joneses."

3. Alcoholic or vagrant: They steal while under the influence of alcohol. They grap-and-run.

4. Juvenile: They travel in gangs and will go for certain articles as selected by their leader. They rely on the sympathy of the public for a child versus an adult, if they get caught.

5. Professional: They go for the more valuable articles.

6. Drug addict: They steal to support their habit.

Content

Distribute hand out on the classes of shoplifters. Review.

Distribute case-study for review and analysis.

Summary

Review the subject content of the lesson.

Evaluation

Ask the students to identify the different classes of shoplifters.

Case-Study

John Rash is a clerk in a local store, and will graduate from high school next June. John is a very conscientious and devoted worker.

One day while John was working in the toy department a customer came up and told him that there were two boys by the miniature cars counter who he had just seen put some cars into their pockets. John promptly thanked the customer for informing him about this incident and proceeded to the miniature cars section. The two boys saw him coming and moved to another counter out of John's sight. When John got to the spot where the two boys had been standing he went after the two boys. He approached them saying, "Where's those two cars you boys just stole?" The boys responsed to John's accusation that he was crazy, and that they had not stolen anything. John got into a shouting match with the boys, which attracted the attention of nearby shoppers. One of the shoppers was the mother of one of the boys. She came to the scene and wanted to know what was going on. John replied, "Your son and his friend just stole two miniature cars. Here's the empty cartons as proof." At this point John called for his supervisor. The supervisor arrived on the scene and suggested that all parties concerned move into the office.

1. What do you think was wrong with the way John handled this incident?

2. What would you have done as the salesperson in this situation?

3. How do you think John's supervisor went on to handle this situation?

Topic: Salesmanship (Showing Merchandise)

Method: Munich

Grade Level: 12

Aim

Students will be able to list and explain eight rules for showing merchandise wethin a 30 minute period without the aid of references.

Introduction

A very important factor in becoming a good salesman is the ability to show your merchandise. In order to sell, you must know all the facts about each article that you are trying to sell. After a brief review on yesterday's lesson on suggestion selling, we will learn eight rules for showing merchandise. Tomorrow morning you will have a quiz and be expected to list and explain briefly these eight rules within a 30 minute period without the aid of references.

Content

1. A brief review on yesterday's lesson on suggestion selling.
2. Handout - Rules and explanation for showing merchandise.
3. Go over check list on merchandise information to help reinforce rules.

Summary

Review rules and explanations by questioning students orally. Have students give examples of rules during the question and answer period.

Evaluation

Students will be quizzed orally during a question and answer period during class and then they will have a written quiz during the next class period.

Rules For Showing Merchandise

1. GET AGREEMENT AT THE START OF THE SALE
   a. Get the customer in the "yes" frame of mind.
   b. Avoid questions that can be answered by "no".

2. MAKE THE MERCHANDISE STAND OUT
   a. Pick up article - and show it away from the rest.
   b. Display merchandise in a cleared space.
   c. Show only a few items at a time.
   d. Remove unwanted merchandise skillfully.

3. SHOW MERCHANDISE SO ITS GOOD POINTS WILL BE CLEARLY SEEN
   a. Show in a good light.
   b. Show at eye level.
   c. Show all sides.
   d. Point out hidden features.
   e. Demonstrate use.

4. GET MERCHANDISE INTO CUSTOMER'S HANDS
   a. Urge customer to try out and try on merchandise.
   b. Encourage customers to handle merchandise.
   c. Discourage customer from mishandling merchandise.

5. APPEAL TO THE FIVE SENSES
   a. Let the customer SEE the merchandise.
   b. Have the customer FEEL the merchandise.
   c. Let the customer SMELL the merchandise
   d. Invite customer to TASTE and HEAR , when feasible.

6. HANDLE MERCHANDISE APPRECIATIVELY
   a. Handle merchandise as if you like it.
   b. Take precautions against soil and damage.
   c. Develop knacks in handling.

7. DRAMATIZE
   a. Use showmanship in putting over selling points in order to arouse interest and stimulate desire.
   b. Dramatize what it will do.

8. PROCEED FROM THE GENERAL TO THE SPECIFIC IN THE SALES PRESENTATION
   a. Start with the general points, but make these interesting statements that carry a punch line.
   b. Proceed to the more specific features.
   c. Give a concrete, definite and informative sales talk.
   d. Remember there are no hard and fast rules as to what you should say first, second, and third, etc.

Topic: How to Handle People

Method: Case-Study

Grade Level: 11

Aim

At the end of this lesson the students will be able to list the three important points to remember when dealing with people within a 10 minute period.

Introduction

All of us have at one time or other entered a retail store to be greeted by a grouchy salesman or saleswoman. Our first reaction to them was probably to get away from them which is what most people do. This salesman does not realeze that he has lost a possible sale and probably lost any future sales.

Content

Read each of the following to the students and discuss why each is important:

1. Learn to think before you speak.
2. Learn to control your temper, emotions, and thoughts
3. Learn to listen, analyze and ask questions

Read, analyze and discuss case problem #1.

Summary

Review the classes findings on what should be done in case problem #1.

Evaluation

The students will be expected to read and give their opinions on case #2 for homework. They are expected to answer all of the questions briefly (less than 2 paragraphs per question).

Case #1

SITUATION - John is a D.E. student at Newark High School. He is presently employed at a local mens shop. John's supervisor has temporarily left the store and has told John that he is now in charge. A customer has entered the store and an arguement has begun between the customer and a salesman.

John - (Interupting the arguement) May I be of some help?

Customer - I certainly hope so. I want to return this suit and this salesman says that I can not do so.

John - What seems to be wrong with the suit ma'am?

Customer - My husband doesn't like it and it is too small!

John - Our store policy states that all sales are final but if you would like to exchange this suit for one of a larger size I'm sure that the manager would not mind.

Customer - Well I guess that would be alright.

John takes the suit from her and instructs the salesman to help the customer find an equivalent suit in the correct size.

Salesman - You aren't in charge here! This woman can't return this suit and you should'nt let her! I'll not get involved in this. (He walks off)

John to Customer - I'm very sorry about this ma'am. If you will let me I'll help you find a suit.

Customer - Thank you sir.

John finds the customer a suit and completes the exchange. The suit she has purchased is also more expensive than the previous and has thus increased the sale.

Questions for students

1. How would you as a D.E. student handle this situation? Why?
2. Should John have changed his mind and not given the customer an exchange when the salesman disagreed with him? Why?
3. What should John do when the manager returns? In relationship to the salesman? In relationship to the transaction?
4. Do you think that the manager will be upset with John's decision?
5. Should John have become involved at all? Why or Why not?
6. What is the reason behind an "All sales are final" policy?

Case #2

SITUATION - George Simpson is a High School D.E. student who works part time at a hardware store. George works with a man named John Bell who is a full time salesman at the store. The assistant manager of the store assigns tasks to be performed by George and John throughout the day. When the assistant manager is not around John tells George to do work that is usually done by John when the assistant manager is present. At first George did not mind helping John but now he feels that John is taking advantage of him. George is not sure though if these jobs are to be done by John or by himself.

Questions

1. Should George confront John with his feelings toward these jobs and risk antagonizing him? Why or why not?

2. Should George tell John outright to do it himself? Why or Why not?

3. Should George ask the assistant manager to outline his duties and then go to John and explain that it is not his place to perform these tasks? Why or why not?

4. What would you do in this situation?

ECOMOMIC

UNDERSTANDING

Topic: Economics of Distribution

Method: Discussion

Grade Level: 11 & 12th

Aim

The students will be able to orally discuss the importance that Economics plays with main, and subsidiary marketing functions in the distribution process and the role of distribution in maintaining a free competitive society.

Introduction

Good morning class, this morning, I would like to take a period or so to introduce you to the Economics of Distribution. There are many questions as you may know, about our own economy, that presents problems today, and I am going to try to clear some of these questions up this morning.

Contents

1. Economics

   A. Definition - A study of the problems that arise in a connection with the efforts of people to make a living.
   B. Wants are satisfied by tangible and intangible thing(services)
   C. These goods and services are produced by:

      1. Activities of the human body(manual labor-blue collar)
         a. mining
         b. farming
         c. manufacturing
         d. other

      1. Activities of the human mind(white-collar worker)
         a. inventing
         b. sales
         c. offices
         d. others

      Problems of distribution of goods and services

      1. People engage in specialized work:
         A. Do not individually produce all goods and services they need.
         B. Must depend on the work of others

2. Problems of producing goods and services.
   A. What, where, when and how much to produce
   B. The kind of work people do.

3. Problems of exchanging goods and services.
   A. Minimum of waste
   B. Minimum of expense

4. Problems of allotting to each one his share of the goods produced.
   A. Income differ, therefore, how much is each entitled to?
   B. What factors determine the difference in income? (discuss)

5. Problems arising from the use of goods and services.
   A. Should anyone be concerned with the goods and services individuals buy?
   B. The way we spend money affects the goods and services to be produced

Summary

1. Activities of the human body
2. Activities of the human mind
3. People engage in specialized work
4. Problems of producing goods and services
5. Problems arising from the use of goods and services.

Evaluation

Students should be able to understand the economics of distribution and be able to define the terminology in 20 minute period.

Teaching Suggestions

1. Explain that an economic system refers to the procedure which a country uses to produce, distribute, and consume its goods and services.

2.C.Have students discuss differences between blue and white collar workers.

Have students analyze "body and mind" businesses in the local communities. Point out, if necessary, that one business may be involved in many of the activities listed here.

2.D. Discuss the relationships of production, distribution, and consumption.

2. Have class discuss and develop list of advantages of specialized Division of Labor. Explain that in one plant there may be hundreds of job classifications.

D3. Trace evolution of american economy from Agrarian system to one which concentrates on distribution

D4. Discuss A and B

D5. Discuss the term, "The Distribution Revolution". Cite examples of attempts by business to anticipate consumer wants and spending habits. Discuss reasons why distribution problems are most severe in a free enterprise economy.

Topic: How to Write Personal Checks

Method: "The Socratic Method"

Grade Level: 11th

Aim

A. To be able to write checks
B. To be able to balance a checkbook
C. To be able to know when a check is not made out properly

Introduction

In this lesson, students will be taught how to write checks and how to balance a checkbook.

Content

A. Demonstrate to students how to write checks.
B. Each student will write a check on the board.
C. Demonstrate to students how to balance a checkbook.
D. Each student will balance a checkbook on the board.

Summary

A. Review checkwriting and checkbook balancing.
B. Answer all questions that the students have on this lesson.

Evaluation

A. Students will write five checks and balance their checkbook.

Topic: DISTRIBUTION-THE KEYSTONE OF THE AMERICAN ECONOMY

Method: Lecture

Grade Level: 11th

Aim

The student will be able to list sixteen important jobs in the field of distribution.

Introduction

The most serious problem in any economic community is how to produce enough goods and services to meet the demands of the population. Our country has acquired the skill to produce these demands in abundance. Once these demands are produced, the next step is to distribute the goods and services. This is where you become involved. Wherever you live, you will find that there are distribution jobs to be had. Right here in this town, there are numerous distribution jobs. There are jobs for those with different talents, interests, and backgrounds.

Content

Have you ever heard of the American dream? This is perhaps known best by people who live in other countries. People come to America every day in search of the American dream, hoping it will come true for them. What is the American dream? This can be answered by just one word-chance. People want to make a good life for themselves and their families. In America we eat better, live in better homes, and have more extra things to help us enjoy life than any other people anywhere. One thing we cannot overlook is the fact that some people in America have not found the good life. Some families do not own an automobile. How many of you have at least one car in your household? How many of you have at least one television set at home? These are part of the good life. To ha-e the good life most of us have to work. Most of the things in life cost money - a nice place to live, a car, clothes, a vacation. All these things must be paid for. To pay for these things you must have a job.

Here are sixteen types of distributive jobs:

1. Food stores-Safeway
2. Mainstreet stores-hardware store
3. Department stores-Macy's

4. Other stores-Automobile dealership
5. Catalog stores-Spiegel's
6. Direct selling-Electrolux
7. Automatic vending-Canteen Vending Service
8. Service stations-Gulf, Getty
9. Food service-Gino's McDonald's
10. Hotels and motels-Holiday Inn
11. Personal service businesses-Dry cleaner's
12. Wholesaling-manufacturers
13. Recreation services-Bowling, theaters
14. Business services-Maintenance service
15. Financial services-Banks
16. Transportation services-Pan AM

There are literally thousands of jobs available in distribution. All of these jobs are very important to the success of our economy. If you want a job, you can find one. However, some of these jobs require technical training. It is up to you to get this training so you can meet the requirements of a particular job. A lot of distributive jobs are available in cities other than where you live. This means that you would have to relocate. Relocation is a requirement with some jobs. For instance, if you were to get a job with a large retailing firm in its management training program, you would be required to relocate frequently.

(Before becoming a Distributive Education Teacher-Coordinator, I worked for such a company. In one year I lived in three states. As a result, I had to fill out five separate income tax forms.) This frequent requirement to relocate lasts for about the first three to four years of your employment. After that you become a little more stable, moving perhaps just once every three or four years. But remember this, with each move you usually receive a raise. I can remember how I used to anticipate a move after I had been in one place long enough to be considered for a move.

Remember this, all you need to get a distributive job is ambition. The ambitious person cares about his own future, and he cares enough to give up some of the things that seem like fun at the time to put in some work getting ready for tomorrow.

Summary

Review the sixteen distributive job catagories with the class and take note of any interest shown by the students to any of the categories.

Evaluation

Have the students write a short paper on distributive jobs. If any one category appeals to any student, he is to include this on his paper.

Topic: Retail Discounts

Method: Discussion

Grade Level: 11 and 12

Aim

The students will be able to define and work problems in a 30 minute period regarding:

1. Marked prices
2. Selling prices or sales prices
3. Discounts or mark down
4. Rate of discount
5. Finding the selling price

Introduction

We are going to start a new unit regarding the pricing of merchandise in a retail store. This is very important to a retailer because we all know that when you are in business, you must make a profit. Sometimes we will have merchandise that must be sold at a discount whether it is because the merchandise will not move and we find it necessary to mark it down in order to get rid of it or it may be an item to attract customers to our store. Regardless of the reason, we must know how to markdown the items and still make a profit if at all possible. Eventhough you may only be an employee, you may be asked to mark merchandise and figure the prices for your employer.

Content

By use of questions and answers define and discuss:

1. Marked price
2. Selling prices or sales prices
3. Discounts or markdown

Explain and discuss:

1. How to find the rate of discount
2. Finding the selling price

By using the following equations, have students work problems to find the above.

Equations:

Marked price - selling price = Discount

Marked price - discount = selling price

$$\text{Rate of Discount} = \frac{\text{Discount}}{\text{Marked price}}$$

To Find Selling Price:

Rate of Discount x marked price = discount

Marked Price - Discount = Selling Price

Summary

Review the definitions and make sure students understand. If they have questions, stress these points by working more problems.

Evaluation

Quiz (written) on definitions and four or five problems. (30 minutes)

Topic: Methods of International Payments

Method: Munich

Grade Level: 12

Aim

At the end of this lesson each student will be expected to explain in the form of a one page essay, all of the transactions that take place for either the Bank Draft Payment or the Bill of Exchange.

Introduction

The trade and barter system began when people realized that it was much easier to produce a certain product line or specialize in a product and trade this for a product that they themselves could not easily fabricate. Later developments into group production and specialization made intranational trade widespread. Soon people began to find that it would be nice to be able to buy goods from other countries. This was an easy process when gold, silver or jewels were used to buy but with the development of paper money and coins, people found it difficult to buy goods with foreign currency. With the expansion of international trade, this problem grew in importance. With this constant flow of money between countries, a system of money exchange had to be developed.

Content

There are now two principle means of making payments to foreign countries for goods purchased.

1. Bank Draft - A type of check used as payment (Payment initiated by the importer)
2. Bill of Exchange - A type of bill sent to the importer "You owe me" (Initiated by exporter)

In an exchange of money between a U. S. Company and a British Company, correspondent banks must be used. Correspondent banks are banks who hold reciprocal bank accounts in each others bank. A New York bank would hold a checking account in a London Bank in the form of pounds and the London bank would hold a checking account in the New York bank in the form of dollars. $2.40 = 1 pound

Payment for a U. S. Import by Bank Draft:

A U.S. Company can not buy goods with dollars in England, therefore he must make two transactions before the goods may be purchased. He must first buy pounds with his dollars and then buy the goods with his pounds.

The U.S. Company would go to its New York bank and buy a Bank Bank Draft in the amount desired. For example $240,000. The

New York bank would then take $240,000 from the U.S. Company's account and place it into the London banks account in the New York bank. The New York bank then would write a check for 100,000 pounds (100,000 pounds = $240,000) from its account in the London bank. This check drawn from the London bank is then given to the British exporter in payment.

-$240,000 U.S. importers bank account in New York
+$240,000 London bank account in Nwe York Bank
-100,000 pounds New York bank account in London bank
+100,000 pounds exporters account in London bank

Payment for a U. S. Import by Bill of Exchange:

In this case the British exporter draws up a Bill of Exchange that states that goods are shipped for which payment is expected. The British exporter takes this to his London bank and immediatly receives payment. At this point the London bank is giving credit and expects later payment. The London bank sends the Bill of Exchange to the New York bank who in turn presents it to the importer. The importer then signs it and makes out a check for $240,000 which is then placed into the account that the London bank holds in the New York bank.

+100,000 pounds account of exporter in London bank
-100,000 pounds London's credit extended
+$240,000 account of London bank in New York bank
-$240,000 account of importer in New York bank

Summary

Review the steps taken in the transfer of this money from hand to hand.

Evaluation

Give the students a 30 minute time period to explain the transfer of money and the route it takes. Have the students choose one of the two methods and write a short essay of no more than one page on this exchange.

ACCESSION NUMBER: VT102072

TITLE: AN ANALYSIS OF THE CREDIT COLLECTION OCCUPATION.

PERSONAL AUTHOR: WYATT, TOM; ULRICH, LARRY

DESCRIPTOR: *TASK ANALYSIS; CREDIT (FINANCE); INVESTIGATIONS; *JOB SKILLS; *OCCUPATIONAL INFORMATION; TASK PERFORMANCE; EQUIPMENT UTILIZATION

IDENTIFIER: *CREDIT ACCOUNT COLLECTIONS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 24P.; SEE RELATED DOCUMENTS VT 101 823 THRU 101 874 IN AIM, VOL. 8, NO. 4 AND VT 102 073 THRU 102 078 IN THIS ISSUE.

ABSTRACT: THE OCCUPATIONAL ANALYSIS PROJECT WAS CONDUCTED FROM JUNE 1, 1973 TO DECEMBER 30, 1974 TO TRAIN VOCATIONAL TEACHERS IN THE TECHNIQUES OF MAKING A COMPREHENSIVE OCCUPATIONAL ANALYSIS. EACH ANALYSIS INCLUDES A STATEMENT OF THE VARIOUS TASKS PERFORMED IN AN OCCUPATION, WITH THE APPROPRIATE ITEMS IDENTIFIED FOR EACH TASK: TOOLS AND EQUIPMENT, PROCEDURAL KNOWLEDGE, SAFETY KNOWLEDGE, MATHEMATICS SKILLS, AND SCIENCE AND COMMUNICATION NEEDED FOR SUCCESSFUL PERFORMANCE. THE ANALYSIS DATA PROVIDED A BASIS FOR GENERATING INSTRUCTIONAL MATERIALS, COURSE OUTLINES, STUDENT PERFORMANCE OBJECTIVES, CRITERION MEASURES, AND SUPPORTING SKILLS IN THE ACADEMIC AREAS. THIS ANALYSIS FOR THE OCCUPATION OF CREDIT COLLECTION AGENT IDENTIFIES TASKS THAT SHOULD BE UNDERSTOOD BEFORE ENTRY INTO THE JOB, ALTHOUGH DEVELOPMENT COMES FROM DIRECT EXPERIENCE. DUTIES ARE PRESENTED FOR THE COLLECTOR OF OVERDUE CONSUMER CREDIT ACCOUNTS FOR BUSINESS ORGANIZATIONS. (AUTHOR/MF)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. INSTRUCTIONAL MATERIALS LAB. (TRADE AND INDUSTRIAL EDUCATION).

SPONSORING AGENCY NAME: OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 072

Occupational Analysis

INSURANCE CREDIT COLLECTION AGENT

2

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

5185

VT 102022

AN ANALYSIS OF THE CREDIT COLLECTION OCCUPATION

Developed By

Tom Wyatt
Supervisor, Distributive Ed.
Dayton City Schools
Dayton, Ohio

Larry Ulrich
Consultant
Executive Manager
Credit Bureau of Toledo
Toledo, Ohio

Occupational Analysis
E.F.D.A. Sub Project 73402
June 1, 1973 to December 30, 1974
Director: Tom L. Hindes
Coordinator: William L. Ashley

The Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

TABLE OF CONTENTS

Foreword v

Preface vii

Acknowledgment ix

Job Description xi

Duties
A Obtaining Past Due Accounts for Collection 1
B Analyzing Individual Consumer Account 7
C Conducting Collection Process 13

FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of conducting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis included a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures as well as identifying specific supporting skills and knowledge in the academic subject areas.

PREFACE

This task analysis for the occupation of credit collection agent was developed on a general orientation basis. The tasks identified are those that should be understood before entry into the job. However the writers understand and agree that efficient development of the task comes as a result of direct experience.

ACKNOWLEDGMENT

We wish to acknowledge the valuable assistance rendered by the following subject matter specialists. They provided input to the vocational instructors in identifying related skills and concepts of each respective subject matter area and served as training assistants in the analysis process during the two-week workshops.

Rollin M. Barber, Psychology
The Ohio State University
Columbus, Ohio

Jodi Beittel, Communications
Columbus, Ohio

Diana L. Buckeye, Mathematics
University of Michigan
Avon Lake, Ohio

Rick Fien, Chemistry
The Ohio State University
Beachwood, Ohio

N.S. Gidwani, Chemistry
Columbus Technical Institute
Columbus, Ohio

Bruce A. Hull, Biology
The Ohio State University
Columbus, Ohio

Donald L. Hyatt, Physics
Worthington High School
Worthington, Ohio

Glenn Mann, Communications
Columbus, Ohio

Jerry McDonald, Physical Sciences
Columbus Technical Institute
Reynoldsburg, Ohio

Colleen Osinski, Psychology
Columbus Technical Institute
Columbus, Ohio

David Porteous, Communications
University of Connecticut
Colchester, Connecticut

James A. Sherlock, Communications
Columbus Technical Institute
Columbus, Ohio

Jim VanArsdall, Mathematics
Worthington High School
Worthington, Ohio

Lillian Yontz, Biology
The Ohio State University
Caldwell, Ohio

The following individuals are acknowledged for their organizational assistance in identifying and coordinating the vocational instructors and consultants in Distributive Education.

Cathy Ashmore, Director
Distributive Education Instructional
Materials Laboratory
Columbus, Ohio

James R. Gleason
Indian Hills High School
Cincinnati, Ohio

Acknowledgment is extended to the following I.M.L. staff members for their role in conducting the workshops; editing, revising, proofing and typing the analyses.

Faith Justice	Research Associate
Sheila Nelson	Administrative Assistant
Marsha Opritza	Editorial Consultant
Rita Buccilla	Typist
Peg Bushelman	Typist
Carol Fausnaugh	Typist
Mindy Fausnaugh	Typist
Rita Hastings	Typist
Carol Hicks	Typist
Sue Holsinger	Typist
Barbara Hughes	Typist
Carol Marvin	Typist
Patti Nye	Typist
Kathy Roediger	Typist
Mary Salay	Typist

JOB DESCRIPTION

The credit collection agent is a collector of past due consumer credit accounts for business organizations.

Duty A Obtaining Past Due Accounts for Collection

1 Conduct promotional campaign
2 Sell credit grantor collection service

(TASK STATEMENT) CONDUCT PROMOTIONAL COMPAIGN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Develop an advertising program for collection service Determine potential customers Select information to be conveved Select the contact method such as: Trade publications Phoning campaign Personal canvas Yellow pages advertising Direct mailers Specialty advertising	
DECISIONS	**CUES**	**ERRORS**
Determine when to conduct campaign	Present list of service users Types of accounts carried by business Money available for campaign	Failure to reach potential customers

(TASK STATEMENT) CONDUCT PROMOTIONAL CAMPAIGN

SCIENCE	MATH – NUMBER SYSTEMS
Professionalism Maintain confidentiality Foster trust Generate trust Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability Awareness of interrelationships of responsibilities of the consumer, the business and the collection agent Honesty and accuracy in collection Alert to possibility of decision-making situations which should be referred to a supervisor	Whole numbers Use of numbers (without calculations) Counting Read and interpret tables, charts and graphs representational graphs Basic statistical skills and concepts Representative sampling from population [surveys]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Prepare advertising plan	Spelling Terminology

(TASK STATEMENT) SELL CREDIT GRANTOR THE COLLECTION SERVICE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Present benefits of collection services Compare present situation to services offered by collector Establish procedure for obtaining past due accounts	

DECISIONS	CUES	ERRORS
Determine what services can be performed for the credit grantor Determine what advantages might the services offer Determine if credit grantors situation would warrant services Determine what are the most practical and/or effective procedures for obtaining past due account information Determine what cost factors are involved for the credit grantor	Available services Present collection system Number and/or type of past due accounts Age and amount of accounts	Failure to attract new business

(TASK STATEMENT) SELL CREDIT GRANTOR THE COLLECTION

SCIENCE	MATH – NUMBER SYSTEMS
Professionalism Maintain confidentiality Foster trust Generate trust Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability Awareness of interrelationship of responsibilities of the consumer, the business and the collection agent Honesty and accuracy in collection Alert to possibility of decision-making situations which should be referred to a supervisor	Decimal fractions Read and interpret tables, charts and graphs [commission charts] Fundamental operations (calculation) Addition, subtraction, multiplication and division algorithms Order of operations, i.e., use of parentheses in simplifying arithmetic expressions Computation of a commission Changing percents to fractions and fractions to percents Finding a percent of a number and what percent one number is of another Property of comparison equality/equivalence inequality/greater than/less than Measurement: non-geometric money

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Presentation of benfits	Terminology, Diction, Clarity of expression, Persuasion and sales techniques, Gestures, Dress, Poise Usage
Writing	Present benefits in writing, Prepare graphs	Business letters, Terminology, Clarity of expression, Persuasion and sales techniques
Listening	Listening to potential customers	Descriminate facts from non-facts

Duty B **Analyzing** Individual Consumer Account

1 Complete debtor record
2 Acquire and review debtor information

(TASK STATEMENT) COMPLETE DEBTOR RECORD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Debtor record	Complete debtor record file listing the following information Name of debtor Address Other personal information Employment record Other legal actions Name of credit grantor Account information History of payment Amount of collection	

DECISIONS	CUES	ERRORS
Decide what information is required for record	Standard company form or policy	Wrong information on file

(TASK STATEMENT) COMPLETE DEBTOR RECORD

SCIENCE	MATH – NUMBER SYSTEMS
Professionalism Maintain comfidentiality Foster trust Generate trust Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability Awareness of interrelationship of responsibilities of the consumer, the business, and the collection agent Honesty and accuracy in collection Alert to possibility of decision-making situations which should be referred to a supervisor	Whole numbers Use of numbers (without calculation) Coding [letter code to account] Recording

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Review information	Comprehension, Detail/Inference, Informational reports, Terminology
Writing	Preparing record	Memo format, Informational report
Viewing	Applying codings	Recognize symbols and codes

(TASK STATEMENT) ACQUIRE AND REVIEW DEBTOR INFORMATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Request credit report File with debtor the report Review all file information to determine debtor's present and past financial situation Establish legal validity of collection of account Select available avenues of collection	

DECISIONS	CUES	ERRORS
Determine the steps to be followed in collecting the account from the information	History of payments Previous collections or legal actions Local economic conditions Employment Nature of indebtedness	Noncollection of account

(TASK STATEMENT) ACQUIRE AND REVIEW DEBTOR INFORMATION

SCIENCE	MATH – NUMBER SYSTEMS
Professionalism Maintain confidentiality Foster trust Generate trust Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability Awareness of interrelationship of responsibilities of the consumer, the business and the collection agent Honesty and accuracy in collection Alert to possibility of decision-making situations which should be referred to a supervisor	Whole numbers Use of numbers (without calculation) Coding [method of payment code] Read and interpret tables, charts and graphs [method of payment chart] Rate [unemployment rate] Property of comparison Equality/equivalence inequality/greater than/ less than [income with debts]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Request credit report	Terminology
Reading	Review information	Comprehension, Detail/Inference, Informational reports, Terminology
Writing	Record information	Memo format, Informational report, Terminology
Viewing	Identify codes	Recognition of symbols and codes

Duty C Conducting Collection Process

1 Conduct collection procedure

26

(TASK STATEMENT) CONDUCT COLLECTION PROCEDURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Send initial collection letters Follow letters with personal contact if no collection is made by letter Arrange for collection payments Record collection on record If no collection arrangements can be made, submit to collection attorney for legal actions	

DECISIONS	CUES	ERRORS
Determine which collection methods to use after reviewing account history Determine if account should be submitted to a collection attorney	Prior payments history Collections being made	Failure to collect account Added expense for collection

(TASK STATEMENT) CONDUCT COLLECTION PROCEDURE

SCIENCE	MATH – NUMBER SYSTEMS
Professionalism Maintain confidentiality Foster trust Generate trust Exhibit qualities of self-confidnece, self-control, self-reliance, self-respect and adaptability Awareness of interrelationships of responsibilities of the consumer, the business and the collection agent Honesty and accuracy in collection Alert to possibility of decision-making situations which should be referred to a supervisor	Decimal fractions Use of numbers (without calculation) Recording Payment schedule Fundamental operations (calculation) Addition, subtraction, multiplication and division algorithms Order of operations, i.e., use of parentheses in simplifying arithmetic expressions Measurement: non-geometric Money Time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal contact with debtor	Terminology, Appropriate diction, Clarity of expressions, Persuasion and sales techniques, Poise, Usage
Writing	Letter contact with debtor	Spelling, Business letters, Clarity of expression, Persuasion and sales techniques
Listening	Listening to debtor	Discriminate facts from non-facts, Note taking

ACCESSION NUMBER: VT102076

TITLE: AN ANALYSIS OF THE WASTE WATER TREATMENT OPERATOR OCCUPATION.

PERSONAL AUTHOR: CLARK, ANTHONY B., AND OTHERS

DESCRIPTOR: *TASK ANALYSIS; *WATER POLLUTION CONTROL; *WASTE DISPOSAL; *JOB SKILLS; *OCCUPATIONAL INFORMATION; TASK PERFORMANCE; EQUIPMENT UTILIZATION

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 146P.; SEE RELATED DOCUMENTS VT 101 823 THROUGH 101 874 IN AIM, VOL. 8, NO. 4, AND VT 102 072 THROUGH 102 078 IN THIS ISSUE.

ABSTRACT: THE OCCUPATIONAL ANALYSIS PROJECT WAS CONDUCTED FROM JUNE 1, 1973 TO DECEMBER 30, 1974 TO TRAIN VOCATIONAL TEACHERS IN THE TECHNIQUES OF MAKING A COMPREHENSIVE OCCUPATIONAL ANALYSIS. EACH ANALYSIS INCLUDES A STATEMENT OF THE VARIOUS TASKS PERFORMED IN AN OCCUPATION, WITH THE APPROPRIATE ITEMS IDENTIFIED FOR EACH TASK: TOOLS AND EQUIPMENT, PROCEDURAL KNOWLEDGE, SAFETY KNOWLEDGE, MATHEMATICS SKILLS, AND SCIENCE AND COMMUNICATION NEEDED FOR SUCCESSFUL PERFORMANCE. THE ANALYSIS DATA PROVIDED A BASIS FOR GENERATING INSTRUCTIONAL MATERIALS, COURSE OUTLINES, STUDENT PERFORMANCE OBJECTIVES, CRITERION MEASURES, AND SUPPORTING SKILLS IN THE ACADEMIC AREAS. THIS VOLUME DEVELOPS RUDIMENTARY OCCUPATIONAL ANALYSES FOR WASTEWATER TREATMENT OPERATORS AND MAINTENANCE MECHANICS, INCLUDING OPERATING SCREENING AND OTHER DEVICES, MONITORING AND RECORDING, AND INSPECTION AND TESTING. (AUTHOR/MF)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. INSTRUCTIONAL MATERIALS LAB. (TRADE AND INDUSTRIAL EDUCATION).

SPONSORING AGENCY NAME: OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 076

Occupational Analysis

WASTE WATER TREATMENT OPERATOR

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

VT 102 076

5268

AN ANALYSIS OF THE WASTE WATER TREATMENT OPERATOR OCCUPATION

Developed By

Anthony B. Clark
Ohio EPA
Dayton, Ohio

Ronald J. Collins
Water Pollution Control
Springfield, Ohio

Martin P. Henning, III
Bowling Green State University
Firelands
Huron, Ohio

George P. Manos
Department of Civil Engineering
Akron, Ohio

Paul G. Mook
Whittier School
Toledo, Ohio

Richard C. Stump
Sanitary Engineer
Summit County
Akron, Ohio

3

Occupational Analysis
E.P.D.A. Sub Project 73402
June I, 1973 to Decemeber 30, 1974
Director: Tom L. Hindes
Coordinator: William L. Ahsley

The Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

"The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions that are expressed herein do not reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred."

TABLE OF CONTENTS

Foreword v

Preface vii

Acknowledgment ix

Job Description xi

Duties
A Performing Screening and Comminuting 1
B Performing Grit Removal 7
C Performing Pumping 15
D Performing Flow Measurement 19
E Performing Pretreatment by Chemical Addition 23
F Performing Coagulation and Flocculation 29
G Performing Sedimentation/Primary and Secondary Solids Removal 35
H Performing Sludge Wasting and Digestion 45
I Performing Biological Decomposition Vis Sludge Processes (Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration) 57
J Performing Biological Decomposition Via Trickling Filters 67
K Performing Biological Decomposition Via Oxidation Lagoons/Ponds (Facultative, Aerobic, and Anaerobic) 75
L Performing Chlorination 83
M Performing Outfall Evaluation 91

Appendix 95

Tool Kits 97

Glossary A-1

FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics, and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of condulting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis inlcuded a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures, as well as identifying specific supporting skills and knowledge in the academic subject areas.

PREFACE

Purpose: The purpose of this document is to develop rudimentary occupational job analysis for:

1. Wastewater treatment operators (without supervisory duties)
2. Wastewater treatment maintenance mechanics

Scope: These occupational job analyses cover all commonly used individual steps and processes required for pretreatment, primary, and secondary treatment of municipal wastewaters

Depth: Each major piece of equipment or general grouping (with respect to a specific process) is examined with respect to:

1. operational requirements,
2. maintenance requirements, and
3. sampling, analyzing and performance evaluation

ACKNOWLEDGMENT

We wish to acknowledge the valuable assistance rendered by the following subject matter specialists. They provided input to the vocational instructors in identifying related skills and concepts of each respective subject matter area and served as training assistants in the analysis process during the two-week workshops.

Rollin M. Barber, Psychology
The Ohio State University
Columbus, Ohio

Jodi Beittel, Communications
Columbus, Ohio

Diana L. Buckeye, Mathematics
University of Michigan
Avon Lake, Ohio

Rick Fien, Chemistry
The Ohio State University
Beachwood, Ohio

N. S. Gidwani, Chemistry
Columbus Technical Institute
Columbus, Ohio

Bruce A. Hull, Biology
The Ohio State University
Columbus, Ohio

Donald L. Hyatt, Physics
Worthington High School
Worthington, Ohio

Glenn Mann, Communications
Columbus, Ohio

Jerry McDonald, Physical Sciences
Columbus Technical Institute
Reynoldsburg, Ohio

Colleen Osinski, Psychology
Columbus Technical Institute
Columbus, Ohio

David Porteous, Communications
University of Connecticut
Colchester, Connecticut

James A. Sherlock, Communications
Columbus Technical Institute
Columbus, Ohio

Jim VanArsdall, Mathematics
Worthington High School
Worthington, Ohio

Lillian Yontz, Biology
The Ohio State University
Caldwell, Ohio

Acknowledgment is extended to the following I.M.L. staff members for their role in conducting the workshops; editing, revising, proofing and typing the analyses.

Faith Justice	Research Associate
Sheila Nelson	Administrative Assistant
Marsha Opritza	Editorial Consultant
Rita Buccilla	Typist
Peg Bushelman	Typist
Carol Fausnaugh	Typist
Mindy Fausnaugh	Typist
Rita Hastings	Typist
Carol Hicks	Typist
Sue Holsinger	Typist
Barbara Hughes	Typist
Carol Marvin	Typist
Patti Nye	Typist
Kathy Roediger	Typist
Mary Salay	Typist

JOB DESCRIPTION

Under supervision, performs any combination of the following duties pertinent to controlling the operation of the plant:

1. Operates screening and/or comminuting devices, grit removal equipment, a variety of pumps, flow recorders, chemical addition devices, sedimentation tanks, sludge waste and digestion equipment, activated (aerated) sludge systems, trickling filters, oxidation lagoons/ponds, and disinfection equipment

2. Monitors, records, and reports — meter and gauge readings, in situation laboratory test results, and variations in operating conditions

3. Performs routing operational inspections of the equipment listed in paragraph one, and effluent outfalls, routine maintenance and custodial functions, and in situation laboratory tests and analyses

Duty A Performing Screening and Comminuting

1 Operate screening and comminuting equipment
2 Sample, analyze and evaluate performance of screening and comminuting equipment

(TASK STATEMENT) OPERATE SCREENING AND COMMINUTING EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Coarse screen – manually cleaned Coarse screen – mechanically cleaned Comminutor, valves, screenings container Rake, hooks, shovel, boots, squeegee, mop and bucket, hoses, standard operator tool kit Shear pins, nuts, bolts, lock washers	Inspect screens and comminutors Hand clean screens and comminutors Remove debris (screenings) Dispose of debris (screenings) Wash and hose screen and area Lubricate equipment Order maintenance repairs Make minor adjustments Measure and record amount of screenings removed	Slipping on slippery surfaces – keep floor clean Infection by contact with or ingestion of pathogens – innoculation, personal hygiene Keep ventilation fans on Asphyxiation by toxic gases Suffocation from oxygen deficiency Explosion or fire from flammable solvents Pinched against moving machinery — guards
DECISIONS	**CUES**	**ERRORS**
Select number of screens and comminutors in service Determine whether to increase operating frequency Determine whether to make minor repairs or remove from service Determine whether to clean jammed or plugged screen or comminutor or to order cleaning by maintenance	Flow volume, odor, appearance Build up on screens Electrical or mechanical overload, seared pin, abnormal noise, excessive heat in motor or drive mechanisms High water level in inlet channel	Too much build-up on screens, debris forced through screen or grit settles ahead of screens Too much build-up on screens or excessive wear on equipment Lack of attention to other operating units or by-passing of plant flow

(TASK STATEMENT) OPERATE SCREENING AND COMMINUTING EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [cleaning devices are simple tools] Effect of heating and cooling on expansion of materials [binding due to thermal expansion] Resistance of materials to change in shape [shear pin] Behavioral science (see appendix)	Rational numbers Fundamental operations (calculation) Addition algorithm Subtraction algorithm Multiplication algorithm Division algorithm Order of operations, i.e., use of parentheses in simplifying arithmetic expressions Changing mixed numbers to improper fractions Property of comparison – equality/equivalence, inequality/greater than/less than Basic measurement skills and concepts – rate Measurement: geometric – linear, area, and volume Measurement: non-geometric – speed [velocity] Knowledge of geometric relationships – parallel and perpendicular

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, description of mechanism, and process report–instructions
Writing		Memo format, description, and terminology/general vocabulary
Listening		Noise discrimination (recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis (seeing the parts in relation to the whole)
Touching		Temperature, vibration, pressure
Smelling	3	Flammable solvents, hydrogen sulfide

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SCREENING AND COMMINUTING EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sampling dipper Thermometer Sample containers Graduated cylinders Dissolved oxygen sampler Refrigerator Automatic sampler Alkaline potassium iodide Manganous sulfate Concentrated sulfuric acid (dissolved oxygen reagents) Sample preservatives when necessary Influent and effluent from screens and comminutors	Sample raw influent per schedule Measure and record temperature per schedule Composite representative sample in proportion to flow Label and preserve samples per schedule For dissolved oxygen, sample raw influent using dissolved oxygen sample Fix dissolved oxygen sample to convert oxygen to iodine per Manual Operating Practice 18 Transport sample to laboratory for analysis Transport composite sample to laboratory Obtain an extra sample when abnormal color or odor is noted in sewage and promptly transport to the laboratory Observe other units in the plant for signs of malfunction of screening units From above tests and observations, make necessary adjustments on equipment Measure and record volume of screenings collected (cubic feet, cubic yards, bucketful, etc.)	Handling mercury from comminutor seal – avoid contact from fumes or liquid mercury Infection by contact with or ingestion of pathogens Keep ventilation fans on Asphyxiation by toxic gases Suffocation from oxygen deficiency Explosion or fire from flammable solvents Pinched against moving machinery – guards Slipping on slippery surfaces – housekeeping, rubber mats, skid-proof surfaces Back strain through improper lifting – proper lifting techniques Electrical shock from improperly grounded electrical equipment – ground rubber mats Electrical shock – lock out equipment before working on it
DECISIONS	**CUES**	**ERRORS**
Determine whether to throw sample of raw influent out as unrepresentative and get another sample Determine if sample is representative Determine if there is oxygen in sample Determine whether to take an extra sample Determine whether to readjust or rebuild screens and comminutor	Abnormal appearance Simple tools High or low analytical results No yellow color Color or odor Rags, trash in settling tanks or pumps	Results too high or low, improper technique Improper mixing of sample, non-representative sample, skipped sample in composite Continuing test where results will be zero Inhibit bacterial growth in biological systems Damage to equipment, pumps

F

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SCREENING AND COMMINUTING EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Behavioral science (see appendix)	Rational numbers Fundamental operations (calculation) – addition, subtraction, multiplication, and division algorithms, and ordering of operations, i.e., use of parentheses in simplifying arithmetic expressions [computing amount of composite sample] Basic arithmetic skills and concepts – ratio and proportion, and estimation; changing mixed numbers to improper fractions [thermometer, graduated cylinder, pipettes] Basic measurement skills and concepts – measurement: geometric - volume – measurement: non-geometric - time, date, temperature

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report–instructions
Writing		Memo format
Listening		Auditory discrimination, and noise discrimination(recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis, describing, detail and inference and color discrimination
Smelling		Odor

Duty B Performing Grit Removal

1 Operate hand cleaned grit chamber
2 Operate mechanically cleaned grit chamber
3 Sample, analyze, and evaluate performance of grit chamber

(TASK STATEMENT) OPERATE HAND CLEANED GRIT CHAMBER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard Operators Tool Kit Valve key or hook Shovel and scapper Bucket, wheel barrow, truck Water hose Grit containers Grit removing vehicle Wet suit (boots) Broom Hard hat Grit channels Grit Materials reporting log Pencil	Close flow gate in chamber Open influent gate on new chamber Open drain plug, with proper technique Shovel material into container Transport grit to disposal site Wash down chamber Close drain plug Record amount of grit	Proper lifting procedure Pay attention to footing Personal hygiene Strained muscles Falling Infection Head injuries
DECISIONS	**CUES**	**ERRORS**
Determine if chamber needs cleaning	Depth of settled material	Insufficient grit, cleaned, time wasted Sufficient grit, not cleaned, generation of foul odor, and grit in areation tank

(TASK STATEMENT) OPERATE HAND CLEANED GRIT CHAMBER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Forces acting on a body immersed or floating in a liquid [sedimentation – weight of grit, flow or speed] Behavioral science (see appendix)	Set of real numbers [positive rationals] irrationals/rationals fractions/decimals integers whole numbers counting Basic measurement skills and concepts "measure sense"/role of "unit" measurement: geometric - linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing		Visual analysis (seeing the parts in relation to the whole) Memory (short and long term retention) Describing (discrimination and verbalization of physical characteristics) Detail and inference
Smelling		Noting degree of foul smell

(TASK STATEMENT) OPERATE MECHANICALLY CLEANED GRIT CHAMBER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tools – standard operating tool kit Recording log Grease Oil Wet suit Boots Hard hat Gloves Scraper Grease gun Oil can Pencil Shovel Broom Motors Grit removing device or devices installed on plant site Grit containers, grit removing vehicle Grit	Operate particular mechanical grit removal unit in accordance with manufacturers instructions Lubricate all moving parts Observe all moving parts for wear Hose down and clean channel walls and conveyer belts Empty grit hopper Remove grit to disposal area Record and report volume of grit collected	Good footing Beware of moving parts Personal hygiene Hard helmet (close quarters) Falls Injuries to extremities Infections Head injuries

DECISIONS	CUES	ERRORS
Determine whether manufacturer's maintenance is required Determine whether to lubricate as needed Determine whether to adjust clearance if possible or report condition to supervision Determine whether to hose down or scrape off surface of walls or belts as needed Determine whether to empty grit hopper Determine whether to remove grit from storage containers to disposal site Determine whether to record and report volume of grit, noting abnormalities	Instructions in manufacturer's maintenance Lubrication schedule or squeaks and noises Unusually shinny appearance or excessive tolerance between moving parts Accumulation of solids or slimmy wastes on surface of walls or belts Full grit hopper or excessive foul odors Unsanitary appearance or foul odors of storage containers Daily operating log schedule	Failure of mechanical equipment, loss of time, expense of repair Slippery, unsafe, unsanitary conditions, foul odor generation Need for excessive grit containers, generation of foul odors, unsanitary conditions Failure to keep operating records needed to detect possible pending equipment failure, and grit accumulation in aeration tanks

(TASK STATEMENT) OPERATE MECHANICALLY CLEANED GRIT CHAMBER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Centrifugal forces developed by bodies in rotation [rotating cyclone separator] Centripetal forces developed by bodies in rotation [rotating cyclone separator] Forces acting on a body immersed or floating in a liquid [sedimention rates] Behavioral science (see appendix)	Set of real numbers – positive rationals Irrationals/rationals, fractions/decimals, integers, whole numbers, and counting Fundamental operations (calculation) Addition, subtraction, and multiplication algorithms Reduction of fractions Changing mixed numbers to improper fractions Use of computing devices and mechanical aids Calculators – electrical "Measure sense"/role of "unit" Conversion from one standard unit to another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, enunciation
Reading		Comprehension, informational reports, physical experiment reports, terminology, process reports – instructions
Writing		Reports
Listening		Auditory discrimination,concentration, noise discrimination (recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis, memory, color discrimination, and recognition of symbols, codes, emblems
Touching		Temperature, motion, pressure, torque
Smelling		Recognition, degree, and change

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF GRIT CHAMBER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Container and stick Recording forms Grit removal tank Grit	Record total volume grit collected Record any observed abnormalities Collect representative sample Send sample to laboratory Determine volatile content of grit collected in order to evaluate efficiency of grit chamber operation	Personal hygiene Safe footing Infection Falling
DECISIONS	**CUES**	**ERRORS**
Determine if abnormality exists Determine whether to record or not record	Variation from normal appearance, color, size, etc.	Failure to observe and/or record will result in no corrective action by supervisory personnel Excessive loading plant process Possible mechanical equipment failure

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF GRIT CHAMBER

SCIENCE	MATH – NUMBER SYSTEMS
Understand "representative" sampling Behavioral science (see appendix)	Set of real numbers – positive rationals Irrationals/rationals, fractions/decimals, integers, whole numbers, and counting Use of numbers (without calculation) – recording "Measure sense"/role of "unit" Measurement: geometric Linear, area, and volume Measurement: non-geometric Weight

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Doing log reports	Penmanship Spelling Reports Terminology/general vocabulary
Viewing	Observing sample condition	Visual analysis (seeing the parts in relation to the whole) Describing (discrimination and verbalization of physical characteristics) Color discrimination
Smelling	Not normal odor	

Duty C Performing Pumping

1 Operate centrifugal and positive displacement pumps

(TASK STATEMENT) OPERATE CENTRIFUGAL AND POSITIVE DISPLACEMENT PUMPS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Pump, switch, lock out tag, Operating manual Flashlight, electrical continuity tester Hoses, gloves, boots, and hard hats Check valves Shut-off valves Sump pumps Grit pumps Sewage pumps Activated sludge return pumps Trickling filter return pumps Digester circulating sludge pumps Digester supernatent return pumps	Inspect pump for normal operation Start up and shut down pumps per operating procedures Inspect pump activating controls – electrode controls, air bubbler, and float switch Determine cause of any malfunction Make minor adjustments as necessary Lubricate Order maintenance repairs Record pump data per operating procedures Record process changes and operating difficulties	
DECISIONS	**CUES**	**ERRORS**
Determine whether to shut pump down or let run Determine whether to follow operating procedures Determine when to order repairs	Noise, heat, will not start, lost prime, vibration, discharge pressure, suction pressure, amperage, excessive packing leakage, wobble, slippage in belt drive, failure in seal water system, cut-in and cut-out cycles too frequent Line blows apart on positive displacement pump Parts needed	Damage to pump (burn out motor, bend shaft, bind rotating element, damage wearing rings, excessive wear or breakage of impeller, damage pump seal) Valve left closed on discharge side Delay may result in poor plant performance

(TASK STATEMENT) OPERATE CENTRIFUGAL AND POSITIVE DISPLACEMENT PUMPS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Effect of heating and cooling on expansion of materials [binding due to overheating] Fluids under pressure [pressure sensing devices – hydrostatic and pneumatic pumps] Centrifugal forces developed by bodies in rotation [centrifugal force (pump impeller)] Resistance of materials to change in shape [bending of shafts, float rods] Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition, subtraction, multiplication, and division algorithms, and order of operations, i.e., use of parentheses in simplifying arithmetic expressions Basic arithmetic skills and concepts Ratio and proportion – estimation ; property of comparison, equality/equivalence, inequality/greater than/less than –[return activated sludge, and hydrostatic pressure, electrical amperage] Basic measurement skills and concepts – instruments: tachometer, tape, and liquid level drop rate – [flow] measurement: geometric–volume [cubic measure] measurement: non-geometric – temperature, and speed (for example: feet per minute, R.P.M., etc.)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report–instructions
Writing		Memo format
Listening		Noise discrimination (recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis (seeing the parts in relation to the whole), and describing (discrimination and verbalization of physical characteristics)
Touching		Temperature, motion–vibration, and pressure
Smelling		Odor – burning, overheating: electric or oily

Duty D Performing Flow Measurement

1 Operate flow measurement devices

26

(TASK STATEMENT) OPERATE FLOW MEASUREMENT DEVICES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Hose Pen cleaning wires Ink Charts Pen Voltage tester Electrical continuity tester Rotameter Parshall flume Flow nozzle Weir (rectangular V-notch, cipollette, sutro) Velocity meter Differential head meters Orifices Magnetic meters Sensing, indicating, transmitting, and recording devices	Inspect equipment for proper operation Record flow readings Change chart Check and refill pen cleaning clogged tips Clean float of debris and wash down stilling well On pneumatic systems, blow down condensate trap Clean wires and flow nozzles as required Diagnose malfunctions and correct if possible Order maintenance repairs when malfunction is noted	Slipping on slippery surfaces – housekeeping skid-proof floors Ventilation in closed areas required to prevent asphyxiation or suffocation – keep fans on while in area
DECISIONS	**CUES**	**ERRORS**
Check power supply on transmitter and recorder; check recorder electron tubes Check float cables, power supplies, blockage in stilling well, floats	Sensing but not indicating correctly Indicating but not recording No reading Erratic reading Wrong reading	Wrong flow readings Poor analysis of plant performance – flow devices may falsely control other plant units

(TASK STATEMENT) OPERATE FLOW MEASUREMENT DEVICES

SCIENCE	MATH – NUMBER SYSTEMS
Fluids under pressure [venture, air bubbler, and liquid head] Forces acting on a body immersed or floating in a liquid [floats] Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation): addition,subtraction, multiplication, and division algorithms, and order of operations, i.e., use of parentheses in simplifying arithmetic expressions Ratio and proportion – estimation [determine peak, average, and minimum flow] Basic measurement skills and concepts: Instruments: flow indicator and recorder Rate [flow] Measurement: geometric – volume measurement [cubic feet per second–million gallon per day] Measurement: non-geometric – liquid and speed (example: feet per minute, R.P.M., etc.) Conversion from one standard unit to another [gallons per day to pounds per day or to cubic feet per second]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, description of mechanism, and process report – instructions
Writing		Memo format, record flow, initiate repair order
Listening		Auditory discrimination
Viewing		Describing (view and describe malfunction)
Touching		Temperature, pressure, and motion vibration

Duty E Performing Pretreatment by Chemical Addition

1 Operate pretreatment units (chemical addition)
2 Sample, analyze, and evaluate performance of pretreatment units (chemical addition)

29

(TASK STATEMENT) OPERATE PRETREATMENT UNITS (CHEMICAL ADDITIONS)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operating tool kit Pipe reamer Hand and power carts, conveyors, rollers, Zeta meter, hydrometer, and charts turbidimeter, pH meter, oxidation-reduction meter (ORP) Alum, lime, carbon, fly ash, polymets, sodium aluminate, ferris chloride, ferrous sulfate and chlorine, and ferric sulfate Chemical feeders (wet and dry), chemical storage and transport system, mixing tanks (flash and slow mix), measuring devices – weight and volume, dust collectors, chemical additions control	Check inventory of materials Fill bins of chemical feeders Prepare solution feeds Check feed rates in proportion to chemical reactions Check dosages of chemicals required Inspect and adjust equipment for proper operation Obtain laboratory results and readjust chemical dosages Start up and shut down units Lubricate equipment Make minor repairs Order maintenance repairs Sample chemicals for purity as purchases	Dust mask for loading and unloading of hazardous chemicals – danger of explosives Slipping on slippery surfaces – housekeeping, skid-proof surfaces Chemical burns in cuts Eye protection (shields-glasses) when loading or unloading hazardous chemicals Ferric chloride, liquid alum – rubber aprons, knee boots, and eye protection
DECISIONS	**CUES**	**ERRORS**
Determine whether to turn on dust collection system and exercise care in handling Determine whether to check solution concentration Determine whether to break up or remove blockage – correct feed rates	Carbon dust in room atmosphere Chemical reaction incomplete Caking of dry chemical Zeta potential high or low	Explosive dust mixture Poor treatment Underfeed chemical – poor treatment Overfeed chemical – poor treatment

(TASK STATEMENT) OPERATE PRETREATMENT UNITS (CHEMICAL ADDITIONS)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Effect of heating and cooling on state of matter [keeping chemicals in solution] Fluids under pressure [hydrostatic head] Transfer of heat from one body to another [chemistry – stoichiometric proportions; chemistry – colloids, zeta potentials, pH and ORP] Effects of particle size on flow rate of dry powdered chemicals Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition, subtraction, multiplication, and division algorithms; and order of operations, i.e., use of parentheses in simplifying arithmetic expressions Ratio and proportion – setting feeders, and making dilutions Instruments: Thermometer, tipping bucket, proportioning pump Rate – feed rates – mass and volume Measurement: geometric – volume Measurement: non-geometric – temperature, weight, liquid, dry, and speed (example: feet per minute, R.P.M., etc.) Use of variables: in formulae, and in equations Manipulation of formulae; write as a formula or equation a relationship given in words; substitute given values in order to find the value of the required unknown [determine chemical proportions in stoichiometry] Determination of lateral area, total area, and volume of frustums of pyramids and cones [calculate volumes in bins]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report – instructions
Writing		Memo format
Smelling		Odor
Listening		Auditory discrimination, noise discrimination (recognize proper and improper sounds; animal, human, and machine)
Viewing		Visual analysis, describing
Touching		Consistency, texture, temperature, motion-vibration, pressure

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF PRETREATMENT UNITS (CHEMICAL ADDITION)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sample dipper Six gang mixer Zeta meter pH meter Turbidity meter ORP meter Beakers Hydrometer Membranes Standard samples pH probe pH probe cleaner Calomel solutions Distilled water Chemicals Influent	Take representative sample of each batch of delivered chemicals and send to laboratory for analysis of quality and purity Take samples of chemical dilutions for laboratory analysis or hydrometer test Test solutions for proper dosage concentration Make jar tests to determine optimum dosage required	Dust mask for loading and unloading of hazardous chemicals—danger of explosions Slipping on slippery surfaces – housekeeping, skid-proof surfaces Chemical burns in cuts Eye protection (shields, glasses) when loading or unloading hazardous chemicals Ferric chloride, liquid alum – rubber aprons, kneeboots, and eye protection
DECISIONS	**CUES**	**ERRORS**
Determine whether to reject sample or accept with proper adjustments Determine whether to rerun on-site tests Determine whether to rerun check for change in influent	Material not as specified Material frozen Laboratory analysis does not agree with tests Higher dosage than normal operating experience	If rejected, may run out of chemicals Use wrong dilution Add excessive chemicals

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF PRETREATMENT UNITS (CHEMICAL ADDITION)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Chemistry: stoichiometric proportions, colloids, zeta potential, pH, and ORP Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition, subtraction, multiplication, and division algorithms, and order of operations, i.e., use of parentheses in simplifying arithmetic expressions Ratio and proportion – estimation [dilutions] Instruments: proportions Rate [feeds] Measurement: geometric – volume Measurement: non-geometric – temperature, weights, liquid, dry, and speed (example: feet per minute, R.P.M., etc.) Use of variables: in formulae, and in equations: manipulation formulae Write as a formula or equation a relationship given in words Substitute given values in order to find the value of the required unknown [determine chemical proportions in stoichiometry] Determination of lateral area, total area, and volume of frustums of pyramids and cones [calculate volumes in bins]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report – instructions
Writing		Memo format
Listening		Auditory discrimination, and noise discrimination (recognize proper and improper sounds: animal, human, and machine)
Viewing		Visual analysis (seeing the parts in relation to the whole)
Touching		Consistency, texture, temperature, pressure
Smelling		Odor

Duty F Performing Coagulation and Flocculation

1 Operate coagulation and flocculation units
2 Sample, analyze, and evaluate performance of coagulation and flocculation units

34

(TASK STATEMENT) OPERATE COAGULATION AND FLOCCULATION UNITS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Sample dipper Zeta meter pH meter Turbidimeter Graduated cylinders Timers Oxidation-reduction potential meter (ORP) Membranes Standard samples pH probe cleaner pH probe Calomel solutions Distilled water Coagulation and flocculation tanks Valves Hydrometer	Observe for normal operation Check and determine causes of malfunctions Adjust mixing and flocculating rates Check size, shape, and settling rates of flocculation Make minor repairs – linkages – drives Order maintenance repairs Order changes in chemical additions and feed rates Check and recalibrate sensing probes (Zeta meter, pH meter, turbidimeter) Start up and shut down units	Slipping – on slippery surfaces; clean up oil, slimes, and wet spots Falling into tank – exercise caution; body balance; watch footing Body strains – lift heavy bags carefully
DECISIONS	**CUES**	**ERRORS**
Determine whether to clean, check, and/or replace sensors on Zeta meter, pH meter, and turbidimeter Determine whether to check chemical feed rate and check power supply and controls Determine whether to increase peripheral velocity of flocculators Determine whether to increase chemical feed – reduce flocculator speed Determine whether to increase chemical reaction time Determine whether to administer excessive dosage	Sensors not indicating correctly No flocculation formation Flocculators off Sludge settling to bottom of flocculators Light flocculation Pinpoint flocculation Dense flocculation High or low hydrometer readings	Excess addition of chemical, poor treatment Manually remove sludge Overload equipment Poor performance Poor plant performance Waste chemicals

(TASK STATEMENT) OPERATE COAGULATION AND FLOCCULATION UNITS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple machines] Chemistry – stoichiometric proportions Chemistry – colloids – Zeta potentials Chemistry – pH, ORP Chemistry – specific gravity, degrees Baumé Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition algorithm Subtraction algorithm Division algorithm Order of operations, i.e. use of parentheses in simplifying arithmetic expressions

36

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report – instructions
Writing		Memo format
Listening		Auditory discrimination, and noise discrimination (recognize proper and improper sound; sounds; animal, human, and machine)
Viewing		Visual analysis (seeing the aprts in relation to the whole), memory (short and long term retention), recognition of symbols, codes
Touching		Temperature, motion-vibration, pressure
Smelling		Odors

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE, PERFORMANCE OF COAGULATION AND FLOCCULATION UNITS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sample dipper Graduated cylinders Timer Zeta meter pH meter ORP meter Turbidity meter Burette-erlenmeyer flasks Membrane Standard sample pH probe pH probe cleaner Calomel solutions Distilled water Standard acid solution (.02 N) Phenolphthalein and methyl orange indicator Objects – influent and effluent Samples Hydrometer	Take representative samples of influent and effluent for laboratory analysis and on-site analysis Composite in proportion to flow samples for laboratory analysis Test influent and effluent for turbidity, pH, ORP , Zeta potential, alkalinity, according to plant operating schedule or under abnormal operating conditions Record results and notify proper operating personnel to make necessary adjustments	Slipping – on slippery surfaces; clean up oil, slimes, and wet spots Falling into tank – exercise caution; body balance; watch footing
DECISIONS	**CUES**	**ERRORS**
Determine whether to change chemical feed	High turbidity Low or high pH Low or high ORP High Zeta potential Low or high alkalinity High or low hydrometer readings	Poor treatment; high chemical usage

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF COAGULATION AND FLOCCULATION UNITS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple machines] Chemistry: stoichiometric proportions, colloids – Zeta potential, pH, ORP Chemistry – specific gravity, degrees Baumé Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition algorithm Subtraction algorithm Multiplication algorithm Division algorithm Order of operations, i.e. use of parentheses is simplifying arithmetic expressions

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Listening Viewing Touching Smelling		Terminology/general vocabulary Comprehension, process report – instructions Memo format Auditory discrimination Visual analysis (seeing the parts in relation to the whole), describing (discrimination and verbalization of physical characteristics), color discrimination, and recognition of symbols, codes, emblems Pressure Odor

Duty G Performing Sedimentation (Primary and Secondary Solids Removal)

1 Operate mechanically cleaned settling tanks
2 Sample, analyze, and evaluate performance of mechanically cleaned settling tanks
3 Operate Imhoff settling tank
4 Sample, analyze, and evaluate performance of Imhoff settling tank

(TASK STATEMENT) OPERATE MECHANICALLY CLEANED SETTLING TANKS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Hose Brush Cleaning rod Grease gun Oil containers Boots Rainsuit Pencil and paper Operating report forms Maintenance report forms Lubrication Record cards Settling tanks Sludge and scum collector mechanisms Overflow weirs Baffles, sludge well, telescoping sludge valves, sludge withdraw line, and scum discharge system	Inspect settling tank for proper operation Inspect torque limit system Operate sludge collector and skimmer Draw off sludge Remove scum (floatable materials) Clean scum removal and collector mechanism Pump raw and secondary sludge Place settling tanks in and out of service Clean baffles and weirs per schedule Check oil level in gear drive mechanism per schedule Lubricate per schedule Make minor repairs Order maintenance repairs Watch torque indicator for evidence of scraper overload	Slipping on slippery surfaces – clean up oil, grease, watch footing Infection by contact with or ingestion of pathogens – wash hands before eating or smoking; hands below collar while working; prompt first aid for all minor cuts; prompt medical attention to all major cuts and puncture wounds Falling into tank – watch footing

DECISIONS	CUES	ERRORS
Determine if sludge build up in tank is due to mechanical or electrical malfunction Determine if hydraulic overload exists Determine whether to operate skimmer Determine whether to operate sludge collector Determine whether to remove load on sludge collector Determine whether to inspect for worn or broken parts Determine whether to allow sludge to thicken in tanks before drawing off Determine whether air locked or blocked line Determine whether to change number of settling tanks in service – drain out any water or oil	Thermal overload of motor Excessive heat, abnormal noise Excessive loss of solids over weirs Visible grease particles discharging from weir Rising sludge Odors of hydrogen sulfide Tank dark Gas bubbles on tank High torque indication on drive mechanism Erratic movement stuttering of sludge Sludge low in percent solids to digestion Pump not pumping Flow rate through tank, turbidity, color of submerged weir Water in oil reservoir	Damage to collector Reduced efficiency Clogged trickling filter or overload Activated sludge tank with hard to remove grease balls Damage to collector Damage to collector and skimmer Damage to mechanism Exceed sludge heating system capacity and hydraulic overload digestion system No sludge transferred Hydraulic overload or underload Damage to drive mechanism

(TASK STATEMENT) OPERATE MECHANICALLY CLEANED SETTLING TANKS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [cleaning devices are simple tools] Forces acting on a body immersed or floating in a liquid [settling rates (Stokes Law)] Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition, subtraction, multiplication, and division algorithms, and order of operations, i.e., use of parentheses in simplifying arithmetic expressions Changing mixed numbers to improper fractions Property of comparison – equality/equivalence, inequality/greater than/less than Basic measurement skills and concepts Rate Measurement: geometric – linear, area, and volume Measurement: non-geometric – speed [velocity] Basic geometry skills and concepts Knowledge of geometric relationships – parallel, and perpendicular

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Listening Viewing Touching Smelling		Terminology/general vocabulary Comprehension, description of mechanism, process report – instructions Memo format, description, and terminology/general vocabulary Noise discrimination (recognize proper and improper sounds; animal, human, machine) Visual analysis (seeing the parts in relation to the whole) Temperature, vibration, pressure Flammable solvents, hydrogen sulfide

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE, PERFORMANCE OF MECHANICALLY CLEANED SETTLING TANKS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sampling dipper Thermometer Sample containers Graduated cylinders D.O. Sampler Sterile bacterial bottle Raincoat Refrigerator Automatic sampler D.O. glassware D.O. reagents Influent and effluent from settling tanks (primary and secondary)	Sample influent and effluent per schedule Measure and record temperature per schedule Composite representative sample in proportion to flow Label and preserve samples per schedule Fix samples and test for D.O. Transport samples to laboratory Observe other units in the plant for signs of malfunction of settling units From the above tests and observations, make necessary adjustments on equipment to improve or maintain optimum plant performance Determine sludge volume index and sludge density index in order to properly evaluate operation of settling tanks	Slipping on slippery surfaces – clean up oil, grease, watch footing Infection by contact with or ingestion of pathogens – wash hands before eating or smoking; hands below collar while working; prompt first aid for all minor cuts and puncture wounds Falling into tank – watch footing
DECISIONS	**CUES**	**ERRORS**
Determine whether to initiate corrective action Determine whether to check sample collection method Determine whether to initiate corrective action, fix skimmer, increase frequency of removing skimmings	Abnormal appearance, color, turbidity solids overflow High or low results Solids carry over (excessive) Rising sludge blanket Trickling filter ponding Excessive floating solids in aeration tank (debris, grease)	Poor efficiency of treatment Non-representative samples Poor efficiency also filter ponding, clogging lines, and valves, creates additional manual cleaning problems in subsequent units

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF MECHANICALLY CLEANED SETTLING TANKS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Chemistry – normality, conversion of units, standardization of solutions, oxidation-reduction reactions Biology, bacteriology – some knowledge of aquatic plants, animals, bacteria and molds, pathogens, fecal coliform Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition algorithm Subtraction algorithm Multiplication algorithm Division algorithm Order of operations, i.e., use of parentheses in simplifying arithmetic expressions [computing amount of composite sample] Basic arithmetic skills and concepts Ratio and proportion – estimation Changing mixed numbers to improper fractions [thermometer, graduated cylinder, pipettes] Measurement: geometric Volume Measurement: non-geometric Time [date] Temperature

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report – instructions
Writing		Memo format, sample tags, forms, reports
Listening		Auditory discrimination, and noise discrimination (recognize proper and improper sounds animal, human, and machine)
Viewing		Visual analysis, describing, detail and inference color discrimination, appearance of sample and units, reports
Touching		Pressure
Smelling		Odor – recognize various types (pungent, aromatic, earthy, sour, etc.)

43

(TASK STATEMENT)

OPERATE IMHOFF SETTLING TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Long handled squeegee Skimmers slot cleaner Storage containers Hose Chemical – hydrated lime Valves Imhoff tank Long chain	Inspect gas vents weirs, settling compartment Observe for gas in settling compartment Break up scum in gas vents Squeeze settled solids through slot Clean slot Reverse flow in tank as necessary Draw off sludge as necessary Housekeeping Order maintenance repairs	Slipping on slippery surfaces – watch footing and clean up grease and oil Fall into tank No smoking in immediate area – methane gas Avoid breathing lime and handling lime with bare hands – lime dust – use dust mask, gloves, rubber apron

DECISIONS	CUES	ERRORS
Determine whether to break up surface scum Determine whether to clean slots Determine whether to remove settled solids from settling compartment Determine whether to draw off sludge from sludge digestion compartment Determine whether to backflush sludge draw-off line with water Determine whether to break up scum in gas vents and add hydrated lime Determine whether to check inlet and outlet valves	No gas rising in gas vent Gas rising in settling compartment Sludge rising in settling compartment Line of gas bubbles over slot Blocked sludge draw-off line Odors Rising water level in settling compartment	Lower treatment efficiency Unit out of service Odors, lower treatment efficiency Reduced unit capacity

(TASK STATEMENT) OPERATE IMHOFF SETTLING TANK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [cleaning devices are simple tools] Forces acting on a body immersed or floating in a liquid [settling rates (Stokes Law)] Chemistry – use of lime to convert grease to soap and as an odor control agent Behavioral science (see appendix)	Whole numbers Use of numbers (without calculation) Counting

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Viewing Smelling		Terminology/general vocabulary Comprehension Memo format Describing (discrimination and verbalization of physical characteristics) Odors

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF IMHOFF TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Hose Brush Cleaning rod Grease gun Oil containers Boots Rainsuit Pencil and paper Operating report forms Maintenance report forms Lubrication Record cards Settling tanks Sludge and scum collector mechanisms Overflow weirs Baffles, sludge well, telescoping sludge valves, sludge withdraw line, and scum discharge system	Collect samples from influent and effluent per schedule Composite representative sample in proportion to flow Label and preserve samples per schedule Collect sludge samples per schedule when drawing sludge to sludge drying beds Transport samples to laboratory Observe other units in the plant for signs of malfunction of imhoff tank From the above tests and observations, make necessary adjustments to improve or maintain optimum plant performance Determine volatile solids content of sludge from draw off tube	Slipping on slippery surfaces – watch footing and clean up grease and oil Fall into tank No smoking in immediate area – methane gas Avoid breathing lime and handling lime with bare hands – lime dust – use dust mask, gloves, rubber apron
DECISIONS	**CUES**	**ERRORS**
Determine whether to initiate corrective action Determine whether to check sample collection and storage methods Determine whether to initiate corrective action, increase frequency of skimming, scraping down sludge, sludge draw off Determine when to withdraw sludge	Abnormal appearance, color, turbidity, solids carry over High or low results Solids carryover to biological oxidation system Sludge level high in digester or lower tank Low volatile content of digested sludge	Poor performance Non-representative samples Poor efficiency, increased load on subsequent plant units

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF IMHOFF TANK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Chemistry – normality, conversion of units, standardization of solutions, oxidation-reduction reactions Biology, bacteriology – some knowledge of aquatic plants, animals, bacteria and molds, pathogens, fecal coliform Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition, subtraction, multiplication, and division algorithms, and order of operations, i.e., use of parentheses in simplifying arithmetic expressions [computing amount of composite sample] Basic arithmetic skills and concepts Ratio and proportion – estimation Changing mixed numbers to improper fractions [thermometer, graduated cylinder, pipettes] Measurement; geometric – Volume Measurement: non-geometric Time [date] Temperature

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Listening Viewing Touching Smelling		Terminology/general vocabulary Comprehension, process report – instructions Memo format, sample tags, forms, reports Auditory discrimination, and noise discrimination (recognize proper and improper sounds animal, human, and machines) Visual analysis, describing, detail and inference color discrimination, appearance of sample and units, reports Pressure Odor – recognize various types (pungent, aromatic, earthy, sour, etc.)

Duty H Performing Sludge Wasting and Digestion

1 Operate sludge wasting equipment and aerobic digester
2 Sample, analyze and evaluate performance of sludge wasting equipment and aerobic digester
3 Operate an anaerobic digester
4 Sample, analyze and evaluate performance of sludge wasting equipment and anaerobic digestive

(TASK STATEMENT) OPERATE SLUDGE WASTING EQUIPMENT AND AEROBIC DIGESTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Hard hat, grease gun, "T" handle valve, wrench to fit waste valves Recording charts, grease, oil Waste sludge valves Waste sludge pumps Supernating valves Supernating pumps Digesting sludge Diffused air Air filters and blower snubbers Manometer and air flow meters Air supply valves Diffusers Motors Blowers Mechanical aeration Mechanical aerators Motors	Waste return sludge when instructed Record waste sludge flow meter readings Check/record manometer pressures Check/record air flow meter volume/change charts Adjust all valves and pumps as necessary Check lubrication for all equipment Check temperature on all pumps and motors Stop aeration – withdraw supernatant Restart sludge digesting process at the end of supernating period Remove digested sludge when instructed Keep equipment clean	Poor footing – falls – keep floors and walkways clean and hand rails and guards in place and in good condition Electrical shocks – wear and use proper safety equipment Burns from hot equipment – wear and use proper safety equipment Muscle strains – follow proper lifting procedure Head injuries
DECISIONS	**CUES**	**ERRORS**
Determine whether to follow instructions Determine whether to follow standard operating procedure Determine whether to follow standard under normal conditions – shut down air supply unit and report to supervisor is unit fails to respond to normal adjustment procedure Determine whether to follow lubrication schedule and instructions Determine if unit is too hot – shut down and report to supervisor – unit too cold, no power – check power supply Determine whether to close valves/restart, clean, and wipe all air supply units and filters	Instructions from supervisor Standard operating procedure Standard operating procedure – abnormal operations, high/low readings Abnormal agitation in tanks Sight gages, high/low – high temperature High or low temperature Instruction from supervisor Supernating process completed or sludge blanket pops to top of the tank Instruction from supervisor Dirty air filter, dust, dirt, and grease accumulation	Excess solids accumulation in aeration tanks Fail to maintain plant solids balance Result in rapid blower failure Insufficient air supply drop in digester efficiency Excessive wear and leakage Equipment failure Require excessive digester space or excess solids accumulate in aeration tanks Septic conditions and odor generation Overload digester tankage Insufficient air supply

(TASK STATEMENT) OPERATE SLUDGE WASTING EQUIPMENT AND AEROBIC DIGESTER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Fluids under pressure [pump liquid slurries] Centrifugal forces developed by bodies in rotation [centrifugal pumps] Forces acting on a body immersed or floating in a liquid [sedimentation] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting, and coordinate system Fundamental operations (calculation) Addition and subtraction algorithms Basic measurement skills and concepts "Measure sense"/role of "unit" Instruments: Rate Measurement: geometric – volume Measurement: non-geometric – liquid and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – logs, and scale drawings/floor plans/blueprints

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, appropriate diction, enunciation, and clarity of expression
Reading		Comprehension, informational reports, physical experiment reports, process report–instruction
Writing		Penmanship, spelling, reports, and terminology general vocabulary
Listening		Auditory discrimination, noise discrimination
Viewing		Visual analysis, memory, color discrimination, and recognition of symbols, codes, emblems
Touching		Temperature – motion, pressure, torque
Smelling		Odor

(TASK STATEMENT)

SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SLUDGE WASTING EQUIPMENT AND AEROBIC DIGESTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Two quart sampler on six-foot pole Sample jars – five hundred milliliters Routine plant sampling schedule Pencil and paper Digesting sludge supernatant	Collect samples of digesting, and digested sludge and supernatant for routing and special laboratory analysis Send samples to laboratory promptly Observe color and odor or turbidity of collected sample Record and report observations	Poor footing – falls Electrical shocks Burns from hot equipment Muscle strains Head injuries Keep floor and walkways clean and handrails and guards in place and in good condition Wear and use proper safety equipment Follow proper lifting procedures
DECISIONS	**CUES**	**ERRORS**
Determine whether to decide on completeness of digestion and supernating processes, and satisfactory settleability of digested sludge Determine whether to follow specified procedure Determine needed adjustment of air supply to digester tank	Routine plant sampling schedule or special sampling request Standard operating procedure Color of sludge or clarity of supernatant and presence of odor, i.e., visual – light brown/dark brown:insufficient air supply; smell – earthy/sour odor: solids concentration too high, digestion stopped on acid production, step–insufficient oxygen supply; smell – earthy/rotten egg: color – brown/black: insufficient air supply; visual and smell – supernatant highly colored – turbidity – foul odor–sludge held too long in digester–visual–supernatant – clear, little odor	Improperly digested sludge or too much sludge No laboratory results or invalid laboratory results, poor digester performance Poor digester results, anaerobic conditions – foul odors Poor plant operating data and equipment failures

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SLUDGE WASTING EQUIPMENT AND AEROBIC DIGESTER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Centrifugal forces developed by bodies in rotation Simple chemistry of fermentation Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) Addition algorithm Subtraction algorithm Basic arithmetic skills and concepts Changing fractions to decimals and decimals to fractions Basic measurement skills and concepts "Measure sense"/role of "unit" Measurement: geometric – volume Measurement: non-geometric – time, and liquid

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, enunciation
Reading		Comprehension, informational reports, physical experiment reports, and process report – instructions
Writing		Reports, and terminology/general vocabulary
Listening		Auditory discrimination, concentration, and noise discrimination (recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis (seeing the parts in relation to the whole), memory (short and long term retention), recognition of symbols, codes, and emblems
Smelling		

(TASK STATEMENT) OPERATE AN ANAEROBIC DIGESTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operator's tool kit Hoses, broom, squeegee, explosimeter Hard hat and safety goggles Manuals, bench sheets Valves Motors Pumps Manometers Thermometers Gas meters (cubic feet) Heat exchangers, boiler Waste gas burner and pilot light Digester tank and cover Digester sludge mixing equipment Condensation traps Sludge	Become familiar with proper sequence of valve settings needed to properly operate the anaerobic digester system Draw raw sludge from primary clarifier and send to primary sludge digester Check primary digester sludge recirculation equipment, digester, heat exchanger, and record temperature Check water sight gauge Withdraw primary and secondary supernatant and record amount Transfer sludge from primary to secondary digester and record amount Withdraw digester sludge from secondary digester and send to disposal system Observe, record, and report manometer pressures, and gas production recordings Empty condensation traps according to schedule and check operation of sludge gas waster burner	Safe footing Personal hygiene Explosions Hard hats No flames, sparks Good ventilation Frequent checking of water sight gauges Never breathe digester gas
DECISIONS Determine how to read, understand, and follow proper valve setting sequence Determine whether to follow posted withdrawal schedule or to adjust schedule, when necessary, to achieve optimum digester operation; report necessary deviations from schedule to supervision Determine whether to make normal operator adjustments and report failure to supervision Determine whether to withdraw only sufficient supernatant to provide room for incoming sludge (continued)	**CUES** Knowledge of possible damage to equipment, digestion process, and ever-present danger of formation of explosive conditions inherent in anaerobic digestion process Posted raw sludge withdrawing schedule or consistency of raw sludge samples, or a rapid drop in sludge gas production and/or drop in primary digester pH Drop in gas production, pH or digester temperature; low or falling digester temperature Supernatant withdrawal schedule Accumulation of excess solids in primary supernatant or in bottom of digester (continued)	**ERRORS** Sending sludge to wrong unit, or allowing digester to drain back through raw sludge pump to wet well; this may allow air to be drawn into digester causing an explosive environment Stuck digester – poor quality gas Too little supernatant – lack of space for incoming sludge causing overflow Too much supernatant – introduction of air to digester causing explosive condition Loss in capacity of digester producing excess solids in supernatant – organic overload on plant process (continued)

DECISIONS	CUES	ERRORS
Determine whether to have supernatant analyzed for solids content and sample digester for solids accumulation level – transfer sludge as needed to maintain optimum conditions Determine how to read measuring devices accurately and promptly Determine whether to drain completely Determine if there is sufficient gas pressure to operate waste gas burner, and if pilot light is lit	Accumulation of excess solids in secondary supernatant or solids level in digester Reporting instruction (SOP) Level in sight gauges on condensation traps No flame on waste gas burner	High pressure causes safety valve to shut off digester gas and swithc to commercial fuel Higher pressure will open relief valve, causing explosive condition Low pressure – same problems as with high pressure Water in gas collection system will cause diaphragm valve, metering equipment, and gas-using equipment failure; pipe corrosion; waste gas burner will not operate Gas escapes from pressure/vacuum relief valve creating explosive conditon

(TASK STATEMENT) OPERATE AN ANAEROBIC DIGESTER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Fluids under pressure [floating tank cover] Centrifugal forces developed by bodies in rotation [centrifugal pumps Forces acting on a body immersed or floating in a liquid [sludge settling] Transfer of heat from one body to another [heat exchanger] Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) – addition and subtraction algorithms Basic measurement skills and concepts "Measure sense"/role of "unit" Instruments: Rate Measurement: geometric – linear, area, and volume Measurement: non-geometric – time, temperature, weight, liquid and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – scale drawings/floor plans/blueprints Basic geometry skills and concepts Determination of area and volume of rectangular, cube, and right triangular prisms; of cylinders; of altitude, area, and volume of a right circular cone; of the surface and volume of a sphere Basic logic – deductive or inductive Implications/converse/inverse/contrapositive

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, enunciation, clarity of expression, and logic
Reading		Comprehension, informational reports, physical experience reports, description of mechanism, terminology, process report (instructions)
Writing		Penmanship, spelling, reports, terminology/general vocabulary, clairty of expression, logic
Listening		Auditory discrimination, discriminate facts from non-facts, recognize opinions, concentration, logic, noise discrimination
Viewing		Visual analysis, memory, describing, logic, detail and inference, color discrimination
Touching		Size, shape, consistency, temperature, texture, motion, torque

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF AN ANAEROBIC DIGESTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard operators tool kit Hard hats Explosimeter Sludge gas sampler Digester depth sampler Sampling schedule Eye protection – goggles, washing Two quart containers for sludge samples Simplified carbon dioxide gas analysis equipment Thermometer Reporting form Pencil Potassium hydroxide (carbon dioxide analysis) Sludge (raw, digested) Supernatant Sludge gas Sampling valves	Collect composite raw sludge sample Take temperature immediately Note any appearance abnormalities in sample Send sample to laboratory for SOP analysis Collect composite digested sludge sample Collect sludge gas sample, and send to laboratory for standard plant analysis Optional: collect and perform simplified carbon dioxide sludge gas content analysis	Safe footing Personal hygiene Explosions Head injuries Never breathe digester gas Safety goggles Eye wash kit
DECISIONS	**CUES**	**ERRORS**
Determine whether to follow schedule under routine conditions Determine whether to take needed sample to determine corrective operating procedure to restore normal gas production	Sampling schedule under routine operating conditions Sudden drop in gas production	Inability to evaluate normal performance of digester and recognize potential digester process failure Unnecessary digester process failure

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF AN ANAEROBIC DIGESTER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Fluids under pressure [pipe line pressures] Forces acting on a body immersed or floating in a liquid [sludge settling] Transfer of heat from one body to another [heat exchanger] Sampling technique Caustic nature of strong alkaline (KOH) Simple gas diffusion Behavioral science (see appendix)	Hindu-Arabic numeral system: number/numeral, place value/expanded notation Positive rational numbers Fundamental operations (calculation) – addition, subtraction, multiplication, and division algorithms Basic arithmetic skills and concepts: reduction of fractions; changing mixed numbers to improper fractions; changing percents to fractions and vice versa; finding a percent of a number and vice versa; changing fractions to decimals and vice versa; ratio and proportion; estimation; rounding off decimals and whole numbers Use of computing devices and mechanical aids: slide rule; calculators – electric Basic measurement skills and concepts: "measure sense"/role of "unit"; rate; instruments: measurement: geometric – volume; measurement: non-geometric – time, temperature, weight, liquid; read and interpret tables, charts, and graphs: scale drawings/floor plans/blueprints Basic logic: deductive/inductive; implications/converse/inverse

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, enunciation clarity of expression, logic
Reading		Comprehension, informational reports, physical experience reports, description of mechanism, terminology, process report – instructions
Writing		Penmanship, spelling, reports, terminology/general vocabulary, clarity of expression, logic
Listening		Auditory discrimination, noise discrimination
Touching		Size, shape, depth, consistency, temperature, texture, movement
Smelling		

Duty I Performing Biological Decomposition Via Activated Sludge Processes (Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

1. Operate activated sludge processes via diffused air/positive displacement blower
2. Operate activated sludge processes via diffused air/centrifugal blower
3. Operate activated sludge processes via mechanical aeration/fixed or floating
4. Sample, analyze, and evaluate performance of activated sludge processes

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA DIFFUSED AIR/POSITIVE DISPLACEMENT BLOWER
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Filter Snubber Manometer/air flow meter Main air supply control valve Aeration rate adjustment valve Diffusers – hand/self-cleaned Blower motor Blower Return sludge valve/or telescope valve Return sludge pumps (fixed/variable speed) Recorder charts Oil and oil can Grease and grease gun (all valves, motor, and pumps) Pencil and paper Hard hat Rainsuit and boots T-handle wrench ARA wrench	Observe operation – all equipment Record pressure on manometer, and change chart on A.F.M. Adjust all valves and pumps as necessary Check oil and temperature level on blower motor Check oil and grease on valves, motor, and pumps Report and record results Check temperature of air discharge header at each blower Compare high temperature limit with manufacturer's specifications	Hand railings Life preservers and hooks Skid-proof footing First aid kit Fire extinguisher Oxygen deficiency practices Falling in Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical/fire motor

DECISIONS	CUES	ERRORS
Determine whether to clean or replace element high/low pressure/airflow; clean diffuser filters and snubber; check fir air leaks in system Determine whether to lubricate Determine whether diffusers or lines are plugged Determine whether to check blower; check flow meter; check amperage Determine if air leak is present in line, or check for plugged line or if valve is too high above water line level Determine whether to clean it, check discharge valve – make sure it is clean and check power supply to pump	Proper operation of equipment Dirt and dust accumulation Noise volume Pressure level (high or low) Hard to turn Bubble roll appearance Excessive heat Oil and temperature levels (high or low) Either hardness of turning, low/high return rate, free flowing, and hardness of turning Rate of flow, plugged	Process failure due to insufficient air Over-heating and failure of blower unit; Too much/too little air supply Motor failure (shut off, report to supervisor) Blower failure (shut off, report to supervisor) Too much/too little sludge Kick out, over-heat, too much/too little sludge

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA DIFFUSED AIR/POSITIVE DISPLACEMENT BLOWER
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, logic, and usage
Reading		Comprehension, informational reports, recommendation reports, progress reports
Writing		Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic
Listening		Noise discrimination (recognize proper and improper sounds; animal, human, machine)
Viewing		Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts)
Touching		Temperature
Smelling		Fire, and septic odor

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA DIFFUSED AIR/CENTRIFUGAL BLOWER
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blower motor, amp meter Air intake/discharge valve on blower Filter Main air supply control valve Aeration rate adjustment valve Diffusers – hand/self cleaned Blower motor Blower Return sludge valve/or telescope valve Return sludge pumps (fixed/variable speed) Recorder charts Oil and oil can Grease and grease gun (all valves, motor, pumps) Pencil and paper Hard hat Rain suit and boots T-handle wrench ARA wrench	Observe operation – all equipment Adjust all valves and pumps as necessary Check oil and temperature level on blower motor Check oil and grease on valves, motor, pumps Report and record results Check amp meter (high and low) Check air temperature at each blower on air discharge header Compare high temperature limit with manufacturer's specifications	Hand railings Life preservers and hooks Skid-proof footing First aid kit Fire extinguisher Oxygen deficiency practices Falling in Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical/fire motor

DECISIONS	CUES	ERRORS
Determine whether to clean or replace element high/low pressure/airflow, clean diffuser filters and snubber, or check for air leaks in system Determine whether to lubricate it High amp – check for line restriction on discharge Low amp – check for line restriction on inlet, or plugged filter Determine whether diffusers or lines are plugged Determine whether to clean it, check discharge valve for cleanliness and check power supply to pump; check blower, flow meter, amperage Determine whether air leak is present in line, or line is plugged, or valve is too high above the water line level	Proper operation of equipment Pressure level (high or low) Hard to turn Bubble roll appearance Excessive heat Amp meter (high or low) Oil and temperature levels (high or low) Either hardness of turning, low/high return rate, free-flowing, and hardness of turn	Too much/too little air supply Motor failure (shut off and report to supervisor) High amperage indicates excessive load on blower and results in blower failure; low amperage – surging – insufficient air supply, blower failure, and process failure Blower failure (shut off and report to supervisor) Too much/too little sludge Kick out, overheating, too much/too little sludge

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA DIFFUSED AIR/CENTRIFUGAL BLOWER
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapostive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, logic, usage
Reading		Comprehension, informational report, recommendation reports, progress reports
Writing		Memo format, description, reports, terminology and general vocabulary, clarity of expression, logic
Listening		Noise discrimination (recognize proper and improper sounds: animal, human, machine)
Viewing		Visual analysis, logic
Touching		Temperature
Smelling		Fire and septic odor

62

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA MECHANICAL AERATION/FIXED OR FLOATING
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Grease gun Oil can Grease Oil Pencil and paper Hard hats Rain suit Common to both types: Aerator Return sludge valve, or return sludge telescope valve Return sludge pumps (fixed/variable speed) Flow weir (effluent) Fixed Oil sight glass Floating only Power cable for aerator Mooring cables for aerator	Observe operation of all equipment Check motor (oil and temperature) Check surface agitation pattern Check cables (mooring, power – for floating system only) Check oil and grease on valves, and pumps Check oil in aerators for evidence of water	Hand railings Life preservers and hooks Skid proof footing First aid kit Fire extinguisher Oxygen deficiency practices Falling in Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical/fire motor Suspend above water Electrocution by the power line in the water
DECISIONS	**CUES**	**ERRORS**
Determine whether to add oil; requires maintenance – report unusual spray patterns conditions Determine whether to grease; find air leak in line Determine whether to grease; check for plugged line or valve too high above water level Determine whether to clean it, and check discharge valve, and make level Determine whether to suspend power cable above water – tighten cables, or replace	Aerator; oil – low, temperature – high, level water spray patterns Difficulty of turning, low return rate Difficulty of turning; free flowing Rate of flow; plugged Evenness of flow over weir Sagging power cable in water Mooring cables are tight Frayed or sagging Water visible as soon as oil drain cock is opened	Over-heating – failure of unit Too much/too little sludge introduced in system Kick out, over-heat, too much/too little sludge Short-circuiting; improper detention and flow velocity Potential electrocution Mixing will be short circuited

(TASK STATEMENT) OPERATE ACTIVATED SLUDGE PROCESSES VIA MECHANICAL AERATION/FIXED OR FLOATING
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Listening Viewing Touching Smelling		Terminology/general vocabulary, logic, and usage Comprehension, informational reports, recommendation reprots, progress reports Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic Noise discrimination (recognize proper and improper sounds; animal, human, machine) Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts) Temperature Fire, and septic odor

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF ACTIVATED SLUDGE PROCESSES
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Watch or thirty-minute timer Wastewater Two-quart dipper on six foot pole One-thousand milliliter graduated cylinder Sample jars (five hundred milliliters) Hard hat Rain suit Routine plant sampling schedule Pencil and paper	Collect dissolved oxygen and suspended solids, grab samples at the aeration (reaeration) tank effluent, and send to the laboratory Collect settleable solids, grab sample at the aeration tank effluent, and conduct settling test immediately on site, and report and record results Observe the color of the samples collected, and report and record results Test dissolved oxygen immediately on site	Hand railings Life preservers and hooks Skid proof footing First aid kit Fire extinguisher Oxygen deficiency practices Falling in Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical /fire motor

DECISIONS	CUES	ERRORS
Decide acceptability of the settleability of the activate sludge, and report and record the results From the color determination: Influent color – dark –septic, light – normal, unusual – special waste Effluent color – dark – too much activated sludge, light – not enouch activated sludge Tank color – gray to brown – possible oxygen deficiency	Routine plant sampling schedule Operator reports Color of mixed liquor in aeration tank	Insufficient aeration – kill aerobic bacteria; reduce treatment efficiency Too much/too little activated sludge – reduces treatment efficiency Unacceptable settleability of activated sludge – poor secondary clarification

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF ACTIVATED SLUDGE PROCESSES
(To Include: Contact Stabilization, Step Aeration, Conventional Activated Sludge, and Extended Aeration)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [dipper] Forces acting on a body immersed or floating in a liquid [settleable solids] [Color perception] Behavioral science (see appendix)	Set of real numbers Whole numbers Fundamental operations (Calculation) Use of numbers (without calculation) Counting Basic measurement skills and concepts: Measurement: non-geometric – time, and liquid Basic logic: Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Viewing Smelling		Terminology/general vocabulary, clarity of expression, logic, and usage Comprehension, informational reports, recommendation reports, progress reports, physical experiment reports, and terminology Memo format, description, reports, terminology, general vocabulary, clarity of expression, and logic Visual analysis (seeing the parts in relation to the whole), describing (discrimination and verbalization of physical characteristics), and color discrimination Septic odor

Duty J Performing Biological Decomposition Via Trickling Filters

1 Operate high and low rate trickling filters
2 Sample, analyze, evaluate performance of trickling filters

(TASK STATEMENT) OPERATE HIGH AND LOW RATE TRICKLING FILTERS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Cleaning hook Nozzle removing tool Standard operators tool kit Pipe wrenches Hose Rake Shovel Pick Spud bar Oil and grease Primary trickling filter Secondary trickling filter Recirculation pumps Distributor system – rotary and fixed nozzle Dosing tank (automatic syphon) Valves	Inspect equipment for proper operation Observe spray pattern from nozzles Lubricate equipment Clean nozzles Make minor repairs Order maintenance repairs Make control changes for best plant performance Report and record results and process changes	Slipping – filter very slippery due to biological growth Pinching – rotating distributor arm, recirculating pumps – never attempt to stop a moving distributor by hand
DECISIONS	**CUES**	**ERRORS**
Determine whether to flush out arms, level arms, check bearings Determine whether to write maintenance order to clean mercury and replace lost mercury Determine whether to clean, check for solids, overflow from primary Determine whether to check ventilation, increase recirculation rate, keep wastewater splash away from exposed structures Determine whether to increase recirculation, apply insecticides, apply chlorine, provide good ground maintenance and clean-up practices (continued on the next page)	Rough or vibration of distributor arms Leakage past mercury seal Plugged orifices Odors, filter flies, ponding Operating reports, textbooks, training manuals, laboratory reports Rotation speed abnormal Heavy sloughing from filters Icing on walls or distributor Poor growth on filter media Change in characteristics of growth on media – color, volume, variety of organisms	If improper – low treatment efficiency, odors Poor treatment

(TASK STATEMENT) OPERATE HIGH AND LOW RATE TRICKLING FILTERS, CONTINUED

DECISIONS	CUES	ERRORS
Determine whether to flush filter surface with high pressure water stream, remove debris from surface, apply chlorine, remove from service to allow growth to dry, check media for weathering Determine whether to check oil and bearings, check orifices Determine whether it is due to temperature change or to toxic wastes Determine whether to reduce spray by changing orifices, reduce amount of recirculation, operate two-stage filters in parallel, rather than in series, break up ice, and remove Determine whether to check for excessive hydraulic loads, organic shock loads, toxic wastes Determine whether to change recirculation rate, get samples for toxic wastes analysis Determine whether to change recirculation rate, change from parallel to series operation, change detention time in final settling tank		

(TASK STATEMENT) OPERATE HIGH AND LOW RATE TRICKLING FILTERS

SCIENCE	MATH -- NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Work input, work output, friction and efficiency in simple machines [distributor arm] Effect of heating and cooling on state of matter (change of matter from one form to another) [icing, evaporation] Inertia and momentum (body at rest and body in motion) [stopping or starting distributor] Biological – types of growth on trickling filter media Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) – recirculations Basic arithmetic skills and concepts: Ratio and proportion; estimation – recirculations Basic measurement skills and concepts: Instruments: temperature ; rate [pumping, recirculation, r.p.m. of distributor Measurement: non-geometric – temperature, weight, speed (example: feet per minute, R.P.M., etc.) [hydraulic loading distributor] Read and interpret tables, charts, and graphs – scale drawings Basic algebra skills and concepts: use of variables – in formulae, and parameters ; manipulation of formulae Basic geometry skills and concepts: Knowledge of geometric relationships – parallel, and perpendicular [leveling distributor]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading		Terminology/general vocabulary Comprehension, description of mechanism, and process report – instructions
Writing Listening	Work orders, operating reports	Memo format Auditory discrimination, and noise discrimination (recognize proper and improper sounds: animal, human, and machine)
Viewing		Visual analysis (seeing the parts in relation to the whole), describing (discrimination and verbalization of physical characteristics), and color discrimination
Touching		Motion-vibration, pressure–valve closing
Smelling		Type of odor

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF TRICKLING FILTERS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sampling dipper Thermometer Sample containers Graduated cylinder D.O. sampler Sterile bacterial bottle Raincoat Refrigerator Automatic sampler D.O. glassware D.O. reagents Influent to and effluent from trickling filter	Sample influent and effluent per schedule Measure and record temperature and D.O. per schedule Composite representative sample in proportion to flow Label and preserve samples per schedule Run thirty minute settling test on trickling filter effluent, and record results (on site) Transport samples to laboratory Observe other units in plant for signs of malfunction From the above tests and observations, make the necessary adjustments on equipment to improve or maintain optimum plant performance	Slipping – filter very slippery due to biological growth Pinching – rotating distributor arm, recirculating pumps; never attempt to stop a moving distributor by hand
DECISIONS	**CUES**	**ERRORS**
Determine whether to initiate corrective action–adjust recirculation ratio, adjust organic and hydraulic loading Determine whether to check sampling method Determine cause – temperature, shock load, or toxic materials	Abnormal appearance, turbidity, color, visible biological activity, odor, suspended solids High or low results Excessive suspended solids Little or no suspended solids	Poor treatment efficiency Non-representative samples Destruction of biological life on filter media

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF TRICKLING FILTERS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [simple tools] Chemistry – normality, conversion of units, standardization of solutions, oxidation-reduction reactions Biology, bacteriology – some knowledge of aquatic plants, animals, bacteria and molds, pathogens, fecal coliform Behavioral science (see appendix)	Positive rational numbers Fundamental operations (calculation) – addition, subtraction, multiplication, and division algorithms, and order of operations (computing amount of composite sample) Basic arithmetic skills and concepts – Ratio and proportion–estimation Changing mixed numbers to improper fractions Basic measurement skills and concepts – Instruments: thermometer, graduated cylinder, pipettes Measurement: geometric – volume Measurement: non-geometric – time (date) , temperature

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary
Reading		Comprehension, process report – instructions
Writing	Sample tags, forms, reports	Memo format
Listening		Auditory discrimination, and noise discrimination (recognize proper and improper sounds: animal, human, and machine)
Viewing	Appearance of sample and units, reports	Visual analysis (seeing the parts in relation to the whole), describing (discrimination and verbalization of physical characteristics), detail and inference, and color discrimination
Smelling		Odor – recognize various types (pungent, aromatic, earthy, sour, etc.)

Duty K Performing Biological Decomposition Via Oxidation Lagoons/Ponds (Facultative, Aerobic, and Anaerobic)

1 Operate oxidation ponds/lagoons for secondary treatment
2 Sample, analyze, and evaluate performance of oxidation ponds/lagoons for secondary treatment

OPERATE OXIDATION PONDS/LAGOONS FOR SECONDARY TREATMENT

(TASK STATEMENT) (To Include: Aerated–Facultative, and Strictly Aerobic and Anaerobic Ponds/Lagoons)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Filter, snubber, manometer, air flow meter, main air supply control valve, aeration rate adjustment valve, diffusers – hand/self cleaned, blower motor, blower Blower motor amperage meter, air intake/discharge valve on blower T-handle wrench, ARA wrench, oil can, grease gun Recorder charts, oil, grease, pencil and paper, hard hats, rain suit, and boots Aerator, flow weir (effluent), oil sight glass, power cable for aerator, mooring cables for aerator Rake, shovel, measuring stick, boat, life preservers, hand skimming device, bucket, boots Influent and effluent locations, waste water, scum and debris, levee material, and sludge deposits	Aerated lagoons: Observe operation/flow velocities, weirs Check for scum and debris, and remove Check integrity of banks/levees for infiltration and exfiltration Check for sludge deposition and measure accumulation Report and record results Adjust all valves and pumps as necessary	Hand railings Life preservers and hooks Skid proof footing First aid kit Fire extinguisher Oxygen deficiency practices Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical/fire motor Suspend above water Electrocution by the power line in the water

DECISIONS	CUES	ERRORS
Determine whether to: clean or replace elements; high/low pressure/air flow – clean diffusers, filters, and snubber, or check for air leaks in system; lubricate it; ascertain whether diffusers or lines are plugged; check flow meter; check blower; check amperage Determine whether to: make level; adjust to proper level or/too low – take out of service, to high – put additional units into service Determine if bubbles indicate: high/low – influent flow velocities, high – scouring or low nitrification (continued)	Evenness of flow over influent and effluent weirs (if used) Flow velocities – too high/too low Unusual bubble formation not produced by aeration, and odor Floating scum, debris, sludge, algae Erosion, leakage, weeds Increased elevation of pond bottom Determine proper operation of equipment Determine proper dirt and dust accumulation Determine proper noise volume Determine pressure level (high or low) Hard to turn (continued)	Reduce treatment efficiency Scouring, nitrification, and lower treatment efficiency Odor – go septic, reduce treatment efficiency complaints Leakage in or out; loss of levee insect breeding sites Short-circuiting, treatment reduction Process failure due to insufficient air Overheating and failure of blower unit Too much/too little – air supply Motor failure (shut off, and report to supervisor) (continued)

(TASK STATEMENT) OPERATE OXIDATION PONDS/LAGOONS FOR SECONDARY TREATMENT, CONTINUED
(To Include: Aerated—Facultative, and Strictly Aerobic and Anaerobic Ponds/Lagoons)

DECISIONS	CUES	ERRORS
Determine if odor is due to septic conditions caused by: scum algal bloom and death, inefficient aeration, organic over/under loading Determine whether to break up or remove Determine whether to patch, fix or remove Determine whether to seriously short-circuit the treatment process	Bubble roll appearance Excessive heat Oil and temperature levels (low or high)	Blower failure (shut off and report to supervisor) Too much/too little sludge Kick out, over-heat sludge

(TASK STATEMENT)

OPERATE OXIDATION PONDS/LAGOONS FOR SECONDARY TREATMENT
(To Include: Aerated–Facultative, and Strictly Aerobic and Anaerobic Ponds/Lagoons)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Listening Viewing Touching Smelling		Terminology/general vocabulary, logic, and usage Comprehension, informational reports, recommendation reports, progress reports Memo format, description, reports terminology/general vocabulary, clarity of expression, and logic Noise discrimination (recognize proper and improper sounds; animal, human, and machine) Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts) Temperature Fire, and septic odor

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF OXIDATION PONDS/LAGOONS FOR SECONDARY TREATMENT (To Include: Aerated–Facultative, and Strictly Aerobic and Anaerobic Ponds/Lagoons)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wastewater Thermometer pH color comparator Two-quart dipper on six foot pole Sample jars (500 milliliters) Hard hat Rain suit Routine plant sampling schedule Pencil and paper	Collect the following samples and send to lab: Dissolved oxygen – effluent – grab BOD –influent and effluent – composite Coliform Bacteria – effluent – grab Suspended Solids – influent – grab Suspended Solids – effluent – grab Dissolved Solids – influent – grab Dissolved Solids – effluent – grab Collect samples and run the pH and temperature tests on site and report and record the results Observe color of wastewater throughout pond; report and record results	Hand railings Life preservers and hooks Skid proof footing First aid kit Fire extinguisher Oxygen deficiency practices Falling in Noxious fumes Slippery footing Infectious diseases Head and body injury Electrical/fire motor Suspend above water Electrocution from the power line in the water Safe boating practices Boating hazards (drowning, etc.)

DECISIONS	CUES	ERRORS
Determine if the pH range is too high/low – higher the temperature –more aeration required Determine if color is due to: Algal bloom Industrial waste Septic conditions Pond upsets (seasonal turnovers)	Routine plant sampling schedule Operator reports Color of mixed liquor in pond	High/low pH will slow down activity or kill active bacteria If temperature is too high and aeration (oxygen transfer) is not sufficient, the bacteria will slow down and die Algal bloom will block aerobic decomposition Industrial waste may shock bacteria and slow or kill them Insufficient oxygen will kill aerobic bacteria; cause objectionable odors Insufficient treatment

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF OXIDATION PONDS/LAGOONS FOR SECONDARY TREATMENT (To Include: Aerated–Facultative, and Strictly Aerobic and Anaerobic Ponds/Lagoons)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [dipper] Forces acting on a body immersed or floating in a liquid [settleable solids] [Color perception] Behavioral science (see appendix)	Set of real numbers Whole numbers Use of numbers (without calculation) Counting Basic measurement skills and concepts: Measurement: non-geometric – time, and liquid Basic logic: Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, clarity of expression, logic, and usage
Reading		Comprehension, informational reports, recommendation reports, progress reports, physical experiment reports, and terminology
Writing		Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic
Viewing		Visual analysis (seeing the parts in relation to the whole), describing (discrimination and verbalization of physical characteristics), and color discrimination
Smelling		Septic odor

Duty L Performing Chlorination

1 Operate pre and post treatment chlorinating systems
2 Sampling, analyzing, and evaluate performance of pre and post treatment chlorinating system

(TASK STATEMENT) OPERATE PRE AND POST TREATMENT CHLORINATING SYSTEMS (To Include: Liquid and Gas Treatment)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Hard hats, ammonia tester, safety shoes, air pac, color comparator, water sampler, gas mask Recorder chart, paper and pencil, and lead washers Valve and nut wrench Chlorine container, scales, cradles, hoist and lifting clamp, connector tubing (whips), chlorine recorder, valves (shut-off, relief, check, safety, gas, liquid), pressure gages, feeders (vacuum, partial vacuum, pressure, and pulsating), exhaust fans, safety equipment, control equipment, evaporator (for liquid ammonia withdrawal), mixing chamber (for hypochlorite solution), diffusers, contact chamber, and thermometer Ammonia storage containers Ammonia feed system Chlorine containers – cylinders or ton containers	Turn on exhaust fan and check for presence of chlorine with ammonia (white cloud formation), or by smell Observe operation – inspect all equipment and contact chamber Record pressure, weight, chlorine residuals, and flow rates Replenish chlorine supply if necessary, and check system for leaks Adjust valves, feeders, and control equipment as necessary Report and record results Collect wastewater samples from plant influent and plant effluent for chlorine residual and coliform determinations Test samples immediately for chlorine residuals (on site) Record and report results Check for floating debris and sludge deposits Take sample to laboratory for the coliform test	Air pack, gas cannister, exhaust fans – oxygen deficiency practices Hard hat, and safety shoes Fire extinguisher First aid kit Proper team rescue operations and notification procedures Training in proper ammonia handling procedures Ammonia container repair procedures Noxious fumes Head and body injury Electrical/fire motor Ammonia burns Contamination of clothes with ammonia
DECISIONS	**CUES**	**ERRORS**
Determine whether to send back if overweight; call safety alert Determine whether to report if not operational Determine whether to take out of operation and have repaired Determine whether to replace with new tube, and lead washer; and report; see if chlorine flow is too great Determine whether recorder or system is malfunctioning Determine if gage or system is malfunctioning Determine if feeder or system is malfunctioning	Check for overweight, leaks Operational Cracks, splinters Creaking, working hard Discoloration (turns green), iced Abnormal readings; too high/too low Malfunctions – leakage On the floor, exits outside, switches on outside of the chlorine room; blades face proper direction Cannisters not out of date; rubber mask fits, and is not cracked; air pac is full	Insufficient disinfection, under or over feeding Major safety hazard which may result in death of the operator Broken valve stem on chlorine cylinder or ton container. Total loss of chlorine

(TASK STATEMENT) OPERATE PRE AND POST TREATMENT CHLORINATING SYSTEMS (To Include: Liquid and Gas Treatment), CONTINUED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Chlorine feed system a) gas feed chlorinator b) liquid feed vaporizor	Observe operation of chlorine feed system, note rate of chlorine application and adjust for proper dosing application	
DECISIONS	**CUES**	**ERRORS**
Determine if it is operating adequately Determine whether to unplug Determine whether to clean out Determine whether to shut it off if temperature is too low, and repair	Malfunctions – leakage, hard to turn, plugged lines, signs of corrosion Leakage, malfunction in stirring mechanism Plugged Bubbles, sludge deposition, short circuiting Below 50 degrees, Fahrenheit in the chlorine room Cracked packing, hardness of turning, and leakages	

(TASK STATEMENT) OPERATE PRE AND POST TREATMENT CHLORINATING SYSTEMS (To Include: Liquid and Gas Treatment)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Reading Writing Viewing Touching Smelling Listening		Terminology/general vocabulary, logic, and usage Comprehension, informational reports, recommendation reports, progress reports Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts) Temperature Fire and septic odor Noise discrimination

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF PRE AND POST CHLORINATING SYSTEMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Six-foot pole with a quart container Wastewater Color compartor Hard hat Rain suit Rubber boots 125 ml. sterilized jars with 0.1 ml. sodium thiosulfate in them Orthotolidine Pencil and paper Arsenite solution Routine plant sampling schedule Ammonia and residual chlorine Color slides (0 – 2 mg/l) orange	Collect sample from outlet of ammonia tank for residual and for coliform determinations Test sample for ammonia residual on site immediately Record and report results Check for floating debris and sludge deposits Take samples to laboratory for coliform test	Air pack, gas cannister, exhaust fans – oxygen deficiency practices Hard hat, and safety shoes Fire extinguisher First aid kit Proper team rescue operations and notification procedures Training in proper ammonia handling procedure Ammonia container repair procedures Noxious fumes Head and body injury Electrical/fire motor Ammonia burns Contamination of clothes with ammonia
DECISIONS	**CUES**	**ERRORS**
Decide acceptability of chlorine residual, floating debris, and sludge deposition, and report and record results	Routine plant sampling schedule Sight-floating debris Smell – odor of ammonia Operators reports	Insufficient treatment and excess material leaving in effluent Insufficient chlorination or excess ammonia used Feed rate set too high

(TASK STATEMENT) SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF PRE AND POST CHLORINATING SYSTEMS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, logic, and usage
Reading		Comprehension, informational reports, recommendation reports, progress reports
Writing		Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic
Viewing		Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts)
Touching		Temperature
Smelling		Fire and septic odor
Listening		Noise discrimination

Duty M Performing Outfall Evaluation

1 Operate, maintain and sample, analyze and evaluate performance of sewage treatment plant outfalls

(TASK STATEMENT) OPERATE, MAINTAIN, SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SEWAGE TREATMENT PLANT OUTFALLS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wastewater Backwater gate Headwall Pipeline Pencil and paper Routine plant sampling schedule Boat Life preserver Sterile sampling jars (125 ml. with 0.1 ml. sodium thiosulfate) Ammonia color comparator kit Standard operators tool kit Six-foot pole with a quart container	Observe the backwater gate, headwall and pipeline for physical malfunction and failure; and repair as necessary Check for: Sludge deposition, foaming, floating debris, grease and oil (leaving outfall), and color Collect samples for chlorine residual and coliform bacteria determination Test sample for ammonia residual on site immediately Record and report results Take samples to laboratory for coliform bacteria determination	Safe boating practices First aid kit Life preservers Falling into the water Slippery footing Head and body injury Boating hazards
DECISIONS	**CUES**	**ERRORS**
Determine whether the physical treatment processes are functioning with respect to foam, sludge, floating debris, grease and oil, and color/or is there infiltration into effluent line Determine mode of clean-up for above properties and whether clean-up is necessary Decide whether there is excessive water pressure on backwater gate Determine whether headwall stability and anchorage is sufficient, and if not, ascertain method of repair Determine integrity of pipeline	Accumulation of sludge near site Foaming present Floating debris is present Grease and oil is present Effluent is of a unusual color Gate hinge does not work Headwall is cracked, spaulded, or eroded away from bank Pipeline is cracked, broken, or corroded	Adversely effects the water quality of the effluently receiving water body and may result in a pollution citation if serious enough Receiving body water will back up into the plant if gate does not work during high water (floods) periods Headwall will break up and depart, leaving pipeline unprotected May block, reduce, or divert effluent flow

(TASK STATEMENT) OPERATE, MAINTAIN, SAMPLE, ANALYZE, AND EVALUATE PERFORMANCE OF SEWAGE TREATMENT PLANT OUTFALLS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [tools] Effect of heating and cooling on expansion of materials [motor, blower, pumps] Fluids under pressure [gas, oxygen] Forces acting on a body immersed or floating in a liquid [pumps] Transfer of energy from one form to another [pumps] Inertia and momentum [pumps] Effects of friction on work processes and product quality [motor, blower, pumps, valves] Arrangement of molecules, atoms, and ions, and the effect on structure and strength of materials [motor, blower, pumps, valves] Resistance of materials to change in shape [motor, blower, pumps, and valves] Behavioral science (see appendix)	Positive rational numbers Use of numbers (without calculation) Counting Measurement: non-geometric Time, temperature, and speed (example: feet per minute, R.P.M., etc.) Read and interpret tables, charts, and graphs – representational graphs Basic logic Deductive or inductive Implications/converse/inverse/contrapositive Arguments/test for validity

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking		Terminology/general vocabulary, logic, and usage
Reading		Comprehension, informational reports, recommendation reports, progress reports
Writing		Memo format, description, reports, terminology/general vocabulary, clarity of expression, and logic
Viewing		Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts)
Touching		Temperature
Smelling		Fire and septic odor
Listening		Noise discrimination

APPENDIX
BEHAVIORAL SCIENCE

Professionalism

A. Maintain capacity to foster trust
B. Maintain capacity to foster confidentiality
C. Maintain capacity to foster cooperation
D. Maintain capacity to generate integrity
E. Maintain capacity to cope with conflict behavior
F. Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational varibles
G. Exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability

Supervision

A. Distribute personnel with regard to leadership qualities and experiences for optimum team performance
B. Maintain customer's illusion of privacy by avoiding excessive noise or movement
C. Grant appropriate regard for customer's personal space (convenience and special interest)
D. Grant conscious attention to smoothly flowing team work
E. Maintain regard for differing views on maximum efficiency of the operations
F. Grant appropriate regard for customer's unique needs
G. Exhibit capacity to ascertain best service for the particular party type requested
H. Show and describe facilities with appropriate speed and clarity
I. Communicate pride in establishment

Attributes of Maximum Functioning Capacity

Conscious awareness of the need for a balance (both physical and mental) between tension and relaxation. Relates to:

1. Comfort
2. Caution
3. Safety
4. Physical, emotional, and intellectual health

Conscious awareness of physical expressions basic to peak physical performance:

1. Body rhythm
2. Breathing coordinated with body movement
3. Body balance and posture
4. Movement from tension to relaxation and vice versa

Conscious awareness of qualities basic to optimal mental performance:

1. Attention
2. Observation
3. Concentration
4. Mental alertness
5. Mental quietude
6. Mental clarity
7. Organization

TOOL KITS

Standard Maintenance Mechanics Hand Tool Kit

Needle nose pliers
Side cutting pliers
Water pump pliers
Wrench sets: Box end, Open end, Socket and Allen
Assorted electrical screwdrivers (Conventional and Phillips)
Putty knife
6' folding rule
6", 8", and 12" crescent wrench
Pipe cutter and threader
Vise grips
24" pipe wrench
14" pipe wrench
8" pipe wrench
Hack saw
Pry bar
Assorted files
Feelers gauge
12' steel rule
2 lb. machinist hammer
6 lb. small sledge
Wire brush
Electrical tape
Teflon tape
Pocket knife

TOOL KITS

Standard Operators Tool Kit (SOTK)

- 6", 8", and 12" crescent wrench
- One set Allen wrenches
- Vise grip pliers
- Assorted electrical screwdrivers
- Machinist hammer
- 12' steel tape
- Pipe wrench

GLOSSARY OF TERMS USED IN WASTEWATER TREATMENT

Acid – (1) A substance that tends to lose a proton. (2) A substance that dissolves in water with the formation of hydrogen ions. (3) A substance containing hydrogen which may be replaced by metals to form salts.

Activated Carbon – Carbon particles usually obtained by carbonization of cellulosic material in the absence of air and possessing a high adsorptive capacity.

Activated Sludge – Sludge floc produced in raw or settled wastewater by the growth of zoogleal bacteria and other organisms in the presence of dissolved oxygen and accumulated in sufficient concentration by returning floc previously formed.

Activated Sludge Loading – The pounds of biochemical oxygen demand (BOD) in the applied liquid per unit volume of aeration capacity or per pound of activated sludge per day.

Activated Sludge Process – A biological wastewater treatment process in which a mixture of wastewater and activated sludge is agitated and aerated. The activated sludge is subsequently separated from the treated wastewater (mixed liquor) be sedimentation and wasted or returned to the process as needed.

Activation – (1) The generation, under aerobic conditions, of organisms capable of absorbing organic material from the water in the activated sludge process.

Aerated Pond – A natural or artificial wastewater treatment pond in which mechanical or diffused-air aeration is used to supplement the oxygen supplement the oxygen supply.

Aeration – (1) The bringing about of intimate contact between air and a liquid by one or more of the following methods: (a) spraying the liquid in the air, (b) bubbling air through the liquid, (c) agitating the liquid to promote surface absorption of air. (2) The supplying of air to confined spaces under nappes, downstream from gates in

92

conduits, etc., to relieve low pressures and to replenish air entrained and removed from such confined spaces by flowing water. (3) Relief of the effects of cavitation by admitting air to the section affected.

Aeration Period – (1) The theoretical time, usually expressed in hours, during which mixed liquor is subjected to aeration in an aeration tank while undergoing activated sludge treatment. It is equal to the volume of the tank divided by the volumetric rate of flow the the wastewater and return sludge. (2) The theoretical time during which water is subjected to aeration.

Aeration Tank – A tank in which sludge, wastewater, or other liquid is aerated.

Aerobic – Requiring, or not destroyed by, the presence of free elemental oxygen.

Aerobic Bacteria – Bacteria that require free elemental oxygen for their growth.

Aerobic Digestion – Digestion of suspended organic matter by means of aeration. See Digestion.

Agglomeration – The coalescence of dispersed suspended matter into larger flocs or particles which settle rapidly.

Agitator – Mechanical apparatus for mixing and/or aerating; a device for creating turbulence.

Air-Lift – A device for raising liquid by injecting air in and near the bottom of a riser pipe submerged in the liquid to be raised.

Air Relief Valve – An air valve placed at the summit of a pipeline to release the air automatically and prevent the pipeline from becoming air-bound with a resultant increase of pressure.

Algae – Primitive plants, one- or many-celled, usually aquatic, and capable of elaborating their foodstuffs by photosynthesis.

Algal Bloom – Large masses of microscopic and macroscopic plant life, such as green algae occurring in bodies of water. See Bloom.

Alum – A common name in the water and wastewater treatment field, for commercial-grade aluminum sulfate.

Amp Meter – An electrical measuring device which shows the flow of current through an electrical circuit.

Anaerobic – Requiring, or not destroyed by, the absence of air or free (elemental) oxygen.

Anaerobic Bacteria – Bacteria that grow only in the absence of free elemental oxygen.

Anaerobic Digestion – The degradation of organic matter brought about through the action of microorganisms in the absence of elemental oxygen.

Appurtences – Machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not considered an integral part of it.

Assimilative capacity – The capacity of a natural body of water to receive: (a) wastewaters, without deleterious effects; (b) toxic materials, without damage to aquatic life or humans who consume the water; (c) BOD, within prescribed dissolved oxygen limits.

Available Chlorine – A measure of the total oxidizing power of chlorinated lime and hypochlorites.

Available oxygen – The quantity of dissolved oxygen available for oxidation of organic matter in a water body.

Axial-Flow Pump – A type of centrifugal pump which develops most of its head by the propelling or lifting action of the vanes on the liquids. Also called propeller pump.

Back Wash – The reversal of flow through a rapid sand filter to wash clogging material out of the filtering medium and reduce conditions causing loss of head. Also called filter wash.

Bacteria – A group of universally distributed, rigid, essentially unicellular microscopic organisms lacking chlorophyll. Bacteria usually appear as speroid, rod-like, or curved entities, but occasionally appear as sheets, chains, or branched filaments. Bacteria are usually regarded as plants.

Baffles – Deflector vanes, guides, grids, gratings, or similar devices constructed or placed in flowing water, wastewater, or slurry systems to check or effect a more uniform distribution of velocities; absorb energy; divert guide, or agitate the liquids; and check eddies.

Ball Valve – A simple non-return valve consisting of a ball resting on a cylindrical seat within a fluid passageway.

Bar Rack – A screen composed of parallel bars, either vertical or inclined, placed in a waterway to catch debris. The screenings may be raked from it. Also called rack.

Biochemical Process – The process by which the life activities of bacteria and other microorganisms, in search for food, break down complex organic materials into simple, more stable substances. See Oxidation Process.

Biological Filter – A bed of sand, gravel, broken stone, or other medium through which wastewater flows or trickles that depends on biological action for its effectiveness.

Biological Oxidation – The process whereby living organisms in the presence of oxygen, convert the organic matter contained in wastewater into a more stable or a mineral form.

Biological Wastewater Treatment – Forms of wastewater treatment in which bacterial or biochemical action is intensified to stabilize, oxidize, and nitrify the unstable organic matter present. Intermittent sand filters, contact beds, trickling filters, and activated sludge processes are examples.

Biota – Animal and plant life, or fauna and flora, of a stream or other water body.

BOD – (1) Abbreviation for biochemical oxygen demand. The quantity of oxygen used in the biochemical axidation of organic matter in a specified time, at a specified temperature, and under specified conditions. (2) A standard test used in assessing wastewater strength.

BOD Load – The BOD content, usually expressed in pounds per unit of time, of wastewater passing into a waste treatment system or to a body of water.

Breakpoint Chlorination – Addition of chlorine to water or wastewater until the chlorine demand has been satisfied and further additions result in a residual that is directly proportional to the amount added beyond the breakpoint.

Buffer – Any of certain combinations of chemicals used to stabilize the pH values or alkalinities of solutions.

Bulking Sludge – An activated sludge that settles poorly because of a floc of low density.

Butterfly Valve – A valve wherein the disk, as it opens or closes, rotates about a spindle supported by the frame of the valve. The valve is opened at a stem. At full opening, the disk is in a position parallel to the axis of the conduit.

Bypass – An arrangement of pipes, conduits, gates, and valves whereby the flow may be passed around a hydraulic structure or appurtenance.

Calibration – (1) The determination, checking, or rectifying of the graduation of any instrument giving quantitative measurements. (2) The process of taking measurements or of making observations to establish the relationship between two quantities.

Capolletti Weir – A flow measuring weir designed to handle both high and low flows accurately.

Cavitation – (1) The action resulting from forcing a flowing stream to change direction in which reduced internal pressure causes dissolved gases to expand, creating negative pressure. Cavitation frequently causes pitting of the hydraulic structure affected. (2) The formation of a cavity between the downstream surface of a moving body, for example, the blade of a propeller, and a liquid normally in contact with it.

Centigrade – A thermometer temperature scale in which 0 degrees marks the freezing point, and 100 degrees the boiling point of water at 760 mm of mercury barometric pressure. Also called Celsius scale. To convert temperature on this scale to Fahrenheit, multiply by 9/5 and add 32.

Centrifugal Pump – A pump consisting of an impeller fixed on a rotating shaft and enclosed in a casing, and having an inlet and a discharge connection. The rotating impeller creates pressure in the liquid by the velocity derived from centrifugal force.

Check Valve – A valve provided with a disk hinged on one edge so that it opens in the direction of normal flow and closes with reversal of flow. An approved check valve is of substantial construction and suitable materials, is positive in closing, and permits no leakage in a direction opposite to the normal flow.

Chemical Coagulation – The destabilization and initial aggregation of colloidal and finely divided suspended matter by the addition of a floc-forming chemical. Also see Flocculation.

Chemical Dose – The application of a specific quantity of chemical to a specific quantity of fluid for a specific purpose. Also see Dose.

Chemical Feeder – A device for dispensing a chemical at a predetermined rate for the treatment of water or wastewater. Change in rate of feed may be affected manually or automatically by flow-rate changes. Feeders are designed for solids, liquids, or gases.

Chemical Oxygen Demand (COD) – A measure of the oxygen-consuming capacity of inorganic and organic matter present in water or wastewater. It is expressed as the amount of oxygen consumed from a chemical oxidant in a specific test. It does not differentiate between stable and unstable organic matter and thus does not necessarily correlate with biochemical oxygen demand. Also known as OC and DOC, oxygen consumed and dichromate oxygen consumed, respectively.

Chemical Precipitation – (1) Precipitation induced by addition of chemicals. (2) The process of softening water by the addition of lime or lime and soda ash as the precipitants.

Chemical Sludge – Sludge obtained by treatment of wastewater with chemicals.

Chemical Treatment – Any process involving the addition of chemicals to obtain a desired result.

Chlorination – The application of chlorine to water or wastewater, generally for the purpose of disinfection, but frequently for accomplishing other biological or chemical results.

Chlorine Contact Chamber – A detention basin provided primarily to secure the diffusion of chlorine through the liquid. Also called chlorination chamber.

Chlorine Demand – The difference between the amount of chlorine added to water or wastewater and the amount of residual chlorine remaining at the end of a specified contact period. The demand for any given water varies with the amount of chlorine applied, time of contact, and temperature. See Free Available Chlorine, Free Available Residual Chlorine.

Clarified Wastewater – Wastewater from which most of the settleable solids have been removed by sedimentation. Also called settled wastewater.

Coagulant – A compound responsible for coagulation: a floc-forming agent.

Coagulant Aid – Any chemical or substance used to assist or modify coagulation.

Coagulation – In water and wastewater treatment, the destabilization and initial aggregation of colloidal and finely divided suspended matter by the addition of a floc-forming chemical or by biological processes.

Coarse Rack – A rack with wide spaces between bars, usually of one inch or more.

Colloidal Matter – Finely divided solids which will not settle but may be removed by coagulation or biochemical action or membrane filtration. See Colloids.

Complete Treatment – In an imprecise and general sense, the processing of domestic and some industrial wastewaters by means of primary and secondary treatment. It may include other specialized types of treatment and disinfection. A high percentage removal of suspended, colloidal, and dissolved organic matter is implied.

Composite Wastewater Sample – A combination of individual samples of water or wastewater taken at selected intervals, generally hourly for some specified period, to minimize the effect of the variability of the individual sample. Individual samples may have equal volume or may be roughly proportioned to the flow at time of sampling.

Cone Valve – A valve in which the moving plug is conical; the valve is opened by unscrewing the plug from the seat and turning it through an angle of ninety degrees. Also called conical plug valve.

Contact Stabilization Process – A modification of the activated sludge process in which raw wastewater is aerated with a high concentration of activated sludge for a short period, usually less than sixty minutes, to obtain BOD removal by absorption. The solids are subsequently removed by sedimentation and transferred to a stabilization tank where aeration is continued further to oxidize and condition them before their reintroduction to the raw wastewater flow.

Cross Connection – (1) A physical connection through which a supply of potable water could be contaminated or polluted. (2) A connection between a supervised potable water supply and an unsupervised supply of unknown potability.

Cubic Foot Per Second (cfs) – A unit of measure of the rate of liquid flow past a given point equal to one cubic foot in one second. Previously also called second–foot.

Decomposition of Wastewater – (1) The breakdown of organic matter in wastewater by bacterial action either aerobic or anaerobic. (2) Transformation of organic or inorganic materials contained in wastewater through the action of chemical or biological processes.

Degradation – (1) The breakdown of substances by biological action.

Degree of Treatment – A measure of the removal effected by treatment processes with reference to solids, organic matter, BOD, bacteria, or any other specified matter.

Deposition – The act or process of settling solid material from fluid suspension.

Detention Time – The theoretical time required to displace the contents of a tank or unit at a given rate of discharge (volume divided by rate of discharge).

Diffused– Air aeration – Aeration produced in a liquid by air passed through a diffuser.

Diffuser – A mechanical device designed to convert an air stream into a continuous stream of air bubbles in a decreasing size range.

Digested Sludge – Sludge digested under either aerobic or anaerobic conditions until the volatile content has been reduced to the point at which the solids are relatively nonputrescible and inoffensive.

Disinfection – The art of killing the larger portion of microorganisms in or on a substance with the probability that all pathogenic bacteria are killed by the agent used.

Dispersion – (1) Scattering and mixing. (2) The mixing of polluted fluids with a large volume of water in a stream or other body of water.

Dissolved Oxygen – The oxygen dissolved in water, wastewater, or other liquid, usually expressed in milligrams per liter, parts per million, or percent of saturation. Abbreviated DO .

Dissolved-Oxygen Sag Curve – A curve that represents the profile of dissolved oxygen content along the course of a stream resulting from deoxygenation associated with biochemical oxidation of organic matter and reoxygenation through the absorption of atmospheric oxygen and biological photosynthesis. Also called oxygen-sag curve.

Dissolved Solids – Theoretically, the anhydrous residues of the dissolved constituents in water. Actually, the term is defined by the method used in determination. In water and wastewater treatment, the Standard Methods tests are used.

Ditch Oxidation – A modification of the activated sludge process or the aerated pond, in which the mixture under treatment is circulated in an endless ditch and aeration and circulation are produced by a mechanical device such as a Kessener brush.

Domestic Wastewater – Wastewater derived principally from dwellings, business buildings, institutions, and the like. It may or may not contain ground water, surface water, or storm water.

Dose – (1) The quantity of substance applied to a unit quantity of liquid for treatment purposes. It can be expressed in terms of either volume or weight, e.g., pounds per million gallons, parts per million, grains per gallon, milligrams per liter, or grams per cubic meter.

Dosing tank – Any tank used in applying a dose. Specifically used for intermittent application of wastewater to subsequent processes.

Dry Feeder – A feeder for dispensing a chemical or other fine material in the solid state to water or wastewater at a rate controlled manually or automatically by the rate of flow. The constant rate may be either volumetric or gravimetric.

Duplex Pump – A reciprocating pump consisting of two consisting of two cylinders placed side by side and connected to the same suction and discharge pipe; the pistons move so that one exerts suction while the other exerts pressure, with the result that the discharge from the pump is continuous.

Dynamic Head – (1) When there is flow: (2) the head against which a pump works. (3) That head of fluid which would produce statically the pressure of a moving fluid.

Efficiency – The relative results obtained in any operation in relation to the energy or effort required to achieve such results. It is the ratio of the total output to the total input, expressed as a percentage.

Effluent – (1) A liquid which flows out of a containing space. (2) Wastewater or other liquid, partially or completely treated, or in its natural state, flowing out of a reservoir, basin, treatment plant, or industrial treatment plant, or part thereof. (3) An outflowing branch of a main stream or lake.

Effluent Weir – A weir at the outflow end of a sedimentation basin or other hydraulic structure.

End Point – The stage in a titration at which equivalence is attained and revealed by a change that can be observed or measured, such as color development, formation of a precipitate, or reaching a specified pH.

Escherichia Coli (E. Coli.) – One of the species of bacteria in the coliform group. Its presence is considered indicative of fresh fecal contamination.

Excess Sludge – The sludge produced in an activated sludge treatment plant that it not needed to maintain the process and is withdrawn from circulation.

Exfiltration – The quantity of wastewater which leaks to the surrounding ground through unintentional openings in a sewer. Also, the process whereby this leaking occurs.

Explosimeter – An instrument designed to give warning of an explosive mixture of oxygen and combustible gas.

Extended Aeration – A modification of the activated sludge process which provides for aerobic sludge digestion within tne aeration system. The concept envisages the stabilization of organic matter under aerobic conditions and disposal of the end products into the air as gases and with the plant effluent as finely divided suspended matter and soluble matter.

Fahrenheit – A temperature scale in which 32 degrees marks the freezing point, and 212 degrees the boiling point of water at a 760 mm barometric pressure. To convert to centigrade (Celsius), subtract 32, and multiply by 5/9.

Final Effluent – The effluent from the final treatment unit of a wastewater treatment plant.

Fine Rack – A relative term, but generally, a rack which has clear spaces of one inch or less between its bars.

Five-Day BOD – That part of oxygen demand associated with biochemical oxidation of carbonaceous, as distinct from nitrogeneous, material. It is determined by allowing biochemical oxidation to proceed, under conditions specified in Standard Methods, for five days. See Firststage Biochemical Oxygen Demand.

Fixed Solids – The residue remaining after ignition of suspended or dissolved matter according to Standard Methods.

Flame Arrester – A device incorporating a fine-mesh wire screen or tube bundle inserted in a vent or pipe and designed to resist the flashback of flame.

Flanged Pipe – A pipe provided with flanges so that the ends can be joined together by means of bolts.

Flash Mixer – A device for quickly dispersing chemicals uniformly throughout a liquid.

102

Flocculating Tank – A tank used for the formation of floc by the gentle agitation of liquid suspensions, with or without the aid of chemicals

Flocculation – In water and wastewater treatment, the agglomeration of colloidal and finely divided suspended matter after coagulation by gentle stirring by either mechanical or hydraulic means. In biological wastewater treatment where coagulation is not used, agglomeration may be accomplished biologically.

Flocculation Agent – A coagulating substance which, when added to water forms a flocculent precipitate which will entrain suspended matter and expedite sedimentation; examples are alum, ferrous sulfate, and lime.

Flocculator – (1) A mechanical device to enhance the formation of floc in a liquid. (2) An apparatus for the formation of floc in water and wastewater.

Flotation – The raising of suspended matter to the surface of the liquid in a tank as scum --by aeration, the evolution of gas, chemicals, electrolysis, heat, or bacterial decomposition-- and the subsequent removal of the scum by skimming.

Flow Regulator – A structure installed in a canal, conduit, or channel to control the flow of water wastewater at intake or to control the water level in a canal, channel, or treatment unit. Also see rate-of-flow controller, regulator.

Flume – An open channel for transporting liquids.

Foot Valve – A valve placed in the bottom of the suction pipe of a pump, which opens to allow water to enter the suction pipe, but closes to prevent water from passing out of it at the bottom end.

Force Main – A pressure pipe joining the pump discharge at a water or wastewater pumping station with a point of gravity flow.

Free Available Chlorine – The amount of chlorine available as dissolved gas, hypochlorous acid, or hypochlorite ion that is not combined with an amine or other organic compound.

Free Available Residual Chlorine – That portion of the total residual chlorine remaining in water or wastewater at the end of a specified contact period which will react chemically and biologically as hypochlorous acid or hypochlorite ion.

Free Residual Chlorination – The application of chlorine or chlorine compounds to water or wastewater to produce a free available chlorine residual directly or through the destruction of ammonia or certain organic nitrogenous compounds.

Fresh Sludge – Sludge in which decomposition is little advanced.

Fresh Wastewater – Wastewater of recent origin containing dissolved oxygen.

Fungi – Small non-chlorophyll-bearing plants which lack roots, stems, or leaves, which occur (among other places), in water, wastewater, or wastewater effluents and grow best in the absence of light Their decomposition after death may cause disagreeable tastes and odors in water; in some wastewater treatment processes, they are helpful and in others they are detrimental.

Gas Dome – In sludge-digestion tanks, usually a steel cover floating entirely or in part on the liquid sludge.

Gas Vent – (1) A passage to permit the escape of gases. (2) An opening which allows gas liberated in an Imhoff tank sludge chamber to reach the atmosphere without passing up through the wastewater in the settling chamber.

Gate Valve – A valve in which the closing element consists of a disk which slides over the opening or cross-sectional area through which water passes, and fits tightly against it.

Globe Valve – A valve having a round, ball-like shell and horizontal disk.

Grab Sample – A single sample of wastewater taken at neither set time nor flow.

Graduated Cylinder – A cylinder designed to measure volume in discreet increments.

Gravimetric – Of or pertaining to measurement by weight.

Grease – In wastewater, a group of substances including fats, waxes, free fatty acids, calcium and magnesium soaps, mineral oils, and certain other nonfatty materials. The type of solvent and method used for extraction should be stated for quantitation.

Grease Skimmer – A device for removing floating grease or scum from the surface of wastewater in a tank.

Grit – The heavy suspended mineral matter present in water or wastewater, such as sand, gravel, cinders.

Grit Chamber – A detention chamber or an enlargement of a sewer designed to reduce the velocity of flow of the liquid to permit the separation of mineral from organic solids by differential desimentation.

Head – The height of the free surface of fluid above any point in a hydraulic system; a measure of the pressure or force exerted by the fluid.

Heat Exchanger – A device providing for the transfer of heat from a fluid flowing in tubes to another fluid outside the tubes, or vice versa.

Heavy Metals – Metals that can be precipitated by hydrogen sulfide in acid solution, for example, lead, silver, gold, mercury, bismuth, copper.

High–Rate Digestion – Accelerated anaerobic digestion resulting primarily from thorough mixing of digester contents. May be enhanced by thermophilic digestion.

High-Rate Filter – A trickling filter operated at a high average daily dosing rate, usually between 10 and 40 mgd/acre including any recirculation of effluent.

Horizontal Pump – (1) A reciprocating pump in which the piston or plunger moves in a horizontal direction. (2) A centrifugal pump in which the pump shaft is in a horizontal position.

Humus Sludge – Sludge deposited in final or secondary settling tanks following trickling filters or contact beds.

Hydraulic Jump – An abrupt rise in water surface which may occur in an open channel when water flowing at a high velocity is retarded.

Hydrogen–Ion Concentration – The weight of hydrogen ion in moles per liter of solution. Commonly expressed as the pH value, which is the logarithm of the reciprocal of the hydrogen-ion concentration.

Hydrometer – An instrument designed to measure the specific gravity of liquids or slurries either in specific gravity units or degrees baume'.

Hydrostatic Sludge Removal – The discharge of sludge from hopper-bottomed sedimentation tanks by use of the hydrostatic pressure of the wastewater above the sludge oulet.

Imhoff Cone – A cone-shaped graduated glass vessel used to measure the approximate volume of settleable solids in various liquids of wastewater origin during various settling times.

Imhoff Tank – A deep, two-storied wastewater tank originally patented by Karl Imhoff. It consists of an upper continuous-flow sedimentation chamber and a lower sludge-digestion chamber. The floor of the upper chamber slopes steeply to trapped slots through which solids may slide into the lower chamber. The lower chamber receives no fresh wastewater directly, but is provided with gas vents and with means for drawing digested sludge from near the bottom.

Immediate Biochemical Oxygen Demand – (1) The initial quantity of oxygen used by polluted liquid immediately upon being introduced into water containing dissolved oxygen. It may be exercised by end products of prior biochemical action or by chemical substances avid for oxygen. (2) In the standard laboratory procedure, the apparent BOD for fifteen minutes at 20 degrees Centigrade.

Impeller – A rotating set of vanes designed to impel rotation of a mass of fluid.

Industrial Wastes – The liquid wastes from industrial processes, as distinct from domestic or sanitary wastes.

Infiltration – The quantity of groundwater that leaks into a pipe through joints, porous walls, or breaks.

Infiltration Rate – (1) The rate at which water enters the soil or other porous material under a given condition. (2) The rate at which infiltration takes place, expressed in depth of water per unit time, usually in inches per hour. (3) The rate, usually expressed in cubic feet per second or million gallons per day per mile of waterway at which groundwater enters an infiltration ditch or gallery, drain, sewer, or other underground conduit.

Influent – Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant, or any unit thereof.

Inorganic Matter – Chemical substances of mineral origin, or more correctly, not of basically carbon structure.

Intermediate Treatment – The removal of a high percentage of suspended solids and a substantial percentage of colloidal matter, but little dissolved matter.

Lagoon – A pond containing raw or partially treated wastewater in which aerobic or anaerobic stabilization occurs.

Lagooning – The placement of solid or liquid material in a basin, reservoir, or artificial impoundment for purposes of storage, treatment, or disposal.

Lime – Any of a family of chemicals consisting essentially of calcium hydroxide made from limestone (calcite) which is composed almost wholly of calcium carbonate or a mixture of calcium and magnesium carbonate.

Liquid Chlorine – Elemental chlorine placed in a liquid state by a combination of compression and refrigeration of dry, purified chlorine gas. Liquid chlorine is shipped under pressure in steel containers.

Loss of Head – The difference between the total heads at two points in a hydraulic system.

Low-Rate Filter – A trickling filter designed to receive a small load of BOD per unit volume of filtering material and to have a low dosage rate per unit of surface area, usually one to four million gallons per day per acre, and generally without recirculation. Organic loading (BOD) rate is usually in the range of 5 to 25lb/1,000 cu ft. Also called standard-rate filter.

Maintenance – The upkeep necessary for efficient operation of physical properties. It involves labor and materials, but is not to be confused with replacement or retirement.

Manometer – An instrument for measuring pressure. It usually consists of a U-shaped tube containing a liquid, the surface of which in one end of the tube moves proportionally with changes in pressure on the liquid in the other end. Also, a tube type of differential pressure gage.

Mechanical Aeration – (1) The mixing, by mechanical means, of wastewater and activated sludge in the aeration tank of the activated sludge process to bring fresh surfaces of liquid into contact with the atmosphere. (2) The introduction of atmospheric oxygen into a liquid by the mechanical action of paddle, paddle wheel, spray or turbine mechanisms.

Mechanical Aerator – A mechanical device for the introduction of atmospheric oxygen into a liquid. See Mechanical Aeration.

Mechanical Rake – A machine-operated mechanism used for cleaning debris from racks located at the intakes of conduits supplying water to hydroelectric power plants, to water supply systems, or for other uses, and conveying wastewater to pumps or treatment processes.

Mesophilic Range – Operationally, that temperature range most conducive to the maintenance of optimum digestion by medophilic bacteria, generally accepted as between 27 degrees and 32 degrees Centigrade (80 degrees and 90 degrees Fahrenheit). See Mesophilic Digestion.

Methane Fermentation – Fermentation resulting in conversion of organic matter into methane gas.

Microbial Activity – Chemical changes resulting from the metabolism of living organisms. Biochemical action.

108

Milligrams Per Liter – A unit of the concentration of water or wastewater constituent. It is 0.001 g of the constituent in 1,000 ml of water. It has replaced the unit formerly used commonly, parts per million, to which it is approximately equivalent, in reporting the results of water and wastewater analysis.

Mixed–Flow Pump – A centrifugal pump in which the head is developed partly by centrifugal force and partly by the lift of the vanes on the liquid. This type of pump has a single inlet impeller; the flow enters axially and leaves axially and radially.

Mixed Liquor – A mixture of activated sludge and organic matter undergoing activated sludge treatment in the aeration tank.

Mixing Tank – A tank designed to provide a thorough mixing of chemicals introduced into liquids or of two or more liquids of different characteristics.

Modified Aeration – A modification of the activated sludge process in which a shortened period of aeration is used with a reduced quantity of suspended solids in the mixed liquor.

Mud Valve – A plug valve for draining out sediment, inserted in the bottom of settling tanks.

Multistage Pump – A centrifugal pump with two or more sets of vanes or impellers connected in series in the same casing. Such a pump may be designated as two-stage, three-stage, or more, according to the number of sets of vanes used.

Needle Valve – A valve with a circular outlet through which the flow is controlled by means of a tapered needle which extends through the outlet, reducing the area of the outlet as it advances and enlarging the area as it retreats.

Nitrification – The conversion of nitrogenous matter into nitrates by bacteria.

Nitrogen Cycle – A graphical presentation of the conservation of matter in nature, from living animal matter through dead organic matter, various stages of decomposition, plant life, and the return of living animal matter, showing changes which occur in course of the cycle. It is used to illustrate biological action and also aerobic and anaerobic acceleration of the transformation of this element by wastewater and sludge treatment.

Nonclogging Impeller – An impeller of the open, closed, or semiclosed type designed with large passages for passing large solids.

Nonsettleable Solids – Wastewater matter that will stay in suspension for an extended period of time. Such period may be arbitrarily taken for testing purposes as one hour.

Notched Weir – A weir having a substantial width of crest broken at intervals by a notch of known hydraulic characteristics, usually a V-notch. Also see Broad-Crested Weir.

Odor Control – In wastewater treatment, the prevention or reduction of objectionable odors by chlorination, aeration, or other processes or by making with chemical aerosols.

Open Channel – Any natural or aritficial waterway or conduit in which water flows with a free surface.

Organic Matter – Chemical substances of animal or vegetable origin, or more correctly, of basically carbon structure, comprising compounds consisting of hydrocarbons and their derivatives.

Organic Overload – Influent BOD loading in excess of design capacity on any unit.

Orthotolidine Test – A technique for determining residual chlorine in water by using orthotolidine reagent and choloimetric standards. It is used for routine measurement; however, its accuracy is affected by interfering substances and color.

Outfall Sewer – A sewer that receives wastewater from a collecting system or from a treatment plant and carries it to a point of final discharge.

Overflow Rate – One of the criteria for the design of settling tanks in treatment plants; expressed in gallons per day per square foot of surface area in the settling tank.

Overflow Weir – Any device or structure over which any excess water or wastewater beyond the capacity of the conduit or container is allowed to flow or waste. See Diverting Weir.

Overhead – Those elements of indirect cost necessary to produce an article or perform a service of such nature that the amount applied to each unit of product or service cannot be determined readily or accurately and is thus usually allocated on some arbitrary basis. Normally, overhead relates to those objects of expenditure which do not become an integral part of the finished product or service, such as rent, light, supplies, management, and supervision.

Oxidation – The addition of oxygen to a compound. More generally, any reaction which involves the loss of electrons from an atom.

Oxidation Pond – A basin used for retention of wastewater before final disposal, in which biological oxidation of organic material is effected by natural or artificially accelerated transfer of oxygen to the water from air.

Oxidation Rate – The rate at which the organic matter in wastewater is stabilized.

Oxygenation Capacity – In treatment processes, a measure of the ability of an aerator to supply oxygen to a liquid.

Oxygen Consumed – A measure of the oxygen-consuming capability of inorganic and organic matter present in water or wastewater. See Chemical Oxygen Demand.

Oxygen Deficiency – (1) The additional quantity of oxygen required to satisfy the oxygen requirement in a given liquid. Usually expressed in milligrams per liter. (2) Lack of oxygen.

Oxygen Demand – (1) The quantity of oxygen utilized in the biochemical oxidation of organic matter in a specified time, at a specified temperature, and under specified conditions. See BOD.

Oxygen Depletion – Loss of dissolved oxygen from water or wastewater resulting from biochemical or chemical action.

Oxygen Reduction Potential Meter – An electrical measuring device designed to show whether the electrical charge of a solution is positive or negative.

Oxygen-Sag Curve – A curve that represents the profile of dissolved oxygen content along the course of a stream, resulting from deoxygenation associated with biochemical oxidation of organic matter and reoxygenation through the absorption of atmospheric oxygen and through biological photosynthesis Also called dissolved-oxygen-sag-curve.

Oxygen Saturation – The maximum quantity of dissolved oxygen that liquid of given chemical characteristics, in equilibrium with the atmosphere, can contain at a given temperature and pressure.

Oxygen Utilization – (1) The oxygen consumed or utilized to support aerobic biological treatment processes. (2) The oxygen used to support combustion in the degradation of sludge by incineration or wet air oxidation.

Ozone – Oxygen in molecular form with three atoms of oxygen forming each molecule (O_3).

Parshall Flume – A calibrated device developed by Parshall for measuring the flow of liquid in an open conduit. It consists essentially of a contracting length, a throat, and an expanding length. At the throat is a sill over which the flow passes at Belanger's critical depth. The upper and lower heads are each measured at a definite distance from the sill. The lower head need not be measured unless the sill is submerged more than about sixty-seven percent.

Pathogenic Bacteria – Bacteria which may cause disease in the host organisms by their parasitic growth.

Pathogens – Pathogenic or disease-producing organisms.

Peak Load – The maximum rate of flow of wastewater to a pumping station or treatment plant. Also called peak demand.

Peripheral Flow – Flow of water or other liquid parallel to the circumference or periphery of a circular tank or other circular structure. Also called circumferential flow.

Peripheral Weir – The outlet weir extending around the inside of the circumference of a circular settling tank, over which the effluent discharges.

Pet Cock – A small cock used to drain a cylinder, fitting, valve, or similar device.

pH – The reciprocal of the logarithm of the hydrogen-ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water, for example, has a pH value of seven and a hydrogen-ion concentration of ten to the negative seven exponent.

Phenolic Compounds – Hydroxy derivatives of benzene. The simplest phenolic compound is hydroxy benzene, C_6H_5OH.

Phenol Wastes – Industrial wastes containing phenols, derived chiefly from coking processes and oil refineries.

Photosynthesis – The synthesis of complex organic materials, especially carbohydrates, from carbon dioxide, water, and inorganic salts, with sunlight as the source of energy, and with the aid of a catalyst such as chlorophyll.

Physical Analysis – The examination of water and wastewater to determine physical characteristics such as temperature, turbidity, color, odors, taste.

Pipe Gallery – (1) Any conduit for pipe, usually of a size to allow a man to walk through. (2) A gallery provided in a treatment plant for the installation of the conduits and valves and for a passageway to provide access to them.

Pipeline – Pipes jointed to provide a conduit through which fluids flow.

Pipette – A device for measuring and/or transfering of accurate amounts of liquids.

Piston Pump – A reciprocating pump wherein the cylinder is tightly fitted with a reciprocating piston.

Plain Sedimentation – The sedimentation of suspended matter in a liquid, unaided by chemicals or other special means and without provision for the decomposition of deposited solids in contact with the wastewater.

Plate Count – Number of colonies of bacteria grown on selected solid media at a given temperature and incubation period, usually expressed in number of bacteria per milliliter of sample.

Plug Valve — A valve in which the movable control element is a cylindrical or conical plug, in contrast to a flat disk.

Plunger Pump — A reciprocating pump having a plunger that does not come in contact with the cylinder walls, but enters and withdraws from it through packing glands. Such packing may be inside or outside the center, according to the design of the pump.

Pneumatic Ejector — A device for raising wastewater, sludge, or other liquid by alternately admitting it through an inward-swinging check valve into the bottom of an airtight pot and then discharging it through an outward-swinging check valve by admitting compressed air to the pot above the liquid.

Pollution — A condition created by the presence of harmful or objectionable material in water.

Pollutional Load — (1) The quantity of material in a waste stream that requires treatment or exerts an adverse effect on the receiving system. (2) The quantity of material carried in a body of water that exerts a detrimental effect on some subsequent use of that water.

Positive Head — The energy possessed per unit weight of a fluid, due to its elevation above some datum.

Post-Chlorination — The application of chlorine to water or wastewater subsequent to any treatment, including prechlorination.

Preaeration — A preparatory treatment of wastewater consisting of aeration to remove gases, add oxygen, promote flotation of grease, and aid coagulation.

Pre-Chlorination — The application of chlorine to water or wastewater prior to any treatment.

Precipitate — The separation from solution as a precipitate. The substance precipitated.

Precipitation — The total measurable supply of water received directly from clouds, as rain, snow, hail, or sleet; usually expressed as depth in a day, month, or year, and designated as daily, monthly, or annual precipitation.

Preliminary Treatment — (1) The conditioning of a waste at its source before discharge, to remove or to neutralize substances injurious to sewers and treatment processes, or to effect a partial reduction in load on the treatment process. (2) In the treatment process unit operation, such as screening and comminution, that prepare the liquor for subsequent major operations.

Pressure-Reducing Valve – A valve with a horizontal disk for reducing pressures automatically, according to the setting of the pressure-regulating valves.

Pressure-Regulating Valve – A valve placed at either end of a pressure-regulating apparatus inserted in a water main to regulate the pressure in a water line, either upstream or downstream from the valve.

Pressure Regulator – A device for controlling pressure in a pipeline or pressurized tank, such as a pressure-regulating valve or a pump drive-speed controller.

Pressure-Relief Valve – A valve that opens automatically to ample area when the pressure reaches an assigned limit, to relieve the stress on a pipeline.

Primary Settling Tank – The first settling tank for the removal of settleable solids through which wastewater is passed in a treatment works.

Primary Sludge – Sludge obtained from a primary settling tank.

Primary Treatment – (1) The first major (sometimes the only) treatment in a wastewater treatment workd, usually sedimentation. (2) The removal of a substantial amount of suspended matter but little or no colloidal and dissolved matter.

Priming – (1) The first filling with water of a canal, reservoir, or other structure built to contain water. (2) The action of starting the flow in a pump or siphon.

Protozoa – Small one-celled animals including amoebae, ciliates, and flagellants.

Psychoda – A small gray fly prevalent arount trickling filters. Their larvae live in the zoogloeal film on the filter stones and may serve some useful purpose, but they are primarily a nuisance.

Pump – A mechanical device for causing flow, for raising or lifting water or other fluid, or for applying pressure to fluids.

Pump Efficiency – The ratio of energy converted into useful work to the energy applied to the pump shaft, or the energy difference in the water at the discharge and suction nozzles divided by the power input at the pump shaft.

Pumping Head – The sum of the static head and friction head on a pump discharging a given quantity of water.

Pumping Station – A station housing relatively large pumps and their appurtenances. Pump house is the usual term for shelters for small water pumps.

Pump Pit – A dry well or chamber below ground level in which a pump is located.

Pump Primer – A vacuum pump attached to the suction end of a pump for priming the pump automatically.

Pump Stage – The number of impellers in a centrifugal pump; for example, a single-stage pump has one impeller; a two-stage pump has two impellers.

Pump Stroke – The lineal distance traveled by the piston or plunger or a reciprocating pump through one-half of its cycle of movement.

Quicklime – A calcined material the major part of which is calcium oxide or calcium oxide in natural association with a lesser amount of magnesium oxide. It is capable of slaking with water.

Rack – A device fixed in place and used to return or remove suspended or floating solids from wastewater and composed of parallel bars evenly spaced.

Rakings – The screenings or trash removed from bar screens cleaned manually or by mechanical rakes.

Rate-of-Flow Controller – An automatic device that controls the rate of flow of a fluid.

Rate-of-Flow Recorder – A recorder for registering the rate of flow of water, generally, used with a rapid sand filter.

Raw Sludge – Settled sludge promptly removed from sedimentation tanks before decomposition has much advance. Frequently referred to as undigested sludge.

Raw Wastewater – Wastewater before it receives any treatment.

Reaeration – The absorption of oxygen into water under conditions of oxygen deficit.

Receiving Body of Water -- A natural watercourse, lake, or ocean into which treated or untreated wastewater is discharged.

Reciprocating Pump – A type of displacement pump consisting essentially of a closed cylinder containing a piston or plunger, as the displacing mechanism, drawing liquid into the cylinder through an inlet valve and forcing it out through an outlet valve. When the piston acts on the liquid in one end of the cylinder, the pump is termed single-action, and when it acts in both ends, it is termed double-action.

Recirculation – (1) In the wastewater field, the refiltration of all or a portion of the effluent in a trickling filter to maintain a uniform high rate through the filter. Return of a portion of the effluent to maintain minimum flow is sometimes called recycling. (2) The return of effluent to the incoming flow.

Recycling – An operation in which a substance is passed through the same series of processes, pipes, or vessels more than once.

Reducer – A pipe or pipe fitting having a smaller-size opening at one end than at the other.

Reducing Tee – Any tee having two different sizes of openings. It may reduce on the run or branch.

Relief Valve – A valve that releases air from a pipeline automatically without loss of water, or introduces air into a line automatically if internal pressure becomes less than that of the atmosphere.

Repairs – An element of maintenance, as distinguished from replacement or retirement.

Representative Sample – A small quantity of a substance that is representative of the entire substance.

Residual Chlorine – Chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine. See Free Available Residual Chlorine.

Residual Oxygen – The dissolved oxygen content of a stream after deoxygenation has begun.

Returned Sludge – Settled activated sludge returned to mix with incoming raw or primary settled wastewater.

Riprap – Broken stone or boulders placed compactly or irregularly on dams, levees, dikes, or similar embankments for protection of earth surfaces against the action of waves or currents.

Rotameter – A fluid-flow-measuring device utilizing a float, suspended in an upflowing fluid stream through a progressively increasing diameter tube.

Rotary Distributor – A movable distributor made up of horizontal arms that extend to the edge of the circular trickling filter bed, revolve about a central post, and distribute liquid over the bed through orifices in the arms. The jet action of the discharging liquid normally supplies the motive power.

Roughing Filter – A wastewater filter of relatively coarse material operated at a high rate to afford preliminary treatment.

Runoff – That part of the precipitation which runs off the surface of a drainage area and reaches a stream or other body of water or a drain or sewer.

Sampler – A device used with or without flow measurement to obtain an aliquot portion of water or waste for analytical purposes. May be designed for taking single sample (grab), composite sample, continuous sample, periodic sample.

Sanitary Wastewater – (1) Domestic wastewater with storm and surface water excluded.
(2) Wastewater discharging from the sanitary conveniences of dwelling (including apartment houses and hotels), office buildings, industrial plants, or institutions.
(3) The water supply of a community after it has been used and discharged into a sewer.

Screen – A device with openings, generally of uniform size, used to retain or remove suspended or floating solids in flowing water or wastewater and to prevent them from entering an intake or passing a given point in a conduit. The screening element may consist of parallel bars, rods, wires, grating, wire mesh, or perforated plat, and the openings may be of any shape, although they are usually circular or rectangular.

Screen Chamber – A chamber in which screens are installed.

Screening – The removal of relatively coarse floating and suspended solids by straining through racks or screens.

Screenings – Material removed from liquids by screens.

Screenings Grinder (Comminutor) – A device for grinding, shredding, or macerating material removed from wastewater by screens.

Screenings Shredder – A device that disintegrates screenings.

Scum – (1) The layer of film of extraneous or foreign matter that rises to the surface of a liquid and is formed there. (2) A residue deposited on a container or channel at the water surface. (3) A mass of solid matter that floats on the surface.

Scum Baffle – A vertical baffle dipping below the surface of wastewater in a tank to prevent the passage of floating matter. Also called scum board.

Scum Collector – A mechanical device for skimming and removing scum from the surface of a settling tank.

Scum Trough – A trough placed in a primary settling tank to intercept scum and convey it out of the tank.

Secondary Settling Tank – A tank through which effluent from some prior treatment process flows for the purpose of removing settleable solids.

Secondary Wastewater Treatment – The treatment of wastewater by biological methods after primary treatment by sedimentation.

Second-Stage Biochemical Oxygen Demand – That part of the oxygen demand associated with the biochemical oxidation of nitrogenous material. As the term implies, the oxidation of the nitrogenous materials usually does not start until a portion of the carbonaceous material has been oxidized during the first stage.

Sedimentation – The process of subsidence and deposition of suspended matter carried by water, wastewater, or other liquids, by gravity. It is usually accomplished by reducing the velocity of the liquid below the point at which it can transport the suspended material. Also called settling.

Sedimentation Tank – A basin or tank in which water or wastewater containing settleable solids is retained to remove by gravity a part of the suspended matter. Also called sedimentation basin, settling basin, settling tank.

Separate Sludge Digestion – The digestion of sludge in tanks separate from that in which it had been allowed to settle.

Septicity – A condition produced by growth of anaerobic organisms.

Sptic Sludge – Sludge from a septic tank or partially digested sludge from an Imhoff tank or sludge-digestion tank.

Septic Wastewater – Wastewater undergoing putrefaction under anaerobic conditions.

Settleability Test – A determination of the settleability of solids in a suspension by measuring the volume of solids settled out of a measured volume of sample in a specified interval of time, usually reported in milliliters per liter. Sometimes identified as the Imhoff cone test.

Settleable Solids – (1) That matter in wastewater which will not stay in suspension during a preselected settling period, such as one hour, but either settles to the bottom or floats to the top. (2) In the Imhoff cone test, the volume of matter that settles to the bottom of the cone in one hour.

Settled Wastewater – Wastewater from which most of the settleable solids have been removed by sedimentation. Also called clarified wastewater.

Settling Tank – A basin or bank in which water or wastewater containing settleable solids is retained to remove by gravity a part of the suspended matter. Also called sedimentation basin, sedimentation tank, settling basin.

Settling Velocity – The velocity at which subsidence and deposition of the settleable suspended solids in water and wastewater will occur.

Sewage Charge – A service charge made for providing wastewater colleciton and/or treatment service. A specific charge in contrast to an ad volorem tax.

Sewage Gas – (1) Gas resulting from the decomposition of organic matter in wastewater. (2) Gas produced during the digestion of sludge.

Sewage Rate – A charge, or a schedule of charges, for the collection, or the collection and treatment, of wastewater to users connected to the system, based on water consumption, wastewater flow, wastewater strength, number and types of plumbing fixtures, or some combination.

Sewer – A pipe or conduit that carries wastewater or drainage water.

Sewerage – System of piping, with appurtenances, for collecting and conveying wastewater from source to discharge. Term declining in use.

Sewer Appurtenances – Structures, devices, and appliances, other than pipe or conduit, that are integral parts of a sewer system.

Shear Gate – A pivoted slide, without guides, held in place by the pressure of the water and seating lugs. This type of gate is not watertight for reversed pressure.

Short-Circuiting – A hydraulic condition occurring in parts of a tank where the time of travel is less than the flowing-through time.

Side Water Depth – The depth of water measured along a vertical exterior wall.

Siphon – A closed conduit, a portion of which lies above the hydraulic grade line, resulting in a pressure less than atmospheric and requiring a vacuum within the conduit to start flow. A siphon utilizes atmospheric pressure to effect or increase the flow of water through the conduit.

Skimming – The process of removing floating grease or scum from the surface of wastewater in a tank.

Skimmings – Grease, solids, liquids, and scum skimmed from wastewater settling tanks.

Slake – To become mixed with water so that a true chemical combination takes place, as in the slaking of lime.

Slimes – Substances of viscous organic nature, usually formed from microbiological growth.

Slot – (1) A narrow opening. (2) In an Imhoff tank, the opening provided for deflection of gas (see Gas Vent) or for the passage of deposited solids into the digestion chamber.

Sloughing – The disattachment of slime and solids accumulated on the media of trickling filters and contact areas. Sloughed material usually appears in the effluent.

Sludge – (1) The accumulated solids separated from liquids, such as water or wastewater, during processing, or deposits on bottoms of streams, or other bodies of water. (2) The precipitate resulting from chemical treatment, coagulation, or sedimentation of water or wastewater.

Sludge Age – In the activated sludge process, a measure of the length of time a particle of suspended solids has been undergoing aeration, expressed in days. It is usually computed by dividing the weight of the suspended solids in the aeration tank by the daily addition of new suspended solids having their origin in the raw waste.

Sludge Bank – Accumulated deposits of solids of wastewater or organic origin on the bottom, banks, edges, or shores of waterways or open water.

Sludge Bed – An area comprising natural or artificial layers of porous material on which digested wastewater sludge is dried by drainage and evaporation. A sludge bed may be open to the atmosphere or covered, usually with a greenhouse-type superstructure. Also called sludge drying bed.

Sludge Blanket – Accumulation of sludge hydrodynamically suspended within an enclosed body of water or wastewater.

122

Sludge Bulking – A phenomenon that occurs in activated sludge plants whereby the sludge occupies excessive volumes and will not concentrate readily.

Sludge Cake – The sludge that has been dewatered by a treatment process to a moisture content of sixty to eighty five percent, depending on type of sludge and manner of treatment.

Sludge Circulation – The overturning of sludge in sludge-digestion tanks by mechanical or hydraulic means or by use of gas recirculation to disperse scum layers and to promote digestion.

Sludge Collector – A mechanical device for scraping the sludge on the bottom of a settling tank to a sump from which it can be drawn.

Sludge Concentration – Any process of reducing the water content of sludge that leaves the sludge in a fluid condition.

Sludge Conditioning – Treatment of liquid sludge before dewatering to facilitate dewatering and enhance drainability, usually by the addition of chemicals.

Sludge Density Index – The reciprocal of the sludge volume index multiplied by one hundred.

Sludge Deposit – A deposit of solids of wastewater origin.

Sludge Digestion – The process by which organic or volatile matter in sludge is gasified, liquified, mineralized, or converted into more stable organic matter through the activities of either anaerobic or aerobic organisms.

Sludge-Digestion Gas – Gas resulting from the decomposition of organic matter in sludge removed from wastewater and placed in a tank to decompose under anaerobic conditions. Also see Sewage Gas, Sludge Digestion.

Sludge Excess – The sludge produced during recirculation in an activated sludge treatment plant that is not needed to maintain the process and not returned to the aeration tank, but is withdrawn from circulation.

Sludge Foaming – An increase in the gas in sludge in Imhoff and separate digestion tanks, causing large quantities of froth, scum, and sludge to rise and overflow from openings at or near the top of the tanks.

Sludge-Gas Holder – A tank used to store gas collected from sludge-digestion tanks, for the purpose of stabilizing the flow of gas to the burners, maintaining a nearly constant pressure, and supplying gas during periods when the digestion tanks are temporarily out of service or when gas production is low.

Sludge Index – Properly called sludge volume index (SVI). It is the volume in milliliters occupied by one gram of activated sludge after settling of the aerated liquid for thirty minutes.

Sludge Lagoon – A basin used for the storage, digestion, or dewatering of sludge.

Sludge Reaeration – The continuous aeration of sludge after its initial aeration for the purpose of improving or maintaining its condition.

Sludge Treatment – The processing of wastewater sludges to render them innocuous. This may be done by aerobic or anaerobic digestion followed by drying on sand beds, filtering, and incineration, filtering and drying, or wer air oxidation.

Sludge Volume Index (SVI) – The ratio of the volume in milliliters of sludge settled from a one thousand milliliter sample in thirty minutes to the concentration of mixed liquor in milligrams per liter multiplied by one thousand.

Snubber – A muffler designed to reduce the sound on blower intakes.

Solium Aluminate – A coagulating chemical and softening agent ($Na_2Al_2O_4$) often used in lieu of or in conjunction with alum.

Solium Hypochlorite – A water solution of sodium hydroxide and chlorine, in which solium hypochlorite is the essential ingredient.

Solids Reduction – The conversion of the more active volatile solid matter into water and gases resulting in a lower final volume of volatile solids.

124

Solids-Retention Time – The average residence time of suspended solids in a biological waste treatment system, equal to the total weight of suspended solids in the system divided by the total weight of suspended solids leaving the system per unit of time (usually per day).

Solution Feeder – A feeder for dispensing a chemical or other material in the liquid or dissolved state to water or wastewater at a rate controlled manually or automatically by the quantity of flow. The constant rate is usually volumetric.

Sparger – An air diffuser designed to give large bubbles, used singly or in combination with mechanical aeration devices.

Specific Gravity – The ratio of the mass of a body to the mass of an equal volume of water.

Spiral Air-Flow Diffusion – A method of diffusing air in an aeration tank of the activated sludge process where, by means of properly designed baffles and the proper location of diffusers, a spiral or helical movement is given to the air and the tank liquor.

Stabilization Pond – A type of oxidation pond in which biological oxidation of organic matter is effected by natural or artificially accelerated transfer of oxygen to the water from air.

Stable Effluent – Treated wastewater that contains enough oxygen to satisfy its oxygen demand.

Stage Aeration – Division of activated sludge treatment into stages with intermediate settling tanks and return of sludge in each stage.

Stale Wastewater – Wastewater containing little or no oxygen, but as yet free from putrefaction.

Standard-Rate Filter – A type of trickling filter in which both hydraulic and organic loadings are relatively low, usually built to operate without recycling or recirculation of wastewater.

Static Head – (1) The total head without reduction for velocity head or losses; for example, the difference in elevation of head-water, and tail-water of a power plant. (2) The vertical distance between the free level of the source of supply and the point of free discharge or the level of the free surface.

Static Suction Head – The vertical distance from the source of supply when its level is above the pump to the center line of the pump

Step Aeration – A procedure for adding increments of settled wastewater along the line of flow in the aeration tanks of an activated sludge plant.

Stilling Well – A separate quiescent chamber connected to an open channel flow. Used to house float of flow meter device.

Stokes Law – A mathematical equation for determining the settling rate of particles.

Stop Plank – A removable wooden plank that is placed in a groove or rack to block off or permit the flow of a liquid from one compartment or channel to another.

Storm Flow – That portion of the precipitation which leaves the drainage area in a comparatively short time on or near the surface.

Storm Sewer – A sewer that carries storm water and surface water, street wash and other wash waters, or drainage, but excludes domestic wastewater and industrial wastes.

Stuck Digestor – A stuck digestor does not decompose the organic matter properly. Some refer to it as constipated. It is characterized by low gas production, high volatile acid/alkalinity relationship, and poor liquid-solids separation. A digestor in a stuck condition is sometimes called a "sour" digestor.

Suction Pipe – The inlet pipeline of a pump.

Suction Pit – A walled pit in which the suction pipe or inlet openings of a pump are placed. Sometimes called a sump or wet well.

Sulfur Bacteria – Bacteria capable of using dissolved sulfur compounds in their growth; bacteria deriving energy from sulfur or sulfur compounds.

Sump – (1) A tank or pit that receives drainage and store it temporarily, and from which the drainage is pumped or ejected. (2) A tank or pit that receives liquids.

1276

Sump Pump – A mechanism used for removing water or wastewater from a sump, or wet well; it may be energized by air, water, steam, or electric motor. Ejectors and submerged centrifugal pumps, either float– or manually controlled, are often used for the purpose.

Supernatant Liquor – (1) The liquor overlying deposited solids. (2) The liquid in a sludge-digestion tank that lies between sludge at the bottom and floating scum at the top.

Surface Aeration – The absorption of air through the surface of a liquid.

Suspended Solids – Solids that either float on the surface of, or are in suspension in, water, wastewater, or other liquids, and which are largely removable by laboratory filtering. See Suspended Matter.

Sutro Weir – A proportional weir.

Tapered (Step) Aeration – The method of supplying varying amounts of air into the different parts of an aeration tank in the activated sludge process, more at the inlet, less near the outlet, in approximate proportion to the oxygen demand of the mixed liquor under aeration.

Torque – A twisting force on a drive shaft.

Total Dynamic Head – The difference between the elevation corresponding to the pressure at the discharge flange of a pump and the elevation corresponding to the vacuum or pressure at the suction flange of the pump, corrected to the same datum plane, plus the velocity head at the discharge flange of the pump, minus the velocity head at the suction flange of the pump.

Total Solids – The sum of dissolved and undissooved constituents in water or wastewater, usually stated in milligrams per liter.

Trade Wastes – The liquid wastes from industrial processes, as distinct from domestic or sanitary wastes.

Trash Rack – A grid or screen placed across a waterway to catch floating debris.

Treated Sewage – Wastewater that has received partial or complete treatment.

Trickling Filter – A filter consisting of an artificial bed of coarse material, such as broken stone, clinkers, slate, slats, brush, or plastic materials, over which wastewater is distributed or applied in drops, films, or spray from troughs drippers, moving distributors, or fixed nozzles, and through which it trickles to the underdrains, giving opportunity for the formation of zoogleal slimes which clarify and oxidize the wastewater.

Triplex Pump – A reciprocating pump with three single-acting clyinders placed next to each other in line, all connected with the same suction and discharge line, with valves so arranged that the intake and discharge through the pump is continuous.

Turbidity – A condition in water or wastewater caused by the presence of suspended matter, resulting in the scattering and absorption of light rays.

Ultimate Biochemical Oxygen Demand – (1) Commonly, the total quantity of oxygen required to satisfy completely the first-stage biochemical oxygen demand. (2) More strictly, the quantity of oxygen required to satisfy completely both the first-stage and the second-stage biochemical oxygen demands.

Undigested Sludge – Settled sludge promptly removed from sedimentation tanks before decomposition has much advanced. Also called raw sludge.

Vacuum Pump – A pump used to create a partial vacuum in a closed space.

Valve – A device installed in a pipeline to control the magnitude and direction of the flow. It consists essentially of a shell and a disk or plug fitted to the shell. See Cock.

Venturi Meter – A differential meter for measuring flow of water or other fluid through closed conduits or pipes, consisting of a venturi tube and one of several proprietary forms of flow-registering devices. The difference in velocity heads between the entrance and the contracted throat is an indication of the rate of flow.

Vertical Pump – (1) A reciprocating pump in which the piston or plunger moves in a vertical direction. (2) A centrifugal pump in which the pump shaft is in a vertical position.

V-Notch Weir – A triangular weir.

Volatile – Capable of being evaporated at relatively low temperatures.

Volatile Acids – Fatty acids containing six or less carbon atoms, which are soluble in water, and which can be steam-distilled at atmospheric pressure. Volatile acids are commonly reported as equivalent to acetic acid.

Volatile Solids – The quantity of solids in water, wastewater, or other liquids, lost on ignition of the dry solids at 600 degrees Centigrade.

Waste–Gas Burner – A device in a wastewater treatment plant for burning the waste gas from a sludge-digestion tank.

Wastewater – The spent water of a community. From the standpoint of source, it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions, together with any groundwater, surface water, and storm water that may be present. In recent years, the word wastewater has taken precedence over the word sewage.

Wastewater Analysis – The determination of chemical composition, concentration, and biological condition of wastewater and treatment effluents.

Wastewater Influent – Wastewater as it enters a wastewater treatment plant or pumping station.

Wastewater Treatment – Any process to which wastewater is subjected in order to remove or alter its objectional constituents and thus render it less offensive or dangerous.

Water Quality – The chemical, physical, and biological characteristics of water with respect to its suitability of a particular purpose. The same water may be of good quality for one purpose or use, and bad for another, depending on its characteristics and the requirements for the particular use.

Weir – (1) A diversion dam. (2) A device that has a crest and some side containment of known geometricshape, such as a V, trapezoid, or rectangle, and is used to measure flow of liquid. The liquid surface is exposed to the atmosphere. Flow is related to upstream height of water above the crest, to position of crest with respect to downstream water surface, and to geometricof the weir opening. See Weir Flow Formulas.

Well – An open shaft of varying depths, may be wet or dry.

Wet Well – A compartment in which a liquid is collected, and to which the suction pipe of a pump is connected.

Y-Strainer – A device designed to remove all particular matter from chlorinator feed water.

Zeta Meter – Electronic measuring device designed to measure the surface electrical charge of colloidal-sized particles.

Zooglea – A jelly-like matrix developed by bacteria. A major part of activated sludge floc and of trickling filter slimes.

Zoogleal Matrix – The floc formed primarily by slime-producing bacteria in the activated sludge process or in biological beds.

ACCESSION NUMBER: VT102077

TITLE: AN ANALYSIS OF THE PLUMBING OCCUPATION.

PERSONAL AUTHOR: CARLTON, EARNEST L.; HOLLAR, CHARLES E.

DESCRIPTOR: *TASK ANALYSIS; *PLUMBING; *JOB SKILLS; *OCCUPATIONAL INFORMATION; TASK PERFORMANCE; EQUIPMENT UTILIZATION

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 254P.; SEE RELATED DOCUMENTS VT 101 823 THROUGH 101 874 IN AIM, VOL. 8, NO. 4, AND VT 102 072 THROUGH 102 078 IN THIS ISSUE.

ABSTRACT: THE OCCUPATIONAL ANALYSIS PROJECT WAS CONDUCTED FROM JUNE 1, 1973 TO DECEMBER 30, 1974 TO TRAIN VOCATIONAL TEACHERS IN THE TECHNIQUES OF MAKING A COMPREHENSIVE OCCUPATIONAL ANALYSIS. EACH ANALYSIS INCLUDES A STATEMENT OF THE VARIOUS TASKS PERFORMED IN AN OCCUPATION, WITH THE APPROPRIATE ITEMS IDENTIFIED FOR EACH TASK: TOOLS AND EQUIPMENT, PROCEDURAL KNOWLEDGE, SAFETY KNOWLEDGE, MATHEMATICS SKILLS, AND SCIENCE AND COMMUNICATION NEEDED FOR SUCCESSFUL PERFORMANCE. THE ANALYSIS DATA PROVIDED A BASIS FOR GENERATING INSTRUCTIONAL MATERIALS, COURSE OUTLINES, STUDENT PERFORMANCE OBJECTIVES, CRITERION MEASURES, AND SUPPORTING SKILLS IN THE ACADEMIC AREAS. THIS VOLUME PRESENTS A WIDE OVERVIEW OF THE JOB OF PLUMBING WITH RELATED PIPING, INCLUDING INSTALLATION AND MAINTENANCE OF SEWERS, DRAINS AND VENTS, WATER SUPPLY AND DISTRIBUTION, GAS AND OIL SYSTEMS, AND HOUSE LINES AND FIXTURES. (AUTHOR/MF)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. INSTRUCTIONAL MATERIALS LAB. (TRADE AND INDUSTRIAL EDUCATION).

SPONSORING AGENCY NAME: OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 077

Made Primarily from Recycled Fibers

Occupational Analysis

PLUMBING

VT 102 077

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

5288

AN ANALYSIS OF THE PLUMBING OCCUPATION

Developed By

Earnest L. Carlton
Instructor, Plumbing and Heating
Woodland Job Center
Cleveland, Ohio

Charles E. Hollar
Instructor, Plumbing
Eastland Vocation Center
Groveport, Ohio

Occupational Analysis
E.P.D.A. Sub Project 73402
June 1, 1973 to December 30, 1974
Director: Tom L. Hindes
Coordinator: William L. Ashley

3

The Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

''The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.''

TABLE OF CONTENTS

Foreword v

Preface vii

Acknowledgment ix

Job Description. xi

Duties

A Install Building Sewer. 1
B Install Building Drains and Storm 23
C Install and/or Maintain Drain Waste and Vent Systems. 47
D Water Supply Systems 73
E Install and/or Maintain Domestic Hot and Cold Water Distribution Systems . . . 91
F Install and/or Maintain Gas and/or Oil Systems. 115
G Install and/or Maintain Gas and/or House Lines. 133
H Install and/or Maintain Hydronic Heating Systems 147
I Install and/or Maintain Fire Protection Systems 187
J Install and/or Maintain Private Sewer Disposal Systems 199
K Set and/or Repair Fixtures and Fixture Trim 215
L Repair Plumbing Fixtures and/or Fixture Trim 227

FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of conducting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis included a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures as well as identifying specific supporting skills and knowledge in the academic subject areas.

PREFACE

This document represents a wide overview of the job of plumbing with related piping. Due to time limitation and the scope of the plumbing industry, much of the information is generalized. It was not the intent of the authors to be more specific. A reading of the area on Hydronic Heating should not be construed as being complete, but rather as an attempt by the authors to indicate some areas of hydronics that the plumber-mechanic often encounters.

The occupation of plumbing is becoming more sophisticated with each passing day. One only needs to understand the relationship between quality plumbing and its effect on environment, and the sophistication becomes self-evident. With the impact of environmental concerns, experienced in news and manifested in recently enacted legislation, the complexities of plumbing will become even greater.

In order to stay within the time alotted and still produce a valid analysis, the authors chose to examine plumbing on the basis of the primary systems that are encompassed by the occupation. Also, for validity, the author established empirical priority in the selection of systems to be analyzed.

ACKNOWLEDGMENT

We wish to acknowledge the valuable assistance rendered by the following subject matter specialists. They provided input to the vocational instructors in identifying related skills and concepts of each respective subject matter area and served as training assistants in the analysis process during the two-week workshops.

Rollin M. Barber, Psychology
The Ohio State University
Columbus, Ohio

Jodi Beittel, Communications
Columbus, Ohio

Diana L. Buckeye, Mathematics
University of Michigan
Avon Lake, Ohio

Rick Fien, Chemistry
The Ohio State University
Beachwood, Ohio

N.S. Gidwani, Chemistry
Columbus Technical Institute
Columbus, Ohio

Bruce A. Hull, Biology
The Ohio State University
Columbus, Ohio

Donald L. Hyatt, Physics
Worthington High School
Worthington, Ohio

Glenn Mann, Communications
Columbus, Ohio

Jerry McDonald, Physical Sciences
Columbus Technical Institute
Reynoldsburg, Ohio

Colleen Osinski, Psychology
Columbus Technical Institute
Columbus, Ohio

David Porteous, Communications
University of Connecticut
Colchester, Connecticut

James A. Sherlock, Communications
Columbus Technical Institute
Columbus, Ohio

Jim VanArsdall, Mathematics
Worthington High School
Worthington, Ohio

Lillian Yontz, Biology
The Ohio State University
Caldwell, Ohio

Acknowledgment is extended to the following I.M.L. staff members for their role in conducting the workshops; editing, revising, proofing and typing the analyses.

Faith Justice	Research Associate
Sheila Nelson	Administrative Assistant
Marsha Opritza	Editorial Consultant
Rita Buccilla	Typist
Peg Bushelman	Typist
Carol Fausnaugh	Typist
Mindy Fausnaugh	Typist
Rita Hastings	Typist
Carol Hicks	Typist
Sue Holsinger	Typist
Barbara Hughes	Typist
Carol Marvin	Typist
Patti Nye	Typist
Kathy Roediger	Typist
Mary Salay	Typist

JOB DESCRIPTION *

The job description includes the practices and use of materials and fixtures used in the installation, maintenance, extension, and alteration of all piping, fixtures, appliances, and appurtanances in connection with any of the following: drainage systems, the venting systems and the water systems, within or adjacent to any building, structure, or conveyance; also the practice and materials used in the installation, maintenance, extension, and/or alteration of the storm-water, liquid waste, or drainage and water-supply system of any premises.

*Reference OBC; Chapter BB-51
ASA 40.8

Duty A Install Building Sewer

1 Check blueprints and drawings on job site
2 Determine invert of sewer depth/elevation
3 Open trench construction
4 Open trench construction for maintenance/repair
5 Shore trench construction for maintenance/repair
6 Lay clay pipe sewer
7 Install cleanouts vitrified clay pipe
8 Test sewer
9 Backfill construction for maintenance/repair
10 Locate sewer for maintenance/repair

(TASK STATEMENT) CHECK BLUEPRINTS AND DRAWINGS ON JOB SITE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Scale 100 foot tape Transit One set of blueprints Stake markers Hammers Target pole Marking caulk Graphic pad Pencil	Read and carefully examine architect's blueprints and specifications Inspect job site with blueprints Verify elevations Verify utility locations	Overhead power lines under ground utilities (''Bull in the pasture'')
DECISIONS	**CUES**	**ERRORS**
Make a cursed survey	Discrepancy between the architect's print and the mechanical print Discrepancy between physical topography and architect's plot plans	Bidding error

(TASK STATEMENT) CHECK BLUEPRINTS AND DRAWINGS ON JOB SITE

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Measurement: geometric Linear, angle Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Basic Trigonometry Skills and Concepts (see appendix)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehend written instructions	Comprehension, Detail/Inference, Proposals, Terminology
Viewing	On site inspection	Visual analysis, Describing, Recognition of symbols, codes, emblems

(TASK STATEMENT) DETERMINE INVERT OF SEWER DEPTH/ELEVATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pencil Transit Graphic pad Marking caulk Pick Shovel Target pole Flashlight Mirror	Remove manhole cover Extend target pole to bottom of inside of sewer Take reading with transit Record reading Replace cover	Allow time for manhole to ventilate Possible existance of noxious gases

DECISIONS	CUES	ERRORS
Determine if set-up is invert	Rod resting firmly on bottom of pipe Correct manhole	Possible in reading rod and/or recording in note book

(TASK STATEMENT) DETERMINE INVERT OF DEPTH/ELEVATION

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Measurement: geometric Linear, angle Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Basic Trigonometry Skills and Concepts (see appendix)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Writing Viewing	Comprehend written instructions Note taking On site inspection	Comprehension, Detail/Inference Spelling, Classification, Description Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) OPEN TRENCH CONSTRUCTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Shovel Pick Sledge hammer Air compressor Back-hoe Dump truck Front-end loader 100 foot tape Six foot rule Stakes Ditch jacks Hard wood Spud bar	Stake area Machine trench area Remove dirt Load truck Back fill Grade trench	Keep trench blocked off Light trench at night Barricade upon leaving Cave-in

DECISIONS	CUES	ERRORS
Determine the amount of earth to be removed Select type of shoring material	Types of soil	In determining types of soil or soil condition

(TASK STATEMENT) OPEN TRENCH CONSTRUCTION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Transfer of energy from one form to another Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Basic Geometry Skills and Concepts Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Listening	Receiving oral instructions	Concentration, Note taking, Detail/Inference
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) OPEN TRENCH CONSTRUCTION FOR MAINTENANCE/REPAIR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sledge hammer Pick Shovel 100 foot tape Six foot rule Stakes Spud bar	Pick dirt loose Remove with shovel Back fill Grade ditch	Barricade ditch Cover securely Install lights Cave-in
DECISIONS	**CUES**	**ERRORS**
Ascertain where to open trench Determine depth of trench	Visable markers Utilities boxes and/or valves Intended use of trench	Damaged utility lines Improper location

(TASK STATEMENT) OPEN TRENCH CONSTRUCTION FOR MAINTENANCE/REPAIR

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Transfer of energy from one form to another Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Basic Geometry Skills and Concepts Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Listening	Receiving oral instruction	Concentration, Note taking, Detail/Inference
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) SHORE TRENCH CONSTRUCTION FOR MAINTENANCE/REPAIR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Saw Sledge hammer Nails Hardwood Six foot rule Air compressor Claw hammer Jacks Shovel Pick Spud bar	Position planks in trench Brace planks Crib openings for work area	Knotty wood Soft wood Dimension of wood Strength of wood used Keep shoring at bottom of trench Improper bracing Cave-in
DECISIONS	**CUES**	**ERRORS**
Determine size and type of shoring material	Shifting soil/sand/ground Water conditions	Improperly shored ditch

(TASK STATEMENT) SHORE TRENCH CONSTRUCTION FOR MAINTENANCE/REPAIR

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [Jack cribing into place] Fluids under pressure [Pile driver] Arrangement of molecules, atoms and ions and the effect on structure and strength of materials [Strength of materials]	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Oral instructions	Terminology, Clarity of expression
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Terminology
Writing	Written instructions	Spelling, Description, Terminology, Clarity of expression
Listening	Hearing instruction	Concentration, Note taking
Viewing	On site inspection	Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) LAY CLAY PIPE SEWER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Scraper Swab Trowel Level Rule Chisel Hammer Transit Target Pick Shovel Yarning iron Oakum Cement Sand Vitrified clay pipe Spud bar Staking material	Scribe circle on main Chisel out opening Insert slant Mix cement Seal slant Align and run pipe Stake and secure pipe	Cave-in

DECISIONS	CUES	ERRORS
Determine angle of insert	Depth of main sewer in relation to branch	Striking chisel too hard Cracked pipe Improper "fall"

(TASK STATEMENT) LAY CLAY PIPE SEWER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Oral instructions	Terminology, Clarity of expression
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Terminology
Writing	Written instructions	Spelling, Description, Terminology, Clarity of expression
Listening	Hearing instruction	Concentration, Note taking
Viewing	On site inspection	Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) INSTALL CLEANOUTS VITRIFIED CLAY PIPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Scrapper Swab Trowel Level Six foot rule Chisel Hammer Transit Target Pick Shovel Yarning irons Oakum Cement Sand Clay pipe Clay Y's Clay tee's Disc caps	Install ''Y's'' and/or tee's where required Install cleanouts ''Mark'' location of cleanouts	Gloves Scrapes Cuts
DECISIONS	**CUES**	**ERRORS**
Decide where to install cleanouts	Refer to local code Install within established dimensions	Improper location Lost time Increased cost

(TASK STATEMENT) INSTALL CLEANOUTS VITRIFIED CLAY PIPE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [Jack cribing into place] Fluids under pressure [Pile driver] Arrangement of molecules, atoms and ions and the effect on structure and strength of materials [Strength of materials]	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Oral instructions	Terminology, Clarity of expression
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Terminology
Writing	Written instructions	Spelling, Description, Terminology, Clarity of expression
Listening	Hearing instruction	Concentration, Note taking
Viewing	On site inspection	Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) TEST SEWER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Test plugs Water hose Stoppers Flash light Colored dye Mirror	Insert test plugs Mix dye Pour into sewer Observe at test tee Inspect each joint for possible leakage	
DECISIONS	**CUES**	**ERRORS**
Decide at what point to test	Refer to local code	Failure to secure code approval

(TASK STATEMENT) TEST SEWER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure	Basic Arithmetic Skills and Concepts (see appendix)

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Viewing	On site inspection	Detail/Inference

(TASK STATEMENT) BACKFILL CONSTRUCTION FOR MAINTENANCE/REPAIR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick Shovel Back hoe Tamper-air Tamper-hand Front-end loader Dump truck Backfill material	Throw dirt back into trench Tamp to requirement Haul excess fill away Grade trench	Safety shoes Gloves
DECISIONS	**CUES**	**ERRORS**
Establish grade level	Contour of adjoining and/or established grade Local codes	Appearance of sloppy job Dissatisfied customer

(TASK STATEMENT) BACKFILL CONSTRUCTION FOR MAINTENANCE/REPAIR

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure [Pile driver]	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Basic Geometry Skills and Concepts Determination of area and volume of rectangular, cube and right triangular prisms

29

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	On site inspection	Detail/inference
Reading	Comprehending written instructions	Comprehension/terminology

(TASK STATEMENT) LOCATE SEWER FOR MAINTENANCE/REPAIR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Lot number Plot plan Blueprint Record measurements Pencil Graphic pad	Go to city hall or village hall or county engineer department Check record Get measurements ''Witching''	

DECISIONS	CUES	ERRORS
Determine where to find measurements ''Witching''	Plot plan Blueprints	Not recorded Erroneous entry

(TASK STATEMENT) LOCATE SEWER FOR MAINTENANCE/REPAIR

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechaical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Examine prints	Comprehension, Detail/Inference, Terminology
Touching	''Witching''	E.S.P.

Duty B Install Building Drains and Storm

1 Compute fixture load on stack (construction and dwelling)
2 Size building drain
3 Connect soild stack to building drain
4 Extend building drain to building sewer
5 Install floor drains
6 Install cleanouts
7 Compute roof area drain
8 Install roof drains (construction of flat roof)
9 Clean blockage sewer repair
10 Repair broken building drain
11 Install down spouts

32

(TASK STATEMENT) COMPUTE FIXTURE LOAD ON STACK (CONSTRUCTION AND DWELLING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pencil Pad Blueprint and/or drawing Local code books	Check schematic drawing Count the number of fixtures Check special fixtures Total fixture unit	
DECISIONS Determine fixture load	**CUES** Check local code Manufacturer's specifications	**ERRORS** Improper pipe sizing

(TASK STATEMENT) COMPUTE FIXTURE LOAD ON STACK (CONSTRUCTION AND DWELLING)

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion, Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints [Fixture load tables]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Blueprints	Comprehension, Detail/Inference, Description of mechanism, Terminology
Viewing	Blueprints/manufactuer's specifications	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

34

(TASK STATEMENT) SIZE BUILDING DRAIN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pencil Pad Blueprint and/or drawing Scale Local code books	Compute stack size Compute area drains Compute roof area Total all area to be drained	
DECISIONS	**CUES**	**ERRORS**
Determine drain size	Size of main Terminal points Local codes	Drain inadequate for building

(TASK STATEMENT) SIZE BUILDING DRAIN

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion, Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints [Fixture load tables]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Blueprints/Local codes	Comprehension, Detail/Inference, Description of mechanism, Terminology
Viewing	Blueprints	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) CONNECT SOIL STACK TO BUILDING DRAIN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Caulking irons Yarning irons Ball peen hammer Joint runner Lead Oakum Ladles Furnace Lead pot Chisels Soil pipe cutters Rule Pipe and fittings	Remove test plugs Install quarter bend/comb y and 1/8 bend Seal pipe Back fill Build piers for support	Safety glasses Gloves Hard hats Burns
DECISIONS	**CUES**	**ERRORS**
Choose stack-base fitting	Local code	Failure to comply with code

(TASK STATEMENT) CONNECT SOIL STACK TO BUILDING DRAIN

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure [Gas under pressure]	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Examine joints	Visual analysis, describing, detail/inference, recognition of symbols, codes, and emblems
Reading	Reading local codes	Comprehension, detail/inference, description of mechanism, terminology

(TASK STATEMENT) EXTEND BUILDING DRAIN TO BUILDING SEWER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick Shovel Level Transit Caulking iron Yarning iron Lead Oakum Lead pot Joint runner Ball peen hammer Furnace Soil pipe cutters Chisels Heavy hammer Target pole	Grade ditch to building sewer Lay pipe Seal joints Backfill	Hard hat Gloves Safety glasses Safety shoes Burns
DECISIONS	**CUES**	**ERRORS**
Determine depth under finished floor	Foundation wall Footer depth Sleeves	Sleeves not installed

(TASK STATEMENT) EXTEND BUILDING DRAIN TO BUILDING SEWER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Level	Visual analysis, detail inference

(TASK STATEMENT) INSTALL FLOOR DRAINS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Lead pot Oakum Lead Yarning irons Caulking irons Target Transit Level Six foot rule Pick Shovel Ball peen hammer Furnace Soil pipe cutters Chisels	Establish finished floor level Determine depth to trap Extend pipe from trap to floor line Set strainer	Hard hat Safety shoes Safety glasses Sewer gas Explosions
DECISIONS	**CUES**	**ERRORS**
Decide number and location of floor drains	Area to be drained Local codes	Fail to vent Seal trap seal with non-freezing liquid Loss of trap seal

(TASK STATEMENT) INSTALL FLOOR DRAINS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

42

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Level, rule	Visual analysis, detail inference

(TASK STATEMENT) INSTALL CLEANOUTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Six foot rule Pipe wrenches Lead Oakum Yarning irons Lead pot Caulking irons Level Furnace Pipe cutters Chisel Ball peen hammer	Insert cleanout fitting Seal joint Tighten cleanout plug or cap	Gloves Hard hat Safety glasses Safety shoes Burns

DECISIONS	CUES	ERRORS
Determine where cleanouts are required	Local city code and/or state code	Failure to meet code requirements

(TASK STATEMENT) INSTALL CLEANOUTS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Inspect installation	Visual analysis, detail inference

(TASK STATEMENT) COMPUTE ROOF AREA DRAIN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
100 foot tape Six foot rule Pad Pencil Drawing and/or blueprint	Measure length and width of area Check tables Use formula	Hard hat
DECISIONS	**CUES**	**ERRORS**
Determine where to install drain	Local code Structure design	Insufficient drainage

(TASK STATEMENT) COMPUTE ROOF AREA DRAIN

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Blueprints	Detail/Inference, Description of mechanism

(TASK STATEMENT) INSTALL ROOF DRAINS (CONSTRUCTION OF FLAT ROOF)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Boxend wrenches Channel locks Chisel Ball peen hammer Claw hammer Roofing nails Pipe rest and/or champ-hanger Lead Oakum Leadpot Caulking irons Yarning irons Furnace Ladles Sheet lead Roof drains	Insert sheet lead in hub Caulk roof terminal strainer into hub Install pipe clamps Secure sheet lead Test for leaks	Hard hat Gloves Safety glasses Burns Falling off roof
DECISIONS Determine number to be installed	**CUES** Local code where required Roof construction	**ERRORS** Code not met Roof leaks around drains

(TASK STATEMENT) INSTALL ROOF DRAINS (CONSTRUCTION FLAT ROOF)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manufacturer's Roughin sheet	Comprehension, Detail/Inference, Description of mechanism

(TASK STATEMENT) CLEAR BLOCKAGE SEWER REPAIR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sewer machine Sewer cables Pick Shovel Sledge hammer Wrenches Probing rod Pench bar Chisel	Remove cleanout plug Remove cleanout cap Break opening in pipe Insert rod Clear blockage Replace or repair broken sewer	Gloves Safety glasses Safety shoes
DECISIONS	**CUES**	**ERRORS**
Decide where to open sewer	Location on drawings Test tee Water service	Lost time Increase costs

(TASK STATEMENT) CLEAR BLOCKAGE SEWER REPAIR

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Deliver oral instructions	Terminology, Diction, Clarity of expression [Demonstrations]

(TASK STATEMENT) REPAIR BROKEN BUILDING DRAIN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick Shovel Lead pot Caulking irons Yarning irons Lead Oakum Joint runner Ball peen hammer Level Six foot rule Pipe and/or fittings	Expose broken section Remove broken pipe Remove two additional joints Replace with new pipe Pour and caulk joints Test repair for leaks	Gloves Safety glasses Safety shoes Hard hat Burns

DECISIONS	CUES	ERRORS
Determine whether to repair or completely replace damaged/ defective area	Water or dampness in area of building drain Visible breaks in piping	Failure to effect repair

(TASK STATEMENT) REPAIR BROKEN BUILDING DRAIN

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Deliver oral instructions	Terminology, Diction, Clarity of expression [Demonstrations]
Viewing	Inspect drain	Visual analysis

(TASK STATEMENT) INSTALL DOWN SPOUTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Level Six foot rule Furnace Lead Lead pot Oakum Caulking irons Yarning irons Pick Shovel Ball peen hammer Pipe cutters Cast iron traps Vitrified traps Vitrified pipe Swab Cement Sand Trowel Pipe	Connect traps to storm drain or combination storm and sanitary Extend pipe above grade level Seal joints	Hard hat Safety shoes Safety glasses Burns Cave-in
DECISIONS	**CUES**	**ERRORS**
Determine number to install	Local code Drawings/blueprints	Wrong locations

(TASK STATEMENT) INSTALL DOWN SPOUTS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Deliver oral intructions	Terminology, Diction, Clarity of expression [Demonstration]

54

Duty C Install and/or Maintain Drain Waste and Vent Systems

1 Examine prints and specifications (construction of large buildings)
2 Take-off for bid preparation
3 Order materials (construction of large buildings)
4 Establish security for tools, equipment and materials (construction of large buildings)
5 Determine openings and elevations (construction of large building)
6 Fabricate and install piping (construction of large building)
7 Cap off/top-out (construction of large building)
8 Inspect final installation
9 Make drawing (repair/remodel)
10 Order and pick-up materials (repair/remodel)
11 Cut openings (repair/remodel)
12 Inspect final installation (repair/remodel)

(TASK STATEMENT) EXAMINE PRINTS AND SPECIFICATIONS (CONSTRUCTION OF LARGE BUILDINGS)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Scale Pencil Pad Blueprint Set of specifications	Check site Check utilities Check soil condition	
DECISIONS	**CUES**	**ERRORS**
Determine whether to bid or not to bid	Work v. dollars Existing work schedule v. manpower	Losses from bidding errors

(TASK STATEMENT) EXAMINE PRINTS AND SPECIFICATIONS (CONSTRUCTION OF LARGE BUILDINGS)

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Proposals, Description of mechanism
Viewing	Examine prints/specs	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems [Note taking]

(TASK STATEMENT) TAKE-OFF FOR BID PREPARATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Material catalog Fixture catalog Price book Scale Take-off sheets Blueprints Specifications	Compute excavation and back fill List all materials needed Price materials Direct quote from manufacturer Submit bid	
DECISIONS	**CUES**	**ERRORS**
Determine contract price: to sign or not to sign	Specifications Comparison with prior work of similar construction	Losses due to careless or "hurried" take-off

(TASK STATEMENT) TAKE-OFF FOR BID PREPARATION

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehension of written instructions	Comprehension, Detail/Inference, Recommendation reports, Proposals, Description of mechanism
Viewing	Examine prints/specifications	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems [Note taking]

(TASK STATEMENT) ORDER MATERIALS (CONSTRUCTION OF LARGE BUILDING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Manufacturer's catalog and price book Plumbing supply catalog and price book Take-off sheets	Shop by phone Select materials personally Prepare storage for materials on job site Have materials delivered Secure material	
DECISIONS	**CUES**	**ERRORS**
Determine sources of material Determine where and how to store and secure material	Price of materials Deliver schedule	Too much materials Inferior materials Failure to meet contract time Loss of materials

(TASK STATEMENT) ORDER MATERIALS (CONSTRUCTION OF LARGE BUILDING)

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Counting] Fundamental Operations (Calculation) Use of Numbers (without calculation) Counting

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Persuasion and Sales technique
Writing	Written instructions	Penmanship, Spelling, Classification, Description, Terminology, Clarity of expression

(TASK STATEMENT) ESTABLISH SECURITY FOR TOOLS, EQUIPMENT AND MATERIALS (CONSTRUCTION OF LARGE BUILDINGS)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Trailer Tool boxes Locks Tool sheds	Have tool shed moved to job site Build tool shed Lock tool boxes Fence in job site	
DECISIONS	**CUES**	**ERRORS**
Determine extent of security needed	Guard on duty Job location	Loss of materials

(TASK STATEMENT) ESTABLISH SECURITY FOR TOOLS, EQUIPMENT AND MATERIALS (CONSTRUCTION OF LARGE BUILDINGS)

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Persuasion and Sales techniques
Writing	Written instructions	Penmanship, Spelling, Classification, Description, Terminology, Clarity of expression

(TASK STATEMENT) DETERMINE OPENINGS AND ELEVATIONS (CONSTRUCTION OF LARGE BUILDING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe cutter Chisel Hammers Wrenches Transit and target Six foot rule Marking caulk Pencil Pad Sleeve materials	Establish finish floor lines Determine foot of elevations Cut chassis Insert sleeves	Safety glasses Safety shoes Hard hat Cuts
DECISIONS	**CUES**	**ERRORS**
Determine finish floor lines	Blueprints	Improper installation

(TASK STATEMENT) DETERMINE OPENINGS AND ELEVATIONS (CONSTRUCTION OF LARGE BUILDINGS)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Looking at wall	Visual analysis, Describing, Detail/ Inference

(TASK STATEMENT) FABRICATE AND INSTALL PIPING (CONSTRUCTION OF LARGE BUILDING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe threading machine Pipe wrenches Reamer Dies Pipe cutters Pipe and fittings [Steel, galvanized] Pipe cast iron and fittings Furnace Lead pot Oakum Lead Joint runner Ball peen hammer Caulking iron Yarning irons Six foot rule Soldering tools and equipment	Set a stack base fitting and/or build pier Fabricate soil pipe Cut and thread vents and waste pipes	Safety glasses Rails on scaffolding Safety shoes Gloves Hard hat Burns
DECISIONS	**CUES**	**ERRORS**
Determine types of vents to use Determine size of waste Determine developed length	Local code Blueprints	Replacement time/cost

(TASK STATEMENT) FABRICATE AND INSTALL PIPING (CONSTRUCTION OF LARGE BUILDINGS)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on state of matter Fluids under pressure Transfer of heat from one body to another Effects of friction on work processes and product quality Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Understanding and use of the Pythagorean theorem, based on the right triangle ($a^2 + b^2 = c^2$) Basic Trigonometry Skills and Concepts (see appendix)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Reading	Work with isometric drawings	Comprehension, Detail/Inference, Description of mechanism
Listening	Receiving oral instructions	Concentration, Note taking

(TASK STATEMENT) CAP OFF/TOP-OUT (CONSTRUCTION OF LARGE BUILDING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe threading machine Pipe wrenches Pipe compound Reamer Dies Pipe cutters Sheet lead and/or roof flashing Pipe and fittings Cast iron pipe and fittings Lead Lead pot Oakum Joint runner Ball peen hammer Caulking irons Yarning irons Six foot rule Roofing cement	Drop plumb line Scribe opening and install sleeves Assemble pipe Install roof terminal Set flashing Seal flashing	Safety glasses Safety shoes Hard hat Rails on scaffolding Gloves Burns

DECISIONS	CUES	ERRORS
Determine type of flashing to be used, e.g., pitch, straight, high boot, low boot, etc. Determine type of sealing material	Local code Roof construction	Leak around flashing

(TASK STATEMENT) CAP OFF/TOP-OUT (CONSTRUCTION OF LARGE BUILDING)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on **state of matter** Fluids under pressure Centrifugal forces developed by bodies in rotation Transfer of heat from one body to another Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Recognize and identify basic geometry figures, plane and solid Determination of area and circumference of circles Basic Trigonometry Skills and Concepts **(see appendix)**

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Reading	Drawing and prints	Comprehension, Detail/Inference, Recommendation reports
Listening	Receiving oral instructions	Concentration, Note taking
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference
Touching		Size, shape

(TASK STATEMENT) INSPECT FINAL INSTALLATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Test plugs Wye plugs Caps Water hose Valves Pipe wrenches Small hand tools	Cap off all openings Insert test plugs Connect water hose Fill stack Check for leaks Seal leaks Call for inspection	Hard hat Safety shoes
DECISIONS	**CUES**	**ERRORS**
Determine location of leaks	Water level drops in stack	Leaks, cracked fittings, sand holes

(TASK STATEMENT) INSPECT FINAL INSTALLATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Reading	Drawing and prints	Comprehension, Detail/Inference, Recommendation reports
Listening	Receiving oral instructions	Concentration, Note taking
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference
Touching		Size, shape

(TASK STATEMENT) MAKE DRAWING (REPAIR/REMODEL)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Drawing paper Pencil 100 foot tape Six foot rule Drawing board Triangles T-Square Scale	Measure area to be drawn Locate fixtures Draw in fixtures Check drawing Get drawing approved	
DECISIONS	**CUES**	**ERRORS**
Select a location of fixtures	Local code	Dimensions off/inefficient use of space

(TASK STATEMENT) MAKE DRAWING (REPAIR/REMODEL)

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Reading	Drawing and prints	Comprehension, Detail/Inference, Recommendation reports
Listening	Receiving oral instructions	Concentration, Note taking
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference
Touching		Size, shape

(TASK STATEMENT) ORDER AND PICK-UP MATERIALS (REPAIR/REMODEL)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Truck Material list	List materials Call in order Pick-up order	Driving safety
DECISIONS Determine kind of materials needed	**CUES** Customer select fixture	**ERRORS** Fixtures not in stock - delays

(TASK STATEMENT) ORDER AND PICK-UP MATERIALS (REPAIR/REMODEL)

SCIENCE	MATH – NUMBER SYSTEMS
	Set of Real Numbers [Counting] Fundamental Operations Use of Numbers (without calculation) Counting

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Persuasion

(TASK STATEMENT) CUT OPENINGS (REPAIR/REMODEL)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Six foot rule Saws Hammer Wrenches Keyhole saw Sawzall Drills Plumb bob Small hand tools	Check drawing Mark and layout holes to be cut Cut openings Run pipes through openings Set/replace fixtures	Gloves Safety glasses Cuts
DECISIONS	**CUES**	**ERRORS**
Analyze structure of house Select proper tool	Joist locations Basic construction material of structure	Structure damage

(TASK STATEMENT) CUT OPENINGS (REPAIR/REMODEL)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Centrifugal forces developed by bodies in rotation Transfer of energy from one form to another Arrangement of molecules, atoms and ions and the effect on structure and strength of materials [Strength of materials]	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Determination of area and circumference of circles

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Gestures
Listening	Receiving oral instructions	Concentration, Logic, Note taking
Viewing	On site inspection	Describing, Detail/Inference
Touching	Cutting holes	Size, shape

(TASK STATEMENT) INSPECT FINAL INSTALLATION (REPAIR/REMODEL)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Air pump Gauges Test plugs Caps Valves Water hose Wrenches Small hand tools	Cap off all openings Insert test plugs Fill with water Call for inspection Remove plugs Set fixtures Attach air machine Watch pressure gauge Remove gauges and set fixtures	Safety shoes Safety glasses Gloves
DECISIONS	**CUES**	**ERRORS**
Determine type of test to use	Occupied or unoccupied dwelling	Water damage

(TASK STATEMENT) INSPECT FINAL INSTALLATION (REPAIR/REMODEL)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression
Reading	Drawing and prints	Comprehension, Detail/Inference, Recommendation reports
Listening	Receiving oral instructions	Concentration, Note taking
Viewing	On site inspection	Visual analysis, Describing, Detail/Inference
Touching		Size, shape

Duty D Water Supply Systems

1. Establish source of water supply (construction of large building)
2. Size water supply
3. Establish protection of water supply systems
4. Excavate for water supply systems
5. Install water pipe from curb stop to meter
6. Repair burst water service
7. Thaw frozen water lines
8. Repair water well pumps

(TASK STATEMENT) ESTABLISH SOURCE OF WATER SUPPLY (CONSTRUCTION OF LARGE BUILDING)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pencil Labels Jug Hose Water well drilling equipment Water well pumps	Use testing lab Check utilities department Check county engineers Install gravity tanks Install pressure tanks Install pumps water	Impure water Illness
DECISIONS	**CUES**	**ERRORS**
Determine amount of water needed Determine source of supply	City water system Streams Extended system	Inadequate supply of potable water

(TASK STATEMENT) ESTABLISH SOURCE OF WATER SUPPLY (CONSTRUCTION OF LARGE BUILDING)

SCIENCE	MATH – NUMBER SYSTEMS
Chemistry Biology Work input, work output, friction and efficiency in simple machines	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking Listening Reading	Delivering oral instructions Receiving oral instructions Plans/drawings	Terminology, Diction, Clarity of expression, Denotation/Connotation Concentration, Logic, Note taking Comprehension, Detail/Inference, Recommendation reports

82

(TASK STATEMENT) SIZE WATER SUPPLY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Charts Formulas Pencil Paper	Determine the number of people to serve Figure the amount of water for each person	Amoebic dysentary
DECISIONS	**CUES**	**ERRORS**
Determine number of gallons to store Determine types of pumps Determine type of storage tanks	Type of building Use of building Number of people	Cross connections

(TASK STATEMENT) SIZE WATER SUPPLY

SCIENCE	MATH – NUMBER SYSTEMS
Fluids under pressure Inertia and momentum Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Use of Numbers (without calculation) Coding [as per schematic] Ratio Ratio and proportion Guess and check method Rule of thumb Rate Measurement: geometric Linear, Pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints [Static head chart and other performance charts] Basic Arithmetic Skills and Concepts Finding a percent of a number and what percent one number is of another Fundamental Operations (see appendix)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference
Writing	Making schematic drawing	Penmanship, Spelling, Classification, Description, Terminology, Clarity of expression
Viewing	Analyze drawing	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) ESTABLISH PROTECTION OF WATER SUPPLY SYSTEMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Fence material Post Post hole digger Hammer and nails Sheeting Back flow preventors Insulation	Cover well Fence in pond or lake Cover tanks Screen over open tanks Cover with cement	Contaminated water Typhoid fever Paratyphoid fever Bacillary Hepatitis Poliomyelitis
DECISIONS	**CUES**	**ERRORS**
Determine type of covering materials	Type of container	Polluted water

(TASK STATEMENT) ESTABLISH PROTECTION OF WATER SUPPLY SYSTEMS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Differences in absorption and radiation of energy between dark rough surfaces and light, smooth, polished surfaces	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Touching	Protection of pipe	Size, shape, temperature, motion

(TASK STATEMENT) EXCAVATE FOR WATER SUPPLY SYSTEMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Back hoe Drilling equipment Picks and shovels	Lay out area to excavate Have machine dig to desired depth Drill well to water Pipe water to locations Cover source of supply	Water borne diseases
DECISIONS	**CUES**	**ERRORS**
Decide pipe sizes Decide area of pond	Presence of water Potable water	No water or poor water

(TASK STATEMENT) EXCAVATE FOR WATER SUPPLY SYSTEMS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Centrifugal forces developed by bodies in rotation Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Gestures
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports

(TASK STATEMENT) INSTALL WATER PIPE FROM CURB STOP TO METER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick and shovel Back hoe Copper pipe Flaring tools Hammer Shoring material	Determine location of curb lock Excavate curb lock Open trench to building Install water main Have inspection Back fill	Hard hats Cave-in
DECISIONS	**CUES**	**ERRORS**
Determine size of service line Determine type of piping material	Utilities department measurements Code	Erroneous entry

(TASK STATEMENT) INSTALL WATER PIPE FROM CURB STOP TO METER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Centrifugal forces developed by bodies in rotation Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Gestures
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports

(TASK STATEMENT) REPAIR BURST WATER SERVICE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Water pump Pick and shovel Street key Replacement pipe Valves Fittings Pipe pushing machine Pushing rods Ultra-sonic leak detector	Inter street into curb box shut off water from mains Excavate and remove box Set pipe pushing machine in basement Push rods out Pump out all water from trench Connect replacement pipe to rods Sack rods and pipe back into house Make inside and outside connection Check for leaks Obtain inspection	Hard hats Cave-in
DECISIONS	**CUES**	**ERRORS**
Decide type of pipe for replacement	Local code	Code not met

(TASK STATEMENT) REPAIR BURST WATER SERVICE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure Transfer of energy from one form to another Effects of friction on work processes and product quality Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Gestures
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports
Viewing	Examination of pipe	Describing, Detail/Inference

(TASK STATEMENT) THAW FROZEN WATER LINES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Electric thawing machine Steam machine Prestolite tank	Locate point where frozen Determine type of material and joints Apply thawing device	Maintaining equipment Burns Ground and electric shock
DECISIONS	**CUES**	**ERRORS**
Choose equipment to use	Type of materials	Leaks/damage to joints

(TASK STATEMENT) THAW FROZEN WATER LINES

SCIENCE	MATH – NUMBER SYSTEMS
Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Effect of heating and cooling on state of matter Fluids under pressure Transfer of energy from one form to another Transfer of heat from one body to another Resistance of materials to flow of electrical current	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Delivering oral instructions	Terminology, Diction, Clarity of expression, Denotation/Connotation

(TASK STATEMENT) REPAIR WATER WELL PUMPS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Voltmeter Ohm meter Pressure gauges Side cutters Screwdrivers Pipe wrench Needle nose Socket set	Check electrical power source Check water level in well Disconnect power Remove pump Disassemble pump Make necessary repairs Reinstall pump Test pump under working conditions	Shock
DECISIONS	**CUES**	**ERRORS**
Determine exact malfunction	Pump not running Motor over heats Short cycling Continuous running Insufficient capacity No water Motor running	Failure to effect repair

(TASK STATEMENT) REPAIR WATER WELL PUMPS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Magnetic fields of force	''Measure sense''/role of ''unit'' Instruments [Volt/Ohm meter] Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

Duty E Install and/or Maintain Domestic Hot and Cold Water Distribution Systems

1 Adequately size the water distribution system
2 Install an overhead gravity feed system
3 Install up-feed system
4 Install a circulating water system
5 Construct a pressure reducing station
6 Install automatic domestic water heater
7 Install commercial water heating and hot water storage equipment
8 Repair circulating pump
9 Repair leak in domestic (house) water lines
10 Troubleshoot electric water heater
11 Troubleshoot gas water heater

97

(TASK STATEMENT) ADEQUATELY SIZE THE WATER DISTRIBUTION SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	PERFORMANCE KNOWLEDGE (CON'T)
Isometric paper Pencil (with eraser) Scale Manufacturer's equipment data Local code book Pipe flow-rate tables Blueprints and/or building drawing Local water department regulations	Draw a schematic of water system, show all fixtures supplies and risers by means of appropriate letters and numbers. Indicate each floor elevation and the highest (furthest) water outlet to be supplied For pressure or gravity supply tank systems, show minimum water level at which tank is designed to operate at peak demand Indicate the minimum pressure required for satisfactory operation at the highest (furthest) water outlet and minimum pressure available at all times at the source Mark on the drawing the total load in terms of water supply fixture units (Note: fixtures having both hot and cold water outlets should be taken as ¾ of list unit value for said fixture) Mark on the drawing adjacent to all	fixture notations, the demand for each in g.p.m. (Note: indicate those fixtures of continuous use, e.g. irrigating equipment, AC equipment, and add them to the other fixtures) Assume condition of noflow - refer to third step - the difference from the third step will establish hints for friction losses Determine the basic circuit (Note: this will be longest developed length of pipe) Mark on drawings pressure loss due to equipment, e.g. meters, softners, etc Subtract eighth step from sixth, this will give the pressure available for basic circuit Calculate pipe lengths and add 50% for fittings and valves Use sizing tables, check flow rates of various sizes and types of pipe

DECISIONS	CUES	ERRORS
What types of fixture What is the duration of use of fixture What is the frequency of use of fixture	Type of building, e.g. school, residence, hotel, etc Refer to local codes	Inadequate supply to all fixtures Excessive cost overage from incorrect sizing

PERFORMANCE KNOWLEDGE (CON'T)

Select, using information from eleventh step, type or pipe

If water contains excessive hard water deposits, increase pipes by one standard size

Refer to local code and/or water utility department

(TASK STATEMENT) ADEQUATELY SIZE THE WATER DISTRIBUTION SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Fluids under pressure Inertia and momentum Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Use of Numbers (without calculation) Coding [as perschematic] Ratio Basic Arithmetic Skills and Concepts Ratio and proportion, Guess and check method, Rule of thumb, Finding a percent of a number and what percent one number is of another Rate Measurement: geometric Linear, volume Measurement: non-geometric Pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints, representational graphs [Static head charts and other performance charts]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending drawings, charts, tables	Comprehension, Detail/Inference, Description of mechanism
Writing	Making schematic drawings	Classification, Description
Viewing	Analysis of drawings	Visual analysis, Recognition of symbols, codes, emblems

(TASK STATEMENT) INSTALL AN OVERHEAD GRAVITY FEED SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe wrenches Pipe cutting and threading tools Solder, flux, ''gas'' Pipe - steel, copper, etc Fittings - steel, copper, etc Centrifugal pump Piston pump Valves - gate, globe and check Hanger and supports Hammer, nails, screws Level Plumb bob Six foot rule Sand and cement Storage tank and water level controls	For pressure or gravity supply tank systems, show minimum water level at which tank is designed to operate at peak demand Select and install pumps Set pump control devices Install and support pipe, fittings, and valves to tank Install and support ''risers'' to fixture supply outlets Provide overflow and drain for tank Coordinate with other trades, e.g. equipment operators, electricians, welders, etc.	Hardhats Gloves Protection from fire if soldering or welding Proper rigging to set tank Proper support to hold weight of tank
DECISIONS	**CUES**	**ERRORS**
Determine if the system is compatable with the design of the structure Determine if water usage will prevent stagnation of the water stored in the tank	Type of structure, e.g. hotel, office building, warehouse, etc.	Increased cost to the customer Contamination of the water Unnecessary utilization of space

(TASK STATEMENT) INSTALL AN OVERHEAD GRAVITY FEED SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Resistance of materials to flow of electrical current Transfer of heat from one body to another Resistance of materials to change in shape	Set of real numbers [positive] Fundamental Operations (Calculations) Use of Numbers (without calculation) Coding, Ratio Basic Arithmetic Skills and Concepts Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Measurement: non-geometric Temperature, weight, liquid, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints, Representational Graphs [Performance charts] Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Symmetry, similarity, parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms Determination of area and volume of cylinders

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/inference, Recommendation reports, Proposals, Description of mechanism, Terminology
Viewing	Installation	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, and emblems

(TASK STATEMENT) INSTALL UP-FEED SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe wrenches Pipe cutting and threading tools Solder, flux, ''gas'' Fittings - steel, copper, etc Jet pumps Submergible pumps Water storage tanks and hydropneumatic pressure devices Hanger and supports Level Plumb bob Six foot rule Valves - gate, globe, check, pressure reducing valve Standard hand tools Pipe- steel, copper, etc	For pressure or gravity supply tank systems, show minimum water level at which tank is designed to operate at peak demand Indicate the minimum pressure required for satisfactory operation at the highest (furthest) water outlet and minimum pressure available at all times at the source Select and install pump Install pipe, fittings, valves, supports for ''risers'' to fixture supply outlets Provide protection for installation and equipment Coordinate with other trades on the job	Provide for fire protection of soldering or welding Refer to OSHA requirement for construction trades
DECISIONS	**CUES**	**ERRORS**
Determine if the system is compatable with the design of the structure	Type of structure, e.g. hotel, office building, warehouse, etc	Increased cost to the customer Unnecessary utilization of space

(TASK STATEMENT) INSTALL UP-FEED SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Resistance of materials to flow of electrical current Transfer of heat from one body to another Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Use of Numbers (without calculation) - Coding, ratio Basic Arithmetic Skills and Concepts Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments, Measurement: geometric Linear, area, volume Measurement: non-geometric Temperature, weight, liquid, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints, Representational graphs [Performance charts] Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Symmetry, similarity, parallel, perpendicular Determination of area and volum of rectangular, cube and right triangular prisms Determination of area and volume of cylinders

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Proposals, Description of mechanism, Terminology
Viewing	Installation	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) INSTALL A CIRCULATING WATER SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Solder, flux, ''gas'' Circulator Valves-gate, globe, check, pressure reducing valve Level Rule Water heating device Hangers and supports	Size system Select and install circulator Determine size of return line Install pipe, fittings, valve, supports for ''risers'' to fixture supply outlets Provide for expansion of return line Provide protection for installation and equipment Coordinate with other trades on the job	
DECISIONS Determine if the system is compatable with the design of the structure	**CUES** Type and size of structure	**ERRORS** Increased cost to the customer Unnecessary utilization of space

(TASK STATEMENT) INSTALL A CIRCULATING WATER SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Resistance of materials to flow of electrical current Magnetic fields of force	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Use of Numbers (without calculation) Coding, ratio Basic Arithmetic Skills and Concepts Guess and check method, Rule of Thumb ''Measure sense''/role of ''unit'' Instruments, Measurement: geometric Linear, area, volume Measurement: non-geometric Temperature, weight, liquid, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints, Representational graphs [Performance charts] Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Symmetry, similarity, parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms Determination of area and volume of cylinders

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Proposals, Description of mechanism, Terminology
Viewing	Installation	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

105

(TASK STATEMENT) CONSTRUCT A PRESSURE REDUCING STATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Soldering tools and equipment Pipe, fittings, valves Hangers and supports Blueprints and specifications Local code regualtions	Size system Select pressure reducing valves Install main pipe, fittings, valves Size and build by pass Provide necessary hangers and supporters Protect work	Refer to OSHA requirements for the construction trades
DECISIONS	**CUES**	**ERRORS**
Determine number of stations necessary for structure	Type and size of structure Architects plans and specifications Local codes	Equipment requiring specific g.p.m. will not function properly or will not function at all

(TASK STATEMENT) CONSTRUCT A PRESSURE REDUCING STATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect heating and cooling on expansion of material Fluids under pressure Centrifugal forces developed by bodies in rotation Resistance of materials to flow of electrical current Transfer of heat from one body to another Resistance of materials to change in shape	Set of Real Numbers [Positive] Use of Numbers (without calculation) Coding, ratio Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments; Measurement: geometric Linear, area, volume Measurement: non-geometric Temperature, weight, liquid, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints, Representational graphs [Performance charts] Recognize and identify basic geometry figures, plane and solid Knowledge of geometric relationships Symmetry, similarity, parallel, perpendicular Determination of area and volume of rectangular, cube and right triangular prisms Determination of area and volume of cylinders

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions,	Comprehension, Detail/Inference, Recommendation reports, Proposals, Description of mechanism, Terminology
Viewing	Installation	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, and emblems

(TASK STATEMENT) INSTALL AUTOMATIC DOMESTIC WATER HEATER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Soldering tools and equipment Pipe, fittings, valves Vent pipe, fitting Electric wire Switch	Locate water heater site Remove ''old'' water heater Connect water heater to domestic hot water and domestic cold water Provide protection against electro-litic action Provide proper service for electric water heater Provide proper service for ''gas'' water heater Properly install relief valves on water heater If gas water heater, install proper vent Check local codes and utility company regulations	Improper handling of equipment
DECISIONS	**CUES**	**ERRORS**
Determine size of water heater that will meet the need	Type of occupancy Number of occupants	Insufficient hot water to meet the needs of occupancy

(TASK STATEMENT) INSTALL AUTOMATIC DOMESTIC WATER HEATER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism

109

(TASK STATEMENT) INSTALL COMMERCIAL WATER HEATING AND HOT WATER STORAGE EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Oxy-Acetylene welding equipment Elec-welding equipment **Heavy moving equipment** Soldering tools and equipment Hangers and supports Concrete Blocking material Pipe, fitting, valves Pry bars Box end wrenches Pipe cutting and threading tools	Determine site for equipment Unload equipment on job site Move equipment into position Erect necessary supports and bracing for equipment Set equipment Connect hot and cold piping to heating equipment Connect circulating line between heating equipment and storage equipment Connect return hot water line to circulating line Install fuel service to heating equipment Check and set all safety and temperature controls	Improper handling of equipment at time of loading, moving, or setting
DECISIONS	**CUES**	**ERRORS**
Determine capacity/production size of equipment	Physical size of equipment in relation to proposed location	Failure of equipment to meet peak demand

(TASK STATEMENT) INSTALL COMMERCIAL WATER HEATING AND HOT WATER STORAGE EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Magnetic fields of force Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area Measurement: non-geometric Temperature, liquid, pressure Read and interpret tables, charts and graphs Representational graphs [Performance charts]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism

(TASK STATEMENT) REPAIR CIRCULATING PUMP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Allen wrench set Volt-Ohm's meter Oiler Manufacturer repair manuals Replacement component parts, e.g. bearing assembly, seal, etc. Replacement circulator pump	Check rotation of circulator Repair bearing assembly leaks Repair over-heating motor Isolate unusual pump noise	
DECISIONS	**CUES**	**ERRORS**
Determine if the problem is in the pump Determine if the problem is in the motor Determine manufacturer and model	No or inadequate circulation Water leak from bearing assembly Hot motor/tripping circuit breaker Loud or unusual noise	Failure to accomplish repairs

(TASK STATEMENT) REPAIR CIRCULATING PUMP

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Magnetic fields of force Effects of friction on work processes and product quality	''Measure sense''/role of ''unit'' Instruments [Volt Ohm's meter] Measurement: non-geometric Temperature, liquid, speed Read and interpret tables, charts and graphs Representational graphs [Performance charts]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehensive written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism

(TASK STATEMENT) REPAIR LEAK IN DOMESTIC (HOUSE) WATER LINES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Cutting and threading tools Soldering tools and equipment Ultrasonic leak detector equipment Pipe fittings, valves Fill material (grits) Pressure gauge Manometer Mercury gauge	Determine origin of leak Expose area of apparent leak Determine exact location of leak Remove damage or leaking material Provide for protection of repair Test repair Close area of repair	Refer to OSHA requirements construction trades
DECISIONS	**CUES**	**ERRORS**
Determine type of material	Physically examine existing material	Failure to repair leaks

(TASK STATEMENT) REPAIR LEAK IN DOMESTIC (HOUSE) WATER LINES

SCIENCE	MATH – NUMBER SYSTEMS
Simple macines used to gain mechanical advantage Fluids under pressure Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, liquid, pressure Basic Geometry Skills and Concepts **(see appendix)**

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening		Auditory discrimination, Concentration, Logic, Noise discrimination
Viewing	''Wet spots''	Detail/Inference
Touching	Feel	Temperature, Motion

(TASK STATEMENT) TROUBLESHOOT ELECTRIC WATER HEATER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Volt-Ohm's meter Small hand tools Thermometer Water pressure gauge Pipe cutting and threading tools Soldering tools and equipment Pipe, fittings, valves Replacement heater Replacement T&P valve Replacement elements and thermostats	Measure water temperature Measure pressure at source Repair water leaks Replace water heater Check for abnormal sounds Determine if service line is sufficient for heater	Turn off electricity and water to heater Electrical shock Explosion

DECISIONS	CUES	ERRORS
Identify specific problem Determine age of heater Determine the manufacturer and model of heater	No or not enough hot water Water too hot or not hot enough Water on floor around heater	Failure to accomplish repair Failure to satisfy customer

(TASK STATEMENT) TROUBLESHOOT ELECTRIC WATER HEATER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of heat from one body to another Resistance of materials to flow of electrical current	Set of Real Numbers [Positive] Fundamental Operations Basic Arithmetic Skills and Concepts Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments [Volt-Ohm's meter] Measurement: non-geometric Temperature, weight, liquid, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) TROUBLESHOOT GAS WATER HEATER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pressure gauge/inches of water column Pipe, fittings, valves New water heater Soldering tools and equipment Replacement thermostat Thermometer	Measure water temperature Measure pressure at source Repair water leaks Replace water heater Check for abnormal sounds Measure gas pressure Test thermocouple	Turn off gas and water to heater Burns Explosion

DECISIONS	CUES	ERRORS
Identify specific problem Select necessary repair parts Determine make and model of heater	Age of water heater No or not enough hot water Water too hot Unusual noises Water on floor around heater Gas odors	Failure to accomplish repair Failure to satisfy customer

(TASK STATEMENT) TROUBLESHOOT GAS WATER HEATER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of heat from one body to another Resistance of materials to flow of electrical current	Set of Real Number [Positive] Fundamental Operations Basic Arithmetic Skills and Concepts Guess and check method, Rule of thumb ''Measure sense''/role of ''unit'' Instruments [Volt-Ohm's meter] Measurement: non-geometric Temperature, weight, liquid, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

Duty F Install and/or Maintain Gas and/or Oil Systems

1 Excavate gas piping
2 Install plastic gas pipe
3 Install coated steel gas pipe
4 Install copper liquid petroleum gas service pipe
5 Install oil service lines
6 Install oil storage tank above ground
7 Install oil tank below ground
8 Test to find leaks (gas/oil service)

120

(TASK STATEMENT) EXCAVATE GAS PIPING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pinch bars Back hoe Pick and shovel Sledge hammer Stakes Building line	Locate meter set Locate gas main Trench service line Back fill	Safety shoes Hard hat Gloves

DECISIONS	CUES	ERRORS
Determine type of meter Determine if inside meter is set Determine if outside meter is set Determine pressure of gas line	Gas company standard operating procedure	

(TASK STATEMENT) EXCAVATE GAS PIPING

SCIENCE	MATH – NUMBER SYSTEMS
Indestructibility of energy and matter Simple machines used to gain mechanical advantage Fluids under pressure Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology
Viewing	Area of excavation	Visual analysis, Describing, Detail/Inference

122

(TASK STATEMENT) INSTALL PLASTIC GAS PIPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tape Six foot rule Testing gauges Pump Air compressor Wrenches Saw Plastic pipe and fittings	Measure length of pipe Set prefab meter stations Make proper joints compression Test gas lines Wrap exposed metal and joints	Explosions Burns Poisons Asphyxiation No ventilation
DECISIONS	**CUES** Gas utility requirements	**ERRORS** Loss of materials

(TASK STATEMENT) INSTALL PLASTIC GAS PIPE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Utility company requirement	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

124

(TASK STATEMENT) INSTALL COATED STEEL GAS PIPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Welding equipment Welding rods Pipe threading machine Vice and dies Cutters Wraping equipment Anode bags Steel pipe and fittings Wrenches Rule	Grade trench Lay pipe Connect pipe Test pipe Wrap pipe Install anode bags Back fill	Poisonous gas Burns Asphyxiation
DECISIONS	**CUES**	**ERRORS**
	Local code Gas company regulation Pressure piping state code	

(TASK STATEMENT) INSTALL COATED STEEL GAS PIPE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of heat from one body to another Effect of friction on work processes and product quality Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Utility company requirement	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) INSTALL COPPER LIQUID PETROLEUM GAS SERVICE PIPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Flar block Wrenches Tubing cutters Six foot rule Boxend wrenches Tubing Compression fittings Valves	Measure and cut tubing to desired length Slide one half of fitting on tubing Flare end of tubing Connect pipe Tighten flared fittings	Burns Poisons Asphyxiation
DECISIONS	**CUES**	**ERRORS**
Determine type of joint, flared or compression	Local code	

(TASK STATEMENT) INSTALL COPPER LIQUID PETROLEUM GAS SERVICE PIPE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Utility company requirement	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism. Terminology

128

(TASK STATEMENT) INSTALL OIL SERVICE LINES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe threading machine Cutters and dies Welding equipment Welding rods Wrenches Pipe and fittings Vice Six foot rule Back hoe Pick and shovel	Excavate Lay pipe Assemble pipe Test pipe Back fill	Hard hat Safety shoes Safety glasses Burns
DECISIONS	**CUES**	**ERRORS**
Determine depth of pipe	Local code	

(TASK STATEMENT) INSTALL OIL SERVICE LINES

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Utility company requirement	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

130

(TASK STATEMENT) INSTALL OIL STORAGE TANK ABOVE GROUND

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wrenches Equipment to lift tank Oxy-Acetylene cutting equipment Welding equipment Steel Oil tank trim fittings Pipe, valves, and fittings Pipe cutting and threading equipment	Determine size of tank Set tank rack or build support Mount tank Install tank trim Connect supply line Install tank vent Pressurize, install and check for leaks Provide for protection of work	Burns Explosions Fire
DECISIONS	**CUES**	**ERRORS**
Determine how to adequately support the tank	Physical dimensions of tank	Tank support failure Ruined piping and damage to tank

(TASK STATEMENT) INSTALL OIL STORAGE TANK ABOVE GROUND

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Set tank Demonstration	Visual analysis, Detail/Inference

132

(TASK STATEMENT) INSTALL OIL TANK BELOW GROUND

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Equipment to lift tank Wrenches Pipe cutters Dies Welding equipment Back hoe Pick and shovel Pipe, valves, and fittings Backfill material Anode bags Ground anchors Steel cable	Determine size of tank Excavate for tank Anchor tank in ground Install anode bags Make service connections Install tank fill pipe and tank vent Pressurize installation and check for leaks Get inspection Backfill	Fire Explosions

DECISIONS	CUES	ERRORS
Determine the depth and location for tank installation	National Board of Fire Underwriters Local code Physical dimensions of tank	Improper installation Failure to pass inspection

(TASK STATEMENT) INSTALL OIL TANK BELOW GROUND

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, fricrion and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

134

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Set tank demonstration	Visual analysis, Detail/Inference

(TASK STATEMENT) TEST TO FIND LEAKS (GAS/OIL SERVICE)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Leak detector kit Excavation equipment Test equipment	Locate leak underground Excavate to leak Make repair Apply gauges test for leaks Back fill	Explosions Fire
DECISIONS Determine type of service line	**CUES** Physical examination of pipes	**ERRORS** Continuous leaking

(TASK STATEMENT) TEST TO FIND LEAKS (GAS/OIL SERVICE)

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear Measurement: non-geometric Weight, pressure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehension of written instructions	Understanding local utility company requirements

Duty G Install and/or Maintain Gas and/or House Lines

1 Fabricate meter setting
2 Install house lines
3 Test house lines for leaks
4 Repair gas leaks in multi-story
5 Adjust using appliance for proper combustion
6 Adequately size pipe to using equipment

137

(TASK STATEMENT) FABRICATE METER SETTING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Threading machine Stock and dies Wrenches Pipe cutters Reamer Drill Saws Drawing Six foot rule Lock valves Meter bar Pipe and fittings	Consult gas company for type of meter set purchase meter bar Drill openings to point of appliance set Run gas lines to point of appliance set Valve and cap lines Test gas line Connect at least one appliance Have gas company turn on gas	Fire Explosions
DECISIONS	**CUES**	**ERRORS**
Determine location of meter set	Drawings and code (local)	Relocation

(TASK STATEMENT) FABRICATE METER SETTING

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehend written instructions Local utility company requirements	Comprehension, Detail/Inference, Description of mechanism, Terminology

139

(TASK STATEMENT) INSTALL HOUSE LINES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Threading machine Stock and dies Cutters Oiler Pipe and fittings Wrenches Reamer Drawings Drill Saws Welding equipment Welding rod Anchors Pipe hangers	Cut chasis Drill openings Run gas line Weld joints Seal joints Fabricate pipe Test gas lines Connect appliances	Safety glasses Gloves Hard hat Fire Burns

DECISIONS	CUES	ERRORS
Determine size of gas lines	Drawings	

(TASK STATEMENT) INSTALL HOUSE LINES

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehend written instructions Local utility company requirements	Comprehension, Detail/Inference, Description of mechanism, Terminology

141

(TASK STATEMENT) TEST HOUSE LINES FOR LEAKS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ether Air pump Test gauges Soap Brush Cutter Dies Valves Fittings Caps Ultra sonic leak detector	Valve lines and/or cap lines Remove gas meter Set pump and gauges Test line Locate leak and repair same Replace meter	Fires Explosions Poisons Asphyxiation Burns

DECISIONS	CUES	ERRORS
Determine method of testing	Odor	Failure to find leaks

(TASK STATEMENT) TEST HOUSE LINES FOR LEAKS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Wrok input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehend written instructions Local utility company requirements	Comprehension, Detail/Inference, Description of mechanism, Terminology

143

(TASK STATEMENT) REPAIR GAS LEAKS IN MULTI-STORY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ether Air pump Test guages Soap Brush Cutter Dies Valves Fittings Ultra-sonic leak detector	Section off building Test each section separately Valve lines and/or cap lines Cut branch off main Test branch Locate leak and repair leak Reconnect branch to main	Fire Explosion Poisons Asphyxiation Burns

DECISIONS	CUES	ERRORS
Determine what section to start to test first	Odor	

(TASK STATEMENT) REPAIR GAS LEAKS IN MULTI-STORY

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Centrifugal forces developed by bodies in rotation Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehend written instructions Local utility company requirements	Comprehension, Detail/Inference, Description of mechanism, Terminology

(TASK STATEMENT) ADJUST USING APPLIANCE FOR PROPER COMBUSTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Screwdrivers Open end wrench Matches	Unscrew retaining screw on air shutter Adjust air shutter until the proper amount of air is mixed with the gas Tighten retaining screw	Burns

DECISIONS	CUES	ERRORS
Determine if flame if proper	Color of flame Floating flame	Improper combustion

(TASK STATEMENT) ADJUST USING APPLIANCE FOR PROPER COMBUSTION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending manufacturer's instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology
Viewing	Visual analysis of flame	Visual analysis, Describing, Detail/Inference

(TASK STATEMENT) ADEQUATELY SIZE PIPE TO USING EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Charts Formulas Pencil Paper	Check rating plate on equipment B.T.U. input and B.T.U. output Check chart and/or use formula Make conversion to cubic feet of gas	Burns Explosion Poisons Asphyxiation
DECISIONS Determine if source of available fuel is adequate	**CUES** Size of burner's orifice	**ERRORS** Inadequate supply of gas at peak time

(TASK STATEMENT) ADEQUATELY SIZE PIPE TO USING EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Measurement: non-geometric Temperature, weight, pressure Read and interpret tables, charts and graphs Scale drawings/floor plans/blueprints Representational graphs [Performance charts] Basic Arithmetic Skills and Concepts Ratio and proportion

144

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending manufacturer's instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

Duty H Install and/or Maintain Hydronic Heating Systems

1 Determine heat loss for structure
2 Install cast iron sectional boiler
3 Install cast iron packaged boiler
4 Install horizontal steel tube boiler
5 Install expansion tank
6 Install finn tub radiation
7 Install cast iron baseboard radiation
8 Install circulating pump
9 Install breeching
10 Install pressure regulator and automatic water feeder
11 Install header and ''hartford loop''
12 Select and install valves for heating system
13 Install steam traps
14 Replace relief valve
15 Repair circulating pump
16 Troubleshoot control system hot water boiler
17 Troubleshoot control system for steam boiler
18 Check for improper combustion
19 Repair leak in radiant floor coil system

(TASK STATEMENT)

DETERMINE HEAT LOSS FOR STRUCTURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Formula Charts Pencil Pad Six foot rule 100 foot tape	Measure area Identify outside wall with openings Measure openings of window and doors Measure ceiling height Select constant for various building materials Total all B.T.U.'s	
DECISIONS	**CUES**	**ERRORS**
Determine size of boiler to install	Type of building materials Type window and doors	Not sufficient heat

(TASK STATEMENT) DETERMINE HEAT LOSS FOR STRUCTURE

SCIENCE	MATH – NUMBER SYSTEMS
Ref. I.B.R. Hydraulic course	I.B.R. heat calculating procedure

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written instructions - I.B.R.	Comprehension, Description of mechanism, Terminology

152

(TASK STATEMENT) INSTALL CAST IRON SECTIONAL BOILER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Hydraulic jack Sledge hammer Framing material Cement Sand Shovel Water Socket set (large) Openend wrenches Pipe wrenches Steel wool Cleaning cloth Solvent	Build setting pad Clean nipple port and nipples of boiler Set first section of boiler on pad Insert push nipples into ports Set second section and hinge up with 1st section Press until sections are closed Seal with furnace cement Install jacket	Safety glasses Safety shoes Gloves Improper use of tools Improper handling of equipment
DECISIONS	**CUES**	**ERRORS**
Determine position to set boiler in relation to combustible walls	Location of chimney and size of room	Broken section

(TASK STATEMENT) INSTALL CAST IRON SECTIONAL BOILER

SCIENCE	MATH – NUMBER SYSTEMS
Ref. I.B.R./A.S.M.E. requirements	Ref. I.B.R./A.S.M.E. requirements

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Ref. I.B.R./A.S.M.E. requirements		

(TASK STATEMENT) INSTALL CAST IRON PACKAGED BOILER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wrecking bar Claw hammer Wire cutters Shovel Cement Sand Water Cleaning cloth	Build cement base Set boiler Install boiler jacket	Safety shoes Gloves Improper handling of equipment
DECISIONS	**CUES**	**ERRORS**
Decide boiler room size	Location of chimney	Sizing boiler

(TASK STATEMENT) INSTALL CAST IRON PACKAGED BOILER

SCIENCE	MATH – NUMBER SYSTEMS
Ref. I.B.R./A.S.M.E. requirements	Ref. I.B. R./A.S.M.E. requirements

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Ref. I.B.R./A.S.M.E. requirements		

(TASK STATEMENT) INSTALL HORIZONTAL STEEL TUBE BOILER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Crow-bar Pinch bar Claw hammer Cement Sand Water Shovel Six foot rule Level Framing materials Nails Block and tackle Rope or cable Boiler Bolts Nuts	Build ash dip Set anchor bolts Unload equipment Move equipment into position Set boiler	Handling of equipment
DECISIONS	**CUES**	**ERRORS**
Determine who is to move boiler and equipment	Size of boiler and equipment	Damaged equipment and/or boiler

(TASK STATEMENT) INSTALL HORIZONTAL STEEL TUBE BOILER

SCIENCE	MATH – NUMBER SYSTEMS
Ref. I.B.R./A.S.M.E. requirements	Ref. I.B.R./A.S.M.E. requirements

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Ref. I.B.R./A.S.M.E. requirements		

(TASK STATEMENT) INSTALL EXPANSION TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Six foot rule Pipe cutters Dies Welding equipment Angle iron Welding rods Pipe Block and tackle Cable Rope	Measure length and diameter of tank Design and build wrack Check height of water line in boiler Mount tank Connect tank Install exhaust pipe Put into operation	Burns Explosions
DECISIONS	**CUES**	**ERRORS**
Set height of expansion tank	Water line	Waterlog

(TASK STATEMENT) INSTALL EXPANSION TANK

SCIENCE	MATH – NUMBER SYSTEMS
Ref. I.B.R./A.S.M.E. requirements	Ref. I.B.R./A.S.M.E. requirements

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Ref. I.B.R./A.S.M.E. requirements		

(TASK STATEMENT) INSTALL FINN TUB RADIATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Claw hammer Saw Hack saw Tin snips Screwdriver Pencil Level Soldering equipment Solder Pipe cutters Pipe threading machine Stock and dies Vice Screws Nails	Determine number of feet Fasten back panel to wall Cut Finn tubing to fit Install vents Connect to risers Install valve openings and pair end caps or corner panels inside or outside Install damper Install front panel	Safety glasses Gloves Safety shoes Cuts Burns

DECISIONS	CUES	ERRORS
Determine height to install radiation B.T.U. rating per foot	Height of ceiling - baseboard space	Discomfort - too much or too little heat

(TASK STATEMENT) INSTALL FINN TUB RADIATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

162

(TASK STATEMENT) INSTALL CAST IRON BASEBOARD RADIATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Radiator tools Pipe wrenches Pipe threading machine Stock and dies Vice Soldering equipment Flux Screws Screwdriver	Determine number of B.T.U.'s required Measure length of wall Assemble number of section needed to fit wall or satisfy B.T.U. requirement Install valves Connect to risers and return Install vents	Gloves Safety glasses Safety shoes
DECISIONS Determine B.T.U. rating/foot	**CUES** Baseboard	**ERRORS** Discomfort - too much or too little heat

(TASK STATEMENT) INSTALL CAST IRON BASEBOARD RADIATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detial/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) INSTALL CIRCULATING PUMP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Openend wrenches Socket set Pipe wrenches Screwdriver	Position pump as close to the boiler as possible Screw flanges on return line Turn motor body to wall Wire motor to acquistat and relay Check make sure water is pumped in desired direction	Safety glasses Improper equipment handling

DECISIONS	CUES	ERRORS
Determine static head	Number of gallons to circulate	Rotation of impeller

(TASK STATEMENT) INSTALL CIRCULATING PUMP

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Magnetic fields of force	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) INSTALL BREECHING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Refractory materials Welding equipment Chisels Hammers Socket set Openend wrenches Chimney Boiler	Scribe for hole in chimney Make opening in chimney Measure distance from boiler port to chimney opening Fabricate breeching Secure breeching to boiler Seal space between breeching and chimney Cover breeching	Burns Gloves

DECISIONS	CUES	ERRORS
Decide chimney size Decide chimney liner	Area of chimney Height of chimney	Spilage and smoke in boiler room

(TASK STATEMENT) INSTALL BREECHING

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Transfer of heat from one body to another Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) INSTALL PRESSURE REGULATOR AND AUTOMATIC WATER FEEDER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Soldering equipment Solder Pipe threading machine Stock and dies Pipe wrenches Valves Dual controls Bell wire Side cutters Wire strippers Friction tape Automatic water feeder Glass gauge	Install ''Y's'' on boiler ports on front Screw ½ unions into automatic water feeder Tighten unions Pipe water to control Install bypass Wire to high limit control	Fire Explosions
DECISIONS Decide how to locate on or as close to boiler as possible	**CUES** Type of control	**ERRORS** Burst boiler or burned-out boiler

(TASK STATEMENT) INSTALL PRESSURE REGULATOR AND AUTOMATIC WATER FEEDER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) INSTALL HEADER AND ''HARTFORD LOOP''

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe wrenches Welding equipment Welding rods Pipe Fittings Valves Pipe threading machines Stock and dies Cutters Support and lifting materials	Determine height of header Assemble pipe on boiler Insert ''tee'' in header for ''hartford loop'' Assemble hartford loop on return line Connect return line to boiler	Gloves Safety glasses Safety shoes Burns Explosions
DECISIONS	**CUES**	**ERRORS**
Determine size of piping for heater	Ceiling height Local and/or state code	Burned out boiler or burst boiler

(TASK STATEMENT) INSTALL HEADER AND ''HARTFORD LOOP''

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

172

(TASK STATEMENT) SELECT AND INSTALL VALVES FOR HEATING SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe cutting and threading equipment Pipe and fittings Valves Welding equipment Welding rods	Install valve near boiler Install valve on each branch Install valve at each heating element Install valve on return near boiler Tighten bonnet on valve	

DECISIONS	CUES	ERRORS
Determine points of valve installation Select proper valves	Size of pipe Pressure psi	Water hammer Poorly designed system

(TASK STATEMENT) SELECT AND INSTALL VALVES FOR HEATING SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Transfer of heat from one body to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

174

(TASK STATEMENT) INSTALL STEAM TRAPS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe cutting and threading equipment Pipe threading machine Pipe and fittings Traps Pipe wrenches	Cut and thread pipe Insert traps Tighten unions	Burns

DECISIONS	CUES	ERRORS
Determine location of trap Determine type of trap to use	Grade of pipe System pressure System design	No heat Excess noise - water hammer

(TASK STATEMENT) INSTALL STEAM TRAPS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechaical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Number [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) REPLACE RELIEF VALVE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pipe wrenches Pipe and fittings Pipe cutting and threading equipment Pipe threading machine	Remove old relief valve Replace new valve Construct drip leg	Burns Explosions
DECISIONS	**CUES**	**ERRORS**
Decide proper setting of temperature and pressure	Continuous running	Burst boiler

(TASK STATEMENT) REPLACE RELIEF VALVE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sence''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

178

(TASK STATEMENT) REPAIR CIRCULATING PUMP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Volt meter Socket set Screwdriver Needle nose pliers	Check fuse and/or circuit breaker Check coupler of motor Check impeller Check continuity of motor Repair and/or replace defective part	Electric shock
DECISIONS	**CUES**	**ERRORS**
Determine whether to rewind or replace motor	Odor Meter indications	Failure to effect repair

(TASK STATEMENT) REPAIR CIRCULATING PUMP

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) TROUBLESHOOT CONTROL SYSTEM HOT WATER BOILER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Volt meter Friction tape Screwdriver Needle nose pliers End wrenches Socket set (small) Side cutters	Check thermostat Check relay Check acquastat Check gas control valve Check transformer Check pilot Check thermocouple Check wiring Check fuse and/or circuit breaker	Burns Electric shock
DECISIONS	**CUES**	**ERRORS**
Determine whether to repair and/or replace control	Broken wire No flame on pilot Pilot would not stay lit	

(TASK STATEMENT) TROUBLESHOOT CONTROL SYSTEM HOT WATER BOILER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechaical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

182

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

(TASK STATEMENT) TROUBLESHOOT CONTROL SYSTEM FOR STEAM BOILER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Volt meter Screwdriver Socket set Needle note pliers Side cutters Friction tape Boiler controls End wrenches	Check pressure control Check high limit control Check low limit control Check diaphragm valve Check low water cut off Check automatic water feeder Check thermostat Check thermocouple Check pilot Check wiring Check transformer Check relay Check baso valve	Electric shock
DECISIONS	**CUES**	**ERRORS**
Decide to replace and/or repair control		

(TASK STATEMENT) TROUBLESHOOT CONTROL SYSTEM FOR STEAM BOILER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure Transfer of energy from one form to another	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Terminology

184

(TASK STATEMENT) CHECK FOR IMPROPER COMBUSTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Flame mirror Draft gauge Combustion testing kit Openend wrenches Socket set (small)	Check color of flame Conduct CO_2 test Check draft Adjust air intake on burners Check fresh air inlet (''outside air'')	Ignition Explosion

DECISIONS	CUES	ERRORS
Decide correct mixture of oxygen and gas Decide size of orifice on burner	Color of flame Floating flame	Accumulation of gas and/or oil

(TASK STATEMENT) CHECK FOR IMPROPER COMBUSTION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Viewing	Examining plans	Visual analysis, Describing, Detail/ Inference, Color discrimination

186

(TASK STATEMENT) REPAIR LEAK IN RADIANT FLOOR COIL SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ultra-sonic leak detector Air compressor Jack hammer Sledge hammer Cole chisels Cement Sand Water Pipe machine Pipe threading machine Pipe wrenches Welding equipment Weld cutting equipment	Locate leak Expose leak Repair leak Repair broken floor	Safety glasses Safety shoes Hard hat

DECISIONS	CUES	ERRORS
Decide whether to repair leak or abandon system	Extent of leak	Lost house

(TASK STATEMENT) REPAIR LEAK IN RADIANT FLOOR COIL SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing Listening	Examine	Visual analysis, Memory, Describing Audio discrimination

188

Duty I Install and/or Maintain Fire Protection Systems

1 Determine quantity and rate of demand for water
2 Install standpipe with hose and siamese connection
3 Install wet-sprinkler system
4 Install dry-sprinkler system
5 Repair dry-sprinkler station

(TASK STATEMENT) DETERMINE QUANTITY AND RATE OF DEMAND FOR WATER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Paper Pencil Scale Floor plan drawing Elevation plan drawing	Determine pressure at source Calculate total area of structure Compute g.p.m. needed per 1000 sq. ft. of area	
DECISIONS	**CUES**	**ERRORS**
Check calculations	Determination appears reasonable based on prior experience	Failure to provide adequate water supply if calculation error has occurred

(TASK STATEMENT) DETERMINE QUANTITY AND RATE OF DEMAND FOR WATER

SCIENCE	MATH – NUMBER SYSTEMS
	NBFU $Q = 1{,}020 \sqrt{F}\,(1 - 0.01 \sqrt{F})$ (F = sq. ft. in thousands) (Q = demand in gpm)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instruction	Comprehension, Detail/Inference, Informational reports, Description of mechanism, Definition, Terminology

(TASK STATEMENT) INSTALL STANDPIPE WITH HOSE AND SIAMESE CONNECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Hangers and supports Pipe, fittings, valves Siamese fittings First-aid hoses with drop racks and cabinets	Size standpipe Select location for fire-hose stations Install pipe, fittings, valves Support pipe Install first-aid hoses and cabinets Select locations for siamese connection Install siamese connections Provide for protection of installations and equipment Provide for draining system Test and activate system	Refer to OSHA requirements for construction trades
DECISIONS	**CUES**	**ERRORS**
Select the location for fire-hose station near center of structure	Design of structure	Failure to provide adequate fire protection

(TASK STATEMENT) INSTALL STANDPIPE WITH HOSE AND SIAMESE CONNECTION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Informational reports, Description of mechanism, Definition, Terminology

(TASK STATEMENT) INSTALL WET-SPRINKLER SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Hanger and supports Pipe, fittings, valves Sprinkler heads Alarm sensors Alarm bells Lead and oakum Lead working tools and equipment Indicator posts	Size supply mains, risers and runs Provide for pipe runs through walls and floors Install pipe, fittings, valves Install indicator stations Install sprinkler heads Provide for protection of installation Provide for draining system Install alarm sensors and alarm bells Test and activate system Provide for both vertical and horizontal support for piping	Refer OSHA requirements for construction trades

DECISIONS	CUES	ERRORS
Determine location, spacing, number and type of sprinkler heads	Design of structure Local codes NBFU requirements	Failure to provide adequate fire protection

(TASK STATEMENT) INSTALL WET-SPRINKLER SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Speed/Rate, Informational reports, Description of mechanism, Definition and terminology

(TASK STATEMENT) INSTALL DRY-SPRINKLER SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Pipe cutting and threading tools Hangers and supports Pipe, fittings, valves Dry station valves Indicator posts Sprinkler heads Alarm sensors Alarm bells Lead and oakum Lead working tools and equipment Pressure gauges	Install air pipe and valves to riser stations Install air compressor Coordinate with electrical trade for wiring to compressor **Note: Refer to Performance Knowledge in "Install Wet-Sprinkler System"**	Refer OSHA requirements for construction trades

DECISIONS	CUES	ERRORS
Determine location, spacing, number and type of sprinkler heads **Determine size of air compressor**	Design of structure Number of riser stations Local codes NBFU requirements	Failure to provide adequate fire protection Failure to provide adequate air pressure to dry-valves

(TASK STATEMENT) INSTALL DRY-SPRINKLER SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Speed/Rate, Informational reports, Description of mechanism, Definition and terminology

(TASK STATEMENT) REPAIR DRY-SPRINKLER STATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Manufacturer's repair kits Valves and fittings Pressure gauges Gasket material Packing material Valve discs - soft	Shut-off indicator post to station Drain water head above flapper of valve Turn off air to station air and purge air from station Disassemble valve and make necessary repairs Carefully close dry valve First fill system with air, then turn water into system	Failure to follow the steps in sequence could result in a wet machanic
DECISIONS	**CUES**	**ERRORS**
Determine the type of repair Choose the proper material to make repair	Loss of air pressure Visible water leaks Premature opening of system	The station will remain in condition before attempted repair The station will be in worse condition

(TASK STATEMENT) REPAIR DRY-SPRINKLER STATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple macines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers[Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

199

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Speed/Rate, Informational reports, Description of mechanism, Definition and terminology

Duty J Install and/or Maintain Private Sewer Disposal Systems

1 Make soil percolation test
2 Excavate for septic tank
3 Excavate for leaching field
4 Backfill excavation
5 Repair broken piping in filter bed
6 Clean septic tank
7 Repair motor on aeration tank

(TASK STATEMENT) MAKE SOIL PERCOLATION TEST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Stop watch Spade Post hole digger Water Shovel Rule Stakes Chalk Hammer Pick	Dig three test holes one foot square as deep as disposal trench Fill each hole with six inches of water Check time in minutes for water to seep away Add the percolation rate of each hole and divide by the number of holes	

DECISIONS	CUES	ERRORS
Determine correct number of square feet of absorption area	Type of soil and/or soil condition	Soggy filter bed

(TASK STATEMENT) MAKE SOIL PERCOLATION TEST

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) Basic Arithmetic Skills and Concepts Ratio and proportion ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area, volume Use of variables In formulae, in equations

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Progress reports, Terminology
Touching		Texture

202

(TASK STATEMENT) EXCAVATE FOR SEPTIC TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Back hoe Pick and shovels Level Dump truck Front-end loader Septic tank	Sizing of septic tank Locate the setting of tank Excavate for tank Lower tank into hole Fill tank with water Back fill around tank Remove excess dirt	Hard hat Safety shoes Gloves
DECISIONS	**CUES**	**ERRORS**
Decide location of tank	Number of people to serve	Flooding of leaching bed

(TASK STATEMENT) EXCAVATE FOR SEPTIC TANK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Oral instructions	Terminology, Diction, Clarity of expression, Denotation/Connotation, Logic, Gestures
Viewing	Inspection of area	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) EXCAVATE FOR LEACHING FIELD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick and shovel Back hoe Level Front-end loader Stakes Hammer Vitrified clay pipe Distribution box Cement Sand Water	Measure area to be excavated Stake area to be excavated Excavate area of field Fill bottom of field with gravel On the gravel spread two feet of sand Set distribution box Lay leaching tile Cover tile with straw Back fill leaching bed	Hard hat Gloves Safety shoes

DECISIONS	CUES	ERRORS
Determine size of filter bed	Number of people	Soggy filter bed

(TASK STATEMENT) EXCAVATE FOR LEACHING FIELD

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Resistance of materials to change in shape	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear, area

206

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Oral instructions	Terminology, Diction, Clarity of expression, Denotation/Connotation, Logic, Gestures
Viewing	Inspection of area	Visual analysis, Describing, Detail/ Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) BACKFILL EXCAVATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick and shovels Front-end loader Dump truck Topsoil Sod	Shovel topsoil over **Leach field fill to line of contour of previous elevation grade by hand** Allow to settle Refill and grade by hand shoveling Haul excess soil away Plant grass	**Hard hat** **Safety shoes** **Gloves**
DECISIONS **Decide where to dispose of excess fill**	**CUES**	**ERRORS** Failure to back fill after settlement

(TASK STATEMENT) BACKFILL EXCAVATION

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports
Touching	Soil materials	Size, motion

(TASK STATEMENT) REPAIR BROKEN PIPING IN FILTER BED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pick shovel Vitrified clay pipe	Locate broken tile Excavate broken tile Remove broken tile Replace broken tile Back fill Grade to previous elevation	Gloves Rubber boots
DECISIONS	**CUES**	**ERRORS**
Make repairs	Wet spots	Continuous wet spots

(TASK STATEMENT) REPAIR BROKEN PIPING IN FILTER BED

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

210

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Directions	Terminology, Clarity of expression, Logic

(TASK STATEMENT) CLEAN SEPTIC TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Truck with holding tank Gas pump Pick and shovels Pinch bar Hose	Locate septic tank Uncover top of tank Remove septic tank cover Allow time for gas to escape Insert hose Pump contents of tank out into container Dispose of sludge	Explosions Gas Burns
DECISIONS	**CUES**	**ERRORS**
Decide where to dispose of sludge		

(TASK STATEMENT) CLEAN SEPTIC TANK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Directions	Terminology, Clarity of expression, Logic

(TASK STATEMENT) REPAIR MOTOR ON AERATION TANK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Volt meter Lifting equipment	Check circuit breaker and/or fuse Check continuity of motor Check rotation of motor Pull motor and/or repair Replace motor	Electric shock
DECISIONS	**CUES**	**ERRORS**
Determine whether to repair or to replace	No agitation Shaft coupler and/or unusual noise Motor overheating	Failure to accomplish repair

(TASK STATEMENT7) REPAIR MOTOR ON AERATION TANK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

214

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Description of mechanism, Definition

Duty K Set and/or Repair Fixtures and Fixture Trim

1 Set fixture hangers and supports
2 Seal fixtures to walls and/or floors
3 Seal trim to fixture
4 Anticipate shut-downs for production, convenience and safety
5 Prepare area for fixture replacement

215

(TASK STATEMENT) SET FIXTURE HANGERS AND SUPPORTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Level Rough-in manuals Fasterners, e.g. nails, screws, etc Pencil or marking crayon Caulk line Wood Angle, flat, channel iron Oxy-Acetylene cutting equipment Electric welding equipment Arm and chair carriers Sand and cement	Measure point of Set backing into walls Secure side and foot of chair carriers Set and anchor arm carriers Build ''special'' support or carrier	Refer OSHA requirements for construction trades

DECISIONS	CUES	ERRORS
Determine make and model of fixtures	Manufacturer's rough-in manuals	Fixtures not properly supported could become damaged through use

(TASK STATEMENT) SET FIXTURE HANGERS AND SUPPORTS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Effect of heating and cooling on expansion of materials	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism, Definition

(TASK STATEMENT) SEAL FIXTURES TO WALLS AND/OR FLOORS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Sealing compound, e.g. silicone, putty, etc Socket set Box-end wrenches White grout Sheet lead Wax seals Felt seals	Set sealing material to fixture Set fixture to hanger or support ''Bolt'' fixture tightly to support Fill ''gaps'' around fixture with silicone or grout to provide sanitary seal	Refer OSHA requirements for building trades
DECISIONS	**CUES**	**ERRORS**
Choose correct rough-in manual	Unusual difficulty in installation	Damage or broken fixtures Leaks from fixture seals

(TASK STATEMENT) SEAL FIXTURES TO WALLS AND/OR FLOORS

SCIENCE	MATH – NUMBER SYSTEMS

219

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Directions	Terminology, Clarity of expression

(TASK STATEMENT) SEAL TRIM TO FIXTURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Sealing compound, e.g. silicone, putty, etc Special hand tools Fasteners, e.g. nails, screws, etc	Read carefully manufacturer's instructions Center trim to fixture Apply sealing compound to trim Attach trim to fixture - tighten and clean excess compound	

DECISIONS	CUES	ERRORS
Decide type of sealing compound to use	Material fixture is made of	Leak around trim

(TASK STATEMENT) SEAL TRIM TO FIXTURE

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Description of mechanism, Definition

(TASK STATEMENT) ANTICIPATE SHUT-DOWNS FOR PRODUCTION, CONVENIENCE AND SAFETY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Coordinate with customer Coordinate with other trades Brief mechanics for efficient operation	
DECISIONS Select personnel to perform job function	**CUES** Type of operation, e.g. factory, residence, etc	**ERRORS** Inconvenience to customer

(TASK STATEMENT) ANTICIPATE SHUT-DOWNS FOR PRODUCTION, CONVENIENCE AND SAFETY

SCIENCE	MATH – NUMBER SYSTEMS

223

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Giving oral instructions	Terminology, Diction, Clarity of expression, Denotation/Connotation
Listening	Receiving oral instructions	Concentration, Logic, Word definition, Note taking

(TASK STATEMENT) PREPARE AREA FOR FIXTURE REPLACEMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools "New" fixtures Special hand tools Sheet plastic or paper Drop cloths	Examine area Determine fixture to be replaced Examine existing piping Provide for minor demolition of fixture area and protection of adjacent areas Carefully remove old fixture	

DECISIONS	CUES	ERRORS
Determine what material of existing plumbing Determine age of old fixture installed	Age of structure Type of fixture to be replaced	Failure to effect replacement properly Failure to meet local codes Damage materials and/or area adjacent to work

(TASK STATEMENT) PREPARE AREA FOR FIXTURE REPLACEMENT

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instruction	Comprehension, Detail/Inference, Recommendation reports, Progress report and description of mechanism
Viewing	Inspection area	Detail/Inference

Duty L Repair Plumbing Fixtures and/or Fixture Trim

1 Anticipate shut-downs in regard to production schedules, convenience, safety
2 Prepare area of fixture for repair work
3 Locate and clear stoppage in fixtures and drains
4 Locate and clear stoppage in water lines
5 Repair faucets, ball-cock valves, flushmeter

226

(TASK STATEMENT) ANTICIPATE SHUT-DOWNS IN REGARD TO PRODUCTION SCHEDULES, CONVENIENCE, SAFETY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Coordinate with customer Coordinate with other trades ''Brief'' mechanic for efficinet completion of work	

DECISIONS	CUES	ERRORS
What is the specific problem **Decide whether to repair or replace** Choice of mechanic for job	Item to be repaired Age and condition of unit	Failure to complete repair within reasonable time

(TASK STATEMENT) ANTICIPATE SHUT-DOWNS IN REGARD TO PRODUCTION SCHEDULES, CONVENIENCE, SAFETY

SCIENCE	MATH – NUMBER SYSTEMS

228

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Give oral instructions	Terminology, Diction, Clarity of expression, Denotation/Connotation
Listening	Receiving oral instructions	Concentration, Logic, Word definition, Note taking

(TASK STATEMENT) PREPARE AREA OF FIXTURE FOR REPAIR WORK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Sheet plastic or paper Drop cloths	Examine area of work Examine existing pipe Protect adjacent areas	

DECISIONS	CUES	ERRORS
Determine what is the design and composition of existing material	Age of the structure Age and type of unit to be repaired	Failure to effect repair Damage to existing adjacent materials

(TASK STATEMENT) PREPARE AREA OF FIXTURE FOR REPAIR WORK

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instruction	Comprehension, Detail/Inference, Recommendation reports, Progress reports, Description of mechanism
Viewing	Inspection area	Detail/Inference

(TASK STATEMENT) LOCATE AND CLEAR STOPPAGE IN FIXTURES AND DRAINS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Special hand tools Electric ''sewer'' machines Water hose Dye coloring Replacement parts, e.g. fixture trap, clean-out plugs Extension ladders Mechanics mirror	Remove fixture trap Remove water closet Remove clean-out plug Apply proper tool or machine to clear stoppage Flush with water Replace trap, clean-out plug, reset closet	Never stand directly in front of opening Always have rubber boot on or close at hand
DECISIONS Decide what is ''stopped up''	**CUES** Fixture will not drain Fixture drains slowly Waste water overflowing	**ERRORS** Failure to clear stoppage Damage to fixtures

(TASK STATEMENT) LOCATE AND CLEAR STOPPAGE IN FIXTURES AND DRAINS

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Examine area	Visual analysis, Describing, Detail/ Inference

232

(TASK STATEMENT) LOCATE AND CLEAR STOPPAGE IN WATER LINES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Special hand tools Water hose Length of steel rod Air compressor Pipe, fittings, valves Pipe cutting and threading tools	Disjoint lines Apply proper tools and/or equipment to clear stoppage Replace any damaged pipe and fittings Reconnect all lines	

DECISIONS	CUES	ERRORS
Determine the extent of stoppage Decide if piping be replaced	Water pressure at source No or little pressure at outlets	Failure to clear stoppage Damage to piping

(TASK STATEMENT) LOCATE AND CLEAR STOPPAGE IN WATER LINES

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Work input, work output, friction and efficiency in simple machines Fluids under pressure	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Examine area	Visual analysis, Describing, Detail/ Inference

23f-

(TASK STATEMENT) REPAIR FAUCETS, BALL-COCK VALVES, FLUSHOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Special hand tools Repair Kits "'Trinket'" box Replacement units, e.g. faucet, ball-cock valve, etc Manufacturer's instruction manuals	Shut-off supply to unit Visually examine unit Carefully disassemble unit per manufacturer instruction by accepted engineering practice Examine component parts for wear or defect Replace worn or defective parts Reassemble unit Turn on supply to unit, operate unit for test, make any necessary adjustments	
DECISIONS Determine specific problem Determine if unit is repairable Determine if unit requires tools	**CUES** Unit will not shut off Unit will not turn on Unusual sound Leaks Age of unit	**ERRORS** Failure to accomplish repairs Damage to units

(TASK STATEMENT) REPAIR FAUCETS, BALL-COCK VALVES, FLUSHOMETER

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Forces acting on a body immersed or floating in a liquid Inertia and momentum	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instructions	Comprehension, Detail/Inference, Recommendation reports, Description of mechanism
Viewing	Examine repair	Visual analysis, Describing, Detail/Inference, Recognition of symbols, codes, emblems

Duty M Testing of the Plumbing System

1 Rough-in test for drain, waste, and vent system
2 Run final test for drain, waste, and vent system
3 Test for the domestic water system

237

(TASK STATEMENT) ROUGH-IN TEST FOR DRAIN, WASTE, AND VENT SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Blocking and bracing material Sand and cement Lead working tool and equipment Water Test plugs Tie wire Air compressor Water hose Soldering tools and equipment Pressure gauge	Divide system in sections if testing a large building For water: Plug all openings except top of stacks Fill system with water to top of stack or to a point equal to a 10 foot head for 15 minutes For air: Plug all openings Fill system with air to a uniform pressure of five grams psi for 15 minutes Examine system for leaks and make necessary repairs Drain or purge system	Brace joints to prevent them from being pushed apart due to pressure

DECISIONS	CUES	ERRORS
Determine whether to sectionalize building Determine whether to use water or air for test	Size of building Number of stacks Availability of water Local codes	Test will not hold Installation will not pass inspection

(TASK STATEMENT) ROUGH-IN TEST FOR DRAIN, WASTE, AND VENT SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Transfer of heat from one body to another Inertia and momentum Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instruction	Comprehension, Detail/Inference, Recommendational reports, Terminology

239

(TASK STATEMENT) RUN FINAL TEST FOR DRAIN, WASTE, AND VENT SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Lead working tools and equipment Soldering tools and equipment Test plugs Water hose Bucket Manometer Pressure gauge/inches of water Mercury gauge Test can	Divide system in sections if testing a large building Plug all openings Fill all traps with water Fill with air sufficient to maintain one inch water column for 15 minutes Remove test plug from one stack to be sure water column falls Examine system for leaks and make necessary repairs Remove all plugs	

DECISIONS	CUES	ERRORS
Determine whether to sectionalize building	Size of building Local codes	Test may not hold Installation will not pass inspection

(TASK STATEMENT) RUN FINAL TEST FOR DRAIN, WASTE, AND VENT SYSTEM

SCIENCE	MATH -- NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Transfer of heat from one body to another Inertia and momentum Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehending written instruction	Comprehension, Detail/Inference, Recommendational reports, Terminology

(TASK STATEMENT) TEST FOR THE DOMESTIC WATER SYSTEM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Small hand tools Plugs and caps Pipe cutting and threading equipment Soldering tools and equipment Pressure gauge Potable water	Divide system in sections if testing a large building Examine installation for openings and close any openings Fill system with potable water to static pressure of 125 psi or not less than 10 percent in excess of normal operating pressure Examine system for leaks and make necessary repairs Drain and flush system Activate system to normal operating pressure	Water damage

DECISIONS	CUES	ERRORS
Determine whether to sectionalize building	Size of building Local codes	Test failure Installation will not pass inspection

(TASK STATEMENT) TEST FOR THE DOMESTIC WATER SYSTEM

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage Fluids under pressure Transfer of heat from one body to another Inertia and momentum Effects of friction on work processes and product quality	Set of Real Numbers [Positive] Fundamental Operations (Calculation) ''Measure sense''/role of ''unit'' Instruments Measurement: geometric Linear

243

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Comprehension of written instruction	Comprehension, Detail/Inference, Recommendational reports, Terminology

ACCESSION NUMBER: VT102078

TITLE: AN ANALYSIS OF THE MEDICAL ASSISTING OCCUPATIONS.

PERSONAL AUTHOR: KEIR, LUCILLE, AND OTHERS

DESCRIPTOR: *TASK ANALYSIS; *MEDICAL ASSISTANTS; *JOB SKILLS; *OCCUPATIONAL INFORMATION; TASK PERFORMANCE EQUIPMENT UTILIZATION

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 424P.; SEE RELATED DOCUMENTS VT 101 823 THROUGH 101 874 IN AIM, VOL. 8, NO. 4, AND VT 102 072 THROUGH 102 077 IN THIS ISSUE.

ABSTRACT: THE OCCUPATIONAL ANALYSIS PROJECT WAS CONDUCTED FROM JUNE 1, 1973 TO DECEMBER 30, 1974 TO TRAIN VOCATIONAL TEACHERS IN THE TECHNIQUES OF MAKING A COMPREHENSIVE OCCUPATIONAL ANALYSIS. EACH ANALYSIS INCLUDES A STATEMENT OF THE VARIOUS TASKS PERFORMED IN AN OCCUPATION, WITH THE APPROPRIATE ITEMS IDENTIFIED FOR EACH TASK: TOOLS AND EQUIPMENT, PROCEDURAL KNOWLEDGE, SAFETY KNOWLEDGE, MATHEMATICS SKILLS, AND SCIENCE AND COMMUNICATION NEEDED FOR SUCCESSFUL PERFORMANCE. THE ANALYSIS DATA PROVIDED A BASIS FOR GENERATING INSTRUCTIONAL MATERIALS, COURSE OUTLINES, STUDENT PERFORMANCE OBJECTIVES, CRITERION MEASURES, AND SUPPORTING SKILLS IN THE ACADEMIC AREAS. LISTED IN THIS VOLUME ARE THE TASKS MOST OFTEN PERFORMED BY A MEDICAL ASSISTANT IN A GENERAL PRACTITIONER'S OFFICE. RESPONSIBILITIES INCLUDE BUSINESS OFFICE DUTIES, DIAGNOSTIC TESTS, AND TREATMENT ROOM PROCEDURES. (AUTHOR/MF)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. INSTRUCTIONAL MATERIALS LAB. (TRADE AND INDUSTRIAL EDUCATION).

SPONSORING AGENCY NAME: OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 078

Occupational Analysis

MEDICAL ASSISTANT

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

VT 102 078

5290

AN ANALYSIS OF THE MEDICAL ASSISTING OCCUPATION

Developed By

Lucille Keir, C.M.A.
Instructor, Medical Assisting
North High School
Columbus, Ohio

Joan W. Ray, C.M.A.
Instructor, Medical Assisting
North High School
Columbus, Ohio

Roberta Korbel
Consultant
Certified Medical Assistant
Columbus, Ohio

Occupational Analysis
E.P.D.A. Sub Project 73402
June 1, 1973 to December 30, 1974
Director: Tom L. Hindes
Coordinator: William L. Ashley

The Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

"The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions that are expressed herein do not reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred."

TABLE OF CONTENTS

Foreword v

Preface vii

Acknowledgment ix

Job Description xi

Duties

A Performing Medical Office Management Duties 1

B Completing Business Office Duties 63

C Preparing and Sterilizing Instruments and Supplies 107

D Assisting with Clinical Procedures 135

E Performing Basic Laboratory Procedures and Diagnostic Tests 325

5

FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics, and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

6

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of condulting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis inlcuded a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures, as well as identifying specific supporting skills and knowledge in the academic subject areas.

PREFACE

The first contact a patient has when visiting a physician's office will be with the Medical Assistant. Friendliness, warmth, and cordiality are necessary as attributes in any assistant given the responsibility of greeting and caring for patients. An understanding of basic medical legal ramifications in the practice of medicine is desirable. Personal appearance will also make an important "first impression" and should also be considered.

An attempt has been made to list the tasks most often completed by a medical assistant. The writers avoided listing specialty assistant tasks found only in a specialty office and analyzed tasks they believed to be performed in a general practitioner's office.

The authors were aware of the differences in responsibility given to the medical assistant according to geographical area and the needs and preferences of the individual physician-employer. Nothing is ever completed without the direct order of the physician and under his/her supervision.

A basic understanding of self is essential as well as a knowledge of human psychology. Some of the more common emotional reactions with regard to patients and self which the Medical Assistant must deal with are as follows:

Positive:	Negative:
Relief and satisfaction	Apprehension
Gratification	Hostility
Empathy	Fear-anxiety
Procedures	Embarassment
	Eratic reactions
	Prejudice and feelings of moral and economic superiority

Non-verbal emotional reaction:
Steadiness or swings of temperment

ACKNOWLEDGMENT

We wish to acknowledge the valuable assistance rendered by the following subject matter specialists. They provided input to the vocational instructors in identifying related skills and concepts of each respective subject matter area and served as training assistants in the analysis process during the two-week workshops.

Rollin M. Barber, Psychology
The Ohio State University
Columbus, Ohio

Jodi Beittel, Communications
Columbus, Ohio

Diana L. Buckeye, Mathematics
University of Michigan
Avon Lake, Ohio

Rick Fien, Chemistry
The Ohio State University
Beachwood, Ohio

N. S. Gidwani, Chemistry
Columbus Technical Institute
Columbus, Ohio

Bruce A. Hull, Biology
The Ohio State University
Columbus, Ohio

Donald L. Hyatt, Physics
Worthington High School
Worthington, Ohio

Glenn Mann, Communications
Columbus, Ohio

Jerry McDonald, Physical Sciences
Columbus Technical Institute
Reynoldsburg, Ohio

Colleen Osinski, Psychology
Columbus Technical Institute
Columbus, Ohio

David Porteous, Communications
University of Connecticut
Colchester, Connecticut

James A. Sherlock, Communications
Columbus Technical Institute
Columbus, Ohio

Jim VanArsdall, Mathematics
Worthington High School
Worthington, Ohio

Lillian Yontz, Biology
The Ohio State University
Caldwell, Ohio

Acknowledgment is extended to the following I.M.L. staff members for their role in conducting the workshops; editing, revising, proofing and typing the analyses.

Faith Justice	Research Associate
Sheila Nelson	Administrative Assistant
Marsha Opritza	Editorial Consultant
Rita Buccilla	Typist
Peg Bushelman	Typist
Carol Fausnaugh	Typist
Mindy Fausnaugh	Typist
Rita Hastings	Typist
Carol Hicks	Typist
Sue Holsinger	Typist
Barbara Hughes	Typist
Carol Marvin	Typist
Patti Nye	Typist
Kathy Roediger	Typist
Mary Salay	Typist

JOB DESCRIPTION

A medical assistant is an individual who is employed by a physician in his/her office. The duties are manifold and vary according to the individual physician-employer needs. The medical assistant must have an ability to relate to people in all types of situations. The responsibilities of this individual may include clerical, secretarial and management responsibilities; business office duties; diagnostic tests and procedures; and examination and treatment room procedures.

Duty A Performing Medical Office Management Duties

1 Prepare reception room for patients
2 Sort and open and route mail
3 Pull or file patient's medical records
4 Receive patients
5 Manage children accompanying patients
6 Screen non-patient visitors
7 Complete registration form and health history record
8 Explain to scheduled patients unexpected delay
9 Place telephone calls
10 Answer telephone calls
11 Answer emergency telephone calls
12 Schedule appointments for patients
13 Make arrangements for patient's admission to hospital
14 Prepare schedule for physician of hospital patients
15 Arrange meetings and/or conferences
16 Arrange travel accomodations
17 Operate and maintain typewriter
18 Transcribe from a dictating machine
19 Operate copy equipment
20 Compose and type a business letter
21 Type a consultation letter
22 Compose and type a recall letter to patient
23 Compose and type collection letter
24 Complete workmen's compensation forms
25 Complete commercial health forms

26 Complete Medicare Part B forms
27 Complete public assistance billing forms
28 Inventory office supplies
29 Order and receive office supplies

12

(TASK STATEMENT) PREPARE RECEPTION ROOM FOR PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Magazines appropriate to individual practice Tables Chairs Lamps Ash trays (optional)	Screen magazines Align furniture Necessary clean up Maintain comfortable temperature	Maintain constant alertness for any damaged furniture, protruding objects, loose or frayed electrical cords Injury to patient and/or staff Keep floor area smooth and uncluttered Danger of tripping
DECISIONS	**CUES**	**ERRORS**
Decide when to straighten room Determine when to replace magazines	Overall clean pleasant atmosphere should be maintained at all times Magazines frayed and/or pages removed, out-of-date	

(TASK STATEMENT) PREPARE RECEPTION ROOM FOR PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Viewing	Aesthetic appearance	Visual analysis Color discrimination
Feeling	Environment	Temperature Humidity

(TASK STATEMENT) SORT AND OPEN AND ROUTE MAIL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Letter opener File Numbe· 13	Separate first class mail Categorize balance of mail Attach communications regarding patients to appropriate chart for physician's attention Sort and dispose of drug samples per physician's desire Answer appropriate mail File incoming bills for payment	Drugs must be kept in area accessible to staff only Improper use
DECISIONS	**CUES**	**ERRORS**
Determine routing of mail	Pay careful attention to mail containing payments Needs physician's attention and decision before action can be taken	Failure to attach available information (i.e. patient chart, previous communication) that will assist physician in understanding request and/or taking action

(TASK STATEMENT) SORT AND OPEN AND ROUTE MAIL

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Letters from patient's and/or companies, etc.	Business letters (format/content)
Writing	To patients Interoffice memos	Typing Penmanship Classification Memo format Logic

(TASK STATEMENT) PULL OR FILE PATIENT'S MEDICAL RECORDS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
File cabinet Charts Typewriter Stationary Patient chart forms	Locate chart and remove from file Type list of patients scheduled Check folder to be certain all current data is filed Prepare new sheet for notes by physician if chart is full Replace in proper order after use	Danger of entire cabinet tipping with resultant possible trauma if more than one drawer opened at a time Danger of tipping over or running into a file drawer left open when not in use with resultant possible trauma
DECISIONS	**CUES**	**ERRORS**
Determine if filing is to be done alphabetically, numerically or under subject matter for miscellaneous papers	Office policies	

(TASK STATEMENT) PULL OR FILE PATIENT'S MEDICAL RECORDS

SCIENCE	MATH – NUMBER SYSTEMS
	Locate by approximation rational numbers and integers on the number line (sequential ordering)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Files	Visual analysis Detail/inference Logic Recognition of symbols, codes, and emblems
Writing	New chart note forms	Penmanship and/or typing

(TASK STATEMENT) RECEIVE PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Daily practice log	Welcome patient by name Provide for patient comfort and ease Meet individual needs as required	
DECISIONS	**CUES**	**ERRORS**
Determine at what point it is advisable to see a patient with or without an appointment ahead of those already waiting	Emergency, severe illness	Not recognizing as an emergency the patient with a critical emotional need

(TASK STATEMENT) RECEIVE PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS
Elicit patient needs through competent/caring manner Maintain capacity to foster trust, confidentiality, cooperation, and to cope with conflict behavior	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Patient's needs	Auditory, discrimination, concentration, logic, and noise discrimination
Viewing	Watch for patient's needs	Visual analysis, describing, logic, and detail/inference
Speaking	Provide comfort and assistance	Implying, clarity of expression, persuasion, dress, facial and body features, poise, and usage

(TASK STATEMENT)

MANAGE CHILDREN ACCOMPANYING PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Assortment of appropriate books and toys Storage area for books and toys Lollipops (optional) – safety stick Children's furniture optional	Care of child in some instances	Hazardless toys Guard against toys in walking area Possible injury to child or other visitor
DECISIONS	**CUES**	**ERRORS**
Determine point at which child has become disruptive and take appropriate action	Patient complaints, excessive noise, destruction of office accessories	Patient's dissatisfaction

(TASK STATEMENT) MANAGE CHILDREN ACCOMPANYING PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS
Maintain capacity to foster trust, confidentiality, cooperation; to cope with conflict behavior; to function efficiently when encountering fast changing, multiple, personal or situational variables, and to exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability	

22

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal interaction with child and patient	Implying Persuasion Logic Gestures
Touching	Tactile communication with child	Movement Comfort or restraint

(TASK STATEMENT) SCREEN NON–PATIENT VISITORS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Appointment book (if needed) Writing instrument	Schedule future appointments per physician's directions Escort visitors to be seen into appropriate waiting area	
DECISIONS	**CUES**	**ERRORS**
Determine where visitors fit into various categories and deal with them in individual manner according to wishes of physician	Appearance of visitor, nature and urgency of request	Physician-employer dissatisfaction due to insufficient information

(TASK STATEMENT) SCREEN NON–PATIENT VISITORS

SCIENCE	MATH – NUMBER SYSTEMS
Maintain capacity to foster trust Maintain capacity to foster confidentiality Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational variables Exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability Exhibit qualities of tact, poise, consideration, graciousness, and imagination	Measure of time (Example: time-minutes/hours)

24

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	With visitors and physician	Clarity of expression Logic Poise
Writing	Recording appointment	Penmanship Spelling Classification Description Logic
Listening	Visitor's requests	Auditory discrimination, detection of propaganda devices, discriminate facts from non-facts, concentration, and logic

(TASK STATEMENT) COMPLETE REGISTRATION FORM AND HEALTH HISTORY RECORD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Chart folder Registration form History sheet Writing material Writing surface	Complete history sheet according to physician's instructions Complete registration form as indicated	
DECISIONS	**CUES**	**ERRORS**
Ascertain correct spelling of name and complete address Determine if all information is completed as necessary	Original source of data If printed form utilized, all information fully completed	Incomplete or inaccurate information recorded Inability to trace delinquent accounts

(TASK STATEMENT) COMPLETE REGISTRATION FORM AND HEALTH HISTORY RECORD

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	With patient and/or relatives	Terminology Enunciation Clarity of expression Logic Poise
Writing	Recording	Penmanship Spelling Classification Memo format Description Medical terminology Logic

(TASK STATEMENT) EXPLAIN TO SCHEDULED PATIENTS UNEXPECTED DELAY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Telephone (if indicated) Appointment book Writing instrument	Apologize for delay Offer appropriate explanation of error Reschedule appointments as indicated or make referral	
DECISIONS	**CUES**	**ERRORS**
Determine explanation to be given to patients Determine best possible alternate appointment Determine if patient should be referred to another physician for immediate care	Nature of delay Legal consideration of explanation Patient's well being Physician's schedule Patient's schedule Emergency problem Doctor not expected in office over a period of time	Invasion of privacy and abondment Physician and/or patient dissatisfaction Medical-legal problems Poor patient care Physician and patient dissatisfaction

(TASK STATEMENT) EXPLAIN TO SCHEDULED PATIENTS UNEXPECTED DELAY

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster trust Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational variables	Measure of time (Example: time–minutes/hours etc.)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Explanation to patient	Enunciation Clarity of expression Persuasion Logic Poise
Listening	Instructions from the physician Reaction and needs of patients	Concentration Logic Note taking
Writing	Recording in appointment book Completion of appointment card	Penmanship, spelling, classification, and logic

(TASK STATEMENT) PLACE TELEPHONE CALLS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Telephone Telephone book Telephone index Writing materials	Obtain correct telephone number Modulate voice to pleasing pitch Position receiver properly	
DECISIONS	**CUES**	**ERRORS**
Determine if physician is readily available	Personally requested call – ample notification of call being placed	Wasted time

(TASK STATEMENT) PLACE TELEPHONE CALLS

SCIENCE	MATH – NUMBER SYSTEMS
Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability	

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Placing call	Terminology Appropriate diction Enunciation Clarity of expression

(TASK STATEMENT) ANSWER TELEPHONE CALLS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Appointment book Complete directory of community agencies	Transmit information, check resources as necessary Schedule appointments Record messages for proper response by physician Screen calls, i.e. those assistant can answer, those physician must answer Record pertinent information on patient record	Never have food or gum in mouth Avoid improper voice tone

DECISIONS	CUES	ERRORS
Determine caller's needs Determine who should handle call Determine if physician can return call at his/her convenience	Be aware of office policy and/or physician's preference Be aware of medical-legal implications of giving information over telephone Not of an emergency nature	Giving out information to unauthorized Patient dissatisfaction Poor patient care Medical-legal problems

(TASK STATEMENT) ANSWER TELEPHONE CALLS

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster trust, Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when enouuntering fast changing, multiple, personal or situational variables	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Question to determine caller's needs	Implying, enunciation, clarity of expression, and logic
Writing	Record messages, appointments, and pertinent data on patient record	Penmanship, spelling, classification, description, and logic
Listening	Caller's requests	Auditory discrimination, detection of propaganda devices, discriminate facts from non-facts, concentration, logic, and note taking

(TASK STATEMENT) ANSWER EMERGENCY TELEPHONE CALLS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Appointment book Complete directory of community agencies	Handle on individual merit Question caller until true situation is ascertained, and take prompt action accordingly If servere emergency, direct patient to emergency room (if physician is not available) Offer first aid advice if physician is not available and if it is appropriate Record call	

DECISIONS	CUES	ERRORS
Determine caller's needs Decide course of action	Caller's voice and mental state Medical and legal implications	Ignoring psychological needs Taking too much authority in so far as medical decisions Not charting details of call Misadvice to patient as to his/her course of action

(TASK STATEMENT) ANSWER EMERGENCY TELEPHONE CALLS

SCIENCE	MATH – NUMBER SYSTEMS
Maintain capacity to foster trust, confidentiality, cooperation; to cope with conflict behavior; to function efficiently when encountering fast changing, multiple, personal or situational variables; to exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Phone communication in calm voice	Appropriate diction, enunciation, clarity of expression, logic persuasion, and poise
Writing	Log immediately and accurately all emergency phone calls	Classification, description, terminology/ general vocabulary, clarity of expression, and logic
Listening	Caller's request's	Discriminate facts form non-facts, concentration, logic (ordering of thoughts and ideas), and note taking

(TASK STATEMENT) SCHEDULE APPOINTMENTS FOR PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing surface Writing materials Appointment book Appointment cards	Record on proper date and time in appointment book Complete appointment card Give or mail to patient	

DECISIONS	CUES	ERRORS
Determine time of appointment according to patient's needs and physician's schedule Determine proper time interval for appointment Determine notations to be made on appointment book regarding physician's request for diagnostic procedures or nature of appointment	Nature of appointment/patient's needs Probable procedures to be completed Patient history Requests made by physician	Insufficient time for preliminary work Scheduling too heavy Schedule is delayed due to insufficient time Delay in completion of procedures; some could be completed before physician sees patient, if physician is aware of procedures and so directs medical assistant to begin

(TASK STATEMENT) SCHEDULE APPOINTMENTS FOR PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS
	Measure of time. (Example: time--minutes/hours)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Confer with patients and physicians	Clarity of expression Logic Poise
Writing	Recording data on appointment card and book	Penmanship Spelling Usage

36

(TASK STATEMENT) MAKE ARRANGEMENTS FOR PATIENT ADMISSION TO HOSPITAL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Patient chart Phone Writing instrument Appropriate pre-admission forms from specific hospital	Place call Schedule admission Notify and instruct patient Complete the pre-admission form or instruct patient in procedure according to type of form used by hospital	
DECISIONS	**CUES**	**ERRORS**
Determine most convenient time and day	Nature and length of hospital stay Patient's and doctor's schedule	

(TASK STATEMENT) MAKE ARRANGEMENTS FOR PATIENT ADMISSION TO HOSPITAL

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, and graciousness	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Talk with admission office personnel Talk with physician and patient	Appropriate diction, enunciation, and logic Terminology/general vocabulary, clarity of expression, and poise
Writing	Record on patient chart Pre-admission form	Penmanship, spelling, classification, description, terminology/general vocabulary, and logic Typing

(TASK STATEMENT) PREPARE SCHEDULE FOR PHYSICIAN OF HOSPITAL PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies	Type per wishes of physician; i.e. frequency of preparation, and order and type of information	
DECISIONS	**CUES**	**ERRORS**
	List should include any factors which would facilitate patient care and efficiently utilize physician's time	Omission of "emergency admissions"

(TASK STATEMENT) PREPARE SCHEDULE FOR PHYSICIAN OF HOSPITAL PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to and from physician Communication with hospital	Terminology/general vocabulary Appropriate diction Clarity of expression Logic
Writing	Record schedule and related information	Penmanship and/or typing Spelling Classification Description Clarity of expression Denotative/connotative words

(TASK STATEMENT) ARRANGE MEETINGS AND/OR CONFERENCES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies As indicated by individual situation—varies to great degree	Contact parties involved Obtain and/or disburse information concerning details, i.e. date, time, duration, place, nature of meeting or conference, number of persons involved Record details Follow-up on details	

DECISIONS	CUES	ERRORS
Determine nature of meeting Determine most appropriate date, time, and place	Agenda, parties involved Doctor's schedule	Inefficiency

(TASK STATEMENT) ARRANGE MEETINGS AND/OR CONFERENCES

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational variables Exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal interaction with physician and other parties concerned	Clarity of expression Logic Poise Persuasion
Writing	Record arrangements completed Notify parties involved	Spelling Classification Business letters (format/content) Terminology/general vocabulary Clarity of expression

42

(TASK STATEMENT) ARRANGE TRAVEL ACCOMODATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Typewriter Telephone	Arrange for transportation Arrange for lodging	
DECISIONS	**CUES**	**ERRORS**
Determine most appropriate mode of transportation and place of lodging	Dates – times – cost and kind of accomodations – physician's desires	Not requesting written confirmation especially for lodging, no reservation

(TASK STATEMENT) ARRANGE TRAVEL ACCOMODATIONS

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational variables Exhibit qualities of self-confidence, self-control, self-reliance, self-respect, and adaptability	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Talk with physician and others concerning arrangements	Clarity of expression Logic Poise Persuasion
Writing	Inquiries about accomodations	Spelling Business letters (format/content) Clarity of expression Logic
	Record accurately the arrangements made	Memo format Description

(TASK STATEMENT) OPERATE AND MAINTAIN TYPEWRITER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies as applied to typewriter maintenance i.e. typewriter brush, operating manual, cleaning fluid, etc.	Be familiar with all moving parts Type on both manual and electric typewriters Clean a typewriter	
DECISIONS	**CUES**	**ERRORS**
Determine at what point professional maintenance is necessary	Appropriate manual	Malfunction of machine

(TASK STATEMENT) OPERATE AND MAINTAIN TYPEWRITER

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension Detail/inference Description of mechanism Definition Terminology Instructions

(TASK STATEMENT) TRANSCRIBE FROM A DICTATING MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supplies Dictation transcriber Others as situation indicates, i.e. patient chart, dictionaries (medical, Webster)	Operate dictating machine Set up and type output as indicated from transcriber Proofread copy	

DECISIONS	CUES	ERRORS
Determine accuracy	Visual scanning Original source of data	Incomplete or inaccurate information recorded Poor format and/or grammatical errors

(TASK STATEMENT) TRANSCRIBE FROM A DICTATING MACHINE

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Dictated tape	Comprehension, medical terminology, concentration, logic, note taking, noise discrimination
Viewing	Proofed copy	Visual analysis, memory, logic, detail/inference
Writing	Typed copy (or letter)	Typing, spelling, grammar, letter/format

(TASK STATEMENT) OPERATE COPY EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies as applied to individual equipment	Follow operational manual to: set up machine load materials to be copied remove originals and copies shut down machine	If fluid used in copy machine, use care in handling Stain damage
DECISIONS	**CUES**	**ERRORS**
Determine what point to call professional maintenance	Appropriate manual	Break down of equipment

(TASK STATEMENT) OPERATE COPY EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Effect of heating and cooling on state of matter (change of matter from one form to another) Effects of heat and/or light on some copy paper	Locate by approximation rational numbers and integers on the number line (sequential ordering) Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension, detail/inference, description of mechanism, definition, terminology, tistructions
Viewing	Dials, gauges, finished copy	Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts and perceptions), detail and inference, color discrimination, and recognition of symbols, codes, emblems

(TASK STATEMENT) COMPOSE AND TYPE A BUSINESS LETTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supplies Dictionary Others as indicated, i.e. - order books - telephone books - appropriate directory	Set up and type letter as situation indicates Proofread copy Address envelope correctly	

DECISIONS	CUES	ERRORS
Determine proper phraseology Determine proper performance interval	Must be clear, concise, and accurate	

(TASK STATEMENT) COMPOSE AND TYPE A BUSINESS LETTER

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Addition and subtraction of decimal fractions Multiplication and division of decimal fractions

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Compose letter	Spelling, business letters (format/content), terminology/general vocabulary, clarity of expression,and logic
Listening	Instructions from physician	Concentration, logic (ordering of thoughts and ideas), word definition, and note taking
Viewing	Proofed copy	Visual analysis (seeing the parts in relation to the whole), memory (short and long term retention), and detail and inference

(TASK STATEMENT) TYPE A CONSULTATION LETTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supplies Patient chart Dictionaries	Set up and type letter as situation indicated Proofread copy Address envelope correctly	

DECISIONS	CUES	ERRORS
Determine proper format and information Determine accuracy of information	Physician's notes, original source of data	Incomplete or inaccurate information given

(TASK STATEMENT) TYPE A CONSULTATION LETTER

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Addition and subtraction of decimal fractions Multiplication and division of decimal fractions

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Oral communication with physician	Concentration, logic (ordering of thoughts and ideas), word definition, and note taking
Writing	Compose letter	Spelling, business letters (format/content), terminology/general vocabulary, clarity of expression, and logic
Viewing	Proofed copy	Visual analysis (seeing the parts in relation to the whole), memory (short and long term retention), and detail and inference

(TASK STATEMENT) COMPOSE AND TYPE A RECALL LETTER TO PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supply Dictionary Patient chart	Set up and type letter as situation indicates and at proper interval according to physicians' policy Proofread copy Address envelope correctly	
DECISIONS	**CUES**	**ERRORS**
Determine proper phraseology Determine proper interval	Physicians' policy	

(TASK STATEMENT) COMPOSE AND TYPE A RECALL LETTER TO PATIENT

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Addition and subtraction of decimal fractions Multiplication and division of decimal fractions

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Compose letter	Spelling Business letters (format/content) Terminology/general vocabulary Clarity of expression Logic
Viewing	Proofed copy	Visual analysis (seeing the parts in relation to the whole) Memory (short and long term retention) Logic (ordering of thoughts and perceptions) Detail and inference

(TASK STATEMENT) COMPOSE AND TYPE COLLECTION LETTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supplies Dictionary Account card Patient's card	Set up and type letter as situation indicates Proofread copy Address envelope correctly	

DECISIONS	CUES	ERRORS
Determine proper phraseology Determine proper time at which to perform procedure	Format Tact	Inaccuracy can lead to unfavorable patient relations Incorrect address or amount

(TASK STATEMENT) COMPOSE AND TYPE COLLECTION LETTER

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Addition and subtraction of decimal fractions Multiplication and division of decimal fractions

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Compose letter to guarantor	Spelling Business letters (format/content) Clarity of expression Logic
Viewing	Proofed copy	Visual analysis (seeing the parts in relation to the whole) Logic (ordering of thoughts and perceptions) Detail and inference

(TASK STATEMENT) COMPLETE WORKMEN'S COMPENSATION FORMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supply Forms supplied by Workmen's Compensation Patient's chart Patient's financial record	Obtain written authorization from patient Interpret physician's notes from chart List procedures accurate case number, disability, and professional fee Note on patient's record (copy if possible)	
DECISIONS	**CUES**	**ERRORS**
Determine which form is appropriate for circumstances	Format, type of compensation requested	Incomplete or inaccurate information No compensation awarded

(TASK STATEMENT) COMPLETE WORKMEN'S COMPENSATION FORMS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Reduction of fractions Addition and subtraction of proper and improper fractions Multiplication and division of proper and improper fractions Changing mixed numbers to improper fractions Addition and subtraction of decimal fractions Multiplication and division of decimal fractions

60

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Physician's instructions	Comprehension, medical terminology, concentration, logic (ordering of thoughts and ideas), and note taking
Reading	Notes of physician	Comprehension, detail/inference, informational reports, terminology, and instructions
Writing	To commission recording data	Spelling, classification, description, terminology general vocabulary, clarity of expression, and logic.

(TASK STATEMENT) COMPLETE COMMERCIAL HEALTH FORMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supply Forms from particular company involved Patient's chart Patient's financial record	Interpret physician's notes from chart List procedure, accurate case number, and fee Note on patient's record (copy if possible) Obtain written authorization for release of information	
DECISIONS	**CUES**	**ERRORS**
Determine assignment of benefits Determine amount of detail to be included	Physician's preference Unusual length of time taken to complete procedure, i.e. debridement of wounds, burns, etc.	Incomplete or inaccurate information Patient receives lower benefits than would have received if sufficient information given

(TASK STATEMENT) COMPLETE COMMERCIAL HEALTH FORMS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Request for authorization	Spelling, business letters (format/content), clarity of expression, and logic
	Letters to insurance company	Classification, and terminology/general vocabulary, and record data
Reading	Physician's instructions	Comprehension, medical terminology, detail/inference, and definition

(TASK STATEMENT) COMPLETE MEDICARE PART B FORMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supplies Forms supplied by Medicare Patient's chart Patient's financial record	Interpret physician's notes from chart List procedure, accurate case number, and fee Note on patient's record (copy if possible)	

DECISIONS	CUES	ERRORS
Determine assignment of benefits	Physician's preference	

(TASK STATEMENT) COMPLETE MEDICARE PART B FORMS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Request for authorization	Spelling, business letters (format/content), clarity of expression, and logic
	Letters to insurance company	Record data, classification, and terminology/general vocabulary
Reading	Physician's instructions	Comprehension, medical terminology, detail/inference, and definition

64

(TASK STATEMENT) COMPLETE PUBLIC ASSISTANCE BILLING FORMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Typewriter Standard office supply Forms supplied by individual agency Patient's chart Patient's financial record Note: follow guide lines of individual states	Interpret physician's notes from chart List procedure, accurate case number, and fee Note on patient's record (copy is possible)	
DECISIONS	**CUES**	**ERRORS**
Determine assignment of benefits	Physician's preference	

(TASK STATEMENT) COMPLETE PUBLIC ASSISTANCE BILLING FORMS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	To patients and agencies	Spelling, description, business letters (format/content), terminology/general vocabulary, clarity of expression, and logic
Reading	Letters and forms billed by patient's and agencies	Comprehension, detail/inference, informational reports, definition, and terminology
Speaking	By phone or in person with patient's and agencies	Terminology/general vocabulary, enunciation, clarity of expression, and logic

(TASK STATEMENT) INVENTORY OFFICE SUPPLIES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Stock book or cards	Count supplies Record supplies Rearrange supplies in proper order	Proper use of available storage facilities Damage to supplies Trauma to personnel
DECISIONS	**CUES**	**ERRORS**
Determine point at which to reorder	Guidelines on amount of reserve stock	Run short of supplies

(TASK STATEMENT) INVENTORY OFFICE SUPPLIES

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division of whole numbers Sequential ordering

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record inventory	Classification Denotative/connotative words Logic

68

(TASK STATEMENT) ORDER AND RECEIVE OFFICE SUPPLIES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Stock book or cards Record of supplies and costs of supplies Telephone	Place orders appropriately and accurately Inventory and record on inventory sheet or cards Store in proper area	
DECISIONS	**CUES**	**ERRORS**
Determine at what point supplies will be depleted Determine physical needs of articles to be stored	Rate of use Refrigeration necessary for some medications	Run short of supplies Breakdown of drug-must be discarded

(TASK STATEMENT) ORDER AND RECEIVE OFFICE SUPPLIES

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Correspond with supplier Record transactions	Spelling, classification, and description Classifications and memo format Business letters (format/content), terminology/general vocabulary, clarity of expression, and logic.
Speaking	Verbal interaction with employer Telephone order	Terminology/general vocabulary, appropriate diction, clarity of expression, denotative/connotative words, and logic

Duty B Completing Business Office Duties

1 Operate and maintain an adding machine
2 Fill out and process a day sheet
3 Complete a charge slip
4 Complete an account card
5 Prepare statements
6 Prepare information for a commercial billing agency
7 Investigate returned mail
8 Accept payment and post ledger cards
9 Complete a bank deposit slip
10 Handle credit arrangements with patient
11 Contact deliquent patient
12 Extract billing information from doctor's notes
13 Obtain and record patient billing information for hospital visits by physician
14 Establish and control petty cash fund
15 Prepare and maintain employees' payroll records
16 Complete employee related tax forms
17 Disburse professional expenses
18 Reconcile a checkbook with bank statement monthly
19 Complete monthly disbursement sheet and/or ledger
20 Complete summary sheets of earning and income
21 Assemble information for accountant for tax returns

(TASK STATEMENT) OPERATE AND MAINTAIN AN ADDING MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Adding machine Brush for key cleaning Adding machine tape	Be familiar with all moving parts Operate as indicated in instruction manual Clean keys as needed Put in new roll of paper	
DECISIONS	**CUES**	**ERRORS**
Determine when to clean keys	Quality of print out	Light print

(TASK STATEMENT) OPERATE AND MAINTAIN AN ADDING MACHINE

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Reading	Operation manual	Comprehension Detail/inference Informational reports Description of mechanism Definition Terminology Process report–instructions

(TASK STATEMENT) FILL OUT AND PROCESS A DAY SHEET

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Day sheet – as specified by physician Account cards Cash control sheet (if indicated by office policy)	Record procedures performed Record charges and credits for same (office policy may indicate all charges listed by physician) Total all debits and credits daily Balance sheet with cash and checks received Note any non-payment credits Calculate professional discount if any	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of total	Does not balance	Monthly-quarterly and/or yearly will reflect errors and cause problems

(TASK STATEMENT) FILL OUT AND PROCESS A DAY SHEET

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Reduction of fractions Addition and subtraction of proper and improper fractions Multiplication and division of proper and improper fractions Changing mixed numbers to improper fractions Addition and subtraction of decimal fractions Multiplication and division of decimal fractions Rounding off decimals and whole numbers Changing percents to fractions and fractions to percents Finding a percent of a number and what percent one number is of another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Transfer of information regarding charges to patient's ledger cards	Spelling Classification Description Terminology/general vocabulary Clarity of expression Denotative/connotative words Logic

(TASK STATEMENT) COMPLETE A CHARGE SLIP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Charge slips	Record all procedures performed and fee for each	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of recorded information	Original source of data	Incomplete or inaccurate information Incorrect billing

(TASK STATEMENT) COMPLETE A CHARGE SLIP

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subrraction of whole numbers Given a coding system, recognize and identify each unit involved by assigning necessary symbols, numerical or literal

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record medical terminology	Spelling, classification, description, clarity of expression, denotative/connotative words, logic
Reading	Chart	Comprehension, detail/inference, informational reports, progress reports, physical experimentation reports, definition, and terminology

(TASK STATEMENT) COMPLETE AN ACCOUNT CARD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supply Account card Registration form Typewriter	Type heading information from registration form Record professional services, fees, and credits as they occur Double check all fee and credit entries Maintain a running balance due File alphabetically Note: type of account card varies with individual physician	

DECISIONS	CUES	ERRORS
Determine accuracy of recorded information	Registration form	Incorrect billing

(TASK STATEMENT) COMPLETE AN ACCOUNT CARD

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Reduction of fractions Addition and subtraction of proper and improper fractions Multiplication and division of proper and improper fractions Changing mixed numbers to improper fractions Addition and subtraction of decimal fractions Multiplication and division of decimal fractions Rounding off decimals and whole numbers Changing percents to fractions and fractions to percents Finding a percent of a number and what percent one number is of another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Registration form	Comprehension, medical terminology, detail/inference, and definition
Writing	Recording information on cards	Penmanship, spelling, classification, description, terminology/general vocabulary, clarity of expression, denotative/connotative words, and logic

(TASK STATEMENT) PREPARE STATEMENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Typewriter and/or copy machine Patient's financial records Statements Envelopes Stamps Other equipment as utilized be individual office Note: Physicians may utilize window envelopes Physicians may use system which would include making of statement when posting completed	Transmit information from patient's financial record to typed statement Make collection notices as situation indicates Ready for mailing – i.e., fold, seal, stamp, if manual process is used	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of figures	Financial record	Incorrect billing

(TASK STATEMENT) PREPARE STATEMENTS

SCIENCE	MATH -- NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Writing	To patient	Spelling, description, terminology/general vocabulary, business letters (format/content) clarity of expression, and logic
Reading	Account card	Comprehension, medical terminology, detail/ inference, informational reports, and definition

(TASK STATEMENT) PREPARE INFORMATION FOR A COMMERCIAL BILLING AGENCY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Typewriter – optional Charge slips Forms provided by commercial billing agency utilized	Record patient charges and receipts on form provided Note: Must be accurate in recording all information– i.e., patient's name, patient's address, date of service, type of service, and charge for service Deliver to commercial billing agency at specified time interval	

DECISIONS	CUES	ERRORS
Determine accuracy of information	Patient's records	Incorrect billing

(TASK STATEMENT) PREPARE INFORMATION FOR A COMMERCIAL BILLING AGENCY

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Writing	Record patient information and medical terminology Correspondence with agency	Penmanship Spelling Classification Description Business letters (format/content) Clarity of expression Logic

(TASK STATEMENT) INVESTIGATE RETURNED MAIL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Patient's record Telephone	Compare address with patient's record Inquire of patient's employer for new address Inquire of individual who referred patient for new address Inquire of credit bureau for recent record of purchases If simple error in initial writing, re-address and mail immediately	

DECISIONS	CUES	ERRORS
Determine source of error	Records	Returned again

(TASK STATEMENT) INVESTIGATE RETURNED MAIL

SCIENCE	MATH -- NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Writing	Requests for information	Spelling Business letters (format/content) Clarity of expression Logic
Speaking	Telephone for information	Appropriate diction Clarity of expression Logic

(TASK STATEMENT) ACCEPT PAYMENT AND POST LEDGER CARDS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Completed day sheet Patient's financial records Cash receipt book Adding machine Department endorsement stamp (optional)	Write a receipt for all cash payments as taken Stamp checks with deposit endorsement at the time of receipt Add cost and checks and reconcile with day sheet totals Post procedures, debits, and credits to patient's ledger card Total newly entered debits and credits on patient's ledger cards, and reconcile figures with day sheet totals (not balance)	
DECISIONS	**CUES**	**ERRORS**
Determine if check is properly endorsed Determine accuracy of posting	Stamped – "for deposit only" Original source of data	

(TASK STATEMENT) ACCEPT PAYMENT AND POST LEDGER CARDS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record figures	Spelling Classification Usage
Speaking	Patient making payment made in person	Enunciation Clarity of expression Logic Poise

(TASK STATEMENT) COMPLETE A BANK DEPOSIT SLIP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Bank deposit slips Carbon paper Typewriter Adding machine	Recount cost and reconcile with receipt book List, by payee, all checks and amount thereof on slip Add checks listed and enter total on deposit slip Enter total cost in deposit slip; add cash and checks, and then total: enter final total on slip Reconcile total with day sheet Make a complete carbon copy of deposit slip	
DECISIONS	**CUES**	**ERRORS**
Determine if all checks are endorsed (if not properly done at time of receipt)	Stamped or signed	Cannot deposit checks

(TASK STATEMENT) COMPLETE A BANK DEPOSIT SLIP

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Recording information	Penmanship Spelling Classification Logic
Reading	Accounts	Comprehension Detail/inference

(TASK STATEMENT) HANDLE CREDIT ARRANGEMENTS WITH PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Account card Fee schedule (for reference)	Determine services for which patient will be or has been charged Determine schedule of payments agreeable with patient Obtain signed note (if this is office policy) Note: Need for collection procedures can be avoided in most cases if patient is aware of desire of office to facilitate payment through agreeable means	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) HANDLE CREDIT ARRANGEMENTS WITH PATIENT

SCIENCE	MATH – NUMBER SYSTEMS
Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster trust Maintain capacity to foster confidentiality Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Exhibit capacity to acertain best service for the particular needs of patient	Addition and subtraction of whole numbers Multiplication and division with whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record credit information	Penmanship Spelling Classification Logic
Speaking	Patient and physician's negociations of payment	Clarity of expression Logic Poise

(TASK STATEMENT) CONTACT DELINQUENT PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Patient financial record Telephone Typewriter	Talk to delinquent patient's who visit office Call patient's who can be contacted by telephone Patient should be contacted personally when account becomes delinquent Write to patient's who cannot be reached Motivate patient to pay delinquent bill and still preserve self-esteem	

DECISIONS	CUES	ERRORS
Determine method of contact	Availability of patient	Non-payment of bill

(TASK STATEMENT) CONTACT DELINQUENT PATIENT

SCIENCE	MATH – NUMBER SYSTEMS
Understand need for patient to preserve self-esteem Exhibit qualities of tact, poise, consideration, graciousness, and imagination Maintain capacity to foster trust Maintain capacity to foster confidentiality Maintain capacity to foster cooperation Maintain capacity to cope with conflict behavior Exhibit capacity to acertain best service for the particular needs of patient	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Personal and telephone notice of delinquency	Appropriate diction, enunciation, clarity of expression, denotative/connotative words, and logic
Writing	Compose notice of delinquency	Spelling, description, business letters (format/content), clarity of expression, and logic

(TASK STATEMENT) EXTRACT BILLING INFORMATION FROM DOCTOR'S NOTES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Patient's chart Patient's financial record Day sheet or practice ledger	Check for special information regarding billing: i.e. injury may be work related or basis for legal suit; third person may be responsible for bill; physician may indicate no charge; professional discount	

DECISIONS	CUES	ERRORS
Determine amount of billing	Physician's notes	Incorrect billing

(TASK STATEMENT) EXTRACT BILLING INFORMATION FROM DOCTOR'S NOTES

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Patient's notes	Interpret medical terminology, comprehension, detail/inference, definition, terminology, and process report – instructions
Writing	Financial record	Penmanship, spelling, classification, and logic

(TASK STATEMENT) OBTAIN AND RECORD PATIENT BILLING INFORMATION FOR HOSPITAL VISITS BY PHYSICIAN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Hospital patient list Patient's financial record	Check with physician daily regarding hospital services; i.e., hospital visits, consultations, and surgery	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of information	Contact on daily basis	Incorrect billing

(TASK STATEMENT) OBTAIN AND RECORD PATIENT BILLING INFORMATION FOR HOSPITAL VISITS BY PHYSICIAN

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Patient's record	Penmanship, spelling, classification, terminology/general vocabulary, denotative/connotative words, and logic
Speaking	Consult physician	Terminology/general vocabulary, enunciation, clarity of expression, and logic
Listening	Interpret medical terminology	Auditory discrimination, concentration, logic (ordering of thoughts and ideas), and word definition

(TASK STATEMENT) ESTABLISH AND CONTROL PETTY CASH FUND

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Cash from professional account – starting amount varied with individual physician Separate container for cash – preferrably a cash box Cash ledger – type and complexity varies with physician's wishes	Record starting amount Accurately record all debits promptly, and have written receipts for same Maintain a running balance Supplement funds as needed and add to running balance Note: correct control of cash can best be maintained when only one individual is involved	
DECISIONS	**CUES**	**ERRORS**
Determine flow of cash	Original and supplemental funds should be issued as cash checks from professional account to maintain good control	Incomplete or incorrect records

(TASK STATEMENT) ESTABLISH AND CONTROL PETTY CASH FUND

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record information	Penmanship Spelling Classification Logic

(TASK STATEMENT) PREPARE AND MAINTAIN EMPLOYEES' PAYROLL RECORDS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Employees witholding exemption certificate Payroll ledger (pre-printed optional) Applicable tax booklets issued by federal, state, and city agencies (may vary with individual state and/or city)	Have employer complete and sign employees witholding exemption certificate If not pre-printed ledger, make column headings as indicated (i.e., pay period, gross, federal income tax, social security, state, city, insurance, etc., net salary) Heading of each sheet should contain all allowed benefits, i.e., sick leave, vacation, salary, date of amount of any increases, etc. Maintain individual sheets for each employer Make totals monthly, quarterly, and yearly	
DECISIONS	**CUES**	**ERRORS**
Determine correctness of figures and totals	Balance sheets	Incorrect reports and tax form

(TASK STATEMENT) PREPARE AND MAINTAIN EMPLOYEES' PAYROLL RECORDS

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers Finding a percent of a number and what percent one number is of another Read and interpret charts, tables, and/or graphs Measure of time and speed (example: time – seconds, minutes, etc.; speed – feet per minute, R.P.M., etc.)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Physician with employee	Enunciation, clarity of expression, denotative/connotative words, logic, and poise
Writing	With employee, recording information	Penmanship, spelling, classification, clarity of expression, and logic

(TASK STATEMENT) COMPLETE EMPLOYEE RELATED TAX FORMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Payroll records Typewriter Adding machine Applicable tax forms i.e., W–2, quarterly employer's forms, and yearly employer's forms State and city forms vary with geographical location	Complete forms as indicated Accurately follow instructions in sequence to eliminate errors Double check all figures Make carbon copies of all forms and file appropriately Write applicable check Complete and mail before deadlines	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of figures	Payroll records, W–2 forms, computation tape	Incorrect tax forms

(TASK STATEMENT) COMPLETE EMPLOYEE RELATED TAX FORMS

SCIENCE	MATH – NUMBER SYSTEMS
	Read and interpret charts, tables, and/or graphs Addition and subtraction of whole numbers Multiplication and division with whole numbers Finding a percent of a number and what percent one number is of another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	To agency involved Recording information	Spelling Business letters (format/content) Terminology/general vocabulary) Clarity of expression Classification Denotative/connotative words Logic

(TASK STATEMENT) DISBURSE PROFESSIONAL EXPENSES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Invoices approved by physician Ledger of standard office expenses, i.e., rent (if applicable to office), salary of employees Check book Adding machine Typewriter (optional) Check-writer (optional)	Determine amount for check Re-check correctness of invoice Double check figures before issuing check Type date, payee, and amount in proper place Record check number and date on invoice Enter date, payee, amount and reason for writing check on stub Subtract amount from check book balance Ready for mailing – envelope, stamp, etc. File invoice in paid file	
DECISIONS	**CUES**	**ERRORS**
Determine correctness of information	Invoice, office ledger	Over or under payment

(TASK STATEMENT) DISBURSE PROFESSIONAL EXPENSES

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers [if percent discount is offered] Finding a percent of a number and what percent one number is of another [for prompt payment]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Invoices	Comprehension Detail/inference Terminology
Writing	Checks, envelopes	Penmanship Spelling

(TASK STATEMENT) RECONCILE A CHECKBOOK WITH BANK STATEMENT MONTHLY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Writing materials Checkbook stubs Carbon copy of deposit slips Bank statement Cancelled checks Adding machine	Record checkbook balance at start of month Add receipts Subtract checks written and bank charges Sub-total for correct checkbook balance at end of month Total checks outstanding Add to sub-total Total for correct bank balance	

DECISIONS	CUES	ERRORS
Determine accuracy of figures	Possible bank error Checkbook Individual totals will reconcile	Non-reconciled account

(TASK STATEMENT) RECONCILE A CHECKBOOK WITH BANK STATEMENT MONTHLY

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Recording information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) COMPLETE MONTHLY DISBURSEMENT SHEET AND/OR LEDGER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Checkbook Disbursement sheet (may vary in offices) Adding machine Typewriter (optional)	Record all payments made by check or cash for office expenses Record all payments made by check or cash for other than practice: i.e., contribution to charity, interest on a loan Record all disbursements from previous month disbursement sheet Record disbursements to date	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of information	Receipts, checks, disbursement sheet	Incorrect records

(TASK STATEMENT) COMPLETE MONTHLY DISBURSEMENT SHEET AND/OR LEDGER

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) COMPLETE SUMMARY SHEETS OF EARNINGS AND INCOME

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Daily earnings records Monthly summary sheets Adding machine Typewriter (optional)	Record totals of patient's earnings, and income daily Record totals of services other than practice income: i.e., salary for teaching, interest and dividends from investments Record totals from previous month summary sheets Record earnings and income to date	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of information	Records, original source of data	Incorrect records

(TASK STATEMENT) COMPLETE SUMMARY SHEETS OF EARNINGS AND INCOME

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) ASSEMBLE INFORMATION FOR ACCOUNTANT FOR TAX RETURNS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Summary sheets of income Summary sheets of disbursements Other records as requested by accountant	Assemble information Deliver to accountant	
DECISIONS	**CUES**	**ERRORS**
Determine accuracy of information	Dates on information	Incomplete information for tax returns

(TASK STATEMENT) ASSEMBLE INFORMATION FOR ACCOUNTANT FOR TAX RETURNS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Conversing with accountant	Enunciation Clarity of expression Logic Poise

Duty C Preparing and Sterilizing Instruments and Supplies

1 Lift with transfer forceps
2 Sterilize with boiling water
3 Sterilize with chemicals
4 Clean chemical sterilizing equipment
5 Clean autoclave
6 Prepare and autoclave gauze sponges
7 Fold and autoclave towels
8 Wash and wrap surgical gloves
9 Autoclave surgical gloves
10 Prepare and wrap instruments
11 Autoclave instruments
12 Prepare and wrap glass syringes and needles
13 Autoclave syringes and needles

(TASK STATEMENT) LIFT WITH TRANSFER FORCEPS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Transfer forceps Material to be lifted (varies with individual needs) Sterile receptacle for object	Remove excess fluid if transfer forceps in chemical sterilizer Lift object to be moved Place object on sterile surface	Care must be taken to prevent contamination of forceps or object being transferred Proficiency in bilateral use necessary Contamination
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) LIFT WITH TRANSFER FORCEPS

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis	

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

116

(TASK STATEMENT) STERILIZE WITH BOILING WATER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterilizer Water (preferably distilled water) Material to be sterilized: e.g. glassware, enamelware, blunt instruments, stainless steel objects, soft-rubber goods Sterile forceps Timer	Clean material to be sterilized Immerse objects completely for necessary length of time (calculate time after water begins to boil) Remove with sterile forceps	Care of electric cord Electric shock Care in use of boiling water Burn Incomplete exposure: i.e., completely under water, and air pockets Contaminated object Care in cleaning Cross contamination

DECISIONS	CUES	ERRORS
Determine if air is trapped in container Determine when to begin timing	Observation Observation	Incomplete exposure Incomplete sterilization

(TASK STATEMENT) STERILIZE WITH BOILING WATER

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis Effects of wet heat	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Gauges	Visual analysis (seeing the parts in relation to the whole) Logic (ordering of thoughts and perceptions) Detail and inference Recognition of symbols, codes, and emblems

(TASK STATEMENT) STERILIZE WITH CHEMICALS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Container for cold sterilization Chemical sterilizer: e.g., seventy to ninety percent isopropyl alcohol, formaldehyde – alcohol solution, two percent phenalic germicide cleanser, and lysol Steril forceps (for removal) Instruments or material to be sterilized – e.g., sharp instruments, hard-rubber goods, synthetics that are not thermostable, and lensed instruments Anti-rust agent	Clean material to be sterilized Dry material to be sterilized Prepare solution; follow directions for use of solution with utmost accuracy Immerse objects completely for necessary length of time Remove with sterile forceps	Rinse instruments in fresh isopropyl alcohol, or distilled water before being used Chemical germicides often are toxic

DECISIONS	CUES	ERRORS
Determine proper proportions of solution Determine proper amount of time for sterilization process	Directions for use of solution	Unsterile instruments

(TASK STATEMENT) STERILIZE WITH CHEMICALS

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis Chemical action of disinfectants	Measure of time Liquid and dry measures Finding a percent of a number and what percent one number is of another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Directions	Comprehension Detail/inference Definition Terminology Process report – instructions

120

(TASK STATEMENT) CLEAN CHEMICAL STERILIZING EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Chemical sterilizer container Cold water – vinegar or special sterilizer cleaner Alcohol or ether Chemical sterilizer: e.g., seventy to ninety percent isopropyl alcohol, formaldehyde–alcohol solution, two percent phelolic germicide cleanser, and lysol Clean material	Empty chemcial solution Clean with appropriate cleaner Refill with chemical solution	
DECISIONS	**CUES**	**ERRORS**
Determine need for cleaning	Use and directions provided by individual office	Loss of efficiency in equipment

(TASK STATEMENT) CLEAN CHEMICAL STERILIZING EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis Chemical action of disinfectants	Measure of time Liquid and dry measure Finding a percent of a number and what percent one number is of another

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Directions	Comprehension Detail/inference Definition Terminology Process report – instructions
Listening	Instructions	Auditory discrimination, concentration, logic (ordering of thoughts and ideas), word definition, note taking

(TASK STATEMENT) CLEAN AUTOCLAVE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave cleanser (check manufacturers instructions) Mild detergent Distilled water Autoclave Clean material	Drain autoclave Clean with appropriate cleaner Refill with distilled water	
DECISIONS	**CUES**	**ERRORS**
Determine need for cleaning	Use and directions provided by individual office	Loss of efficiency in equipment

(TASK STATEMENT) CLEAN AUTOCLAVE

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis	Liquid and dry measures

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Reading	Directions	Comprehension Detail/inference Definition Terminology Process report – instructions
Listening	Instructions	Auditory discrimination, concentration, logic (ordering of thoughts and ideas), word definition, and note taking

124

(TASK STATEMENT) PREPARE AND AUTOCLAVE GAUZE SPONGES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave Distilled water Appropriate materials for wrapping, e.g., double layer muslin, approved permeable sterilizer paper, and pressure sensitive tape Non-soluble writing instrument Gauze sponges Dressing can Sterilization indicators, e.g., pellets in glass tubes, paper tabs, and strips	Wrap and secure packet Identify contents and date Place dressing can on side with lid open Do not overload sterilizer Operate autoclave Carefully monitor time and temperature Check indicator for desired reaction Remove and store properly in clean area when packets are dry	Care in operating door at completion of procedure Burn from steam Allow packets to dry in sterilizer Wet wrapping will allow contamination Check indicator for desired reaction Incomplete sterilization Careful monitoring of time and temperature Incomplete sterilization
DECISIONS	**CUES**	**ERRORS**
Determine procedure to be used	Needs of individual office (may wrap gauze and instruments in certain instances)	Unsterile material

(TASK STATEMENT) PREPARE AND AUTOCLAVE GAUZE SPONGES

SCIENCE	MATH – NUMBER SYSTEMS
Steam under pressure Asepsis Effects of moist heat on specifically prepared dyes	Measure time Measure temperature Given an instrument of measure, determine precision, and/or accuracy with respect ot relative error tolerance and significant digits (measuring in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Identify contents	Penmanship Spelling Classification Terminology/general vocabulary
Viewing	Gauges	Visual analysis (seeing the parts in relation to the whole) Logic (ordering of thoughts and perceptions) Detail and inference Recognition of symbols, codes, and emblems Sterilization indicators

126

(TASK STATEMENT) FOLD AND AUTOCLAVE TOWELS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave Distilled water Appropriate materials for wrapping, e.g., double layer muslin, approved permeable sterilizer paper, and pressure sensitive tape Non-soluble writing instrument Towels Sterilization indicators, e.g., pellets in glass tube, paper tabs, and strips	Fold towels and secure packet Identify contents and date Do not overload sterilizer Operate autoclave Carefully monitor time and temperature Check indicator for desired reaction Remove and store properly in clean area when packets are dry	Care in opening door at completion of procedure Burn from steam Allow packets to dry in sterilizer Wet wrapping will allow contamination Careful monitoring of time and temperature Incomplete sterilization Check indicator for desired reaction Incomplete sterilization
DECISIONS	**CUES**	**ERRORS**
Determine procedure to be used	Needs of office (may wrap instruments and towels together in certain instances)	Unsterile material Inefficiency when improperly completed

(TASK STATEMENT) FOLD AND AUTOCLAVE TOWELS

SCIENCE	MATH – NUMBER SYSTEMS
Steam under pressure Asepsis Effects of moist heat on specifically prepared dyes	Measure of time Measure of temperature Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Identify contents	Penmanship, spelling, classification, and terminology/general vocabulary
Viewing	Gauges	Visual analysis (seeing the parts in relation to the whole), logic (ordering of thoughts and perceptions), detail and inference, and recognition of symbols, codes, and emblems and sterilization indicators.

(TASK STATEMENT) WASH AND WRAP SURGICAL GLOVES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Water (cold and warm) Gloves (clean and contaminated) Detergent (low-sudsing alkaline) Large basins or double sink Drying equipment, e.g. towels, line for air drying Gauze Nonirritating starch preparation Appropriate wrapping material, e.g. muslin glove envelopes, muslin wrap (double layer), disposable approved permeable sterilizer paper, autoclave tape (pressure–sensitive tape), non-soluble writing instrument Sterilization indicators, e.g. pellets in glass tube, paper tabs, and strips	Prepare detergent Wash and rinse gloves Turn gloves in cleaning and again in rinsing for proper washing Inspect for any tears or holes in gloves Dry and powder gloves Wrap gloves Place gauze in palm to allow free circulation of steam Date packages properly Identify contents and date	Wear gloves while performing task Contamination of operator

DECISIONS	CUES	ERRORS
Determine if any tears or holes present	Escape of air when checking	Glove tears when donning-contamination by wearer

(TASK STATEMENT) WASH AND WRAP SURGICAL GLOVES

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis	Liquid and dry measures

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Identify contents	Penmanship Spelling Classification Terminology/general vocabulary

(TASK STATEMENT) AUTOCLAVE SURGICAL GLOVES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave Wrapped and properly labeled gloves Distilled water	Inspect reservoir before each use Load properly wrapped and labeled gloves loosely in vertical position Place wrapped gloves on edge for free circulation of steam Do not overload sterilizer Operate autoclave Monitor time and temperature Remove and store properly in clean area when packages are dry Check indicator for desired reaction	Care in opening door following use Burn from steam Allow packages to dry in autoclave Wet wrapping will allow contamination Check indicator for desired reaction Incomplete sterilization

DECISIONS	CUES	ERRORS
Determine proper time and temperature	Autoclave gauges	Contaminated or damaged gloves

(TASK STATEMENT) AUTOCLAVE SURGICAL GLOVES

SCIENCE	MATH – NUMBER SYSTEMS
Steam under pressure Asepses Effects of moist heat on specifically prepared dyes	Measure of time Measure of temperature Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Gauges and labels	Comprehension Detail/inference Definition Terminology
Writing	Labels on packages	Penmanship Spelling Classification Terminology/general vocabulary

132

(TASK STATEMENT) PREPARE AND WRAP INSTRUMENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Water (cold and warm) Instruments (will vary to suit needs of office) Blood solvent or low-sudsing detergent Clean gloves Large basins or double sink Brush Appropriate wrapping material, eg. double layer muslin, approved permeable sterilizer paper, individual instrument self-sealing bags, pressure-sensitive tape, non-soluble writing instrument Sterilization indicators, eg. pellets in glass tube,paper tabs, and strips	Prepare detergent Open all hinged instruments Wash and rinse all instruments, brushing thoroughly all serrated jaws, and hinged areas Wrap instruments firm enough to handle, but loose enough to permit circulation of steam Identify contents and date	Wear gloves while performing task Contamination to assistant Carefully handle sharp instruments to prevent dulling of edges Dulling of instruments and/or injury to assistant
DECISIONS	**CUES**	**ERRORS**
Determine which types of instruments to wrap together	Needs of office, and procedure involved	Lack of efficiency

(TASK STATEMENT) PREPARE AND WRAP INSTRUMENTS

SCIENCE	MATH – NUMBER SYSTEMS
	Liquid and dry measures

134

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Identify contents	Penmanship Spelling Classification Terminology/general vocabulary

(TASK STATEMENT) AUTOCLAVE INSTRUMENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave Wrapped and properly labeled instruments Distilled water	Replenish water in autoclave as needed Load properly wrapped and labeled instruments in vertical position Place packets on edge for free circulation of steam Do not overload sterilizer Operate autoclave Monitor time and temperature Inspect indicator for desired reaction	Care in opening door at completion of procedure Burn from steam Allow packets to dry in autoclave Wet wrapping will allow contamination Check indicator for desired reaction Incomplete sterilization
DECISIONS	**CUES**	**ERRORS**
Determine proper time and temperature	Autoclave gauges	Incomplete sterilization

(TASK STATEMENT) AUTOCLAVE INSTRUMENTS

SCIENCE	MATH – NUMBER SYSTEMS
Steam under pressure Asepsis Effects of moist heat on specifically prepared dyes	Measurement of time Measurement of temperature Given an instrument of measure, determine precision, as accuracy, relative error, and significant digits (measuring other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Package labels	Comprehension Detail/inference Definition Terminology
Viewing	Gauges, sterilization indicators	Visual analysis (seeing the parts in relation to the whole) Memory (short and long term retention) Logic (ordering of thoughts and perceptions) Recognition of symbols, codes, and emblems

(TASK STATEMENT) PREPARE AND WRAP GLASS SYRINGES AND NEEDLES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Water (cold and warm) Syringes and needles Blood solvent or low-sudsing non-itching detergent Ether-alcohol or benzene as indicated Large basins or double sink Brush Cotton applicators Stylet Oil stone as indicated Distilled water or demineralized water if needed Syringe opener as indicated Appropriate wrapping material, eg. double layer muslin, approved permeable sterilizer paper, individual syringe bags, glass tubes or disposable paper forms, pressure sensitive tape, sterilizer indicator, and cotton balls or gauze Non-soluble writing instrument Sterilization indicators	Prepare detergent Wash and rinse syringes and needles, thoroughly cleaning needles; be sure moisture in cam - mula when autoclaved Match barrel and plunger Enclose syringes and needles in appropriate wrap or container firmly enough to handle but loose enough for steam to circulate Identify contents and date package	Care in handling needles Trauma or possible infection to assistant Extreme care in cleaning needles Hepatitis Attention to needle imperfections Discomfort and/or trauma to patient

DECISIONS	CUES	ERRORS
Determine needles and syringes to be wrapped together	Size and needs of office	Loss of efficiency

(TASK STATEMENT) PREPARE AND WRAP GLASS SYRINGES AND NEEDLES

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage	Measures of length Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Identify contents	Penmanship Spelling Classification Terminology/general vocabulary

(TASK STATEMENT) AUTOCLAVE SYRINGES AND NEEDLES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Autoclave Wrapped and properly labeled packets or containers of syringes and needles Distilled water	Load properly wrapped and labeled syringes and needles in horizontal position Place syringes and needles in horizontal position for free circulation of steam; note: moisture must be in cammula of needle to sterilize Do not overload sterilizer Operate autoclave Carefully monitor time and temperature Remove and store properly in clean area when packets dry	Care in opening door at completion of procedure Burn from steam Dry needles placed in sterilizer Non-sterile needles Allow packets to dry in sterilizer Wet wrapping will allow contamination Careful monitoring of time and temperature Incomplete sterilization Care in loading sterilizer
DECISIONS	**CUES**	**ERRORS**
Determine proper time and temperature Determine amount of load	Autoclave gauges Instructions	Contaminated instruments Too full-incomplete sterilization

(TASK STATEMENT) AUTOCLAVE SYRINGES AND NEEDLES

SCIENCE	MATH – NUMBER SYSTEMS
Steam under pressure Asepsis Effects of moist heat on specifically prepared dyes	Measurement of time Measurement of temperature Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square or cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Package labels	Comprehension Detail/inference Definition Terminology
Viewing	Gauges, sterilization indicators	Visual analysis (seeing the parts in relation to the whole) Memory (short and long term retention) Logic (ordering of thoughts and perceptions) Recognition of symbols, codes, and emblems

Duty D Assisting with Clinical Procedures

1 Determine and chart height
2 Determine and chart weight
3 Take and chart a temperature
4 Take and chart a pulse
5 Count and chart respiration
6 Take and chart blood pressure
7 Determine color vision with Ishihara charts
8 Measure patient's vision with Snellen chart and record
9 Apply a circular bandage
10 Apply a finger splint
11 Apply a figure-of-eight bandage
12 Apply a recurrent-turn bandage
13 Apply a spiral turn or reverse flip bandage
14 Apply elastic bandage
15 Apply an arm splint
16 Apply an arm sling
17 Apply butterfly bandage
18 Apply tubular bandage
19 Apply sterile adhesive dressing
20 Apply a sterile dressing
21 Remove a contaminated dressing
22 Apply a pressure bandage to a burn
23 Position and drape patient for Trendelenburg
24 Position and drape patient for Knee Chest
25 Position and drape patient for Semi-Fowlers
26 Position and drape for Sims and Lateral
27 Position and drape for Lithotomy position

28 Prepare a general physical examination
29 Prepare a rectal tray
30 Assist with rectal examination
31 Set up an ear, nose, and throat tray
32 Prepare gynecological tray with Pap smear set-up
33 Assist with pelvic examination and Pap test
34 Assist patient from wheelchair to examining table
35 Restrain an infant or child
36 Assist with eye instillation
37 Assist with eye irrigation
38 Assist with ear instillation
39 Assist with ear irrigation
40 Assist a fainting patient
41 Treat patient for shock
42 Administer first aid for diabetic coma
43 Administer first aid for insulin shock
44 Administer first aid for poisoning by mouth
45 Administer first aid for seizures
46 Administer first aid for burn patients (heat and electrical)
47 Administer first aid for chemical burn patients
48 Administer first aid for stroke victims
49 Administer first aid for animal bites
50 Control bleeding with direct pressure
51 Control bleeding by pressure to supplying vessel
52 Apply tourniquet for hemorrhage
53 Assist physician with suspected coronary or myocardial infarction victim
54 Give mouth to mouth resuscitation
55 Give back pressure-arm lift resuscitation
56 Apply external cardiac scrub
57 Complete a surgical scrub
58 Don sterile gloves
59 Assist in putting on sterile gloves
60 Prepare skin for surgery

61 Set up for general surgery
62 Assist with minor surgery
63 Assist in obtaining biopsy
64 Assist with suture removal
65 Assist with electrosurgery
66 Assist physician in performing scratch test
67 Assist physician in performing patch test
68 Administer oral medication
69 Withdraw solutions for injection
70 Prepare needle-cartridge unit injection
71 Administer subcutaneous injection
72 Administer intradermal injection
73 Administer intramuscular injection
74 Assist with cast application
75 Assist with removal of cast
76 Instruct patient on use and care of crutches
77 Explain special diet to patient
78 Instruct patients regarding proper preparation for diagnotic tests
79 Assist in use of oscillometer
80 Perform hearing acuity tests
81 Assist with diathermy treatment
82 Assist with heat lamp treatment (infrared)
83 Assist with ultra sound treatment
84 Administer oxygen to patient
85 Administer Intermittent Positive Pressure Inhalation Therapy
86 Utilize publications providing list of approved drugs
87 Interpret prescriptions
88 Chart prescriptions
89 Prepare and replenish supplies in physician's bag
90 Organize and maintain examination rooms
91 Receive and organize medication samples
92 Inventory medication and medical supplies

(TASK STATEMENT) DETERMINE AND CHART HEIGHT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Scale with measuring rod	Measure height Calculate and chart	Assist patient on and off of scale Risk of patient falling – resultant trauma Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine correct height	Measuring rod touches top of head	Record incorrect information

(TASK STATEMENT) DETERMINE AND CHART HEIGHT

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of pituitary, adrenal, parathyroid and thyroid glands Pathology of pituitary, adrenal, parathyroid, and thyroid glands	Measures of length Division – conversion of inches to feet Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Record on chart	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) DETERMINE AND CHART WEIGHT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Physician's scale	Check balance accuracy of scale Weigh patient Chart	Assist patient on and off scale Risk of patient's falling Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine correct weight	Balanced correctly	Record incorrect information

(TASK STATEMENT) DETERMINE AND CHART WEIGHT

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of pituitary and thyroid glands Pathology of pituitary and thyroid glands Balance of weights	Measures of weight Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

147

(TASK STATEMENT) TAKE AND CHART A TEMPERATURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Thermometer Cotton balls or sponges Alcohol Soap and water Watch with second hand Lubricant, if rectal	Position patient Shake thermometer down Complete procedure Chart	Caution patient against biting thermometer Laceration – poisoning from mercury Maintain grasp of thermometer when taking a rectal temperature Trauma to rectal mucous membrane Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine type of thermometer Determine method of procedure	Condition, age of patient	Discomfort to patient, incorrect readings

(TASK STATEMENT) TAKE AND CHART A TEMPERATURE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of nervous system – hypothalamus Related pathology Transfer of heat from one body to another: e.g., thermal expansion of mercury due to heat Effects of friction on work processes and product quality [lubricate rectal thermometer to reduce friction]	Measure of time Measure of temperature Conversion of Farenheit to Centigrade – vice versa Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

149

(TASK STATEMENT) TAKE AND CHART A PULSE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Watch with a second hand	Locate appropriate artery Ample proper digital pressure on artery Note rhythm and force of pulse Count and note time Calculate and chart findings	Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine necessity of rechecking rate on alternate artery Determine necessity of immediate notification to physician of variation from normal	Amount of variation Tachycardia or severe bradycardia and/or irregularities	Incorrect readings Patient complications

(TASK STATEMENT) TAKE AND CHART A PULSE

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of vascular system Pathology of vascular system Anatomy and physiology of autonomic nervous system Liquid under pressure – blood acts as a hydraulic system with heart as pump	Locate by approximation rational numbers and integers on the number line (sequential ordering) Multiplication of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic
Viewing	Watch	Visual analysis (seeing the parts in relation to the whole) Logic (ordering of thoughts and perceptions) Recognition of symbols, codes, and emblems

(TASK STATEMENT) COUNT AND CHART RESPIRATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Watch with second hand	Count respiration at time pulse is taken (do not routinely take immediately after exercise or while patient is excited) Continue steady pressure on wrist while completing procedure to reduce patient awareness of same Note quality of respiration Calculate and chart findings	Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine necessity of immediate notification to physician of variation of normal	Amount of variation	

(TASK STATEMENT) COUNT AND CHART RESPIRATION

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of muscular system – effects of exercise Autonomic nervous system – hypothalamus, effects of excitement, pain, drugs, etc. , trauma to brain Pathology of respiratory system, particularly the lungs, and bronchi Reaction to environmental temperature	Multiplication of whole numbers Given an instrument of measure, determine precision, and/or accuracy, with respect to relative error, tolerance, and sugnificant digits (measuring in other than linear, square, and cubic) Locate by approximation rational numbers and integers on the number line (sequential ordering)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILL CONCEPTS
Note: Lack of verbal communication during procedure is critical Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) TAKE AND CHART BLOOD PRESSURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sphygmomanometer Stethoscope Cotton swab and alcohol	Position patient Lubricate brachial artery Complete procedure Conduct preliminary interpretation of the data and proceed with bilateral readings if indicated Chart reading	Proper deflation of cuff Impaired circulation and patient discomfort Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
Determine degree of patient anxiety Determine necessity of immediate notification to physician of variations from normal Determine proper rate of descent of Hg. column	Voice, movements, outward appearance, amount of variation Patient is comfortable, but pulse beat is two to four mm/Hg.	Elevated findings due to stress Inaccurate reading

(TASK STATEMENT) TAKE AND CHART BLOOD PRESSURE

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of vessels and heart, i.e., force of the heartbeat, resistance on arterial system, elasticity of arteries, and volume of the blood Aneroid sphygmomanometer – mechanical principle Mercury-gravity sphygmomanometer – hydraulic principle Liquid under pressure	Express numbers as common fractions Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic)

155

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) DETERMINE COLOR VISION WITH ISHIHARA CHARTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ishihara book of charts	Explain procedure Have patient read color plates Interpret chart with patient findings	Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
		Inaccurate reading from chart

(TASK STATEMENT) DETERMINE COLOR VISION WITH ISHIHARA CHARTS

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of eye as relates to color vision Color theory of radiation Differences in absorption and radiation of energy between dark, rough, surfaces and light, smooth, polished surfaces [absorption of light energy as it relates to sight in humans]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart results	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) MEASURE PATIENT'S VISION WITH SNELLEN CHART AND RECORD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Snellen chart Vision occludor	Stand patient twenty feet from chart Determine vision in each eye separately Check vision with and without corrective lenses Determine vision in both eyes	Accuracy and reliability of results critical
DECISIONS	**CUES**	**ERRORS**
		Inaccurate reading

(TASK STATEMENT) MEASURE PATIENT'S VISION WITH SNELLEN CHART AND RECORD

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of eye as relates to vision Pathology of eye Optical lens theory	Express a number as a common fraction

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A CIRCULAR BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Gauze Tape Scissors	Apply sterile dressing with aseptic technique Apply gauze Secure	Proper tension Impaired circulation Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine bandage type needed	Body plane, uniform width	

(TASK STATEMENT) APPLY A CIRCULAR BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [scissors a tool] Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart procedure	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A FINGER SPLINT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Splint material Gauze and/or tape Scissors	Select proper splint type Tailor splint Apply splint Secure	Metal splint, pad proximal end Lacerations Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine proper tension to permit good circulation but immobilize part	Color of skin, possible swelling	Impaired circulation

(TASK STATEMENT) APPLY A FINGER SPLINT

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of skeletal and muscular system of hand Pathology of skeletal system of hand Physiology of circulatory system to hand Simple machines used to gain mechanical advantage [scissors as an instrument]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instruction to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart procedure	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A FIGURE-OF-EIGHT BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Gauze or elastic bandage Tape	Apply bandage material by basically applying two spiral loops of bandage, one up and one down, crossing each other Secure	Proper tension Impaired circulation
DECISIONS	**CUES**	**ERRORS**
Determine need for figure-of-eight type bandage	Body plane-angular, usually, i.e. joints	

(TASK STATEMENT) APPLY A FIGURE-OF-EIGHT BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of skeletal and muscular system of extremities Pathology of extremities Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart procedures	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A RECURRENT TURN BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Gauze Tape Scissors	Apply sterile dressing Apply gauze by winding back and forth over a part Hold in position with circular turns of bandage Secure	Proper tension Impaired circulation Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine need for recurrent type bandage	Body plane, i.e. scalp, finger, stump of limb	

(TASK STATEMENT) APPLY A RECURRENT TURN BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [scissors as a simple instrument] Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise
Writing	Chart procedure	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A SPIRAL TURN OR REVERSE FLIP BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Gauze Tape Scissors	Apply sterile dressing Apply gauze Secure	Proper tension Impaired circulation Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine need for spiral turn bandage Determine if open spiral turns or closed spiral turns is needed Determine if reverse flip technique is applicable	Body plane, i.e. a part of the body that varies in width If objective is only to hold a dressing in place temporarily, open spiral is used Tapering of limb	

(TASK STATEMENT) APPLY A SPIRAL TURN OR REVERSE FLIP BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [scissors are a simple machine] Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, and poise
Writing	Chart procedures	Penmanship, spelling, classification, logic, and terminology/general format

169

(TASK STATEMENT) APPLY AN ELASTIC BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Elastic bandage	Position patient Apply bandage smoothly as wrinkles can be uncomfortable for the patient	Use proper tension Impaired circulation
DECISIONS	**CUES**	**ERRORS**
Determine width of bandage Determine bandaging technique to be utilized	Body part to be bandaged Body plane	Discomfort to patient, impaired circulation

(TASK STATEMENT) APPLY AN ELASTIC BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of circulatory system Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, logic (ordering of thoughts and ideas), word definition, and note taking
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic
Reading	Instructions from physician	Comprehension, detail/inference, definition, terminology, and process report (instructions)

(TASK STATEMENT) APPLY AN ARM SPLINT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Splint material Gauze, elastic bandage, or Velcro strips according to splint type being utilized Sling material, as needed	Mold splint, if applicable Apply splint Secure Position limb for sling, if ordered Apply sling	Proper tension Impaired circulat on
DECISIONS	**CUES**	**ERRORS**

172

(TASK STATEMENT) APPLY AN ARM SPLINT

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of skeletal and muscular system of arm Pathology of arms	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart procedure	Penmanship Spelling Classification Logic Terminology/general vocabulary

(TASK STATEMENT) APPLY AN ARM SLING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Triangular bandage Safety pins	Position arm Apply triangular bandage Secure Position knot away from spinal column	Safety in use of sharp pin Puncture wound

DECISIONS	CUES	ERRORS
Determine angle of arm Determine position of knot	Hand higher than elbow, usually	Edema, discomfort

(TASK STATEMENT) APPLY AN ARM SLING

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of skeletal and muscular system of arms Related pathology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart procedure	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY BUTTERFLY BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Butterfly bandages Medication if indicated	Apply clean bandage to dry surface Apply number of bandages needed to secure skin for best results in healing process	Do not contaminate bandage Wound infection
DECISIONS	**CUES**	**ERRORS**
Determine need for bandage Determine proper application	Wound area separates and skin needs to be brought together and/or in area where a lot of stress is present	Separation of skin at wound site with resultant slower healing and scar formation

(TASK STATEMENT) APPLY BUTTERFLY BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart procedure	Penmanship, spelling, classification, terminology/general vocabulary, logic

(TASK STATEMENT) APPLY TUBULAR BANDAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Seamless tubular rolls of gauze Wire applicator Tape	Select proper size for area to be bandaged: i.e. finger, arm, head, leg, hand Follow exact instructions supplied by manufacturer Secure	Bandages can be autoclaved if need dictates sterile technique necessary Infection
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) APPLY TUBULAR BANDAGE

SCIENCE	MATH – NUMBER SYSTEMS
Relationship of force to distortion in an elastic body [force can reduce opening of vessels]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Instructions from manufacturer	Comprehension, detail/inference, definition, terminology, and process report– instructions
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology general vocabulary, and logic

(TASK STATEMENT) APPLY STERILE ADHESIVE DRESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile adhesive dressing Medication if indicated	Apply sterile adhesive dressing to clear, dry surface	Do not contaminate Sepsis No tape allergy - skin irritation
DECISIONS	**CUES**	**ERRORS**

180

(TASK STATEMENT) APPLY STERILE ADHESIVE DRESSING

SCIENCE	MATH – NUMBER SYSTEMS
Relationship of force to distortion in an elastic body [force can reduce opening of vessel]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Chart procedures	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) APPLY A STERILE DRESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Dressing materials (sterile) Pickup forceps Dressing forceps Adhesive tape Sterile scissors Bandage scissors Medications – as ordered Sterile applicators Surgical gloves Tray Sterile towel Basin or appropriate receptacle, if dressing is being changed	Prepare patient, i.e. position, remove old dressings; if applicable, prepare site Have physician examine the wound before dressing is applied Apply sterile dressing as ordered by physician Apply an appropriate bandage	Cross-contamination can occur unless asepsis is maintained at all times Sepsis Use proper tension when applying bandage Impaired circulation Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine appropriate bandage	Size, shape, location of wound, directions of physician	Improper healing

(TASK STATEMENT) APPLY A STERILE DRESSING

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology – asepsis Related pathology Relationship of force to distortion in an elastic body [force can reduce opening of vessel]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology, general vocabulary, and logic

(TASK STATEMENT) REMOVE A CONTAMINATED DRESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Benzin or other special removers Small basin Cotton swabs Forceps Gloves Paper bag or airtight cardboard container	Assemble needed instruments and materials Don gloves Remove tape as quickly as possible Pull skin away from tape - not tape away from skin Remove tape toward wound Place contaminated dressing in proper receptacle	Aseptic technique Cross-contamination – sepsis
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) REMOVE A CONTAMINATED DRESSING

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Aseptic technique Simple machines used to gain mechanical advantage [use of simple instruments]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) APPLY A PRESSURE BANDAGE TO A BURN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile dressing material, e.g. plain gauze, impregnated gauze, Telfa dressing as ordered by physician, gauze wadding material, dressing forceps, pickup forceps, sterile scissors, medications – as directed, sterile applicators and/or tongue blades, surgical gloves, elastic bandage – appropriate width Basin or appropriate receptacle if dressing is being changed	Prepare patient, i.e. position, remove old dressings and prepare site Have physician examine the wound before dressing applied Apply sterile dressing as ordered by physician Apply gauze wadding material Apply elastic bandage	Cross-contamination can occur unless asepsis is maintained at all times Sepsis Use proper tension when applying bandage Impaired circulation Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine proper tension		

(TASK STATEMENT) APPLY A PRESSURE BANDAGE TO A BURN

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology – asepsis Types of burns Degrees of burns Therapeutic problems involved with burns Relationship of force to distortion in an elastic body Aseptic technique Use of simple instruments	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and Logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology general vocabulary, and logic

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR TRENDELENBURG

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Universal examining table (Ritter) Appropriate table cover Drape	Instruct patient regarding preparation Position and drape	Protect against falls from table Potential trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR TRENDELENBURG

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Speaking	Instructions to patient Indicate patient readiness to physician	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR KNEE CHEST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Examining table with appropriate cover Drape	Instruct patient regarding preparation Position and drape	Protect against falls from table (patient can experience vertigo in this position) Potential trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR KNEE CHEST

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient Indicate patient readiness to physician	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR SEMI–FOWLERS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Examining table with appropriate cover Drape Pillow Disposable towel	Instruct patient regarding preparation Position and drape	Protect against falls from table Potential trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR SEMI-FOWLERS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient Indicate patient readiness to physician	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR SIMS AND LATERAL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Examining table with appropriate cover Drape Pillow Disposable towel	Instruct patient regarding preparation Position and drape	Protect against falls from table Potential trauma
DECISIONS	**CUES**	**ERRORS**
Speaking	Instructions to patient Indicate patient readiness to physician	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) POSITION AND DRAPE PATIENT FOR SIMS AND LATERAL

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient Indicate patient readiness to physician	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) POSITION AND DRAPE FOR LITHOTOMY POSITION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Examination table with stirrups and appropriate cover Drape Pillow Disposable towel	Instruct patient regarding preparation Position and drape	Protect against falls from table Potential trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) POSITION AND DRAPE FOR LITHOTOMY POSITION

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Indicate patient readiness to physician Verbal interaction with patient	Enunciation Clarity of expression Logic Gestures Poise

(TASK STATEMENT) PREPARE A GENERAL PHYSICAL EXAMINATION TRAY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Hand towel Tongue depressors Percussion hammer – neurological Nasal speculum Ear speculum Opthalmoscope Otoscope Sphygmomanometer Stethoscope Tape measure Alcohol Cotton Receptacle for contaminated supplies Tuning fork Tray with towel Supplies and equipment will vary with individual physicians	Identify items used Assemble	Cleanliness of instruments and/or sterilization critical Cross infections
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PREPARE A GENERAL PHYSICAL EXAMINATION TRAY

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

(TASK STATEMENT) PREPARE RECTAL TRAY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Rubber rectal glove (not sterile) Lubricant Proctoscope or Sigmoidoscope as ordered by physician Cotton balls Cotton tipped applicators – appropriate length Tray Towel Disposable enema as ordered by physician Special equipment and supplies as ordered by physician	Determine items needed Assemble	Aseptic technique Contamination
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PREPARE RECTAL TRAY

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

201

(TASK STATEMENT) ASSIST WITH RECTAL EXAMINATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Rectal tray – Rubber rectal glove (not sterile) Lubricant Proctoscope or Sigmoidoscope as ordered by physician Cotton balls Cotton tipped applicators – appropriate length Tray Towel Disposable enema as ordered by physician Drape Table Examining light Stool Other equipment and supplies as ordered by physician	Instruct, prepare, and position patient Ascertain if patient has used preparatory enemas Assist physician Assist patient in sitting up	Observe patient closely so he does not fall off table Potential trauma Use special precautions when getting patient up after examination Dizziness and/or fainting and subsequent trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH RECTAL EXAMINATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of lower gastro-intestinal tract Pathology of lower gastro-intestinal tract	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Verbal instructions from physician	Auditory discrimination, concentration, and logic
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Touching	Tactile communication with patient	Comfort, and movement

(TASK STATEMENT) SET UP AN EAR, NOSE, AND THROAT TRAY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Specula – nasal and ear Otoscope Ophthalmoscope Forceps as indicated Cotton-tipped applicators Slides and culture tubes if indicated Gooseneck lamp with reflector Head mirror Basin for waste Syringe with cannula Medications Laryngeal mirror Alcohol lamp or hot water if laryngeal mirror used Tray Towel Other equipment and supplies as ordered by physician	Determine materials needed Assemble material and instruments	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) SET UP AN EAR, NOSE, AND THROAT TRAY

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

205/206

(TASK STATEMENT) PREPARE GYNECOLOGICAL TRAY WITH PAP SMEAR SET–UP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Vaginal speculum Uterine forceps Sterile gloves and/or disposable gloves Lubricant Clean slides Cotton swabs Cotton Cervical spatula Aspirator with bulb Saline with dropper Fixative for Pap smear Tray with towel Other special equipment as ordered Pencil Laboratory Pap report form	Determine materials needed Assemble	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PREPARE GYNECOLOGICAL TRAY WITH PAP SMEAR SET–UP

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

(TASK STATEMENT) ASSIST WITH PELVIC EXAMINATION AND PAP TEST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pelvic examination tray with Pap smear set-up Examining table with stirrups Stool Examining lamp Drape	Set-up examining room Instruct and position patient Assist physician Assist patient in sitting up Clean-up and prepare slide(s) for laboratory Write patient's name on Pap slide immediately, for positive identification	Protect patient from falling off table Potential trauma
DECISIONS	**CUES**	**ERRORS**
Determine if patient emptied bladder Determine possible medical legal implications	Patient's information Office policies	Inability to palpate uterus Legal suit

(TASK STATEMENT) ASSIST WITH PELVIC EXAMINATION AND PAP TEST

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of female reproductive system	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Touching	Tactile communication with patient	Comfort, and movement
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	History form for laboratory	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) ASSIST PATIENT FROM WHEELCHAIR TO EXAMINING TABLE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wheelchair Patient	Secure wheelchair Assist patient	Proper body mechanics for lifting Potential back injury or hernia Protect patient from falling or twisting Trauma to patient
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST PATIENT FROM WHEELCHAIR TO EXAMINING TABLE

SCIENCE	MATH – NUMBER SYSTEMS
Body mechanics Motion resulting from two or more forces acting on a point in a body [understanding of balance and motion is important]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Poise
Listening	Receives verbal information from patient	Auditory discrimination – recognize opinions Concentration Logic (ordering of thoughts and ideas)

212

(TASK STATEMENT) RESTRAIN AN INFANT OR CHILD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Restraining material (sheet)	Immobilize body parts except for affected part by wrapping with sheet or other restraining material Hold and reassure child	Do not use undue force Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) RESTRAIN AN INFANT OR CHILD

SCIENCE	MATH – NUMBER SYSTEMS
Basic child psychology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal diversion of patient, if possible	Implying Denotative/connotative words Logic Gestures Facial and body features Poise Usage Persuasion

(TASK STATEMENT) ASSIST WITH EYE INSTILLATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Medication as prescribed If liquid, eye dropper Gauze sponge Sterile eye pad, if indicated Tape, if indicated	Position patient (supine or sitting up) Assist physician or proceed as directed Terminate procedure early if suspected reaction occurs when physician is not in room Immediate irrigation	Use aseptic technique Sepsis Avoid contact with eye surface Trauma
DECISIONS	**CUES**	**ERRORS**
Determine when to summon physician	Reaction symptoms	Damage to eye Discomfort to patient

(TASK STATEMENT) ASSIST WITH EYE INSTILLATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of anterior portion of eye Pathology of eye Related pharmacology Fluids under pressure [fluid discharged rapidly can damage eye]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology, general vocabulary, and logic

216

(TASK STATEMENT) ASSIST WITH EYE IRRIGATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Solution, as ordered Eye dropper and/or eye cup Emesis basin Gauze sponge	Position patient in supine usually Assist physician or proceed as directed	Use aseptic technique Sepsis Avoid contact with eye surface Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH EYE IRRIGATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of eye Pathology of eye Related terminology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) ASSIST WITH EAR INSTILLATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Medication as prescribed If liquid, dropper If ointment, cotton swab Cotton	Position patient with head to side Assist physician	
DECISIONS	**CUES**	**ERRORS**

219

(TASK STATEMENT) ASSIST WITH EAR INSTILLATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of ear Pathology of ear Related pharmacology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) ASSIST WITH EAR IRRIGATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ear syringe Ear or emesis basin Towels Plastic drape for patient Container with lukewarm water Cotton swabs Otoscope	Position in sitting position and drape patient Assist physician	Protect against vertigo Dizziness and/or falling with possible resultant trauma
DECISIONS	**CUES**	**ERRORS**
Determine correct water temperature	Too cool, too warm	Vertigo occurs, possible tissue damage

(TASK STATEMENT) ASSIST WITH EAR IRRIGATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of ear Pathology of ear Water pressure Fluids under pressure [may damage ear] Transfer of heat from one body to another [transfer of heat or cool to ear]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

222

(TASK STATEMENT) ASSIST A FAINTING PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ammonia ampule	Position patient with head lower than heart Loosen clothing Give usual first aid measures Call doctor	Protect head primarily – other body parts as possible if patient is falling Trauma If patient not breathing properly, check airway Suffocation (tongue blocking airway)
DECISIONS	**CUES**	**ERRORS**
Determine necessity for preventive measures, when possible Determine possibility of shock according to circumstances	Loss of skin color Clammy skin Dizziness - Weakness Trauma	Patient trauma

(TASK STATEMENT) ASSIST A FAINTING PATIENT

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of nervous system, i.e., central nervous system versus autonomic nervous system Physiology of circulatory and respiratory system as relates to oxygenation of blood and cells Fluids under pressure [blood is fluid under pressure and conforms to rules of hydraulics]	

224

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal reassurance to patient	Implying Enunciation Logic Gestures Facial and body features Poise Persuasion
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) TREAT PATIENT FOR SHOCK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blanket Material to elevate feet Spirits of ammonia Emesis basin, if indicated Medications as ordered by physician Sphygnomanometer Stethoscope Watch with second hand Oxygen tank and mask, if indicated (Most offices wi'' have an emergency equipment tray)	Position patient in supine unless dyspnea present Summon physician Loosen clothing Preserve body heat Measure vital signs Assist physician as indicated	Prevent injury due to falling Trauma If oxygen is used, make sure there is no smoking, functioning electrical machine, or any other fire in the immediate area Fire and/or explosion
DECISIONS	**CUES**	**ERRORS**
Determine underlying cause, if possible, and give appropriate first aid Determine if dyspnea is present, administer oxygen Determine advisability of leaving patient to summon physician, versus staying with patient and calling loudly for help	Injuries, victim complaints cyanosis, victim symptoms severity of condition	Shock becomes more severe

(TASK STATEMENT) TREAT PATIENT FOR SHOCK

SCIENCE	MATH – NUMBER SYSTEMS
Etiology of shock	Measures of temperature Locate by approximation, rational numbers and integers on the number line (sequential ordering) Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Reassurance of patient Instructions to patient	Enunciation, clarity of expression, implying, logic, gestures, facial and body features, poise, and persuasion
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

226

(TASK STATEMENT) ADMINISTER FIRST AID FOR DIABETIC COMA

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blanket Patient	Make patient comfortable Get the doctor immediately or if he is not available, call an emergency vehicle Treat as for shock, if doctor is not available	Protect patient from injury to self Trauma
DECISIONS	**CUES**	**ERRORS**
Determine if breath has sickeningly sweet odor of acetone – primary clue to diabetic coma along with history	Observe and note symptoms and relate to doctor-also dryness of skin	

(TASK STATEMENT) ADMINISTER FIRST AID FOR DIABETIC COMA

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of digestion and metabolism of foods: carbohydrates, proteins, and fats Physiology of endocrine system: pancreas and pituitary gland Etiology and symptomology of diabetes mellitus: hyperglycemia, and acidosis Effects of insulin Simple machines used to gain mechanical advantage [syringe holder is a simple tool]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician, and/or emergency personnel	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Verbal interaction with patient and/or persons accompanying patient	Implying, enunciation, logic, gestures, facial and body features, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

228

(TASK STATEMENT) ADMINISTER FIRST AID FOR INSULIN SHOCK

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Carbohydrate in whatever form readily available	Make patient comfortable Summon doctor Administer carbohydrate substance	Protect patient from injury to self Trauma
DECISIONS	**CUES**	**ERRORS**
Determine if symptoms and history indicate administering carbohydrate substance	If blood sugar goes too low, the patient may go into convulsions Symptoms – pale, skin moist and clammy, in obvious state of shock, breathing slow and shallow, although pulse is rapid	

(TASK STATEMENT) ADMINISTER FIRST AID FOR INSULIN SHOCK

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of digestion and metabolism of foods: carbohydrates, proteins, and fats Physiology of endocrine system: pancreas, and pituitary gland Etiology and symptomology of diabetes mellitus: hypoglycemia, and alkinosis	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician and/or the emergency personnel	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Verbal interaction with patient and/or persons accompanying patient	Implying, enunciation, logic, gestures, facial and body features, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) ADMINISTER FIRST AID FOR POISONING BY MOUTH

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Water for drinking Neutralizing substance if indicated Emetic if indicated Emesis basin	Dilute with water Determine type of poisoning Call poison control center Follow instructions for neutralizing particular poison Resuscitation of patient if breathing difficulty Refer patient to poison control if telephone call received seeking first aid	Prevent vomiting if caustic caused poisoning Trauma of mucous membrane Prevent vomiting if oily or kerosene substance caused poisoning Pseudopneumonia
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER FIRST AID FOR POISONING BY MOUTH

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology Cellular necrosis: i.e., acid burn, alkaline burn, and kerosene products	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician, and/or emergency personnel	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Verbal interaction with patient and/or persons accompanying patient	Implying, enunciation, logic, gestures, facial and body features, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic
Reading	Labels of suspected poison	Comprehension, detail/inference, definition, terminology, and instructions

232

(TASK STATEMENT) ADMINISTER FIRST AID FOR SEIZURES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tongue depressor wrapped in gauze	Protect patients head and face Remove any furniture on which patient could injure self Check airway for possible obstruction Clear airway immediately Provide for privacy of patient Allow patient to sleep following seizure	Protect patient from injury Trauma Clear airway Asphyxiation
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER FIRST AID FOR SEIZURES

SCIENCE	MATH – NUMBER SYSTEMS
Physiology and pathology of brain	

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Verbal reassurance to patient	Implying, enunciation, logic, gestures, facial and body features, and poise

234

(TASK STATEMENT) ADMINISTER FIRST AID FOR BURN PATIENTS (HEAT AND ELECTRICAL)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ice or cold water Basin, if indicated Blanket Sterile towels	Apply ice or cold water to affected area Summon physician Treat for shock	Maintain body heat – DO NOT ADD TO IT
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER FIRST AID FOR BURN PATIENTS (HEAT AND ELECTRICAL)

SCIENCE	MATH – NUMBER SYSTEMS
Cellular necrosis Transfer of heat from one body to another [removal of heat from burn area] Insulation principle when using blanket to hold in body heat	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)

236

(TASK STATEMENT) ADMINISTER FIRST AID FOR CHEMICAL BURN PATIENTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Running water Basin to catch water Neutralizing substance Sterile dressing Blanket	Wash with copious amounts of water Neutralize substance Summon physician Treat for shock	Shock reaction
DECISIONS	**CUES**	**ERRORS**
Determine type of neutralizing agent	Type of burn (acid/base)	

(TASK STATEMENT) ADMINISTER FIRST AID FOR CHEMICAL BURN PATIENTS

SCIENCE	MATH – NUMBER SYSTEMS
Cellular necrosis	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions and reassurance to patient	Enunciation Concentration Logic Gestures Poise
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

(TASK STATEMENT) ADMINISTER FIRST AID FOR STROKE VICTIMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blanket	Provide for immediate comfort of patient, without moving patient Obtain medical help immediately Turn victims head to side if unconscious	Keep victims head turned to side Choking
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER FIRST AID FOR STROKE VICTIMS

SCIENCE	MATH – NUMBER SYSTEMS
Hemorrhage of brain Fluids under pressure [blood is fluid under pressure]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Listening	Instructions from physician Report of individual accompanying patient	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas) Discrimination of facts from non-facts, concentration, logic (ordering of thoughts and ideas), and note taking

240

(TASK STATEMENT) ADMINISTER FIRST AID FOR ANIMAL BITES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Soap and water Basin Gauze Forceps Sterile dressing Suture set-up (if indicated) Bandage	Clean wound thoroughly Apply sterile dressing until physician arrives	See that the case is reported to proper authorities Rabies
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER FIRST AID FOR ANIMAL BITES

SCIENCE	MATH – NUMBER SYSTEMS
Antigen – antibody reaction (Rabies) Simple machines used to gain mechanical advantage [use of forceps]	

242

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient, and report to physician	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart procedures	Penmanship, spelling, classification, logic, and terminology/general vocabulary
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)

(TASK STATEMENT) CONTROL BLEEDING WITH DIRECT PRESSURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile gauze sponges	Apply digital pressure directly over wound, and elevate part Treat for fainting and/or shcok Do not remove sponge until physician is in attendance	Have patient lie down Possibility of fainting
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) CONTROL BLEEDING WITH DIRECT PRESSURE

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of blood: clotting mechanisms, and recognition of arterial and venous bleeding Fluids under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient , and reports to physician	Enunciation, clarity of expression, logic, gestures, and poise
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

244

(TASK STATEMENT) CONTROL BLEEDING BY PRESSURE TO SUPPLYING VESSEL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Use direct pressure if possible Locate appropriate vessel Apply pressure Elevate extremity	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) CONTROL BLEEDING BY PRESSURE TO SUPPLYING VESSEL

SCIENCE	MATH – NUMBER SYSTEMS
Anatomical location of primary vessels	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

246

(TASK STATEMENT) APPLY TOURNIQUET FOR HEMORRHAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tourniquet material (sphygmomanometer preferred due to width and finer control of pressure) * This procedure would be utilized ONLY if a physician is not available AND exsanguination is imminent	Attempt all other methods for controlling bleeding Apply tourniquet immediately above bleeding source Treat for shock	Awareness that application of tourniquet is a critical decision Loss of limb * Send for help MARK TIME APPLIED ON PATIENT'S FOREHEAD – DO NOT LOOSEN ONCE APPLIED UNLESS SPECIFICALLY DIRECTED BY PHYSICIAN
DECISIONS	**CUES**	**ERRORS**
Determine if danger of exsanguination is imminent Determine the amount of pressure required to control hemorrhage	Color of skin, and amount of bleeding	Tissue damage

(TASK STATEMENT) APPLY TOURNIQUET FOR HEMORRHAGE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of circulatory system: location of vessels, clotting mechanism, and toxins Movement and manner demonstrate degree of competence	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Realistic appraisal and reassurance where appropriate to patient; report to professional assistance	Enunciation, clarity of expression, logic, gestures, and poise
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic
Listening	Instructions from subsequent professional assistance	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)

248

(TASK STATEMENT) ASSIST PHYSICIAN WITH SUSPECTED CORONARY OR MYOCARDIAL INFARCTION VICTIM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blanket Electrocardiograph machine Oxygen and mask Medications as ordered by physician Sphygmomanometer Stethoscope Emesis basin, if nauseated	Make patient comfortable Administer oxygen, if ordered Measure vital signs Complete electrocardiogram, if ordered Assist in any other way required If physician not available in office, summon professional help immediately	When oxygen in use, make sure there is no smoking, functioning electrical machinery, or other fire in immediate area Fire and/or explosion –trauma
DECISIONS	**CUES**	**ERRORS**
	Due to shortness of breath and pain, patient frequently more comfortable sitting If patient has nitroglycerine, place under tongue immediately	

249

(TASK STATEMENT) ASSIST PHYSICIAN WITH SUSPECTED CORONARY OR MYOCARDIAL INFARCTION VICTIM

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of heart Pathology of cardiology	Read and interpret charts, tables, and/or graphs Locate by approximation rational numbers and integers on the number line (sequential ordering) Given an instrument of measure, determine precision, and/or accuracy, with respect to relative error, tolerance, and significant digits. (measuring in other than linear, square, and cubic) Multiplication of whole numbers Express numbers as common fractions Measure with the metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Reassurance of patient	Enunciation, clarity of expression, logic, gestures, and poise
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	Chart procedures	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) GIVE MOUTH TO MOUTH RESUSCITATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Mouth to mouth resuscitation tube	Clear airway and keep open at all times Proceed with resuscitation Continue until patient resumes breathing professional help arrives, or patient is obviously dead (American Red Cross)	*If anyone else is is area, have them summon help Keep airway open Suffocation
DECISIONS	**CUES**	**ERRORS**
Determine rhythm Determine method of resuscitation to be utilized	Adjust rate and volume of air if small child or infant Type of accident that caused the stoppage of breathing	

(TASK STATEMENT) GIVE MOUTH TO MOUTH RESUSCITATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of respiratory system Gases under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to anyone else in area	Enunciation, clarity of expression, logic gestures, and poise
Writing	Chart procedure	Penmanship, spelling, classification, terminology/general vocabulary, and logic

252

(TASK STATEMENT) GIVE BACK PRESSURE–ARM LIFT RESUSCITATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Position patient and clear airway Keep patient's chin extended to keep airway open Proceed with resuscitation Continue until patient resumes breathing, physician arrives, or victim obviously is dead (American Red Cross)	If anyone else is in the vicinity, have them summon help
DECISIONS	**CUES**	**ERRORS**
Determine where to place pressure Determine method of resuscitation best utilized	Proper anatomical placement of operators' hand Cause of stopped breathing	

(TASK STATEMENT) GIVE BACK PRESSURE–ARM LIFT RESUSCITATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of respiratory system	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to anyone in the area	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

254

(TASK STATEMENT) APPLY EXTERNAL CARDIAC MASSAGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Position patient on firm surface Place hands in correct anatomical position Proceed with heart compression at rate prescribed by American Heart Society Continue until help arrives or the heart resumes beating	Hands must not be placed in improper position on sternum Fracture of sternum and/or ribs and subsequent internal trauma If anyone else is in the area, have them summon help
DECISIONS	**CUES**	**ERRORS**
Determine actual cardiac arrest before instigating procedure	Pulse at carotid artery	

(TASK STATEMENT) APPLY EXTERNAL CARDIAC MASSAGE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomical location of heart, sternum, ribs, and liver Fluid under pressure	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to anyone in the area	Enunciation Clarity of expression Logic Gestures Poise
Writing	Chart information	Penmanship Spelling Classification Terminology/general vocabulary Logic

(TASK STATEMENT) COMPLETE A SURGICAL SCRUB

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Surgical soap Water – running Hand and nail brush Sterile towel Timer	Remove jewelry Moisten and use soap and friction Use brush Clean under and around nails Avoid any contact with faucets Rinse Dry	Do not re-contaminate hands Sepsis
DECISIONS	**CUES**	**ERRORS**
	Scrub at least fifteen to twenty minutes	Sepsis

(TASK STATEMENT) COMPLETE A SURGICAL SCRUB

SCIENCE	MATH – NUMBER SYSTEMS
Asepsis Bacteriology – bacteria, cocci, and spirilla Contamination by transmission Effects of friction on work processes and product quality	Given an instrument of measure, determine precision, and/or accuracy with respect to relative error, tolerance, and significant digits (measuring in other than linear, square, and cubic) Measures of time and speed (example: time – seconds, minutes, etc.; speed – feet per minute, R.P.M., etc.)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Touching	Scrub	Temperature Texture Movement

258

(TASK STATEMENT) DON STERILE GLOVES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile surgical gloves	Complete a surgical scrub Don gloves	Do not contaminate outside of gloves Sepsis
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) DON STERILE GLOVES

SCIENCE	MATH – NUMBER SYSTEMS
Asepsis – sterile technique Bacteriology – bacteria, cocci, and spirilla Contamination by transmission	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

260

(TASK STATEMENT) ASSIST IN PUTTING ON STERILE GLOVES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile surgical gloves	Hold gloves in proper position for insertion of physician's hands	Do not contaminate gloves Sepsis
DECISIONS	**CUES**	**ERRORS**
Determine position of hands on physician's gloves	Sterile status	Sepsis

(TASK STATEMENT) - ASSIST IN PUTTING ON STERILE GLOVES

SCIENCE	MATH – NUMBER SYSTEMS
Sepsis – sterile technique Bacteriology – bacteria, cocci, and spirilla Contamination by transmission	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

(TASK STATEMENT) PREPARE SKIN FOR SURGERY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Antiseptic – antibacterial soap solution Sterile gauze sponges Sponge forceps Antiseptic Cotton tip applicators Razor with blade Scissors – optional Sponge bowl	Instruct and position patient Apply soap solution Shave area, if ordered Wash area with circular motion Apply antiseptic	Use caution when shaving the skin Minor lacerations and/or abrasions Use care when handling scissors Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PREPARE SKIN FOR SURGERY

SCIENCE	MATH – NUMBER SYSTEMS
Bacterial infections Antiseptic theory	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation Clarity of expression Logic

264

(TASK STATEMENT) SET UP FOR GENERAL SURGERY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Skin preparation set-up Cotton swabs Alcohol Applicators Sterile gauze sponges Sterile towels Towel clips Scalpel and blade Hemastats – straight and curved Allis forceps Scissors Tissue forceps Needle holder Retractors Sterile surgical gloves Suture material with needle –silk, cotton, gut Tray Anesthetic Syringe and needle Dressing material	Determine equipment needed Assemble	Sterile technique Contamination – sepsis Use care with sharp instruments Puncture wounds and/or lacerations
DECISIONS	**CUES**	**ERRORS**
	Instruments will vary with procedure and doctor's preference	

(TASK STATEMENT) SEP UP FOR GENERAL SURGERY

SCIENCE	MATH -- NUMBER SYSTEMS
Bacteriology Sterile technique	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

(TASK STATEMENT) ASSIST WITH MINOR SURGERY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Surgical soap Skin antiseptic Sterile gauze sponges Applicators Draping material Rubber gloves Local anesthetic Syringe and needle Instrument tray – materials and instruments essential for procedure as per physician's desires	Position patient Do skin preparation if physician orders Assist physician Assist patient in getting up Clean up operating area	Maintain sterile technique at all times Contamination – sepsis Use care in handling sharp instruments Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH MINOR SURGERY

SCIENCE	MATH – NUMBER SYSTEMS
Sterile technique Bacteriology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

(TASK STATEMENT) ASSIST IN OBTAINING A BIOPSY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tray for skin preparation Scalpel Sterile blade for scalpel Allis forceps Hemostats – straight and curved Tissue scissors Tissue forceps Needle holder Gauze sponges Local anesthetic Syringe and needle Sterile gloves Tray Sterile towels Biopsy jar Light Suture material with needle Sterile dressings, as needed	Position patient Do skin preparation Assist physician Assist patient in getting up Clean up operating area Prepare specimen for lab	Sterile technique must be maintained at all times Cross-infection – sepsis Use care in handling sharp and pointed instruments Trauma
DECISIONS	**CUES**	**ERRORS**
	Instruments will vary according to physician's preference and exact procedure being performed. The medical assistant must be completely familiar with the routine in that office. Asepsis must be maintained at all times	

(TASK STATEMENT) ASSIST IN OBTAINING A BIOPSY

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Aseptic technique Related pathology Simple machines used to gain mechanical advantage [hemostat is a simple instrument – mechanical knowledge required]	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Writing	Laboratory biopsy report form	Penmanship, spelling, classification, description, denotative/connotative words, logic, and medical terminology
Speaking	Pre and post-operation instructions to patient	Enunciation, clarity of expression, logic, gestures, and poise

270

(TASK STATEMENT) ASSIST WITH SUTURE REMOVAL

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Antiseptic Cotton tip applicators Container for soiled dressigns Gauze sponges, sterile Suture scissors Hemostat Tray with towel Dressing materials	Position patient Remove soiled dressings Assist physician Apply sterile dressing, if ordered Assist patient in getting up	Care in handling scissors Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH SUTURE REMOVAL

SCIENCE	MATH – NUMBER SYSTEMS
Asepsis – sterile technique	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to the patient	Enunciation, clarity of expression, logic, and poise
Writing	Chart information	Penmanship, spelling, classification, logic, and terminology/general vocabulary

272

(TASK STATEMENT) ASSIST WITH ELECTROSURGERY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Electrosurgical unit with appropriate electrodes Anesthetic, as directed by physician Syringe and needle Gauze sponges, sterile Sterile dressings, optional	Prepare electrosurgical unit Prepare anesthetic injection Position patient according to location of surgical site Assist physician Apply sterile dressing, if ordered Assist patient in getting up	Use care in handling electrical cord Electrical shock
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH ELECTROSURGERY

SCIENCE	MATH – NUMBER SYSTEMS
Destruction of tissue by heat Physiology of sensory nerves Related pathology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Poise

274

(TASK STATEMENT) ASSIST PHYSICIAN IN PERFORMING SCRATCH TEST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Bottles with antigens to be tested Alcohol Cotton Sterile lancet Metric ruler Chart Pen Timer	Position patient Prepare skin Apply antigens and perform scratch test Clean thoroughly lancet with cotton following each antigen Mark clearly Time Read reaction and chart	Sufficient cleaning of lancet Incorrect test results and subsequent treatment Follow an exact schedule when administering for correct identification Incorrect test results and subsequent treatment Fire hazard of alcohol Awareness of fire
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST PHYSICIAN IN PERFORMING SCRATCH TEST

SCIENCE	MATH – NUMBER SYSTEMS
Antigen-antibody reaction Epidermal reaction Immunity Related medical terminology Related pathology	Use metric system Locate by approximation rational numbers and integers on the number line (sequential ordering)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, and poise
Writing	Interpretation of test results	Penmanship, spelling, classification, description, medical terminology, and clarity of expression

276

(TASK STATEMENT) ASSIST PHYSICIAN IN PERFORMING PATCH TEST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Alcohol or ether Cotton swabs Patch with antigen to be tested	Prepare skin site Apply patch Identify if multiple patches applied	Do not allow patient to leave office immediately Reaction
DECISIONS	**CUES**	**ERRORS**
Select site	No lesions present, no prominent hair growth and area that can be kept dry	Patch will not stick

(TASK STATEMENT) ASSIST PHYSICIAN IN PERFORMING PATCH TEST

SCIENCE	MATH – NUMBER SYSTEMS
Antigen-antibody reaction Epidermal reaction Immunity Related pathology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)
Speaking	Instructions to patient	Enunciation, clarity of expression, logic, and poise
Writing	Chart information	Penmanship, spelling, classification, logic, and medical terminology

(TASK STATEMENT) ADMINISTER ORAL MEDICATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Medicine glass, if liquid medication Graduated medicine dropper, if appropriate Small paper cup, if tablet or capsule medication Glass of water Patient's chart Pen	Prepare medication as instructed by physician. Check the label on bottle with the written order from physician three times Administer medication Chart immediately	Check the label on bottle with the written order from physician three times for accuracy Incorrect medication and/or incorrect dosage Check expiration date, when appropriate Outdated medications – instability
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER ORAL MEDICATION

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology – types of drugs Forms of medications – liquids, i.e. solutions, elixers, syrups, etc.; solids, i.e. tablets, capsules, and powders Modes of administration, i.e. sublingual, buccal, lozenge, etc.	Understanding basic arithmetic skills Liquid and dry measures Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Order from physician	Comprehension, detail/inference, definition, and medical terminology
Speaking	Explanation to patient	Terminology/general vocabulary, enunciation, clarity of expression, logic, and gestures
Writing	Chart information	Penmanship, spelling, classification, logic, and terminology/general vocabulary

(TASK STATEMENT) WITHDRAW SOLUTIONS FOR INJECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile syringe and needle Vial or ampule of solution for injection Cotton ball Alcohol Gauze Tray	Prepare prescribed medication Withdraw prescribed amount of solution or solutions If physician administering, place vial beside injection for physician to check Return medication to proper storage area	Sterile technique in handling syringe and needle Contamination of syringe and needle Correct amount of medication critical — NO MARGIN FOR ERROR Incorrect dosage may have deleterious effect Always check medication three times: i.e. when taking it out of the cabinet, when removing the contents from the bottle, and when replacing the container in the cabinet Incorrect medication may be given
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) WITHDRAW SOLUTIONS FOR INJECTION

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology Aseptic technique	Basic arithmetic skills and concepts with regard to preparation of solutions Measure with the Metric and English system and convert between them Ratio and proportion

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written order from physician	Comprehension Detail/inference Definition Terminology
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

282

(TASK STATEMENT) PREPARE NEEDLE–CARTRIDGE UNIT INJECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile needle-cartridge unit (pre-measured medications available or empty graduated cartridge) Needle-cartridge syringe Alcohol Cotton swab	Move plunger so it locks at right angles to the barrel Insert cartridge-needle unit Swing plunger back into place, and engage both ends of the unit After use, replace rubber sheath. Dispose of needle in this sheath	Use sterile technique Contamination – sepsis Use care when handling needle Puncture wound
DECISIONS	**CUES**	**ERRORS**
	Rotate only until engaged	

(TASK STATEMENT) PREPARE NEEDLE–CARTRIDGE UNIT INJECTION

SCIENCE	MATH – NUMBER SYSTEMS
Unit cartridge syringe is a simple instrument with screw mechanism Simple machines used to gain mechanical advantage	Locate by approximation rational numbers and integers on the number line (sequential ordering)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Order from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

284

(TASK STATEMENT) ADMINISTER SUBCUTANEOUS INJECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prepared syringe and needle (medication as ordered) Cotton sponges Disinfectant for skin (alcohol, seventy percent) Patient's chart Pen	Prepare skin Expel air and administer injection Pinch the skin or press down firmly with the left hand Insert needle at forty-five degree angle from the skin Chart immediately Cleanse syringe and needle or destroy, according to type used	Aspirate to make sure you are not in a blood vessel. Remove and start over if blood is present Reaction due to immediate absorption of medication Protect patient from injury if faints Trauma Destroy disposable syringe and needle immediately Contamination– theft from waste containers (State laws outline degree of responsibility)
DECISIONS	**CUES**	**ERRORS**
Determine who should administer injections	Physician-employer's policy; state regulations	Legal complications

(TASK STATEMENT) ADMINISTER SUBCUTANEOUS INJECTION

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of skin Anatomical areas most frequently used Indications for subcutaneous injection Pharmacology Sterile technique	Measure with the Metric and English system and convert between them Knowledge of angles

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Order from physician	Comprehension, detail/inference, definition, and terminology
Speaking	Explanation to patient	Terminology/general vocabulary, enunciation, clarity of expression, logic, and gestures
Writing	Chart information	Penmanship, spelling, classification, poise, and logic

286

(TASK STATEMENT) ADMINISTER INTRADERMAL INJECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prepared syringe and needle (tuberculin-type syringe with a twenty-six gauge, three-eights, or one-half inch needle is usually used) Cotton sponges Disinfectant for skin (alcohol, seventy percent) Patient's chart Pen	Prepare skin Administer injection Skin should be firm and tight in area to be given Spread the skin with one hand and insert needle into layers of skin (to about one-eighths depth) Hold level side of needle up Insert needle at angle of about ten to fifteen degrees If given properly, a wheal will become evident as drug is administered Do not massage area Chart immediately Cleanse syringe and needle or destroy according to type used	Observe sterile technique throughout Protect patient from injury if faints Trauma Destroy disposable syringe and needle immediately Contamination – theft from waste containers (State laws outline legal responsibilities)
DECISIONS	**CUES**	**ERRORS**
Determine who should administer injections	Individual physician—employer's policy; state regulations	Legal complications

(TASK STATEMENT) ADMINISTER INTRADERMAL INJECTION

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of skin Anatomical areas most frequently used Indications for intradermal injection Pharmacology Sterile technique	Measure with the Metric and English system and convert between them Knowledge of angles

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Order from physician	Comprehension, detail/inference, definition, and terminology
Speaking	Explanation to patient	Terminology/general vocabulary, enunciation, clarity of expression, logic, and gestures
Writing	Chart information	Penmanship, spelling, classification, poise, and logic

(TASK STATEMENT) ADMINISTER INTRAMUSCULAR INJECTION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prepared syringe and needle Cotton sponges Disinfectant for skin (alcohol, seventy percent percent) Patient's chart Pen	Prepare skin Administer medication If administed in buttock, the prone position is recommended – if patient is standing, he/she should bear weight on leg opposite the injection site If administered in shoulder muscle, face patient so that thick, central part of the deltoid muscle is in front Insert needle vertically Massage the muscle gently but firmly with cotton sponge to help in dispersion of drug Chart immediately Cleanse syringe and needle or destroy, according to type used	Observe sterile technique throughout Aspirate to check for blood vessel; remove and start over if blood is present Reaction due to immediate absorption of medication Protect patient from injury if he/she faints Trauma Destroy disposable syringe and needle, immediately Contamination – theft from waste containers (state laws outline legal responsibilities) Use upper and outer quadrant of buttock If not anatomically correct, may injure sciatic nerve Squeeze the deltoid muscle between thumb and forefinger – helps increase muscle bulk Guards against striking the bone and keeps the injected area steady
DECISIONS	**CUES**	**ERRORS**
Determine who should administer injections	Individual physician – employer's policy State regulations	Legal complications

(TASK STATEMENT) ADMINISTER INTRAMUSCULAR INJECTION

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of skin Anatomical areas most frequently used Indications for intramuscular injections Pharmacology Sterile technique	

290

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Order from physician	Comprehension, detail/inference, definition, and terminology
Speaking	Explanation to patient	Terminology/general vocabulary, enunciation, clarity of expression, logic, and gestures
Writing	Chart information	Penmanship, spelling, classification, terminology/general vocabulary, and logic

(TASK STATEMENT) ASSIST WITH CAST APPLICATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Orthopedic stockinet Sheet wadding Plaster bandages Plastic or disposable sheet Scissors Bucket with water Disposable gloves, optional	Position patient Assist physician Complete the wet-out of a plaster bandage: hold end flap away from bandage; hold bandage in fingers, not palms, of both hands immerse bandage tilted until bubbles stop; remove from water and squeeze gently from ends; hand to doctor with flap out	Care in use of scissors Trauma
DECISIONS	**CUES**	**ERRORS**
Determine width of plaster bandage	Body part involved	

(TASK STATEMENT) ASSIST WITH CAST APPLICATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of the skeletal system Related medical terminology – bones, and body planes and surfaces Pathology of skeletal system, i.e., fractures, dislocations, severe sprains, etc. Simple machines used to gain mechanical advantage [scissors are a simple instrument]	

292

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Reassurance to patient	Terminology/general vocabulary Enunciation Clarity of expression Implying Logic Gestures Facial and body features Poise
Listening	Information from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)

(TASK STATEMENT) ASSIST WITH REMOVAL OF CAST

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Cast cutter and knife Bandage scissors Skin cleanser Receptacle for cast Elastic bandage	Position patient Assist physician Post care of patient, i.e. skin, elastic bandage for support	Possible shock from saw
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH REMOVAL OF CAST

SCIENCE	MATH – NUMBER SYSTEMS
Transfer of heat from one body to another Possibility of shock from saw Inertia and momentum (body at rest and body in motion) [freewheeling saw is momentum potential]	

294

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Information from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)
Speaking	Reassurance to patient	Terminology/general vocabulary Implying Enunciation Clarity of expression Logic Gestures Facial and body features Poise

(TASK STATEMENT) INSTRUCT PATIENT ON USE AND CARE OF CRUTCHES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Crutches	Demonstrate Observe patient's use of crutches	Pressure on axilla Impaired circulation
DECISIONS	**CUES**	**ERRORS**
Determine at what point patient has mastered use of crutches	Observation of proper use	Improper placement of crutches

(TASK STATEMENT) INSTRUCT PATIENT ON USE AND CARE OF CRUTCHES

SCIENCE	MATH – NUMBER SYSTEMS
Simple machines used to gain mechanical advantage [crutch is a lever] Know and understand balance	

296

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to patient	Enunciation Clarity of expression Logic Gestures Facial and body features
Listening	Information from patient	Auditory discrimination Concentration Recognize opinions Logic (ordering of thoughts and ideas)

(TASK STATEMENT) EXPLAIN SPECIAL DIET TO PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Diet sheets as indicated by individual office	Supply patient with written directions in addition to verbal instructions Impress patient with need for importance of following diet painstakingly Encourage patients to vary diet by addition of allowed herbs or variety of cooking methods	
DECISIONS	**CUES**	**ERRORS**
Identify patient who will need extra help in understanding diet	Age, background	Misunderstanding of directions

(TASK STATEMENT) EXPLAIN SPECIAL DIET TO PATIENT

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination Concentration Logic (ordering of thoughts and ideas)
Speaking	Interpret written instructions to patient	Terminology/general vocabulary Implying Clarity of expression Logic Facial and body features Poise

298

(TASK STATEMENT) INSTRUCT PATIENTS REGARDING PROPER PREPARATION FOR DIAGNOSTIC TESTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Printed instruction sheets may be used, in lieu of this, written instructions must be given Patient chart Instruction information from radiologist or laboratory	Provide patient with printed or written instructions Review instructions with patient Schedule time and place for test and inform patient	Complete instructions must be given and followed Test cannot be done and must be rescheduled Diagnostic value lost if not accurate
DECISIONS	**CUES**	**ERRORS**
	Important to give written or printed instructions as patient may be too emotionally upset at the office to understand or remember oral instructions	

(TASK STATEMENT) INSTRUCT PATIENTS REGARDING PROPER PREPARATION FOR DIAGNOSTIC TESTS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Instructions	
Speaking	Instructions to patient; interpret medical terminology to patient	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, denotative/connotative words, logic, gestures, facial and body features, and poise
Listening	Instructions from physician	Auditory discrimination, concentration, and logic (ordering of thoughts and ideas)

(TASK STATEMENT) ASSIST IN USE OF OSCILLOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Oscillometer Patient's chart Pen	Position patient in supine position Assist physician with charting	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST IN USE OF OSCILLOMETER

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of circulatory system Related medical terminology Fluids under pressure [Blood is fluid under pressure subject to rules of hydraulics]	Given an instrument of measure determine precision reading

302

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Physician's instructions Charting of results as physician dictates	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Description, Terminology, Logic

(TASK STATEMENT) PERFORM HEARING ACUITY TESTS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Audiometer equipment Word lists (may be recording)	Explain procedure to patient Operate machine following exact instructions for operation of machine Record results on Audiogram Perform speech audiometry Record results	Care in inspection of equipment for proper working order Use care in handling electrical cords Accuracy and reliability of results Incorrect reading Electrical shock
DECISIONS	**CUES**	**ERRORS**
Determine if patient understands signal to give assistant for response	Trial test	Incorrect test results

(TASK STATEMENT) PERFORM HEARING ACUITY TESTS

SCIENCE	MATH – NUMBER SYSTEMS
Principles to comprehend–Transmission of sound Air conduction Bone conduction Sensory impulses Introduction to sound measurement techniques and measurement units (DB)	Read and interpret charts, tables, and/or graphs Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Abbreviations needed for charting test	Comprehension, Detail/Inference, Definition, Terminology
Speaking	Instructions to patient	Terminology, Implying, Clarity of expression, Denotation/Connotation, Logic, Gestures

304

(TASK STATEMENT) ASSIST WITH DIATHERMY TREATMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Diathermy machine Towel Wooden bed or table Timer	Position patient Position electrodes Operate machine	Do not treat area if any metal objects are within the field Caution patient regarding excessive heat—show him where turn off switch is located Caution regarding aching of bone Use care with electrical cord and plug Two electric cords to electrodes must not touch Short Severe burns Bone damage Electrical shock
DECISIONS	**CUES**	**ERRORS**
Determine amount of time for treatment Determine if treatment should be terminated early	Nature of complaint; instructions from physician Patient complaints	Burns, discomfort Trauma

(TASK STATEMENT) ASSIST WITH DIATHERMY TREATMENT

SCIENCE	MATH – NUMBER SYSTEMS
Transfer of heat by radiation Awareness of electromagnetic spectrum Wave transfer of energy from one body to another (radiation)	Measure of time Given an instrument of measure, determine precision and/or accuracy, with respect to relative error, and significant digits

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Orders from physician, information from patient Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic
Writing	Chart procedure	Penmanship, Spelling, Classification, Logic, Terminology

(TASK STATEMENT) ASSIST WITH HEAT LAMP TREATMENT (INFRARED)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Infrared lamp Timer	Position patient Position and operate lamp	Good circulation necessary before treatment instituted Use care in handling electric cord Burns Electrical shock
DECISIONS	**CUES**	**ERRORS**
Determine when to terminate treatment Determine proper distance	Patient complains or physical signs	Burns

(TASK STATEMENT) ASSIST WITH HEAT LAMP TREATMENT (INFRARED)

SCIENCE	MATH – NUMBER SYSTEMS
Electromagnetic spectrum Transfer of heat	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Orders from physician Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic
Writing	Chart procedure	Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) ASSIST WITH ULTRA SOUND TREATMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ultrasonic machine Water or oil Timer	Position patient Prepare patient Operate machine	Keep sound heat head in motion Internal burns and destruction Use care in handling electrical cord Electrical shock
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ASSIST WITH ULTRA SOUND TREATMENT

SCIENCE	MATH – NUMBER SYSTEMS
Transfer of energy from one form to another Understand properties of sound Disruption of molecular membrane bonding	Measure of time Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Order from physician Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic
Writing	Chart procedure	Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) ADMINISTER OXYGEN TO PATIENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Oxygen tank with pressure dial Oxygen mask	Make patient comfortable Apply mask and administer oxygen at liters ordered by physician	No open flame or use of electrical appliances Explosions–fire–burns
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER OXYGEN TO PATIENT

SCIENCE	MATH – NUMBER SYSTEMS
Oxygen exchange between aveoli and blood Effects of CO_2 poisoning on body	Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Instructions from physician Instructions and reassurance to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic, Gestures, Facial and body features, Poise

312

(TASK STATEMENT) ADMINISTER INTERMITTENT POSITIVE PRESSURE INHALATION THERAPY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Intermittent Positive Pressure Breathery machine—proper accessories Disposable mouthpiece Nose clip Medication Bronchodilator as prescribed Normal saline Emesis basin Tissues Stool for patient Timer	Prepare solutions in nebulizer cup and attach to machine Position and instruct patient Attach nose clip to patient Operate machines Inspect for inspiration or expiration leakage Terminate procedure at proper time Clean and sterilize tubes between each use	Pay careful attention to nebulizer so that patient is removed prior to complete depletion of solution Make sure correct pressure for each patient is maintained When oxygen in use make sure there is no smoking or fire in area Care in handling electrical cord Progressive drying effect on lung tissue Paroxsysoval coughing Risk of fire and/or explosion Electrical shock
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) ADMINISTER INTERMITTENT POSITIVE PRESSURE INHALATION THERAPY

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of respiratory system Pathology of respiratory system Related medical terminology	Measure of time and speed Liquid and dry measures Ratio and proportion Measure with Metric and English systems and convert between them Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Instructions from physician Specific instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic

314

(TASK STATEMENT) UTILIZE PUBLICATIONS PROVIDING LIST OF APPROVED DRUGS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Publication utilized by office: Pharmacopeia of the United States of America The United States Pharmacopeial Convention New drugs The Phsycian's Desk Reference	Familiarize self with publication used in office Identify medication from tablet or capsule brought into office Determine correct spelling of medication for medical records Find information on strength or dosage of medications	
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) UTILIZE PUBLICATIONS PROVIDING LIST OF APPROVED DRUGS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic
Writing	Record information	Penmanship, Spelling, Classification, Terminology, Logic
Reading	Publication	Comprehension, Detail/Inference, Informational reports, Definition, Terminology

316

(TASK STATEMENT) INTERPRET PRESCRIPTIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prescription Patient chart	Interpret for patient Interpret when must transmit to pharmacy	Never guess if you do not know, interpret correctly Improper reaction of medication Possibility of fatal reaction
DECISIONS	**CUES**	**ERRORS**
	Absolute accuracy necessary in interpretting amount and directions to pharmacy Absolute accuracy necessary in interpreting use to patient	

(TASK STATEMENT) INTERPRET PRESCRIPTIONS

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology	Measure with Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Prescription Medical terminology, medical abbreviations	Comprehension, Detail/Inference, Definition, Terminology, Instructions
Speaking	Instructions to patient, instructions to pharmacy	Terminology, Implying, Clarity of expression, Denotation/Connotation, Logic

(TASK STATEMENT) CHART PRESCRIPTIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prescription Patient chart	Record on patient chart	Absolute accuracy essential Later interpretation would lead to possible serious error in treatment of patient
DECISIONS Determine accuracy of information recorded	**CUES** Original source of data	**ERRORS** Wrong treatment given

(TASK STATEMENT) CHART PRESCRIPTIONS

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology	

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Prescription, medical terminology, medical abbreviations	Comprehension, Detail/Inference, Definition, Terminology, Instructions
Writing	Record prescription	Penmanship, Spelling, Clarity of expression, Persuasion and sales technique, Instructions
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic

320

(TASK STATEMENT) PREPARE AND REPLENISH SUPPLIES IN PHYSICIAN'S BAG

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Doctor's bag The contents of the bag will depend upon the specialty of the physician and on his or her preference	Determine personal preference of physician regarding needs in his or her bag Replenish any items used each time bag returned to office Refill containers that have been emptied Check to see that each instrument is in proper working condition Batteries in flashlight Instruments clean	Bag must always be ready for use Inability to adequately care for patient because of lack of needed supplies or instruments
DECISIONS	**CUES**	**ERRORS**
Determine materials physician needs	Replenish as used	Run short of supplies – inadequate patient care

(TASK STATEMENT) PREPARE AND REPLENISH SUPPLIES IN PHYSICIAN'S BAG

SCIENCE	MATH – NUMBER SYSTEMS
	Sequential counting

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Labels of supplies	Comprehension, Detail/Inference, Definition, Terminology, Instructions
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic

(TASK STATEMENT) ORGANIZE AND MAINTAIN EXAMINATION ROOMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Supplies and instruments as needed for individual practice	Assemble needed instruments and supplies Attempt to regulate temperature and odors for patient comfort Provide area for patient's clothing if removal is necessary Standardize areas in which medications and supplies stored in each room Instruct maintenance department regarding any special attention needed in cleaning	Cleanliness essential Cross-infection
DECISIONS	**CUES**	**ERRORS**
Determine prior to admitting each patient that room is clean and used supplies replenished	Inspection of room	Supplies unavailable

(TASK STATEMENT) ORGANIZE AND MAINTAIN EXAMINATION ROOMS

SCIENCE	MATH – NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Instructions to employees	Terminology, Implying, Clarity of expression, Logic, Gestures, Facial and body features
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic

324

(TASK STATEMENT) RECEIVE AND ORGANIZE MEDICATION SAMPLES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Medication samples received in mail Medication samples	Retain samples as per physician's instructions in individual office Dispose of samples not utilized in office in an appropriate manner* Store in designated categories in suitable locked cupboard Store in an area accessible only to authorized personnel * May be given to a clinic or welfare agency Contact local Environmental Protection Agency for advice on method of disposal	Drugs in secure area or disposed of properly Use of drugs by unauthorized persons without physician's orders
DECISIONS	**CUES**	**ERRORS**
Determine samples to be kept or disposed Determine method of disposal	Office policies	Drug theft

(TASK STATEMENT) RECEIVE AND ORGANIZE MEDICATION SAMPLES

SCIENCE	MATH – NUMBER SYSTEMS
Pharmacology Some medications are light sensitive and heat sensitive	Locate by approximation rational numbers and integers on the number line [Sequential ordering]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic Note taking
Reading	Labels	Comprehension, Detail/Inference, Definition, Terminology, Instructions

326

(TASK STATEMENT) INVENTORY MEDICATION AND MEDICAL SUPPLIES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Standard office supplies Stock book or cards	Count and record Rearrange in proper order Rotate medications Clean area, etc.	Carefully check expiration dates on medication Proper use of available storage facilities Outdated Damage to supplies Trauma to personnel
DECISIONS	**CUES**	**ERRORS**
Determine point at which to reorder	Office policies on amount of reserve stock	Run short of medication; medication too old to use

(TASK STATEMENT) INVENTORY MEDICATION AND MEDICAL SUPPLIES

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record inventory	Penmanship, Spelling, Classification, Description, Logic

328

Duty E Performing Basic Laboratory Procedures and Diagnostic Tests

1 Perform electrocardiogram (EKG)
2 Use high and low power objective of microscope
3 Use oil immersion lens of microscope
4 Perform physical examination of urine
5 Determine the pH of urine
6 Perform specific gravity (S/G) on urine specimen
7 Determine proteins in urine
8 Determine glucose in urine
9 Determine presence of ketone bodies in urine
10 Perform test for bile and urobilinogen in urine
11 Perform test for blood in urine and feces
12 Operate centrifuge
13 Perform microscopic exam of urine specimen
14 Perform a skin puncture
15 Obtain blood specimen from vein with syringe and needle
16 Obtain blood specimen from vein with Vacutainer set-up
17 Complete micro-hematocrit
18 Perform red blood cell (RBC) count using hemacytometer
19 Perform white blood cell (WBC) count using hemacytometer
20 Use Unopette for white blood cell count using hemacytometer
21 Perform hemoglobin determination with hemoglobinometer
22 Perform hemoglobin determination by Sohli-Adams method
23 Perform hemoglobin by cyanmethoglobin method
24 Prepare blood smear
25 Stain blood smear
26 Examine stained blood smear

27 Complete an erythrocyte sedimentation rate (ESR) (Wintrobe–Landsberg Method)
28 Complete an erythrocyte sedimentation rate (ESR) (Westergren)
29 Use colorimetric strip test for blood glucose
30 Complete a bleeding time (Duke's Method)
31 Complete coagulation time (Capillary Glass Method)
32 Type a blood specimen (Landsteiner's Classifications)
33 Complete an Rh determination (screening only)
34 Perform glucose determination by Folin Wu Method
35 Prepare a bacterial smear
36 Complete a gram stain
37 Prepare a wet mount for parasitology study
38 Innoculate an Agar plate
39 Position patient for x-ray examination
40 Load x-ray flim in cassette
41 Expose x-rays
42 Process x-ray film
43 Perform pulmonary function studies
44 Inventory and order laboratory supplies and equipment

(TASK STATEMENT) PERFORM ELECTROCARDIOGRAM (EKG)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Prepare patient Wooden treatment table Electrocardiagraph machine Cable cords Electrodes ECG cream or pads Paper for tracing ECG mounting form Scissors	Position patient in supine Ground machine Allow adequate warm-up Apply electrodes to patient Attach cable cords to patient eletrode straps Check paper Complete 12 lead ECG, limb and chest leads, with standardizations Remove patient in getting up Remove tracing Mount tracing	Ground machine Attach leads correctly Electrical shock Interference
DECISIONS	CUES	ERRORS
	Mix-up in lead attachments causes abnormalities in tracing Proper grounding eliminates A-C interference No oxygen in room	

(TASK STATEMENT) PERFORM ELECTROCARDIOGRAM (EKG)

SCIENCE	MATH – NUMBER SYSTEMS
Theory of machine operation—electronic amplifier system Galvonometer operation Stylus ribbon Function of heat sensitive paper Electromotive force	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Operation manual for machine	

332

(TASK STATEMENT) USE HIGH AND LOW POWER OBJECTIVE OF MICROSCOPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Microscope with lamp Slides with specimen Lens paper	Place specimen on stage Adjust for best possible light Focus and examine on low power, keeping both eyes open Focus and examine on high power Repeat process in case of failure: focusing on low then switching to high power Clean the lens and mirror before and after use with lens paper Note: Do not touch eye piece with eyelashes	Never focus down on a slide Never focus, with the coarse adjustment under high power Electrical cord Shock Break slide or scratch or break objective–trauma
DECISIONS	**CUES**	**ERRORS**
Determine proper setting	Clarity of view	Smashed slide due to improper focusing

(TASK STATEMENT) USE HIGH AND LOW POWER OBJECTIVE OF MICROSCOPE

SCIENCE	MATH – NUMBER SYSTEMS
Fundamentals of optics	Multiplication with whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Specimen	Visual analysis, Shape, Consistency, Movement

334

(TASK STATEMENT) USE OIL IMMERSION LENS OF MICROSCOPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Microscope with lamp Prepared slide Immersion oil Zylol Lens paper	Position slide and apply immersion oil Focus, with fine adjustment and examine With eye at the level of the stage, bring the oil immersion lens down into the drop of eye Clean lens	Do not hit slide with lens Electrical cord Breakage—trauma Shock
DECISIONS	**CUES**	**ERRORS**
Determine proper setting	Clarity of view	Smashed slide due to improper focusing

(TASK STATEMENT) USE OIL IMMERSION LENS OF MICROSCOPE

SCIENCE	MATH – NUMBER SYSTEMS
Fundamentals of optics Refractive indexes	Multiplication of whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Specimen	Visual analysis, Shape, Consistency, Movement

(TASK STATEMENT) PERFORM PHYSICAL EXAMINATION OF URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Graduated glass cylinder Patient chart or lab record form Pen	Measure volume Describe color Assess transparency Record findings	Wash hands Care in handling glass Laceration
DECISIONS	**CUES**	**ERRORS**
Determine transparancy of freshly voided specimen	Abnormal findings can indicate a need for other specific tests Specimen must be well mixed	Incorrect results, unnecessary tests taken

(TASK STATEMENT) PERFORM PHYSICAL EXAMINATION OF URINE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of urine Pathology of urinary system Composition of urine Urinary pigment Collection techniques Preservation of urine specimens Related medical terminology Clinical significance of findings Effect of diet on urine Quantity of urine excretion	Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Instructions from physician	Comprehension, Recommendation reports, Progress reports
Writing	Recording findings	Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) DETERMINE THE pH OF URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Patient chart or lab record Combistix Bililabstix Nitrozine paper Reference color charts	Use Combistix (Ames) Use Bililabstix (Ames) Use nitrazine paper Compare with color charts	Accuracy and reliability of results
DECISIONS	**CUES**	**ERRORS**
	pH changes after specimen stands pH can give clue to microscopic identification Alkaline pH can cause dissolving of certain elements	

(TASK STATEMENT) DETERMINE THE pH OF URINE

SCIENCE	MATH – NUMBER SYSTEMS
Kidney function Hydrogen ion concentration Acid-base theories Effects of pH on body Normal range pH theory	Scientific notation

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Instructions from physician Charting	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic
Reading	Specific test instructions	Comprehension, Detail/Inference, Terminology Definition, Instructions

346

(TASK STATEMENT) PERFORM SPECIFIC GRAVITY (S/G) ON URINE SPECIMEN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Urinometer cylinder Urinometer Distilled water Thermometer Patient chart or lab record Pen	Calibrate urinometer Mix urine specimen Pour urine into urinometer cylinder Correct for temperature Insert urinometer avoiding wetting the stem above the waterline Read and record Read on a flat level surface at eye level Read urinometer at the bottom of the thick meniscus Rinse the urinometer in fresh water and dry the stem before proceeding to the next specimen	Urinometers are fragile and contain mercury Chemically clean urinometer Accuracy and reliability of results Mercury vapors Lacerations Contamination
DECISIONS	**CUES**	**ERRORS**
	No bubbles should be present around urinometer Urinometer must float free about 1" off the bottom of the container	

(TASK STATEMENT) PERFORM SPECIFIC GRAVITY (S/G) ON URINE SPECIMEN

SCIENCE	MATH – NUMBER SYSTEMS
Kidney function Density Specific gravity Formation of solutions Urinary physiology Relationship of volume and pH Meniscus	$\frac{\text{Weight of solution}}{\text{Weight of water}}$ = Specific Gravity Temperature correction = .001/degree above or below calibration level Measure of temperature

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Writing	Instructions from physician Chart information Note corrections	Comprehension, Recommendation reports, Progress reports Penmanship, Spelling, Classification, Terminology, Logic

342

(TASK STATEMENT) DETERMINE PROTEINS IN URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Bumintest tablets Albutest tablets Albustix Combistix Labstix Bililabstix	Perform Bumintest (Ames) Perform Albutest (Ames) Perform Albustix (Ames) Perform Combistix, Labstix and Bililabstix (Ames) Read and record results	Accuracy and reliability of results
DECISIONS	**CUES**	**ERRORS**
	Presence of protein can indicate findings in sediment Mucin interferes with protein test	

(TASK STATEMENT) DETERMINE PROTEINS IN URINE

SCIENCE	MATH – NUMBER SYSTEMS
Kidney function Filtration and reabsorption–urine formation Related pathology Chemical reactions of protein tests Protein digestion and assimilation	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Literature supplied by manufacturer	Comprehension, Detail/Inference, Informational reports, Definition, Terminology, Instructions
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic
Writing	Record results	Penmanship, Spelling, Classification, Terminology, Logic

344

(TASK STATEMENT) DETERMINE GLUCOSE IN URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Clinitest tablets Tes-Tape Clinistix Bililabstix Benedict's Qualitative regent (copper sulfate, sodium citrate, sodium carbonate, distilled water) Test tube Boiling water bath Reference color charts Cold water bath Timer Water Pipets Patient chart or lab record	Read procedures carefully Non-specific tests–reducing activity Benedict's Qualitative test Clinitest (Ames) Specific tests–using enzyme oxidase Tes-Tape (Eli Lilly) Clinistix (Ames) Bililabstix (Ames) or Combistix (Ames) Report intensity of color change	Keep bottles of stix and tablets tightly closed Clinitest–test tube becomes hot–do not hold Care in handling glass Accuracy and reliability of results Deterioration of chemicals Burns Laceration
DECISIONS	**CUES**	**ERRORS**
	Accuracy in timing is critical Clinitest can pass through four and results indicating higher values Must observe carefully as reaction occurs Determine presence of ketone bodies when glucose is positive: important diagnostically	

Fig 3

(TASK STATEMENT) DETERMINE GLUCOSE IN URINE

SCIENCE	MATH – NUMBER SYSTEMS
Carbohydrate digestion and assimilation Chemical reactions in testing Related pathology Kidney function–absorption Renal threshold concept	Metric system

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Listening Writing	Procedures supplied with tablets and sticks carefully Instructions from physician Record results	Comprehension, Detail/Inference, Informational reports, Definition, Terminology, Instruction Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) DETERMINE PRESENCE OF KETONE BODIES IN URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Acetest tablets White paper Ketostix Labstix or Bililabstix Watch with second hand Patient chart or lab record Pen	Perform Acetest (Ames) Perform Ketastix (Ames) Perform Labstix or Bililabstix (Ames) Read and record results	Accuracy and reliability of results
DECISIONS	**CUES**	**ERRORS**
	These tests are performed when glucose is positive Timing is critical	

(TASK STATEMENT) DETERMINE PRESENCE OF KETONE BODIES IN URINE

SCIENCE	MATH – NUMBER SYSTEMS
Digestion and assimilation of fats Diabetes mellitus—causes and effects Types of ketone bodies Physiologic effects of ketone accumulation Chemical reaction of tests	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Reading Writing	Instructions from physician Literature supplied by manufacturer Record results	Auditory discrimination, Concentration, Logic Comprehension, Detail/Inference, Informational reports, Definition, Terminology, Instructions Penmanship, Spelling, Classification, Terminology, Logic

348

(TASK STATEMENT) PERFORM TEST FOR BILE AND UROBILINOGEN IN URINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Ictotest Eye dropper Water Color comparison chart Bililabstix Timer Patient chart or lab record Pen	Use Ictotest tablest (Ames) Time test accurately Use Bililabstix (Ames)	Accuracy and reliability of results

DECISIONS	CUES	ERRORS
Determine need for test	Color of urine	

(TASK STATEMENT) PERFORM TEST FOR BILE AND UROBILINOGEN IN URINE

SCIENCE	MATH – NUMBER SYSTEMS
Kidney function Digestive system Red blood cell breakdown process Chemical reactions of red blood cell destruction Chemical reactions of tests for bile Liver function Related pathology	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Reading Writing	Instructions from physician Literature supplied by manufacturer Record results	Auditory discrimination, Concentration, Logic Comprehension, Detail/Inference, Informational report, Definition, Terminology, Instructions Penmanship, Spelling, Classification, Terminology, Logic

350

(TASK STATEMENT) PERFORM TEST FOR BLOOD IN URINE AND FECES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen or feces Hemastix Hematest Water Dropper Mat or filter paper Color comparison charts Bililabstix Timer Patient chart or lab record Pen	Use Hemastix (Ames) Use Hematest tables (Ames) Use Bililabstix (Ames) Read and record results	Accuracy and reliability of results
DECISIONS	**CUES** Many chemical substances, if present, interfere with these tests	**ERRORS**

(TASK STATEMENT) PERFORM TEST FOR BLOOD IN URINE AND FECES

SCIENCE	MATH – NUMBER SYSTEMS
Kidney function Red blood cells morphology and breakdown Chemical reactions of tests Related pathology Related medical terminology	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Reading Writing	Physicians instructions Literature supplied by manufacturer Test results	Auditory discrimination, Concentration, Logic Comprehension, Detail/Inference, Informational report, Definition, Terminology, Instructions Penmanship, Spelling, Classification, Terminology, Logic

352

(TASK STATEMENT) OPERATE CENTRIFUGE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Centrifuge Head Cups Shields Centrifuge tubes Balance Water for balancing Lab record book	Balance tubes on opposite sides of centrifuge Set speed and time Decant liquid	Keep cover closed to avoid flying glass Wear protective glasses Centrifuges must be cleaned and lubricated regularly to ensure operation Putting hands in before machine is completely stopped Laceration
DECISIONS	**CUES**	**ERRORS**
Proper counter balance	Be sure tubes are balanced Clean cups and shields if breakage occurs	Broken specimen tubes Centrifuge falls off counter

(TASK STATEMENT) OPERATE CENTRIFUGE

SCIENCE	MATH – NUMBER SYSTEMS
Centrifugal forces developed by bodies in rotation [Centrifugal force] Centripetal forces developed by bodies in rotation	

354

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Writing	Speed indicator Record in lab record book	Detail/Inference, Speed/Rate, Informational reports, Description of Mechanism Penmanship, Spelling, Classification, Description, Terminology, Clarity of expression, Usage

(TASK STATEMENT) PERFORM MICROSCOPIC EXAM OF URINE SPECIMEN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Urine specimen Centrifuge Centrifuge tubes Glass slides Cover slip Microscope Lab record book	Centrifuge specimen Decant supernatant Place sediment on slide Examine microscopically Identify normal and abnormal constituents under high and lower power and estimate number	Accuracy and reliability of results Scratched or cracked lens Broken slides
DECISIONS	**CUES**	**ERRORS**
	Remove amorphous before centrifugation Standing of urine causes distortion or breakdown of sediment	

(TASK STATEMENT) PERFORM MICROSCOPIC EXAM OF URINE SPECIMEN

SCIENCE	MATH – NUMBER SYSTEMS
Kidney physiology and anatomy Digestion process Characteristics, morphology of biologic and chemical sediment Blood cells Casts Crystals Epithelial cells Bacteria Miscellaneous substances	Counting sequentially

356

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Read	Interpret medical terminology	Terminology, Comprehension, Detail/Inference, Informational reports, Definition
Speaking	Report results	Terminology, Diction, Enunciation, Clarity of expression, Logic, Usage

(TASK STATEMENT) PERFORM A SKIN PUNCTURE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Alcohol Cotton sponges Sterile lancet	Wash hands Select puncture site Perform puncture 3-4 mm in depth so that squeezing of the part is not necessary to produce blood flow	Discard first drop of blood Care in handling lancet Incorrect laboratory finding due to presence of tissue fluids Puncture or laceration
DECISIONS	**CUES**	**ERRORS**
Determine appropriate puncture site	Finger tip should be warm Avoid areas that are cyanosed, scarred or calloused	Excessive pain to patient

(TASK STATEMENT) PERFORM A SKIN PUNCTURE

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of capillaries Effects of tissue fluids on blood Clotting mechanism	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Instructions from physician Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic, Facial and body features, Poise

(TASK STATEMENT) OBTAIN BLOOD SPECIMEN FROM VEIN WITH SYRINGE AND NEEDLE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Sterile syringe–volume determined by tests being performed Sterile needle Tourniquet–Velcro or rubber tubing Cotton Alcohol Adhesive strip Appropriate tubes and slides for tests ordered Chair or examining table Table to support arm	Wash hands Position and instruct patient Apply tourniquet and select vein Complete Venipuncture procedure Maintain pressure on site for 3-5 minutes after needle removed	Sterility of syringe and needle Critical: Syringe must be dry Caution must be used during entire procedure; do not allow needle to move when pulling back on plunger After palpation, reclean area with alcohol prior to penetration of the skin Caution in handling glass Sepsis Trauma to underlying tissue Contamination–sepsis Hematoma Laceration
DECISIONS	**CUES**	**ERRORS**
Determine position of patient Select vein Select proper needle gauge	Condition of patient – physical and mental Size and location of vein Small vein will require higher gauge needle than normally used	Trauma to patient Inability to complete venipuncture Inability to enter vein or transfixing of vein

(TASK STATEMENT) OBTAIN BLOOD SPECIMEN FROM VEIN WITH SYRINGE AND NEEDLE

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of veins Particular emphasis on location of veins in ante cubital fossa, forearm and hands Clotting mechanism of blood Physiology of sensory nerves Professionalism Maintain capacity to foster trust Maintain capacity to foster confidentiality Maintain capacity to foster cooperation Maintain capacity to generate integrity Maintain capacity to cope with conflict behavior Maintain capacity to function efficiently when encountering fast changing, multiple, personal or situational variables Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability	Measure with Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening/Reading	Instructions from physician	Auditory discrimination, Concentration, Logic Comprehension, Recommendation reports, Progress reports
Speaking	Instructions to patient	Terminology, Enunciation Clarity of expression, Logic, Gestures, facial and body features

360

(TASK STATEMENT) OBTAIN BLOOD SPECIMEN FROM VEIN WITH VACUTAINER SET–UP

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Vacutainer holder Sterile double-ended needle for holder–appropriate gauge and length or adapter needle Vacutainer tubes as required Tourniquet–Velcro or rubber tubing Cotton Alcohol Adhesive strip Slides if differential blood smear ordered Chair Table to support arm	Wash hands Position and instruct patient Apply tourniquet and select vein Complete Venipuncture procedure Do not penetrate vacuum of tube until skin has been penetrated Remove tourniquet before changing tubes during procedure Have extra Vacutainers available in case vacuum in tube fails	Sterility of needle is critical Caution must be used during entire procedure After palpation, reclean area with alcohol prior to penetration of skin Maintain pressure on site for 3 to 5 minutes after needle is removed Care in handling glass * Do not allow needle to move when pushing Vacutainer into position or while changing tubes Sepsis Trauma to underlying tissue Contamination–sepsis Hematoma Laceration

DECISIONS	CUES	ERRORS
Determine position of patient Select vein Select proper needle gauge	Condition of patient–physical and mental Size and location of vein Small vein will require higher gauge needle than normally used	Trauma to patient Inability to complete venipuncture Inability to enter vein or transfixation of vein

(TASK STATEMENT) OBTAIN BLOOD SPECIMEN FROM VEIN WITH VACUTAINER SET--UP

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of veins Particular emphasis on location of veins in ante cubital fossa, forearm and hands Clotting mechanism of blood Physiology of sensory nerves Understand pumping action caused by vacuums Professionalism Maintain capacity to foster trust Maintain capacity to foster confidentiality Maintain capacity to foster cooperation Maintain capacity to generate integrity Maintain capacity to cope with conflict behavior Maintain capacity to function efficienty when encountering fast changing, multiple, personal or situational variables Exhibit qualities of self-confidence, self-control, self-reliance, self-respect and adaptability	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Instruction from physicians Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic, Gestures, Facial and body features

362

(TASK STATEMENT) COMPLETE MICRO-HEMATOCRIT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Capillary or whole blood sample Heparinized capillary tubes Seal-Ease (TM) (sealing medium) Micro-hematocrit machine Micro-capillary reader	Fill and seal capillary tube Centrifuge Determine percent on reader	Use caution when handling capillary tubes Outer cover must not be lifted until rotation has completely stopped Electrical cord Accuracy and reliability of results Trauma to operator Shock

DECISIONS	CUES	ERRORS
Determine if blood sample is properly collected	Physical appearance	Incorrect findings
Determine if blood sample is well mixed	No separation	Incorrect findings
Determine if centrifugation is standardized		Incorrect findings

(TASK STATEMENT) COMPLETE MICRO–HEMATOCRIT

SCIENCE	MATH – NUMBER SYSTEMS
Hematocrit = % volume of packed red blood cells Used in evaluation and classification of anemia Normal values Centrifugal foces developed by bodies in rotation	Read and interpret charts, tables, and/or graphs

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written instructions	Comprehension, Detail/Inference, Definition, Terminology
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic

304

(TASK STATEMENT) PERFORM RED BLOOD CELL COUNT USING HEMACYTOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Red blood cell diluting pipet (Thoma) Aspirator tubing and mouthpeice Blood sample Diluting fluid—Hayem's, Gover's solution Mechanical shaker Hemacytometer Hemacytometer cover glass Alcohol or xylene Microscope Cell counter Pipet cleaning solutions—water, alcohol, acetone Gauze	Dilute blood sample 1:200 Mix and charge hemacytometer Count red blood cells in ½ mm^2 on microscope with high power objective Calculate red blood cells/mm^3 Count cells touching top and left lines Repeat until 10% agreement is reached Clean pipets and hemacytometer	Use caution when cleaning pipets Never focus down on a slide Never focus with coarse adjustment under high power Electrical cord Caution with glass Accuracy and reliability of results Aspiration of chemicals into mouth Trauma Break slide, scratch, or break objective
DECISIONS	**CUES**	**ERRORS**
Determine if blood sample is well mixed	Clumping of cells	Incorrect findings Faulty equipment Faulty technique Cell distribution

(TASK STATEMENT) PERFORM RED BLOOD CELL COUNT USING HEMACYTOMETER

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of red blood cells Decrease red blood cells = anemia Increase red blood cells = polycythemia Normal values	$\frac{\text{Number of cells counted x dilution in 1/5 mm}}{\text{0.2 area x 0.1 depth}}$ = Red blood cells/mm^3 or number cells counted x 10,000 [Multiplication of whole numbers] Ratio and proportion

366

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written instructions	Comprehension, Detail/Inference, Definition, Terminology
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) PERFORM WHITE BLOOD CELL (WBC) COUNT USING HEMACYTOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
White blood cell diluting pipet (Thoma) Aspirator tubing and mouthpiece Blood sample Diluting fluid 2% acetic acid or 0.1 Nitrogen Hydrochloric Acid (HCl) Mechanical shaker Hemacytometer cover glass Alcohol Microscoper Cell counter Pipet cleaning solutions Gauze	Dilute sample 1:20 Mix and charge hemacytometer Count white blood cells in four corner square mm with low power objective Calculate white blood cells/mm^3 Count cells touching top and left lines Repeat to agreement within 500/mm^3 Clean equipment	Use caution when cleaning pipets Never focus down on a slide Never focus, with the coarse adjustment under high power Electrical cord Caution with glass Accuracy and reliability of results Aspiration of chemicals into mouth Trauma Break slide or scratch or break objective

DECISIONS	CUES	ERRORS
Determine if blood sample is well mixed	Clumping of cells	Faulty equipment Faulty technique Cell distribution

(TASK STATEMENT) PERFORM WHITE BLOOD CELL (WBC) COUNT USING HEMACYTOMETER

SCIENCE	MATH – NUMBER SYSTEMS
White blood cells are necessary to fight infection Formation of white blood cells Increase = leukocytosis Decrease = leukopenia Effects of diluting fluid on white blood cells Normal values	$\frac{\text{Number cells counted x dilution of blood}}{\text{Volume (area x depth)}}$ = White blood cells/mm^3 or number counted times 50 Ratio and proportion

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written directions	Comprehension, Detail/Inference, Definition, Terminology
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic

368

(TASK STATEMENT) USE UNOPETTE (TM) FOR WHITE BLOOD CELL COUNT USING HEMACYTOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Unopette for white blood cells Blood sample Hemacytometer Hemacytomer cover glass Alcohol Microscope Cell counter Gauze	Prepare and dilute specimen with Unopette Mix and charge hemacytometer Count white blood cells in four corner square mm with low power objective Calculate white blood cells/mm^3 Count cells	Never focus down on a slide Never focus with the coarse adjustment under high power Electrical cord Care in handling glass Accuracy and reliability of results Break slide or scratch or break objective Trauma Shock
DECISIONS	**CUES**	**ERRORS**
Determine if blood sample is well mixed	Clumping of cells	Faulty equipment Faulty technique Cell distribution

(TASK STATEMENT) USE UNOPETTE (TM) FOR WHITE BLOOD CELL COUNT USING HEMACYTOMETER

SCIENCE	MATH – NUMBER SYSTEMS
White blood cells are necessary to fight infection Formation of white blood cells Increase = leukocytosis Decrease = leukopenia Effects of diluting fluid on white blood cells Normal values	$\frac{\text{Number of cells counted x dilution of blood}}{\text{Volume (area x depth)}}$ = White blood cells/mm^3 or number counted times 50 Ratio and proportion

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Writing	Written directions Chart information	Comprehension, Detail/Inference, Definition, Terminology Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) PERFORM HEMOGLOBIN DETERMINATION WITH HEMOGLOBINOMETER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Hemoglobinometer Complete blood chamber Hemolysis applicators Capillary blood, usually Gauze sponge	Fill and mix specimen with hemolysis applicator until specimen is a clear red which indicates hemolysis is complete Operate hemoglobinometer Chart and clean equipment Color matching should be repeated—to check findings	Accuracy and reliability of results
DECISIONS	**CUES**	**ERRORS**
Determine if specimen is well mixed		Incorrect findings

(TASK STATEMENT) PERFORM HEMOGLOBIN DETERMINATION WITH HEMOGLOBINOMETER

SCIENCE	MATH – NUMBER SYSTEMS
Lysis of blood cells Change of pH causing hypertonic condition	Measure with Metric and English system and convert between them Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits [Measure in other than linear, square, and cubic]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Order from physician Chart information	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic

372

(TASK STATEMENT) PERFORM HEMOGLOBIN DETERMINATION BY SOHLI–ADAMS METHOD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blood specimen Hemometer tube Eyedropper Sohli pipet Aspirator tubing and mouthpiece 0.1 Nitrogen Hydrochloric Acid (HCl) Stirring rod Hemometer Distilled water Gauze sponge Watch	Place HCl in Hemometer tube Pipet blood and mix in Hemometer tube Time Dilute, stir and check color, match for proper concentration of hemoglobin Read in grams	Caution with glassware Accuracy and reliability of results Laceration
DECISIONS	**CUES**	**ERRORS**
	Do not form air bubbles when rinsing Accuracy is critical	

(TASK STATEMENT) PERFORM HEMOGLOBIN DETERMINATION BY SOHLI–ADAMS METHOD

SCIENCE	MATH -- NUMBER SYSTEMS
Physiology of red blood cells–hemoglobin Related pathology Related medical terminology Lysis of blood cells Change of pH causing hypertonic condition	Measure of time Liquid and dry measures Read and interpret charts, tables, and/or graphs Measure with the Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Instruction from physician Chart information	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic

374

(TASK STATEMENT) PERFORM HEMOGLOBIN BY CYANMETHOGLOBIN METHOD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Spectrophotometer Drabkin's reagent (fresh) Cuvettes Pipettes Sohli pipet Tubing and mouthpiece Semi-log graph paper Blood sample Straight edge	Standardize photometer using commercial standards Draw calibration curve Dilute blood 1:251 (5 ml. reagent .02 blood) Allow color development Read percent transmittance on photometer Determine concentration from calibration curve Rinse Sahli pipets	Drabkin's reagent is poisonous Do not get reagent onto skin or clothing (flood with water and sodium bicarbonate solution) Electric cord Accuracy and reliability of results Burns Shock Inhalation of fumes
DECISIONS	**CUES**	**ERRORS**
Determine controls to be utilized to check technique, equipment, reagents	Technique, equipment, reagent stability, glassware cleanliness	Incorrect findings

(TASK STATEMENT) PERFORM HEMOGLOBIN BY CYANMETHOGLOBIN METHOD

SCIENCE	MATH – NUMBER SYSTEMS
Function of hemoglobin Anemia– decrease in quality and quantity of red blood cells and hemoglobin Drabkins and blood–cyanmethoglobin Beer's Law	Liquid and dry measures Ratio and proportion Read and interpret charts, tables, and/or graphs Measure with the Metric and English systems and convert between them Given an instrument of measure, determine precision and/or accuracy with respect to relative error, and significant digits (Measure in other than linear, square, and cubic)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Written instructions	Comprehension, Detail/Inference, Definition, Terminology
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic

376

(TASK STATEMENT) PREPARE BLOOD SMEAR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Capillary blood sample Precleaned glass slides Spreader slide Pencil	Spread drop of blood with spreader slide Air-dry smear Make two smears Label accurately in blood if plain slide or on frosted end	Care in handling glass Trauma
DECISIONS	**CUES**	**ERRORS**
Determine if blood is contaminated with tissue fluid or antiseptics Determine if smear is good	Feather edge indicates good smear—smooth, moderately thin	Clumping of cells Inaccurate findings

(TASK STATEMENT) PREPARE BLOOD SMEAR

SCIENCE	MATH – NUMBER SYSTEMS
Uses– Study morphology of red and white blood cells Verifies hemoglobin and red blood cells Check retic, indices, platelets	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Smear	Visual analysis, Describing, Logic, Detail/Inference

(TASK STATEMENT) STAIN BLOOD SMEAR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blood smear Wright's stain Phosphate buffer (pH 6.4) Water Staining rack Timer	Fix smear with Wright's stain Add buffer to stain Wash with water Wipe dye off back of slide Air dry, standing on end	Protect clothing Care in handling glass Stain Trauma
DECISIONS	**CUES**	**ERRORS**
Determine correct timing Determine correct pH Determine reliability of buffer	Timing varies with each batch of reagents Metallic sheen should form with buffer	Distortions

(TASK STATEMENT) STAIN BLOOD SMEAR

SCIENCE	MATH – NUMBER SYSTEMS
Chemical affinity of tissues for stain pH Hypotonic–Hypertonic	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Smear	Visual analysis, Describing, Logic, Detail/Inference

(TASK STATEMENT) EXAMINE STAINED BLOOD SMEAR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Stained blood smear Microscope Immersion oil Blood cell calculator	Evaluate smear quality with low power objective Estimate white count and scan for abnormal cells (low power) Identify and count 100 white blood cells (oil immersion) Examine red blood cells morphology (oil immersion) Report abnormalities and percent of each type of white blood cells	Electrical cord Care in handling glass Accuracy and reliability of results Shock Trauma

DECISIONS	CUES	ERRORS
Determine if smears should be reviewed by pathologist	Any questions regarding cell morphology	Inaccurate findings

(TASK STATEMENT) EXAMINE STAINED BLOOD SMEAR

SCIENCE	MATH – NUMBER SYSTEMS
Types of white blood cells Appearance of normal red blood cells and white blood cells Blood cell developmental series Abnormal red blood cells conditions Related medical terminology Normal values	Addition of whole numbers Finding a percent of a number and what percent one number is of another Locate by approximation rational numbers and integers on the number line (sequential ordering)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Writing	Written instructions Chart information	Comprehension, Detail/Inference, Definition, Terminology Penmanship, Spelling, Classification, Terminology, Logic

(TASK STATEMENT) COMPLETE AN ERYTHROCYTE SEDIMENTATION RATE (ESR) (WINTROBE–LANDSBERG METHOD)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Wintrobe sedimentation rack Wintrobe tubes Pipette Sedimentation rate calculator Blood specimen Gauze sponge Timer Test tube containing double-oxalate mixture	Mix blood and anticoagulant Pipet blood, fill Wintrobe tube and place in rack The test must be set up in a Wintrobe tube withing two hours after blood is drawn Read correct and record findings at proper time	Caution with glassware Accuracy and reliability of results Laceration
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) COMPLETE AN ERYTHROCYTE SEDIMENTATION RATE (ESR) (WINTROBE–LANDSBERG METHOD)

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of red blood cells Plasma proteins Rouleaux Pathology affecting ESR Normal values	Measure of time Liquid measures Measure with Metric and English systems and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Instruction from physician Chart information	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic

384

(TASK STATEMENT) COMPLETE AN ERYTHROCYTE SEDIMENTATION RATE (ESR) (WESTERGREN)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Anticoagulant (Sequestrene or double oxalate) Test tube Blood specimen Westergren tube Timer Pipette	Mix blood and anticoagulant which not only prevents clotting but preserves the shape and volume of the red blood cells Fill pipet and vertically place in rack Set up in a clean Westergren pipet withing two hours after blood is drawn Read and record findings	Caution with glassware Accuracy and reliability of results Laceration
DECISIONS	**CUES**	**ERRORS**
Determine proper temperature	Blood must be at room temperature	Temperature and vibrations can affect the ESR

(TASK STATEMENT) COMPLETE AN ERYTHROCYTE SEDIMENTATION RATE (ESR) (WESTERGREN)

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of red blood cells Plasma proteins Rouleaux Pathology affecting ESR Normal values	Measure of time Liquid measures Measure with Metric and English systems and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Instruction from physician Chart information	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology, Logic

386

(TASK STATEMENT) USE COLORIMETRIC STRIP TEST FOR BLOOD GLUCOSE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blood specimen Test strip for glucose e.g. Dextrostix (TM), (Ames Company) Wash bottle with water Basin Watch with second hand Appropriate color chart	Place large drop of whole blood on strip Time Read and chart Follow rinse instructions carefully for accurate test results	Accuracy and reliability of results Care in handling glass Laceration
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) USE COLORIMETRIC STRIP TEST FOR BLOOD GLUCOSE

SCIENCE	MATH – NUMBER SYSTEMS
Blood glucose Effects of: Diabetes Hypoglycemia Chemical reaction with blood	Measure of time Read and interpret charts, tables, and/or graphs Measure with Metric and English system and convert between them

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Writing	Instructions from physician Chart information	Auditory discrimination, Concentration, Logic Penmanship, Spelling, Classification, Terminology and Logic

(TASK STATEMENT) COMPLETE A BLEEDING TIME (DUKE'S METHOD)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Lancet Alcohol Cotton ball Filter paper Stopwatch or watch with second hand	Utilize earlobe or fingertip Puncture 3mm deep Time as soon as bleeding begins	Quality of skin wound critical Care in handling lancet No not manipulate part Inaccurate finding which can be misleading diagnostically to the physician Puncture wound or laceration
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) COMPLETE A BLEEDING TIME (DUKE'S METHOD)

SCIENCE	MATH – NUMBER SYSTEMS
Clotting mechanisms of blood Related pathology Normal values	Measurement of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Order from physician Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Enunciation, Clarity of expression, Logic
Writing	Recording	Penmanship, Classification, Spelling, Terminology, Logic

390

(TASK STATEMENT) COMPLETE COAGULATION TIME (CAPILLARY GLASS METHOD)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Lancet Alcohol Cotton balls Capillary tubes (plain) File Stopwatch or watch with second hand	Produce a free-flowing puncture Discard first two drops of blood and note time of appearance of second drop Fill capillary tubes Weaken and break off sections of tube at timed intervals Note coagulation time when reached Record	Care in handling lancet Care in handling capillary tubes Accuracy and reliability of results Glass will break easily resulting in laceration Puncture wound or laceration
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) COMPLETE COAGULATION TIME (CAPILLARY GLASS METHOD)

SCIENCE	MATH – NUMBER SYSTEMS
Mechanism of blood coagulation Related pathology Normal values	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Instructions from physician	Comprehension, Recommendation reports, Progress reports
Speaking	Instructions to patient	Terminology, Enunciation, Clarity of expression, Logic
Writing	Chart information	Penmanship, Spelling, Calssification, Terminology, Logic

392

(TASK STATEMENT) TYPE A BLOOD SPECIMEN (LANDSTEINER'S CLASSIFICATIONS)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Anti-A and anti-B typing solution Clean slide Wax pencil Applicator sticks or toothpicks Watch with second hand Lancet Alcohol Cotton balls	Prepare slide Perform finger puncture Place blood on slide, mix, time and interpret Chart Return typing solutions to refrigerator	Caution with glassware Care with lancet Accuracy and reliability of results Laceration Puncture or laceration
DECISIONS	**CUES**	**ERRORS**
Determine correct results	Timing is important Good lighting important	Incorrect typing

(TASK STATEMENT) TYPE A BLOOD SPECIMEN (LANDSTEINER'S CLASSIFICATIONS)

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of red blood cells proteins pressure of antigens effects of antibodies Medical significance of blood type	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic
Writing	Chart information	Penmanship, Spelling, Classification, Terminology, Logic
Speaking	Instructions to patient	Terminology, Enunciation, Clarity of expression, Logic

(TASK STATEMENT) COMPLETE AN Rh DETERMINATION (SCREENING ONLY)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Anti-Rh serum Clean slide Microscope lamp or Rh typing box Applicator sticks or toothpicks Watch with second hand Lancet Alcohol Cotton balls	Warm slide Perform finger puncture Place blood on slide, mix, time and interpret Chart	Electrical cord Caution with glassware Accuracy and reliability of results Shock Laceration
DECISIONS	**CUES**	**ERRORS**
Determine correct results	Timing is important Good lighting important	Incorrect typing

(TASK STATEMENT) COMPLETE AN Rh DETERMINATION (SCREENING ONLY)

SCIENCE	MATH – NUMBER SYSTEMS
Physiology of red blood cells Effects of antibodies Transfusions Pregnancy (Erythroblastosis fetalis)	Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic
Reading	Instructions from physician	Comprehension, Recommendation reports, Progress reports
Writing	Information	Penmanship, Spelling, Classification, Terminology, Logic
Speaking	Instructions to patient	Terminology, Enunciation, Clarity of expression, Logic

396

(TASK STATEMENT) PERFORM GLUCOSE DETERMINATION BY FOLIN WU METHOD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Test tubes Flasks Whole blood Sulfuric acid Sodium tungstate Funnel Filter paper Folin Wu blood sugar tubes Distilled water Alkaline copper tartrate Boiling water bath Heat source Cold water bath Molybdic acid Spectiophotometer Pipets Cuvettes Graph paper Timer Lab record book Standard glucose Controls	Prepare folin Wu filtrate Place samples in Folin Wu tubes Perform color reaction and dilute Calibrate spectiaphotometer Read percent of temperature value Determine manufacturer's percent from graph	Reliability and accuracy of results Proper glassware handling Chemical handling Sources of error Patient's well-being Burns—heat and chemicals Lacerations
DECISIONS	**CUES**	**ERRORS**
	Set proper wave length Accurate timing is essential Check quality control Inadequate mixing	

(TASK STATEMENT) PERFORM GLUCOSE DETERMINATION BY FOLIN WU METHOD

SCIENCE	MATH – NUMBER SYSTEMS
Digestion and metabolism of carbohydrates Chemistry of carbohydrates Blood sugar homeostasis Kidney, liver, pancreas functions Glucose tolerance theory Normal valves and glucose utilization curves Protein free filtrates Collection times and preservation Chemical reactions of tests Diabetes mellitus Renal threshold	Measure of metric volume Read graph Dilutions Basic Arithmetic Skills and Concepts Ratios and proportions Measure of metric weight Measure of time

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading and interpreting	Medical terminology Procedures Report results	Terminology, Comprehension, Detail/Inference, Informational reports, Definition
Speaking		Terminology, Diction, Enunciation, Clarity of expression, Logic, Usage
Writing	Draw graph Label accurately	Penmanship, Spelling, Classification, Description, Terminology, Usage, Format

(TASK STATEMENT) PREPARE A BACTERIAL SMEAR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Slides Mature culture Wire loop or needle Bunsen burner or alcohol burner Distilled water Staining rack Timer	Make direct smears from specimen Make smears from beatle cultures Emulsify growth from plate in water on slide Air-dry and fix with heat	Use proper sterile technique Burns Lacerations from slides Contamination of lab and culture Accuracy and reliability of results
DECISIONS	**CUES** Excessive heating can destroy bacteria Single layer sample desirable	**ERRORS**

(TASK STATEMENT) PREPARE A BACTERIAL SMEAR

SCIENCE	MATH – NUMBER SYSTEMS
Effects of heat on microorganisms Gram positive and gram negative differentiation Chemical reactions of stains with bacteria	Measure of time and speed [Time] Basic Arithmetic Skills and Concepts

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading and interpreting	Staining procedure	Terminology, Detail/Inference, Informational reports
	Medical	Terminology, Comprehension, Detail/Inference, Informational reports, Definition
Writing	Label accurately Record results	Penmanship, Spelling, Classification, Description, Terminology, Usage

(TASK STATEMENT) COMPLETE A GRAM STAIN

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Blotting paper Crystal violet Ethyl alcohol Ammonium oxalate Iodine solution Safranin Acetane Squeeze bottles Microscope Immersion oil Lab record book	Follow gram stain procedures Air-dry Examine microscopically under oil immersion	Stains are toxic and flammable Wear protective devices Accuracy and reliability of results Fumes Dyes stain hands and clothes Fire
DECISIONS	**CUES**	**ERRORS**
	Proper timing is essential Thorough washing is necessary Avoid direct contact with slide Culture must be within the 18-24 hour period	

(TASK STATEMENT) COMPLETE A GRAM STAIN

SCIENCE	MATH – NUMBER SYSTEMS
Effects of heat on microorganisms Gram positive and gram negative differentiation Chemical reactions of stains with bacteria	Measure of time and speed [Time] Basic Arithmetic Skills and Concepts

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading and interpreting	Staining procedure	Terminology, Detail/Inference, Informational reports
	Medical	Terminology, Comprehension, Detail/Inference, Informational reports, Definition
Writing	Label accurately Record results	Penmanship, Spelling, Classification, Description, Terminology, Usage

402

(TASK STATEMENT) PREPARE A WET MOUNT FOR PARASITOLOGY STUDY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Clean slide Cotton swab with secretion to be examined Normal saline Drapper Microscope	Place saline on slide Place secretions in saline Place slide on microscope stage for physician	Wash hands Slide could break Accuracy and reliability of results Contamination Laceration
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PREPARE A WET MOUNT FOR PARASITOLOGY STUDY

SCIENCE	MATH – NUMBER SYSTEMS
Parasitology Optics	

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic

404

(TASK STATEMENT) INOCULATE AN AGAR PLATE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Culture tube with inoculum Wire loop Agar plate Bunsen burner	Flame loop and mouth of tube Remove a loopful of inoculum and flame and recap tube Streak plate	Follow all procedures carefully to avoid contamination Use care with bunsen burner Accuracy and reliability of results Burns Sepsis
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) INNOCULATE AN AGAR PLATE

SCIENCE	MATH – NUMBER SYSTEMS
Bacteriology Asepsis Sterilization by flame	

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Viewing	Streak plate	Visual analysis, Logic, Detail/Inference

406

(TASK STATEMENT) POSITION PATIENT FOR X–RAY EXAMINATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Position patient according to physician's orders	Protect patient from falling Do not force a body part Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) POSITION PATIENT FOR X–RAY EXAMINATION

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy terminology Positions used in X-Ray photography Technique for: Anterior posterior Posterior anterior Lateral Right lateral Left lateral Supine Prone Oblique	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening Speaking	Instructions from physician Instructions to patient	Auditory discrimination, Concentration, Logic Terminology, Clarity of expression, Enunciation, Logic

408

(TASK STATEMENT) LOAD X–RAY FILM IN CASSETTE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
X-Ray film (screen type or Blue Brand film)– appropriate size Cassette	Load cassette Lock cassette Lock door to darkroom Place top or cover back on box of films Press the sides of film box to release air Do not touch film with fingers	Do not expose to light source Do not touch film Ruined film Marks on radiograph
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) LOAD X–RAY FILM IN CASSETTE

SCIENCE	MATH – NUMBER SYSTEMS
Photochemical effect	

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Mechanism	Visual analysis, Memory, Logic, Detail/Inference, Recognition of symbols, codes, emblems

(TASK STATEMENT) EXPOSE X–RAYS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Cassette and X-Ray film X-Ray lead container to receive exposed X-Rays Lead screen X-Ray monitor badge (state law required under age 18) Thickness caliper	Prepare for patient Position patient Place X-Ray tube Measure body part Select exposure time, set-up machine and expose	Do not expose unless operator and patient, as much as possible, are protected Danger to: Blood Skin Corneal tissue Reproductive tissue
DECISIONS	**CUES**	**ERRORS**
	Measurement accuracy critical Proper positioning critical	Not using monitor badge Failure to register accumulative absorption of X-Rays

(TASK STATEMENT) EXPOSE X–RAYS

SCIENCE	MATH – NUMBER SYSTEMS
Differences in absorption and radiation of energy between dark rough surfaces and light, smooth, polished surfaces [Film, pigmentation of skin, metal] Composition of matter, including protons, neutrons, electrons, atoms, molecules, elements [X-Ray can break down molecules] Transfer of energy from one form to another [X-Ray generated] Resistance of materials to flow of electrical current [Penetration of rays] Arrangement of molecules, atoms and ions and the effect on structure and strength of materials Photonic injury to tissue (reproductive organs, blood skin and/or corneal tissue)]	Measure of time and speed [Seconds] Geometric constructions [Bi-secting angle] Read and interpret charts, tables, and/or graphs

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Orders from physician	Auditory discrimination, Concentration, Logic
Speaking	Instructions to patient	Terminology, Enunciation, Clarity of expression, Logic
Reading	Chart	Comprehension, Detail/Inference

412

(TASK STATEMENT) PROCESS X–RAY FILM

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
X-rays X-ray developer, filter and wash tanks X-ray developing hangers Floating thermometer Dark room Safelight Timer Typed card–appropriate information Photo–identification device	Read temperature of developing solution Darken room and lock door Process films through developer, rinse and fix After propter interval–hang to dry	Use care when handling chemicals Eye irritation Burns Stains to uniforms
DECISIONS	**CUES**	**ERRORS**
Determine time, temperature, and type of developer for film	Chart directions	Insufficient or oversufficient time Light leak in darkroom Insufficient rinsing Contamination of chemicals X-Ray touching on rack Unlocked door

(TASK STATEMENT) PROCESS X–RAY FILM

SCIENCE	MATH – NUMBER SYSTEMS
Chemistry of film development Fixation Washing Reducing	Measures of temperature [Measure of temperature in ° F]

COMMUNICATIONS		
PERFORMANCE MODES	**EXAMPLES**	**SKILLS/CONCEPTS**
Reading	Chart	Comprehension, Detail/Inference, Instructions
Viewing	Film	Visual analysis, Logic, Detail/Inference

414

(TASK STATEMENT) PERFORM PULMONARY FUNCTION STUDIES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Spirometer with proper accessories Graph paper Nose clip Disposable mouthpiece Stool	Instruct and position patient impressing on patient that maximum effort is critical Operate machine Calculate and complete form	Have stool readily available in event that patient becomes syncope and falls Accuracy and reliability of results Trauma
DECISIONS	**CUES**	**ERRORS**

(TASK STATEMENT) PERFORM PULMONARY FUNCTION STUDIES

SCIENCE	MATH – NUMBER SYSTEMS
Anatomy and physiology of respiratory system Mechanism of inhalation and expiration Related medical terminology	Measure of time and speed Multiplication and division of whole numbers Finding a percent of a number and what percent one number is of another Measure with metric and English system and convert between them Read and interpret charts, tables and/or graphs Given an instrument of measure determine precision and/or accuracy with respect to relative error, and significant digits [Measuring in other than linear, square, and cubic]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Specific instructions to patient throughout procedure	Terminology, Enunciation, Clarity of expression, Logic, Gestures, Facial and body features
Listening	Instructions from physician	Auditory discrimination, Concentration, Logic
Writing	Completion of forms, Charting	Penmanship, Spelling, Classification, Description, Terminology, Clarity of expression, Logic

(TASK STATEMENT) INVENTORY AND ORDER LABORATORY SUPPLIES AND EQUIPMENT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Stock book or cards	Inventory and reorder as needed Replace broken glassware Rotate chemicals Reorganize and clean area at this time	Store chemicals under appropriate conditions Chemical instability
DECISIONS Determine point at which to reorder	**CUES** Office policy on amount and age of supplies	**ERRORS** Run short; supplies too old

(TASK STATEMENT) INVENTORY AND ORDER LABORATORY SUPPLIES AND EQUIPMENT

SCIENCE	MATH – NUMBER SYSTEMS
	Addition and subtraction of whole numbers Multiplication and division with whole numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Record inventory Communications to supply houses	Penmanship, Spelling, Classification, Description, Logic Business letters, Clarity of expression

ACCESSION NUMBER: VT102079

PUBLICATION DATE: 75

TITLE: HANDBOOK FOR BEGINNING TEACHERS.

PERSONAL AUTHOR: APPLEGATE, RONALD, AND OTHERS

DESCRIPTOR: *BEGINNING TEACHERS; *TEACHER BEHAVIOR; *EFFECTIVE TEACHING; TEACHING GUIDES; TEACHING SKILLS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 34P.

ABSTRACT: THIS BRIEF HANDBOOK PRESENTS GENERAL GUIDELINES AND SUGGESTIONS FOR THE BEGINNING OR PROSPECTIVE TEACHER. IT DEALS WITH PROBLEMS AND CONCERNS OF INTEREST TO TEACHERS OF ALL SUBJECTS AT ALL LEVELS. THE CHARACTERISTICS AND QUALITIES OF A GOOD TEACHER ARE DISCUSSED. LESSON PLANNING, CLASSROOM MANAGEMENT, AND DISCIPLINE ARE ALSO TREATED BRIEFLY, ALONG WITH TESTING AND EVALUATION, STUDENT RECORDS, AND TEACHER EVALUATION. (NJ)

INSTITUTION NAME: DELAWARE STATE COLL., DOVER. DEPT. OF EDUCATION.

VT 102 079

HANDBOOK FOR BEGINNING TEACHERS

VT 102 079

HANDBOOK FOR BEGINNING TEACHERS

Delaware State College
Dover, Delaware
1973

PREFACE

The first day on any job is usually particularly frightening and the unknown qualities and quantities of people, places and things may tend to reduce our confidence to the sheerest fabric.

As we make errors in judgement, these activities should serve as learning experiences, and cognitive ability and corrective measures will result in making better decisions in the future.

To the teacher, specifically the beginning teacher, the first day of teaching is immeasurably different. His or her errors in judgement usually affect students.

The objective of this handbook is to assist beginning teachers with a variety of materials that will enable them to become better teachers. Subject matter content is not within the scope of this handbook, though reference is made at times to distributive education.

The scope of this project was to identify the preparation needed to solve some of the "felt need" experiences of the teacher with himself or herself, other teachers, students, the school administration and the community.

This handbook for beginning teachers was developed by the contributors listed on the following page as a project in "Coordination Methods of Distributive Education", under the direction of Dr. Raymond J. Grandfield, Professor, Distributive Education, Delaware State College, Dover, Delaware.

Contributors

Ronald Applegate
Len Barber
Lorene Brown
Ralph Calabrese
Bill Cheseroni
Doris Coleman
Johnson Cooper
Omar Drummond
Larry Fletcher
James Hanna
Cliff Harris
Edward Hawpe
James Hoover
Gerald Kobasa
Stan Lakey
Dave Nichols
Don Odom
Donna Ortelli
Bill Sowers
Carole Tatem
Gilbert Taylor
Juan Whitaker

TABLE OF CONTENTS

PREFACE. i

TABLE OF CONTENTS. iii

CHAPTER I, TEACHERS. 1

CHAPTER II, STUDENTS 13

CHAPTER III, TESTING AND EVALUATION. 16

CHAPTER IV, STUDENT RECORDS. 19

CHAPTER V, TEACHER EVALUATION. 23

CHAPTER I

TEACHERS

WHY TEACH?

SATISFACTION

One of the outstanding rewards of teaching comes when you see students whom you have taught and influenced achieve success and move ahead in their chosen fields. Shaping the lives of youths and preparing adults for "new types of work" for self-improvement and for promotion provide a satisfaction unknown to other professions.

SERVICE

To lead youth from darkness to light, to pave the way for adults to increase their knowledge, improve their skills and sharpen their intellects, is rendering a real service. To teach thoroughly and sincerely is to serve unstintingly without ear for the bell, eye for the clock or hand for immediate monetary gains.

SECURITY

In many of the schools throughout the country, tenure in a teaching assignment is now the rule. In industry, those selected to teach in company programs are usually rewarded by additional compensation and advanced positions.

In government assignments, teaching is often the first step to new careers. Freedom from worry over shifting occupational trends or job changes and the flexibility within the assignment, together with the knowledge that there is a constant need for the services of good teachers, make for real job security.

SALARY

Income for teachers in our schools is improving all the time. Teachers of apprentices and other workers in industry are likewise experiencing increased pay checks for their "special services". The public is recognizing that teaching is a profession. The economic status of those assigned to teach will improve in proportion to their attitude and ability to do the job.

NEED

With the ever present teacher shortage in vocational education, the increased need for apprentice training, retraining, "new job" training and the need for training and educating youth and adults, many men and women are entering teaching in response to this overall situation. While many of these teachers will leave teaching at the end of their first assignments, others will remain in the field. Good teachers are always a valuable asset to our country.

WHAT IT TAKES

PERSONALITY

Personality is often the "spark" or dynamic quality that types the individual teacher. This can usually be observed through the enthusiasm, tactfulness, confidence and interest displayed in his or her teaching. The combination of a friendly attitude, a well-groomed appearance and a pleasant voice make for an excellent teaching personality.

KNOWLEDGE OF SUBJECT

"You can no more teach what you don't know than you can go back to a place that you've never been." Accumulated knowledge and experience in your particular field, whether it be machine shop, cooking, agriculture or distributive education, will be invaluable. Constantly strive to improve your background, show enthusiasm for your subject, keep up with current trends, and develop creative and interesting demonstrative lessons and experiments. These are the things that make good teachers better teachers.

SKILL IN TEACHING

Skill in teaching is often judged on results. You must have the "show-how" as well as the "know-how" plus careful and adequate lesson planning. A skillful teacher avoids stalling. His questions have definite value and direction. His tools, equipment and references are ready for use.

ABILITY TO GET ALONG WITH OTHERS

A sense of humor is a must, along with an understanding of human relations, a desire to help, the ability to listen and the willingness to work cooperatively with your students, colleagues, and administrators. Practice these suggestions for successfully getting along with others.

LEADERSHIP

Effective leadership in teaching requires the ability and willingness to inspire, guide, direct and control youths and adults. Try to understand group needs and desires. Plan your course and lead the way. Be fair and gain the confidence of each student.

WHAT THE TEACHER SHOULD BE

A GOOD LISTENER

A successful teacher must be able to listen intelligently and have the student feel that he is sincerely interested in his problem. He should encourage him to talk. He should be patient, sympathetic and understanding. Listening is a skill and, like all skills, takes practice. It is surprising how much you learn about a subject or a person through listening.

A GOOD SALESMAN

Many new ideas, policies and regulations have to be "sold" and the teacher, through his personal contacts with students and co-workers, can be the best salesman. He should know his product, prepare his customer and clinch the "sale". A good teacher and a good salesman always maintain good "eye contact". They keep their "pitch" within the range of the listener, and they don't try to over-sell at any given time.

A GOOD COUNSELOR

Personal problems, human relations, exchange of new ideas, selection of courses, special assignments, visitation schedules, etc., are just a few of the items requiring the ability to counsel. A good teacher acting as "liaison officer" can effectively handle such problems and often provides much needed advice and guidance. In all matters relating to the course and other personal problems, the students should feel free to ask for and expect to receive good advice.

A CREATIVE THINKER

Teaching is a field of work offering more opportunity for creative thinking than any other profession. Each day, each session, each lesson, each student offers a new challenge to the creative teacher. Keep an "open mind" during all your planning and continually try to include new ideas, new methods, new problems,

new assignments and new experiences. Avoid the comfortable ruts that can easily develop in any teaching assignment. Maintain a feeling of constructive discontent; think creatively about your job and you will find fresh ideas constantly "popping up".

A REAL FRIEND

This is the acid test of a good teacher. Every effort should be made to be natural with your students. Gain their respect and confidence. Protect their interest and promote their welfare. Have your students work with you, not for you. Try to get them to feel that you are "on their side" and that you are willing to extend yourself to help them learn.

GETTING STARTED

BE ON TIME

Be in the school building at least 15 minutes* before the starting time of your first class. Starting promptly is a credit to the instructor and an incentive to the students. Early arrival also allows time for last-minute checking on facilities and materials, plus it gives the teacher time to talk or discuss individual problems or questions with some of the students.

DETERMINE OBJECTIVES OF COURSE

Examine your teaching assignments in terms of the "end product". Is it your responsibility to teach a complete unit or a single operation? Does your schedule call for group teaching or individualized instruction? First determine the objectives and purposes of your course and from them you will be able to develop the scope, content, time required, and equipment needs.

CLASS ORGANIZATION

Class organization varies with the teaching assignments. Look at your objectives and check the backgrounds of your students. Determine the capabilities of your equipment. Make your assignments according to student ability. Arrange challenging teaching projects that will provide for individual progress at all levels.

*Some school districts require that you be present 30 to 45 minutes prior to the first class period. Check local policy.

HAVE A PLAN

Analyze your course outline and list available teaching aids. How much will be covered each session, each day, each month and for the whole term? Lay out units of work that are long enough to be covered each session and short enough to be interesting. Whenever possible, include some opportunity for creative thinking, problem solving, student participation, plus individual and group evaluation.

WORK YOUR PLAN

Develop definite lessons or units of work to conform with your plan. Have a time schedule and abide by it to insure adequate coverage of each new topic. Be careful of detours; keep the discussion within the limits of your plan and always summarize. Remember to include opportunity for creative thinking, writing, speaking and listening. These are communication skills and they are in demand until we die; they also help supplement other newly acquired skills and knowledge.

TEACHING IS A PROFESSION

READ PROFESSIONALLY

Read at least two educational magazines and outstanding periodicals of your area of specialization each month. Become familiar with the latest practices and movements in your field and in education in general. Use your library frequently. Read professional bulletins, newsletters and current press releases, and follow new developments in visual aids.

THINK PROFESSIONALLY

Think creatively. "How can I improve my methods of teaching? How can I make my course more interesting and challenging? In what ways can I get greater participation on the part of the students? In what ways can I teach my particular subject more creatively?" Accept the responsibilities of teaching and make every personal effort possible to do an excellent job with each student.

ACT PROFESSIONALLY

Be a credit to your profession at all times. Avoid pettiness. Attend and participate in professional meetings and professional organizations. Exhibit interest, initiative and enthusiasm in educational programs, new trends, and suggested improvements.

LIVE PROFESSIONALLY

Maintain high ideals and standards in your school, in your home and in your community. Participate in community meetings. Be an active member in civic organizations. Be a good "ad" for your profession by promoting publicly the accomplishments of the profession. Then work toward internal improvement "without publicity" to correct all weaknesses.

WORK PROFESSIONALLY

Have a definite philosophy of education and training and practice it. Do a real enthusiastic job of teaching. Participate in co-curricular activities and all school functions which require your abilities. Take the lead in refining courses of study. Work sincerely for the success of each student.

LESSON PLANNING

METHODS AND CONTENT

The teacher, especially of high school classes, at the onset has to be willing to accept the truth of the statement that methods and subject matter are inseparably related to each other. In other words, what to teach and how to teach it cannot be considered independently of each other. If a teacher has difficulty in teaching effectively, he will usually find: 1) subject matter is too complex, or 2) improper method of putting it across is being used, more motivation or incentive has to be "built in", or a new twist or idea should be used to "spark" the lesson. Try matching your subject matter and your methods to your group. A good teacher must be adaptable and flexible.

THOSE WHO PLAN BEST, TEACH BEST

An experienced teacher never makes the mistake of walking into a classroom with "no idea" of what he is going to teach that day. The extent of lesson planning varies with the experience of the teacher. For the beginner, the lesson plan should be complete and in detail. Objectives should be clearly stated, motivation should be well planned, order of teaching decided upon, visual aids should be listed, available and timed, extent and kind of student participation should be noted, new terms put on the board, provision made for a summary, assignments for next session, and some method of evaluation or feedback from the group. Do not overlook your KEY POINTS and your outcomes for the individual and the group.

SUGGESTED FORM

The actual form of a written plan will usually include:

1. Aim or Objective
2. Introduction
3. Content
4. Summary
5. Evaluation
6. Materials Needed

TEACHER-STUDENT PLANNING

Teacher-student planning is always considered a desirable practice. Much preplanning by the instructor is still necessary. The teacher has course requirements, content, needs of the students and other overall objectives to consider, but having a clear understanding and sharing of this knowledge with his students, plus the valuable resources and experiences they have to offer, could lead to some very interesting lessons. Any time an instructor can involve his students in the planning and presentation of any phase of the course, he is well on his way to doing a successful job.

WHAT IS A LESSON?

A lesson is defined as a small unit of learning. It does not have to occupy an entire class period. It should contain enough material to be absorbed by the student at a single sitting. A common error among beginning teachers is to crowd too much new material into a lesson. Build on the past, add a little each day, and plan for the future. A theory lesson usually permits information to be learned or discussed. A skill lesson involves the learning of manipulation of tools, instruments and materials for the purpose of producing a desired result. Many lessons are often a combination of theory and skill.

TYPES OF LESSONS

In addition to the general types (theory and skill) there are various other types of lessons that may be used for specified purposes. It should be remembered that the teacher is not held to any hard and fast rules but may select and make use of a variety of procedures.

The following are some of the special types of lessons that may be used effectively depending upon the subject, the class and the purpose involved: introductory, supervised, informal recitation, developmental, drill, appreciation, review, project, audio-visual and problem solving.

A good lesson will usually focus on one main thing, contain something new, suit the learner, proceed from the known to the unknown and require some achievement that is measurable.

CLASSROOM MANAGEMENT

To begin with, most students know what is expected of them when they enter a classroom. They know that shouting, horseplay, rudeness and disruptive behavior are not acceptable modes of behavior for the classroom. They also know that they are there to learn, for that is the purpose of school. Secondly, students will model the behavior that is exhibited to them. Thirdly, students will react either favorably or unfavorably toward the attitude that the teacher exhibits. It is also known that conditioning by positive reinforcement brings about many desirable behavioral changes.

Your first day with a new class is the most important day you will spend with that class in terms of favorably impressing them. If you come on like a tyrant, you can be assured that you will have problems throughout the school year with your students. If, when you enter your class you exhibit common courtesy to the students, you are on your way. The attitude you exhibit to your students will elicit from them a favorable attitude toward you. Say please, thank you, and give praise whereever and whenever possible. Your students will model after you and exhibit this positive attitude if, and only if, you exhibit a positive attitude. The classroom should be a friendly and warm place in which to be.

The following points may help you to better understand your students:

Typical Behavior Patterns - Ages 14 to 16

1. The child of this age may have reached psychological adulthood but lacks life experiences. He may exhibit a "know-it-all" attitude. He is intensely emotional. He is seeking his own place in the life around him. There may be emotional instability while striving to understand social relationships.

2. The desire to conform to standards of the peer group is stronger than the response to parent or teacher guidance.

3. Boys like to be thought big, strong and healthy. Girls desire prettiness. In both sexes there is interest in the emphasis on physical attractiveness.

4. Adolescents of this age need unobstrusive adult guidance that does not impinge upon their own feeling of being adults. A balance between security and freedom is needed.

5. During adolescence there may be an almost unlimited admiration of some adult whom he considers to be outstanding.

Some Elements of Group Psychology

1. Group "Troublemakers"

   High school age students tend to organize in groups or cliques due to the normal tendency of any individual to belong to some group. Most cliques are formed by groups of like social or ethnic background. Any action against the entire group, and if a group member refuses to get along with the majority, he is often punished by being ostracized.

2. Group Leaders

   In every class there will be students who, through athletic, scholastic or social activities, are unconscious leaders in the group. They do not actively work at leadership, but the other students naturally fall in with what they might suggest or the manner in which they act.

Some Techniques of Group Control

1. If an individual student is guilty of breaking the rules of conduct, do not "bawl him out" in front of all the students in the class. Individual behavior problems are better handled in a private manner.

2. Avoid a showdown with a student in front of other students. Never back a student into a corner.

3. Building good class conduct should start the first day of the school year. Rules should be made very clear and the very first infraction dealt with promptly and firmly. It is much easier to prevent a bad situation than to correct one.

4. Young people resent, more than anything else, an appearance of real or imagined favortisim toward students on the part of the teacher.

5. Never lose your temper. In the event of an argument or misunderstanding, the teacher should remember the less emotion he displays, the less emotion he is likely to arouse on the part of the students.

6. Young people like to test out adults to see how far they can go or how much they can get away with. Behavior, which is obviously in this category, should be dealt with good-humoredly, but firmly just the same.

7. Firmess should not be confused with harshness or unfriendliness. Many experienced teachers go year after year without any real disciplinary problems. The secret is to let the student know what is expected of him, to insist on reasonably good behavior at all times in the class and to avoid raising unnecessary difficulties.

8. Each student should be supplied with a copy of uniform rules for school behavior.

GENERAL PRINCIPLES OF ADMINISTERING DISCIPLINE

1. No matter how small the school, certain definite rules of expected behavior on the part of the student should be formulated and made known to the student. Unless students know clearly what is expected of them, constructive discipline is practically impossible to administer.

2. The purpose of discipline is correction, not punishment.

3. Discipline should be administered on the same principles as "preventive medicine"; i.e., the best disciplinarian attempts to give the student correction and guidance as errors occur in order to prevent a student from making a greater mistake.

4. Each discipline case must be considered on its individual merits. However, the teacher must know the general and specific principles of discipline and attempt to weigh each case and the circumstances surrounding it in reference to the general school-wide framework of discipline procedure.

5. Uniformity in the administration of discipline must be achieved to maintain good school morale.

6. The same discipline must be awarded to the various individuals who are jointly or equally involved in the same infraction. This may only be modified by the previous record of one or more of the students or by their respective share in the responsibility for the action for which discipline must be administered.

7. In any case where a student, because of a good record, is given a lesser discipline than that established by precedent, it should be fully explained in the record.

MANNERS OF THE TEACHER

Good manners are especially important to teachers. They smooth the way for pleasant relationships with others and provide examples for students to follow. High on the list of professional courtesies that should become habits are these:

1. Be considerate of students and of those with whom you work.

2. Make students feel at ease with you and give them your complete attention.

3. Learn to be a good listener.

4. Avoid talking about yourself too much.

5. Keep confidential information to yourself.

6. Generally avoid controversial issues in professional discussions which may become bitter and personal.

7. Never criticize your associates; such action creates problems and seldom solves a single one.

8. Do your best.

The following questions may help you evaluate your own behavior. Try them on some recent situation which was disburbing.

1. Did your action show thoughtfulness for all concerned?

2. Were your manners the kind which you could recommend for others to imitate?

3. Didyou feel that you were handling the situation well?

4. If you were uncertain of the proper action, have you since attempted to think through what you should have done?

First impressions are very important. Although a pleasing appearance and gentle manner may help to create a good impression, your manner of speaking may utterly ruin that impression.

1. Have you ever been surprised by the high feminine voice of a big, husky fellow, or by the harsh voice of a pretty girl?

2. How do you react when you hear someone speak in a distinctive accent or with mannerisms which make it possible for you to misunderstand?

3. Is your own voice pleasant and attractive?

TEACHER MANNERISMS

Nervous Mannerisms

Restless motions, snapping fingers at students, interrupting students to complete their sentences and the ostensible fear of a silence are all external manifestations of stress upon hurrying. One of the causes of the high, strident, nervous teaching voice is an inner cumulative urge for haste. Even though some of these seem to be only constant mannerisms, their effect upon students is to urge faster movement. To this group belongs the very common practice of asking a student a question and allowing insufficient time for him to answer before passing it to another.

Racing with the Clock

Occasionally, with the best planned lessons, and certainly with the worst, teaching situations develop in which temptation to hurry for the sake of keeping up with the assignment is very great.

CHAPTER II

STUDENTS

Characteristics That Students Admire In Teachers

Sincerity

It is an easy task to discern sincerity or indifference in the teacher. The warm friendly voice and, more important, the actions which take a little extra effort point to sincere interest. Conversely, the teacher who scurries out of class or school at the bell, can't find the time to be associated with any student clubs, or fails to recognize the importance and dignity of every student, has demonstrated his indifference.

Discussing Topics Other Than Subject Matter

Many teachers are willing to take class time to discuss matters which are important to the students but not directly related to the subject to be taught. Such an experience can aid the student to understand that you are interested in his concern. Take a few minutes to discuss and explain the salient features of a problem or event of the day. It can clear up conflicts, give new ideas and be a source of variation in class activities.

Enthusiasm

Enthusiasm is that vibrant quality which shows the teacher's excitement about the subject. Further, it is an aid to arousing the interest of the students.

Recognition Of Student Problems

If you have ever worked for an employer who cared for nothing but getting the job done, you have probably experienced the feeling of being forgotten when unavoidable circumstances made it impossible for you to work. Quite often the teacher forgets that the conscientious student has many demands upon his time. It is quite possible that a student's behavior can be linked to causes which when recognized and sympathetically treated can eventually be solved with great satisfaction to the student.

Speak To The Point

An easy habit to acquire is rambling on and on, either repeating yourself or dwelling on unrelated material. Conversely, to have outlined what is to be said, to say it and move along, is a much more effective delivery.

Knowledge Of The Subject

Adolescents are a group of idealists and are imprisoned with the teacher who has obviously labored diligently to become the best possible teacher. Certainly such ability comes from long experience and much attention devoted to a thorough understanding of the subject.

Humor And Wit

Time for humor and witty remarks can have a rather surprising way of popping into class routine if the teacher is alert for it. Spontaneous humor is best, but there is always room for planned mirth. More important, this projects a particular warmth and a sense of friendhship to them.

Informality

Teachers who are not confident often hold a tight grip on their class. This can be especially true of young teachers for when not quite sure of their abilities, they substitute a rather strict controlled atmosphere to maintain order. This can easily inhibit student participation.

Resourcefulness

The resourceful teacher in the eyes of the student is a person who can bring into the class discussion materials and ideas from other areas to give substance to his statements.

Desirable Traits For Beginning Teachers

1. Impartiality.
2. Ability to inspire students to do extra work.
3. Personal interest in the individual student.
4. Understanding of various differences in students.
5. Willingness to help slower students.
6. Effective and fair evaluating methods.
7. Listening to circumstances before making judgements whether for or against.

8. Ability to hold the attention of the students.

9. Ability to turn students on and get them thinking.

Student Counseling And Motivation

The motivation of a student toward learning is of prime consideration. The desire to learn is essential to effective learning. A desire to learn may come from a deep interest in some subject resulting from a feeling of need for some new knowledge or skill to meet a problem. Often a student is motivated by the actions of peer groups. The teacher should be the catalyst between the student and learning.

One of the main objectives of a teacher should be to develop a good relationship with the students. This will not only enhance learning, but it will allow the teacher to assist the student with personal problems.

Schools usually have several guidance counselors assigned to resolve student problems and give guidance in career preparation. This is a useful service, but the teacher-student relationship is even more important. This is because of the teacher's daily exposure to the student and his problems. He is in a position, if a good relationship has developed, to render valuable assistance to a student with problems.

All counseling by the teacher should be focused on the student's growth in self-understanding and self-management. Counseling should always be positive in nature.

CHAPTER III

TESTING AND EVALUATION

Most new teachers feel that mastering subject matter is their biggest problem in teaching. Experienced teachers usually admit that assigning grades to students is their most difficult problem.

The following are questions that beginning teachers ask themselves regarding evaluation:

1. On what basis should grades be given - subject matter, knowledge, attitude, improvement, social development, or what other basis?

2. Should students be compared grade-wise with one another?

3. Should grades be used as a motivating device? Should a student who earns a high grade be graded lower if his conduct is poor?

4. Should students be failed, ever? When? Why?

5. Is the competition brought on among students to get high grades a good thing?

6. Should grades be based upon test results alone or should such factors as interest, class participation, or industriousness have a bearing?

7. How do you assign a grade to such subjective measurements as attitude, participation, or industriousness?

8. Should every assignment that a student completes be graded?

9. What is the school's policy concerning grading and evaluation?

The following are characteristics of different type test items:

SUPPLY: Student must furnish all information to answer the question.

SELECTION: Student selects answers from those provided.

	Low chance for successful guessing	Cover a lot of material	Easy to score	Easy to construct	Measures all levels of learning
SUPPLY:					
COMPLETION	+	+	?	+	--
SHORT ANSWER	+	?	?	+	?
ESSAY	+	+	--	--	?
SELECTION:					
TRUE-FALSE	--	+	+	+	--
MATCHING	--	+	+	+	?
MULTI-CHOICE	?	?	+	--	+

Suggestions for writing various types of test items:

A. Completion

Try to phrase so answer will come at or near the end.
Be sure blanks relate to key words.
Don't use too many blanks in one question.

B. Short Answer

Have each question deal with one idea or concept.
Word the item so answer must be brief and definite.
Let student know how much response is expected.
Prepare a scoring key beforehand for grading answers.

C. True-False

Test only one idea with each question.
Keep the wording simple.
State questions positively.
Avoid using "absolutes" or "hedgers".
Don't ask for student opinions.
Have about an equal number of true and false answers arranged randomly.

D. Matching

Provide adequate instructions on how to match the parts.
Indicate how many times each alternative may be used.

Keep all parts of the question in the same subject area.
Make alternatives plausible for every possible match.
Arrange alternatives in some logical order.
Limit the number of alternatives used.

E. Multiple-Choice

Stem of Question:
Put in all information needed to answer the question.
Watch the semantics carefully.
Emphasize key words and any negatives.
Avoid clues which could be related to correct answer.
Check on grammatical agreement with all alternatives.

Alternatives in Question:
Have only one clearly correct answer.
Make all distractors plausible.
Try to keep alternatives in same general format.
Try to keep alternatives about the same length.

F. Essay Questions

Carefully plan your evaluation approach beforehand, insure questioning is comprehensive.
Plan your specific questions beforehand, be sure they are clearly stated.
Put the student at ease; create a friendly, positive atmosphere.
Use a check list or some other method to insure you generally test all students in the same way - will help if further study is needed.

CHAPTER IV

STUDENT RECORDS

A generation ago a student's record contained his teacher's report of his work, attendance and punctuality, his test marks and his grades. Today a typical school record is a four-page printed form with space for detailed information about a student's health and physical condition, his family background, reports of counselors, headings for intelligence, aptitude, and achievement test scores. Some records also include ratings of the student's personality, reports of social workers, samples of the student's work, diaries and autobiographies, notes on interviews with him and his parents and delinquency reports.

The following are some of the records used by teachers to assist in meeting individual needs.

The Cumulative Record

The cumulative record is maintained for a student over a considerable period of time, usually a number of years, with additions to the record at relatively frequent intervals. For example, marks in the school subjects, educational and aptitude test scores, social and character ratings, school attendance, health, home conditions and family history, participation in the activities program, interests, and attitudes. Cumulative records are useful in meeting instructional needs, for discovery of causes of behavior difficulties and failures, identification of talents and special abilities, placement, and counseling on a variety of problems.

To summarize in more detail, important items as a part of cumulative records include:

1. Autobiography, including family background, home and neighborhood environment. The family and cultural background, as shown by the autobiography, has considerable bearing on the student's immediate achievement in school and his future education and vocational plans. From such information teachers and counselors may often gain insight of great value in working with the student and his parents.

2. Health history, including physical and medical examination data. Properly evaluated, such material may have a direct bearing on the student's school progress and future plans. For the evaluation of such data, the school teaching and guidance staff and the school nurse depend on the school physician or the student's physician.

3. Standardized test records. Many records of test data are incomplete in the information necessary later to identify the test used. Space should be provided for the name of the test, form, grade level of the test, norms used, date administered, and any special conditions that might affect the results. Marked answer sheets or test booklets are sometimes helpful. With complete records, trends in class achievement can be observed and studied. For example, teacher's marks on essay-type tests and class work run consistently higher for girls than for boys, but scores on standardized tests usually reverse the direction of superiority - a finding that emphasizes the need for both kinds of data in cumulative record files.

4. School marks. Class marks and standardized test results are not to be regarded as duplicative. Marks often reflect the presence and the influence of many personality factors of educational significance that impartial and objective standardized tests do not measure.

5. Anecdotal items. Short descriptions of observed behavior supply evidence of character, personality, attitudes, and interests. No interruption is given. A number of these on the same student can be helpful to a record user in spotting difficulties.

6. Participation in co-curricular activities. A student's participation in co-curricular activities should be recorded, such as music and dramatic clubs and athletics. Positions of leadership as indicated by offices he has held should also be included.

7. Work experience. Such work as delivering papers, baby sitting, clerking in a store, or other employment and helping in church bazaars and in scout organizations should be included.

Anecdotal Records

The recording of information concerning an individual student is referred to as an anecdotal report. Anecdotal materials have come to be a significant part of the cumulative record. These reports serve useful purposes by way of mutual understanding between faculty and students, counseling relationships, curriculum development, appraisal of outcomes, and case instruction in professional programs for preparation of teachers and others.

As a teacher-coordinator and during your observation of your students, you will have many opportunities to make entries of specific characteristics of individual students. You can take notes on types of responses displayed, such as actual behavior during recitation, span of attention, willingness to participate in the discussion, interest in the subject, attempts to converse with a neighbor, tendency to daydream, and the like. You then can report the incident in the form of an anecdotal report.

However, before you write an anecdotal report you should evaluate the data and decide what you want to keep on record and what you may wish to discard. Although this phase of evaluation may not seem to be important to you, it may be one of the most important steps in student evaluation. It represents what you believe to be important in student responses.

Health Records

In many cases the reason that a student does poorly in his class and school work is due to some medical or physical reason that the teacher does not know exists. Students who have such difficulties may be helped by seating that student in a position in the classroom which will be advantageous to that student's particular medical or physical problem. So too should a teacher be aware if, for example, one of his students suffer from epilepsy so that he may prepare himself in the event a seizure occurs in his classroom. Information related to such problems can often be found on file in the nurse' office.

Helpful Health Facts For Teachers To Consider In A Classroom

1. Students with hearing and sight problems should be placed to the front, as well as students under special medication and other special health problems.

2. Make sure classroom is properly lighted, to decrease eye fatique, headaches, nervousness, and irritability.

3. Be sure classroom is properly heated and ventilated to reduce the likelihood of contracting diseases, such as colds and pneumonia.

4. Make certain that all equipment in the classroom is properly used and stored in its proper place to prevent accidents.

5. Be certain that the classroom is correctly equipped with chairs and tables to fit the individual student.

6. A beginning teacher should become familiar immediately with all the provisions for emergency exists and fire protection.

7. Develop and practice habits of safety in the classroom.

8. Communicate with the school nurse when in doubt about the student's past health record.

9. Know first-aid and how to handle illness or accidents in the classroom.

CHAPTER V

TEACHER EVALUATION

The following are reasons for teacher evaluation:

1. To insure that instructional objectives are being met.

2. If the instructional objectives are being met, to be sure they are done so as effectively as possible.

3. To make sure the objectives are still in line with the desired end product.

4. If the objectives are not being met by every member of the class, find out why and what can be done to rectify the situation.

The following are three common types of evaluation:

1. Students - because they are the people who will ultimately be benefited or harmed by the teacher

2. Teacher - because he alone knows if he has done his best to teach or generally satisfy the needs of his students

3. Supervisors - department heads, principals, and other supervisory personnel because these are the people to whom the teacher is responsible.

The student evaluation can be done in a number of ways. One method is dialogue with students as a group or individually, but probably the most effective way is through a questionnaire in which the student would not reveal his identity. Reference may be made to the student evaluation form on page 24.

The teacher evaluation should be done by the teacher himself. He should have a list of questions which should be reviewed daily and answered honestly. A daily teacher form can be found on page 25.

The evaluation of the supervisor is usually prepared on a form. If this form is not available, the supervisor will write a brief statement about what he feels are the strengths and weaknesses. Discussion of these recommendations should follow immediately.

Student Evaluation Form

After each statement a space would be provided and the evaluator would fill in the appropriate measure for the student.

1) Health-Vitality - Is alert; has the energy to do the job

2) Appearance - Wears neat and appropriate clothes

3) Voice - Speaks with a pleasant voice

4) Poise - Has confident, pleasant manner before class; is calm and tactful

5) Courtesy - Employs accepted forms of courtesy in dealing with people

6) Use of English - Uses the English language correctly and effectively

7) Interest in Teaching - Shows an enjoyment in his work which arouses enthusiasm in students

8) Adaptability - Adjusts self to situations that arise in school and community

9) Cooperation - Accepts and carries out suggestions of others

10) Forcefulness - Manner and voice command respect

11) Resourcefulness - Is able to alter planned procedures to meet the needs of the new situation

12) Attitude Toward Criticisms - Realizes criticisms are a means for self-improvement

13) Understanding of Students - Has a sincere human interest in the people with whom he is working

14) Ability to Stimulate and Direct Learning - Directs students so that they recognize the worth of the learning

15) Ability to Question - Knows what questions will stimulate thinking

16) Ability to Provide for Individual Differences - Recognizes each student as an individual and plans in terms of individual needs and interests as well as those of the entire group

17) Suggestions for Improvement:

18) Other:

Daily Teacher Form

1) Did I plan the daily lesson with specific objectives in mind?

2) Did I take time to see if my daily objectives were met and adjust the next lesson accordingly?

3) Did my daily lesson follow a well organized and sequential pattern?

4) Did I adjust my teaching methods to best suit the students and the teaching situation?

5) Did I have sufficient knowledge of subject matter?

6) Did I use the appropriate teaching aids to achieve a maximum learning situation?

7) Was I relaxed and confident with the students?

8) Did I do everything in my power to serve the needs of my students?

Code of Ethics for Teachers

Since you are a part of a school system, it is not a bad idea once in a while to take a look at what teachers should do and not do to be ethical in their dealings with others. Here are ten factors that make for a good teacher's code of ethics.

1. Set an example of what you expect from others.
2. Emphasize the future rather than the past or present.
3. Look for, and deal with, causes rather than symptoms.
4. Admit, and learn from, making a mistake.
5. Don't pass the buck.
6. Consider both the long-run and the short-run results of actions.
7. Everyone involved should benefit.
8. Legal and ethical means should be used to achieve legal and ethical means.
9. The dignity of every individual should be respected.
10. Try to understand others, and make yourself understood by them.

Teacher Dress

Certain situations lend themselves to varying modes of dress (i.e., shop, art, drama, etc.). Dress should be appropriate for the activity.

Attitudes towards teacher dress are more liberal today than in the past. Most individuals feel that common sense is the best guide to use in determining the teacher's appearance in a classroom. The activity or the field that you teach does require certain dress. The following is a check list that you as a teacher could use when preparing yourself for school.

Daily Check List For Teachers

When you leave for school:

1. Are your shoes shined? _____Yes _____No
2. Is your suit or sports jacket neat and clean? ____Yes ___No
3. Is your tie clean and in good taste with the rest of your outfit? _____Yes _____No
4. Is your shirt freshly laundered? ____Yes ____No
5. Do your clothes fit properly? ____Yes ____No
6. Are the colors of your clothes coordinated properly? ____Yes ____No
7. Are your under clothes fresh and clean? ____Yes ____No
8. Are your socks fresh and clean? ____Yes ____No
9. Is your knit properly dry cleaned? ____Yes ____No
10. Are your fingernails clean? ____Yes ____No
11. Is your hair properly trimmed? ____Yes ____No

Check List For Beginning Teachers

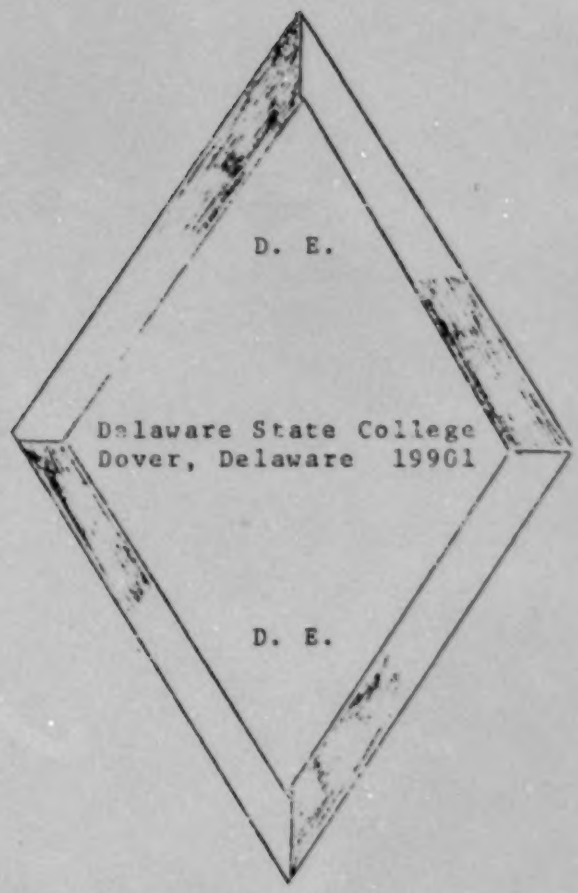
DO'S

1. Act like a professional.
2. Join the professional organizations.
3. Accept duties and responsibilities such as--
   a. bus duty
   b. hall duty
   c. cafeteria duty
   d. class trips
4. Help your fellow teachers.
5. Develop school spirit.
6. Learn the class and bell system.
7. Know which authorities to report to for certain situations.
8. Learn school policies and regulations.

DON'TS

1. Talk about other teachers to your students.
2. Gossip.
3. Carry tales.
4. Back students in corners where there is no escape.
5. Show any obvious favoritism.
6. Discriminate between students.
7. Take personal feelings out on students.
8. Pile unnecessary homework on students.
9. Let personal conflicts affect your grading.

"DEVELOPING FUTURE LEADERS



FOR MARKETING AND DISTRIBUTION"

ACCESSION NUMBER: VT102110

PUBLICATION DATE: 75

TITLE: ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING VOCATIONAL AGRICULTURE.

PERSONAL AUTHOR: MCGHEE, MAXIE B.; BENDER, RALPH E.

DESCRIPTOR: *ADMINISTRATOR ATTITUDES; *COUNSELOR ATTITUDES; *VOCATIONAL AGRICULTURE; PROGRAM EVALUATION; *SURVEYS

IDENTIFIER: WEST VIRGINIA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 23P.

ABSTRACT: AN INVESTIGATION OF THE ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING THE PROGRAM OF VOCATIONAL AGRICULTURE IN WEST VIRGINIA WAS CONDUCTED. TWO 16-ITEM LIKERT-TYPE ATTITUDE SCALES WERE DEVELOPED FOR MEASURING ATTITUDES TOWARD VOCATIONAL AGRICULTURE TEACHERS. THE LEVEL OF UNDERSTANDING REGARDING PRIMARY GOALS AND OBJECTIVES OF VOCATIONAL AGRICULTURE WAS ALSO MEASURED. THE POPULATION CONSISTED OF ALL SUPERINTENDENTS, PRINCIPALS, COUNTY VOCATIONAL DIRECTORS AND GUIDANCE COUNSELORS IN THOSE COUNTIES WITH PUBLIC JUNIOR AND SENIOR HIGH SCHOOLS AND VOCATIONAL SCHOOLS OFFERING VOCATIONAL AGRICULTURE. ONE HUNDRED PERCENT OF THE 257 INDIVIDUALS IN THE POPULATION RESPONDED TO THE QUESTIONNAIRE BETWEEN SEPTEMBER 1973 AND JANUARY 1974. ALL FOUR GROUPS HELD RELATIVELY FAVORABLE ATTITUDES TOWARD VOCATIONAL AGRICULTURE, WITH MEMBERS OF PROFESSIONAL ASSOCIATIONS REACTING SLIGHTLY MORE POSITIVELY AS A GROUP. ALL GROUPS WERE FAIRLY ACCURATE IN THEIR UNDERSTANDING OF THE GOALS AND OBJECTIVES OF VOCATIONAL AGRICULTURE. ALSO, SIGNIFICANT POSITIVE RELATIONSHIPS WERE FOUND BETWEEN THE ATTITUDES OF PRINCIPALS TOWARD VOCATIONAL AGRICULTURE AND PROGRAM AND TEACHER EFFECTIVENESS. THIS RESEARCH SUMMARY INCLUDES A SAMPLE SURVEY INSTRUMENT. (NJ)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. DEPT. OF AGRICULTURAL EDUCATION.

VT 102 110

SUMMARY OF RESEARCH

DEPARTMENT OF AGRICULTURAL EDUCATION

The Ohio State University
Columbus, Ohio 43210

ATTITUDES OF ADMINISTRATORS AND GUIDANCE COUNSELORS REGARDING VOCATIONAL AGRICULTURE

Maxie B. McGhee and Ralph E. Bender

INTRODUCTION

Various people in the school system exert influence upon the program of vocational agriculture. An identification of the attitudes these persons have regarding vocational agriculture should prove useful in planning for its further development. Although attitudes toward the program of vocational agriculture are generally favorable, there seems to be disagreement among various sub-groups regarding the role of vocational agriculture, program administration, and participation in the programs (Research Committee of the Southern Region, 1956).

Sponaugle (1970) found that guidance counselors who had more favorable attitudes regarding vocational education were members of professional education organizations and had completed high school vocational courses. Evidence

VT 102110

of the lack of significant relationships between administrators attitudes toward vocational education and years of experience and prior enrollment in vocational education is provided by Parks (1967).

In the spring of 1973, the vocational education staff of the Bureau of Vocational-Technical and Adult Education, West Virginia Department of Education indicated a desire to conduct an investigation of the attitudes of administrators and guidance counselors regarding the program of vocational agriculture in West Virginia. A study was therefore cooperatively designed and conducted.

PURPOSE OF THE STUDY

The major purpose of the study was to identify and describe the attitudes of superintendents, principals, county vocational directors and guidance counselors regarding selected aspects of the program of vocational agriculture in the public secondary schools of West Virginia. A secondary purpose was to investigate the relationship between the attitudes of these groups and the following factors:

1. Years of experience in present position
2. Prior enrollment in a high school vocational agriculture program
3. Number of years enrolled in vocational agriculture
4. Length of time vocational agriculture had been offered in the school or county
5. Membership in professional education associations
6. Instructional area(s) of public school certification
7. Understanding of the primary goals and objectives of vocational agriculture
8. Attitudes regarding teachers of vocational agriculture
9. Quartile rankings of vocational agriculture department and teacher effectiveness by supervisors and teacher educators

The variables used for investigation, selected from a review of literature, were believed to be related to the attitudes of the types of individuals studied.

METHODOLOGY

Two sixteen item, Likert-type attitude scales were developed for measuring the attitudes of each respondent group regarding vocational agriculture teachers.[1] An item analysis (Blalock and Blalock, p. 94) was calculated for each statement in each scale. The total scale reliability coefficients, based upon Kuder and Richardson's Formula 20 (Johnson & McCabe, 1970) for reliability for the attitude toward vocational agriculture scale and the attitude toward teachers scale were .93 and .89 respectively. A second part of the instrument was designed to measure the level of understanding regarding primary goals and objectives of vocational agriculture. A third part of the instrument was designed to collect data concerning selected characteristics of the respondents.

The population consisted of all superintendents, principals, county vocational directors and guidance counselors in those counties with public junior and senior high schools and/or vocational schools offering vocational agriculture in West Virginia. One hundred percent of the 257 individuals in the population responded to the questionnaire between September 1973 and January 1974.

RESULTS

Attitudes Toward Vocational Agriculture and Teachers of Vocational Agriculture

Table 1 indicates the mean item score of each group of respondents on the attitude toward vocational agriculture scale.

---

[1]Questionnaire can be found in Appendix A

Table 1
MEAN ITEM SCORES BY POSITION FOR ATTITUDE
TOWARD VOCATIONAL AGRICULTURE

Position	n	Mean Item Score[a]	S.D.
Superintendents	41	3.82	0.39
Principals	84	3.92	0.53
County Vocational Directors	35	4.03	0.66
Guidance Counselors	97	3.98	0.49

[a]Scale: 5 - Strongly agree, 4 - Agree, 3 - Undecided, 2 - Disagree, 1 - Strongly disagree

All four groups were relatively favorable toward vocational agriculture. There were no significant differences found among these groups.

Another finding of interest is illustrated in Table 2. The individuals who were surveyed tended to have favorable attitudes regarding teachers of agriculture. Although no significant differences in attitude toward vocational agriculture teachers were found among the groups, it may be seen that guidance counselors tended to be the most favorable toward teachers of vocational agriculture.

Upon further investigation it was found that the two attitude measures tended to be moderately related (r=.68) -- that is, as favorability toward teachers increased, attitudes toward the program in general also tended to become more favorable.

Table 2
MEAN ITEM SCORES BY POSITION FOR ATTITUDE
TOWARD TEACHERS OF VOCATIONAL AGRICULTURE

Position	n	Mean Item Score[a]	S.D.
Superintendents	41	3.89	0.43
Principals	84	3.97	0.56
County Vocational Directors	35	3.88	0.53
Guidance Counselors	97	3.98	0.53

[a]Scale: 5 - Strongly agree, 4 - Agree, 3 - Undecided, 2 - Disagree, 1 - Strongly disagree

Understanding of Goals and Objectives of Vocational Agriculture

The goals and objectives used in this study were identified by a Joint Committee of U.S.O.E. and the Agricultural Education Division of the American Vocational Association (1965).

To develop competencies needed by individual preparing to enter farming or agriculturally related occupations.

To develop an understanding of career opportunities in agriculture.

To assist in developing human relations competencies essential in agricultural occupations.

To develop the ability to secure placement and to advance in agriculturally related occupations through a program of continuing education.

To assist students to understand the preparation needed to enter and advance in agricultural occupations.

To develop leadership abilities needed in fulfilling occupational, social, and civic responsibilities.

These six statements were on the questionnaire and the respondents were asked to indicate their level of agreement as to whether these were primary goals and objectives of the program. Also included were these four statements which are not PRIMARY goals and objectives although they may be secondary in nature, and in some programs might be considered primary.

> To provide instruction primarily for students unable to progress in college-prep programs in high school.
>
> To train persons for entry into professional and technical occupations upon graduation from high school.
>
> To develop competence in livestock and crop judging through the summer program of vocational agriculture.
>
> To conduct agricultural research in an effort to increase food production.

These statements were generated by the authors and were judged by ten staff members in Agricultural Education at The Ohio State University as not representing primary goals or objectives of vocational agriculture. The level of agreement of a respondent with each statement was indicated by a value 1 to 5. The values for each statement were totaled. The highest possible total score or level of understanding was 50; a score of 10 would indicate the lowest level of understanding. As indicated by the findings in Table 3, all four groups were fairly accurate in their understanding of the primary goals and objectives of vocational agriculture.

Table 3
UNDERSTANDING OF THE PRIMARY GOALS AND OBJECTIVES OF VOCATIONAL AGRICULTURE

Position	n	Mean Total Score
County Directors	35	37.86
Guidance Counselors	97	36.39
Superintendents	41	35.98
Principals	84	35.92

Relationship Between Attitudes Regarding Vocational Agriculture and Independent Variables Investigated[2]

Level of Understanding or Primary Goals and Objectives

Slightly positive correlations were found between attitudes regarding vocational agriculture for county vocational directors (r= .43), guidance counselors (4= .24), and all respondents as a group (r= .21) and their level of understanding of the primary goals and objectives of vocational agriculture.

Effectiveness Ranking of Departments and Teachers by State Staff

The effectiveness rankings of vocational agriculture departments and teachers were determined by sending the names of the departments and teachers of the agricultural education staff at West Virginia University and to the vocational agricultural state supervisory personnel in the Bureau of Vocational, Technical and Adult Education, Charleston. These two groups were asked to rank the departments and teachers into quartiles according to their overall effectiveness based upon their past experiences and knowledge of the department or teacher. Each group (teacher educators and state supervisors) was asked to arrive at a consensus ranking as a group in order to eliminate disagreements among individuals doing the rankings. Through this procedure, separate effectiveness teacher educators and state supervisors. It is interesting to note that although there was no discussion between the two groups, there were high positive relationships (r= .61 and .75) between the two groups on their ranking of departments and teachers.

As Table 4 illustrates, there were significant positive relationships between the attitudes regarding vocational agriculture of principals and the departmental and teacher effectiveness rankings by teacher educators and state supervisors. No relationships were found between the attitudes of guidance counselors toward vocational agriculture and rankings of effectiveness.

---

[2] A summary of the relationships between attitudes toward vocational agriculture and variables investigated can be found in Appendix B.

Table 4
RELATIONSHIP BETWEEN ATTITUDES OF PRINCIPALS AND GUIDANCE COUNSELORS TOWARD VOCATIONAL AGRICULTURE AND RANKINGS OF EFFECTIVENESS OF VOCATIONAL AGRICULTURE DEPARTMENTS AND TEACHERS BY TEACHER EDUCATORS AND STATE SUPERVISORS

Type and Source of Ranking	Spearman Rank Order Correlation Coefficients: Principals' Attitudes Toward Vocational Agriculture (n=84)	Spearman Rank Order Correlation Coefficients: Guidance Counselors' Attitudes Toward Vocational Agriculture (n=97
Department Ranking by State Supervisors	0.43*	0.17
Department Ranking by State Supervisors	0.29**	0.12
Teacher Ranking by Teacher Educators	0.34**	0.15
Teacher Ranking by State Supervisors	0.27**	0.03

*$p < .001$
**$p < .01$

Years in Present Position

For all respondents as a group and for individual groups composed of superintendents, principals, county vocational directors, and guidance counselors, product-moment correlation coefficients revealed no significant relationships between attitudes toward vocational agriculture and number of years employed in their present positions.

Previous Enrollment in Vocational Agriculture

Based upon point-biserial correlation coefficients, guidance counselors previously enrolled in vocational agriculture in high school tended to have a more favorable attitude toward vocational agriculture than non-enrollees. As would be expected, there were no significant relationships between attitudes of superintendents, principals, and county

vocational directors, and whether or not they had been enrolled in vocational agriculture in high school.

Number of Years Enrolled in Vocational Agriculture

Of the 60 respondents indicating previous enrollment in vocational agriculture, 28 were enrolled for four years. County vocational directors had the highest number of respondents indicating four years of enrollment. There was a positive correlation (r= .56) between attitudes of principals and number of years enrolled in vocational agriculture. There were no significant relationships between the attitudes of superintendents, county vocational directors, or guidance counselors regarding vocational agriculture and number of years enrolled in vocational agriculture in high school.

Number of Years Vocational Agriculture Had Been Offered in the School or County

No significant relationships were found between the attitudes of principals and guidance counselors and the number of years vocational agriculture had been offered in their schools. Likewise, no significant relationships were found between attitudes of superintendents of county vocational agriculture and the number of years vocational agriculture had been offered in their county.

Membership and Non-Membership in Professional Associations

When all four groups of respondents were considered as a group, members of the American Vocational Association or West Virginia Vocational Association tended to have a more favorable attitude toward vocational agriculture than non-members of these professional associations. Superintendents indicating membership in the National Education Association, West Virginia Education Association, West Virginia Superintendents Association, or the associations included in the "Other" category (most often the Association for Supervision and Curriculum Development) tended to have a less favorable attitude regarding vocational agriculture than the non-member superintendents' category. Attitudes toward vocational agriculture tended to be more favorable for county vocational directors indicating membership in the American Vocational Association or West Virginia Vocational Association than county directors who were not members of the professional

associations. No other significant relationships between attitudes toward vocational agriculture and membership or non-membership in professional associations were found for any of the respondent groups other than those cited previously.

Subject Matter Area(s) of Certification

When all respondents were considered as a group, those certified in vocational agriculture tended to be more favorable toward vocational agriculture than those not certified in vocational agriculture. However, respondents certified in social studies, physical sciences and chemistry/physics tended to be less favorable toward vocational agriculture than those not certified in these subject areas. Guidance counselors indicating certification in physical sciences and foreign languages tended to be more favorable toward vocational agriculture than those not certified in these instructional areas. No other significant relationships were found between attitudes toward vocational agriculture and subject matter areas of ceritification for any of the respondent groups other than those indicated.

RECOMMENDATIONS

In light of the aforementioned findings, the authors make the following recommendations:

1. Persons responsible for planning, organizing, conducting, and evaluating programs of vocational agriculture in West Virginia as well as other states should actively seek to enter into cooperative efforts with superintendents, principals, county vocational directors, and guidance counselors in providing quality programs of vocational agriculture. The favorable attitudes of these groups would indicate that this cooperative effort is not only possible but also very desirable for maintaining and creating open lines of communication. One way of accomplishing this cooperative effort might be through involvement in local advisory committees as well as the establishment of an active state advisory committee for agricultural education.

2. Teachers should make an effort both individually and through their vocational agriculture teachers' association to plan and conduct agricultural education programs to maintain and improve the favorable attitudes revealed in this investigation. It would appear that because of the moderately high degree of relationship between respondents' attitudes toward vocational agriculture and attitudes toward teachers, the respondents may not distinguish between the two. Therefore, the actions of teachers of vocational agriculture might be a major factor in attitude formation of these groups concerning the program of vocational agriculture.

3. Although the four groups studied have a basic awareness of the primary goals and objectives of vocational agriculture which were formulated in 1965, continuous efforts should be made by state and local personnel in vocational agriculture to enhance and increase the level of this awareness. Also, effective lines of communication should be established with new personnel in administrative and guidance positions in order that they may be accurately informed of the goals and purposes of vocational agriculture.

4. Due to the lack of significant relationships between attitudes of guidance counselors toward vocational agriculture and ranking of effectiveness for vocational agriculture department and teachers, a special effort should be made to inform counselors of the criteria used by the teacher educators and state supervisors to judge the overall effectiveness of vocational agriculture departments and teachers. Constant efforts should also be made to improve the effectiveness of vocational agriculture programs in the state through a state-directed program of evaluation.

RECOMMENDATIONS FOR FURTHER STUDY

If additional studies are designed to measure the attitudes of administrators and guidance counselors regarding vocational agriculture, an effort should be made to use other techniques or procedures for measuring attitudes. The results of such studies could be compared to those of this study in an attempt to determine the existence of factors which would be attributed to measurement error. Other techniques or procedures that could be used to measure attitudes include: (1) semantic differential scales; (2) Thurstone scales; (3) open-ended responses; and (4) scale items could be constructed so that attitudes toward vocational agriculture could be compared with other subject or program areas in the school system.

In addition, similar studies such as the one cited in this summary should be conducted in other states in order to determine the current feelings of administrators and guidance counselors regarding vocational agriculture. Additional studies which could play an important role in planning future vocational agriculture programs include: (1) the assessment of the attitudes of school board members, parents, and agribusiness employers regarding vocational agriculture; (2) the determination of the effectiveness of vocational agriculture departments and vocational agriculture teachers as perceived by superintendents, principals, county vocational directors and guidance counselors; (3) the assessment of the role of the vocational agriculture summer program of work as perceived by superintendents and principals; (4) a more detailed assessment of attitudes of the respondents surveyed in this study regarding specific aspects of the vocational agriculture program, e.g. curriculum, facilities, program costs, FFA, etc.

REFERENCES

Blalock, Hubert M., Jr. and Ann B. Blalock. Methodology in Social Research. New York: McGraw-Hill Book Company, 1968.

Horne, T. J., et al. "What Constitutes an Effective Program of Vocational Agriculture in a Community?" Non-thesis study of the Research Committee of the Southern Region, Virginia Polytechnic Institute, Blacksburg, October, 1956.

Johnson, Joyce and June McCabe. Item Analysis. Computer Program for Item Reliability, The Ohio State University: College of Administrative Science, 1970.

Joint Committee of the U. S. Office of Education and the American Vocational Association, Objectives for Vocational and Technical Education in Agriculture. Washington, D. C.: U. S. Government Printing Office, 1965.

McGhee, Maxie B. "Attitudes of Superintendents, Principals, County Vocational Directors, and Guidance Counselors Regarding Vocational Agriculture in the Public Secondary Schools of West Virginia." Unpublished Ph.D. dissertation, The Ohio State University, 1974.

Mungren, Theophilus W., Jr. A Study of the View of School Counselors and Vocational Agriculture Teachers Concerning Effective Guidance for Idaho Students Interested in Agriculture. Unpublished Master's Thesis. Moscow, Idaho: University of Idaho, 1970.

Parks, Darrell L. Attitudes and Principles Regarding Vocational Education in Ohio. Unpublished Ph.D. dissertation, The Ohio State University, 1968.

Sponaugle, Adam J. Attitudes of Guidance Counselors Regarding Vocational Education. Unpublished Ph.D. dissertation. Columbus, Ohio: The Ohio State University, 1972.

APPENDIX A

Number_____

ATTITUDES TOWARD VOCATIONAL AGRICULTURE

Part I.

The major purpose of this survey is to identify attitudes concerning vocational agriculture in the public secondary schools. Please respond to every statement. Do not spend too much time on any particular statement. There are no right or wrong answers. If your exact feeling is not described in one of the choices, select the one that comes closest to your true feelings.

Please circle the response which corresponds the closest to your true feelings about each statement.

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

EXAMPLE: Basketball teams develop teamwork. (SA) A U D SD

This person strongly agrees with the statement and so indicated by circling "SA" (Strongly Agree)

BEGIN HERE:

1. Vo-ag teachers are firm believers in the worth and value of their programs. SA A U D SD

2. In my opinion a graduate of a high school vocational agriculture program is generally only suited for unskilled work. SA A U D SD

3. Vocational agriculture contributes to the general citizenship training of students as much as other courses in high school. SA A U D SD

4. Vo-ag teachers I have known seek to maintain and increase the enthusiasm of their students for their studies. SA A U D SD

5. The summer program of vocational agriculture justifies twelve-month employment of the teacher(s). SA A U D SD

6. Vo-ag teachers are not able to communicate effectively with individuals not directly related to agriculture. SA A U D SD

7. The vocational agriculture curriculum provides poor preparation for more advanced technical training. SA A U D SD

8. Vocational agriculture is too costly in terms of money, time, and effort. SA A U D SD

9.	The vo-ag shops I have seen are well kept facilities.	SA	A	U	D	SD
10.	Vocational agriculture programs I have seen or heard about are beneficial to the communities involved.	SA	A	U	D	SD
11.	I am opposed to expanding vocational agriculture programs when so many students do not enter agri-business occupations.	SA	A	U	D	SD
12.	Vo-ag teachers I have known tend to be less cooperative than other teachers in the school.	SA	A	U	D	SD
13.	Teachers of vo-ag seem to be quite competent in planning and developing a total curriculum which includes day, young, and adult students.	SA	A	U	D	SD
14.	Vo-ag teachers never seem to be able to work well with other faculty members.	SA	A	U	D	SD
15.	Vo-ag teachers are generally as courteous and tactful as other teachers in the system.	SA	A	U	D	SD
16.	Beginning in kindergarten and continuing throughout the formal schooling process, all students should be made aware of the opportunities in agriculture.	SA	A	U	D	SD
17.	Vo-ag teachers don't do enough work during the summer months to justify twelve months salary.	SA	A	U	D	SD
18.	Vo-ag teachers I have known seem to go out of their way to help other teachers in the school.	SA	A	U	D	SD
19.	Vo-ag teachers seem to be quite active in professional education associations.	SA	A	U	D	SD
20.	I do not think vocational agriculture in high school is as necessary for most students as are other elective courses.	SA	A	U	D	SD
21.	Laboratory teaching and shop activities of vo-ag teachers that I have known appear to be well-organized.	SA	A	U	D	SD
22.	Students planning to major in agriculture in college should take vocational agriculture in high school.	SA	A	U	D	SD
23.	Above average students, even if interested in vocational agriculture, should be discouraged from enrolling in these programs.	SA	A	U	D	SD

24. I believe that the number of new occupations resulting from technology in agriculture will increase the need for vocational agriculture in high schools and/or vocational schools. SA A U D SD

25. I am thoroughly convinced that vocational agriculture should be offered in high schools and/or vocational schools. SA A U D SD

26. Vocational agriculture programs in high school should be intended mainly for youth of limited academic talent. SA A U D SD

27. Teachers of vo-ag rarely associate professionally with the academic teachers of the school system SA A U D SD

28. Vo-ag teachers I know seem to be "clock-watchers." SA A U D SD

29. Teachers of vocational agriculture generally are poorly groomed in relation to their professional standing. SA A U D SD

30. Present vocational agriculture programs are not effectively preparing for today's agricultural occupations. SA A U D SD

31. The FFA should be an integral part of the vocational agriculture program. SA A U D SD

32. Vo-ag teachers seem to be involved and interested in the development of the total student. SA A U D SD

Part II.

Please circle the response which corresponds the closest to your level of agreement or disagreement with the following statements as to whether they are or are not primary goals and/or objectives of vocational agriculture.

1. To develop competencies needed by individuals preparing to enter farming or agriculturally related occupations. SA A U D SD

2. To provide instruction primarily for students unable to progress in college-prep programs in high school. SA A U D SD

3. To train persons for entry into professional and technical occupations upon graduation from high school. SA A U D SD

4. To develop the ability to secure placement and to advance in agriculturally related occupations through a program of continuing education. SA A U D SD

5. To develop competence in livestock and crop judging through the summer program of vo-ag. SA A U D SD

6. To develop an understanding of career opportunities in agriculture. SA A U D SD

7. To assist in developing human relations competencies essential in agricultural occupations. SA A U D SD

8. To conduct agricultural research in an effort to increase food production. SA A U D SD

9. To assist students to understand the preparation needed to enter and advance in ag-occupations. SA A U D SD

10. To develop leadership abilities needed in fulfilling occupational, social, and civic responsibilities. SA A U D SD

Part III.

Please complete the following items:

1. How long have you been employed in your present position?

_____ 0 - 5 years _____ 16 - 20 years

_____ 6 - 10 years _____ over 20 years

_____ 11 - 15 years

2. Were you, as a high school student, enrolled in vocational agriculture?

_____ Yes _____ No

If yes, number of years _____

3. A. SUPERINTENDENTS AND COUNTY DIRECTORS:

How many years has vocational agriculture been offered in your county?

_____ years

B. PRINCIPALS AND GUIDANCE COUNSELORS:

How many years has vocational agriculture been offered in your school?

_____ years

4. What is your major subject matter instructional area of public school certification? (check one)

_____	Language Arts/English	_____	Vocational Agriculture
_____	Social Studies	_____	Business Education
_____	Music	_____	Home Economics
_____	Art	_____	Industrial Arts
_____	Biological Sciences	_____	Trade and Industrial Educ.
_____	Mathematics	_____	Special Education
_____	Health & Phys. Education	_____	Distributive Education

_____ Other, specify_____

5. Indicate the professional education associations or organizations in which you currently have membership.

_____ National Education Association
_____ West Virginia Education Association
_____ American Vocational Association
_____ West Virginia Vocational Association
_____ West Virginia School Principals Association
_____ West Virginia Superintendents Association
_____ American Association of School Administrators
_____ National Association of Secondary School Principals
_____ American School Counselors Association
_____ National Vocational Guidance Association
_____ American Personnel and Guidance Association
_____ Association for Measurement, Evaluation, and Guidance
_____ None of the above
_____ Others, specify _____

THANK YOU FOR YOUR KIND ASSISTANCE AND COOPERATION!

APPENDIX B

SUMMARY OF
RELATIONSHIPS BETWEEN ATTITUDES TOWARD VOCATIONAL
AGRICULTURE AND INDEPENDENT VARIABLES STUDIED[a]

INDEPENDENT VARIABLE	CORRELATION COEFFICIENT	SUPERINTENDENTS (n = 41)	PRINCIPALS (n = 84)	COUNTY VOCATIONAL DIRECTORS (n = 35)	GUIDANCE COUNSELORS (n = 97)	All (n = 257)
Years in Present Position	Product Moment	None	None	None	None	None
Whether Enrolled in Vo-Ag in High School	Point Biserial	None	None	None	0.21*	None
No. Years Enrolled in Vo-Ag	Product Moment	None	0.56***	None	None	0.35**
Years Vo-Ag Offered in School	Product Moment	____[b]	None	____	None	____
Years Vo-Ag Offered in County	Product Moment	None	____	None	____	____
Membership in Professional Association	Point Biserial	NEA - 0.39* WVEA - 0.33* WVSA - 0.34* Other - 0.33*	None	AVA 0.38* WVVA 0.31*	None	AVA 0.19** WVVA 0.14* WVSA-0.13*
Instructional Area of Certification	Point Biserial	None	Vo-Ag 0.31**	Social Studies - 0.48**	Others - 0.23*	Social Studies - 0.17* Vo-Ag 0.31*** Others - 0.15**

SUMMARY OF RELATIONSHIPS (CONT.)

INDENPENDENT VARIABLE	CORRELATION COEFFICIENT	SUPERINTENDENTS	PRINCIPALS	COUNTY VOCATIONAL DIRECTORS	GUIDANCE COUNSELORS	ALL
Understanding of Goals and Objectives of Vo-Ag	Product Moment	None	None	0.43**	0.24***	0.21***
Attitudes Toward Teachers of Vo-Ag	Product Moment	0.65***	0.71***	0.77***	0.63***	0.68***
Dept. Effectiveness Ranking by Teacher Education	Spearman Rank-Order	____	0.43***	____	None	____
Dept. Effectiveness Ranking by Supervisor	Spearman Rank-Order	____	0.29**	____	None	None
Teacher Effectiveness Ranking by Teacher Education	Spearman Rank-Order	____	0.34**	____	None	None
Teacher Effectiveness Ranking by Supervisors	Spearman Rank-Order	____	0.27**	____	None	____

*p < .05
**p < .01
***p < .001

[a]Only relationships which were significant at the .05 level or less are reported
[b](____) indicates that the relationship was not investigated

SUMMARY OF RESEARCH SERIES

The program of vocational agriculture can grow and develop only if it enjoys the support of the local community and school administration. Attitudes of administrators and counselors can provide an important indicator of the existing level of support for further development of vocational agriculture. The authors of this study examine attitudes existing in West Virginia and analyze the relationship of these attitudes to various other factors.

This summary is based on a doctoral dissertation completed by Maxie B. McGhee under the direction of Ralph E. Bender. Dr. McGhee is currently the project director of a national curriculum project in agricultural education, and Dr. Bender is Professor and Chairman, Department of Agricultural Education, The Ohio State University. The authors are recognized for their scholarship in preparing this summary. Special appreciation is due James D. McComas, Dean of the College of Education, University of Tennessee and Earl B. Russell, Center for Vocational Education, The Ohio State University for their critical review of the manuscript prior to its publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited in the bibliography.

J. David McCracken
Series Coordinator

SR4 1975

ACCESSION NUMBER: VT102111

PUBLICATION DATE: 75

TITLE: PROFESSIONAL EDUCATIONAL COMPETENCY NEEDS OF THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO.

PERSONAL AUTHOR: MOORE, EDDIE A.; BENDER, RALPH E.

DESCRIPTOR: *VOCATIONAL AGRICULTURE TEACHERS; *PERFORMANCE BASED TEACHER EDUCATION; *SKILL ANALYSIS; TEACHER ATTITUDES; TEACHER QUALIFICATIONS; *OCCUPATIONAL SURVEYS

IDENTIFIER: OHIO

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 24P.

ABSTRACT: A SURVEY OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO WAS CONDUCTED IN ORDER TO IDENTIFY THE PROFESSIONAL COMPETENCIES NEEDED BY SECONDARY TEACHERS OF VOCATIONAL AGRICULTURE. TEACHER OPINION OF THE IMPORTANCE OF THE COMPETENCIES TO SUCCESSFUL TEACHING WAS ALSO ASSESSED. IN ADDITION, THE TEACHERS RATED THEIR OWN PROFICIENCY IN THESE COMPETENCIES. DATA WERE COLLECTED THROUGH MAIL QUESTIONNAIRE AND PERSONAL INTERVIEW FROM A RANDOM SAMPLE OF 200 SECONDARY VOCATIONAL AGRICULTURE TEACHERS IN OHIO. THE TARGET POPULATION WAS STRATIFIED INTO GROUPS OF FOUR-YEAR COLLEGE AGRICULTURE EDUCATION GRADUATES, FOUR-YEAR COLLEGE TECHNICAL AGRICULTURE GRADUATES, AND NON-COLLEGE GRADUATES RECRUITED FROM BUSINESS AND INDUSTRY. THE SAME COMPETENCIES WERE CONSISTENTLY RATED HIGH BY ALL THREE GROUPS. AS A RESULT OF THE SURVEY, IT WAS RECOMMENDED THAT OHIO'S TEACHER EDUCATORS CONTINUE TO PLAN AND CONDUCT PRE-SERVICE PROGRAMS IN VOCATIONAL AGRICULTURE EDUCATION. IT WAS FURTHER RECOMMENDED THAT COURSES BE DESIGNED TO DEVELOP THE PROFESSIONAL EDUCATIONAL COMPETENCIES RATED HIGHEST BY THE FOUR-YEAR COLLEGE AGRICULTURE EDUCATION GRADUATES. THE APPENDIX LISTS THE UPPER ONE-HALF OF THE PROFESSIONAL EDUCATION COMPETENCIES AS RATED BY THE THREE GROUPS SURVEYED. (NJ)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. DEPT. OF AGRICULTURAL EDUCATION.

VT 102 111

JUL 18 1975

SUMMARY OF RESEARCH

DEPARTMENT OF AGRICULTURAL EDUCATION

The Ohio State University
Columbus, Ohio 43210

PROFESSIONAL EDUCATIONAL COMPETENCY NEEDS OF THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS IN OHIO

Eddie A. Moore and Ralph E. Bender

INTRODUCTION

The concerns of society about schools has caused many educators and administrators to look more closely at the methods and techniques by which teachers are prepared for teaching in elementary and secondary schools. Legislators in several states have mandated that institutions of higher education in their respective states implement Competency/Performance-Based Teacher Education programs. Although the definition of C/PBTE is not totally clear, teacher educators are under pressure to thoroughly examine its feasibility.

The problem of recruiting and preparing persons to teach vocational agriculture at the secondary level is complex. The shortages of vocational agriculture teachers which have occurred in the past (Woodin, 1973) will continue to be with the profession for years to come unless traditional techniques for recruiting teachers are altered.

VT 102 111

The concept of vocational agriculture has broadened to include occupations in all phases of agribusiness, natural resources, and environmental protection. The expansion of vocational agriculture programs has added to the national shortage of qualified vocational agriculture teachers.

Between 1965 and 1974, there was more than a 60 per cent increase in enrollment of students and a 50 per cent increase in number of vocational agriculture teachers in secondary vocational agriculture programs in Ohio (State Department of Education, Division of Vocational Education, Agricultural Education, 1973). During the same period, non-college degree personnel from business and industry (non-professionally prepared teachers) and four-year college technical agriculture majors (non-professionally prepared teachers) were recruited for the purpose of meeting secondary vocational agriculture teacher demands in Ohio. Due to the lack of professional education training, these teachers were required to participate in in-service educational programs for the purpose of acquiring the necessary skills to teach vocational agriculture at the secondary level.

PURPOSE AND OBJECTIVES

The basic purpose of the study was to identify professional education competency needs and related information from the following groups of vocational agriculture teachers in Ohio.

1. Four-year college graduates with a major in agricultural education (professionally prepared teachers).

2. Four-year college graduates with majors in technical agriculture (non-professionally prepared teachers).

3. Non-college graduates recruited from business and industry (non-professionally prepared teachers).

Answers to the following questions were sought for each group of teachers:

1. What are the perceptions of vocational agriculture teachers concerning the importance of selected professional education competencies for conducting successful vocational agriculture programs in secondary schools?

2. What are the perceptions of vocational agriculture teachers concerning their proficiency in selected

professional education competencies for conducting successful vocational agriculture programs in secondary schools?

CONTRIBUTION TO EDUCATION

The need for this study was based upon the consideration of the following factors:

Factor 1. There is a current and future need for skilled agricultural workers in Ohio.

Factor 2. Enrollment in secondary vocational agriculture programs is expanding in Ohio.

Factor 3. There is a future need for competent secondary vocational agriculture teachers in Ohio.

Factor 4. Few studies have focused on the professional preparation needs of four-year college technical agriculture majors entering teaching and the non-college graduate teachers recruited from business and industry.

Factor 5. More background information is needed by teacher educators and supervisors in agricultural education for planning and conducting more relevant pre-service and in-service teacher education programs for the following secondary vocational agriculture teachers: four-year college agricultural education majors, four-year college technical agriculture majors, and non-college graduates recruited from business and industry.

METHODOLOGY

The population of this study included the 555 secondary vocational agriculture teachers who were teaching in high schools and area vocational centers in Ohio during the 1973-74 school year. This target population was stratified into the following groups: (1) four-year college agricultural education majors (professionally prepared teachers), (2) four-year college technical agriculture majors (non-professionally prepared teachers), and (3) non-college graduates recruited from business and industry (non-professionally prepared teachers). A random sample of 200 teachers was taken from the sub-population of the 433 four-year college agricultural education majors (professionly prepared teachers) who were teaching vocational agriculture at the secondary level in Ohio. Because of the sub-population

sizes, the 79 four-year college technical agriculture majors (non-professionally prepared teachers), and the 43 non-college graduates (non-professionally prepared teachers) recruited from business and industry were included in the study.

Data were collected through mail questionnaires from 83 per cent of the vocational agriculture teachers who were four-year college agricultural education majors and 75 per cent from teachers who were four-year college technical agriculture majors. Personal interviews were conducted with the teachers who were non-college graduates, primarily because the researcher felt that this group of teachers would have encountered problems in understanding the terminology in the questionnaires. The researcher also felt that the per cent of non-responses by non-college graduate teachers would have been higher if the mailing technique was used to collect pertinent data. One hundred per cent responses were obtained through personal interviews with teachers who were non-college graduates. The researcher had planned to randomly select teachers from the non-response groups (four-year college agricultural education majors and four-year college technical agriculture majors) for the purpose of conducting personal interviews. If personal interviews could have been conducted with sample groups, comparisons could have been made between the teachers who were surveyed through the mail. Such arrangement would have indicated whether the personal interviews effected the way respondents reacted to professional education competencies listed in the questionnaires. Due to the fact that the researcher had exhausted his budget for the study and because time was a factor, the researcher was unable to perform this task.

Two forms of questionnaires were developed for the study. Part I of the two questionnaires was the same and consisted of questions pertaining to the educational and occupational backgrounds of the respondents. Frequency counts and measures of central tendency were calculated for the descriptive data in Part I of the questionnaires. Part II and III of the questionnaires consisted of professional education competencies identified by Cotrell and other investigators (1972) at the Center for Vocational and Technical Education at The Ohio State University. The 384 professional education competencies were classified under the following 10 categories: (1) program planning, development, and evaluation; (2) instruction planning; (3) instruction-execution; (4) instruction-evaluation; (5) management; (6) guidance; (7) school-community relations; (8) student vocational organization; (9) professional role and development; and (10) coordination. Teacher educators and supervisors in agricultural education in Ohio used the Q-sort technique (Stephenson: 1953) in identifying which of the 384 randomly ordered professional education competencies were most

needed by vocational agriculture teachers. Mean scores for teacher educators and supervisors and combined mean scores (teacher educators and supervisors) were obtained. The researcher then ranked the 384 competencies in terms of combined mean scores from high to low. The 256 competencies with the highest combined mean scores were included in the study and the 128 competencies with the lowest combined mean scores were deleted. The rationale for deleting the 128 competencies with the lowest combined mean scores was that the 256 competencies with the highest combined mean scores were representative of the competencies needed by vocational agriculture teachers in the 10 categories. It was also recognized that a shorter instrument would increase the percentage of usable questionnaires.

The researcher randomly ordered the 256 competencies into the two forms of the instruments. Part II of the questionnaire was designed to identify the teachers' perceptions of the importance of professional education competencies in being or becoming a successful teacher of vocational agriculture at the secondary level. A four-point scale was used as follows: Four equaled "great importance," three equaled "above average importance," two equaled "some importance," and one equaled "little or no importance." Part III of the questionnaire was designed to identify teachers' perceptions of their proficiency in performing professional education competencies. A four point value scale was used as follows: One equaled "high degree of proficiency," two equaled "above average proficiency," three equaled "some proficiency," and four equaled "little or no proficiency." Part II of the instrument "A" included 128 competency items that were rated on importance and Part III included 128 competency items that were rated on level of proficiency and vice versa for instrument "B". Each teacher rated 128 of the competencies on importance and 128 competencies on level of proficiency. Each group of teachers was randomly subdivided with one-half receiving instrument "A" and one-half receiving instrument "B". Mean scores were calculated to determine importance and proficiency ratings of professional education competencies in Part II and III of the questionnaires as perceived by each group of teachers studied. The professional education competency in-service needs were ascertained by adding the mean score ratings of importance and proficiency by each group of vocational agriculture teachers.

MAJOR FINDINGS

Perceptions of Importance

1. Four-year college agricultural education majors rated 72.6 per cent of the 256 professional

education competencies above average importance (3.00) or higher. Four-year college technical agriculture majors rated 87.7 per cent of the competencies 3.00 or higher, and non-college graduates rated 92.2 per cent of the professional education competencies 3.00 or higher. See the Appendix for the most important professional education competencies in each category as perceived by the three groups of vocational agriculture teachers in Ohio.

2. The same competencies were consistently rated high by all three groups.

3. Competencies within the areas of management, guidance, and professional role and development were most frequently rated 3.5 or higher by four-year college agricultural education majors. Competencies within the areas of program planning, development, and evaluation; school-community relations; and student FFA organization were most frequently rated 2.9 or below by this group of teachers.

4. Competencies within the areas of management, guidance, and professional roles and development were also most frequently rated 3.5 or higher by four-year college technical agriculture majors. Competencies within the areas of evaluation of instruction, school-community relations, and student FFA organization were most frequently rated 2.9 or below by four-year college technical agriculture majors.

5. The non-college graduates rated 50 per cent or more of the competencies 3.5 or higher (4 = great importance) within the areas of guidance, planning of instruction, coordination, management, and execution of instruction. Competencies within the areas of evaluation of instruction; school-community relations, and student FFA organization were most frequently rated 2.9 or below by non-college graduates.

Perceptions of Degree of Proficiency

1. Four-year college agricultural education majors rated their degree of proficiency in 95.7 per cent of the 256 professional education competencies with a mean score of 2.4 (2 = above average proficiency) or lower (a lower rating indicates a higher degree of proficiency). Four-year college technical agriculture majors rated their degree of proficiency in 90.2 per cent of the 256 competencies with a mean score of 2.4 or lower, while non-college graduates rated

their degree of proficiency in 4.7 per cent (12 competencies) of the total number of competencies with a mean score of 2.4 or lower.

2. Twenty-seven out of 44 (61.4 per cent) of the competencies rated 1.9 or lower by four-year college technical agriculture majors were in the list of 61 competencies rated 1.9 or lower by four-year college agricultural education majors.

3. Four-year college agricultural education majors claimed high proficiency in the competency areas of student FFA organization, guidance, and professional role and development. This group of teachers felt least proficient in the areas of program planning, development, and evaluation, and coordination.

4. Four-year college technical agriculture majors felt most proficient in the areas of guidance, management, and professional role and development. These vocational agriculture teachers expressed the least proficiency in the competency areas of coordination, program planning, development, and evaluation, and student FFA organization.

5. Non-college graduates did not rate their proficiency in performing any of the professional education competencies 1.9 (2 = above average proficiency) or lower (a lower rating indicated a higher degree of proficiency). The non-college graduates rated their degree of proficiency in 46.1 per cent (118 competencies of the total 256 competencies to be between a mean score of 2.5 and 2.9 (3 = some proficiency). One hundred and twenty-six (49.2 per cent) of the 256 competencies were perceived by non-college graduates to be in the proficiency mean score rating of 3.00 or higher (4 = little or no proficiency).

<u>Need for Inservice Education</u>

1. As may be noted in the following table, the number of professional education competencies most needed by the three groups of teachers varied considerably. An in-service education need indicator was computed by adding the importance and proficiency values. The four-year college agricultural education majors showed an in-service education need in 23 of the 256 competency items, as contrasted with the four-year college technical agriculture majors showing

Table 1

IN-SERVICE PROFESSIONAL EDUCATION COMPETENCY NEEDS RATED 5.5 OR HIGHER BY THREE GROUPS OF VOCATIONAL AGRICULTURE TEACHERS

Competency Area	Total Competencies Per Area	Ag. Ed. Majors		4-Yr. Coll. Tech. Ag.		Non-Coll. Grads.	
		No.	%	No.	%	No.	%
I Program Planning, Development, and Evaluation	33	1	3	14	42	32	97
II Planning of Instruction	23	1	4	10	43	23	100
III Execution of Instruction	36	1	3	6	17	36	100
IV Evaluation of Instruction	20	1	5	6	30	20	100
V Management	27	3	11	12	44	27	100
VI Guidance	22	2	9	7	32	22	100
VII School - Community Relations	19	-	-	5	26	10	100
VIII Student FFA Organization	17	-	-	3	18	17	100
IX Professional Role and Development	15	2	13	4	27	15	100
X Coordination	44	12	27	32	73	44	100
TOTAL	256	23	8.9	99	38.7	255	99.6

need in 99 competencies, the non-college graduates showing need in 255 of the 256 competencies.

2. The four-year college agricultural education majors were in need of in-service professional education training in the areas of coordination, management, and professional role and development. The four-year college technical agriculture majors needed training in coordination, management, planning of instruction, and program planning, development, and evaluation. Non-college graduates had an urgent need for in-service professional education training in all 10 competency areas.

RECOMMENDATIONS

Four-Year College Agricultural Education Majors

It was recommended that:

1. Ohio's teacher educators and supervisors in agricultural education continue to plan and conduct pre-service programs for individuals desiring to obtain a four-year college degree in agricultural education and who desire to be employed as vocational agriculture teachers at the secondary level.

2. Courses should be designed to develop those professional education competencies rated highest in importance by four-year college agricultural education majors. Those that should have the highest priority include:

   a. Demonstrate a regard for and an interest in students and their family

   b. Uphold acceptable standards of student behavior in vocational agriculture classrooms and laboratories by carrying out approved disciplinary action

   c. Conduct home visits

   d. Maintain working relationship with the school administration and faculty

   e. Acquire new occupational skills and information needed to keep pace with technological advancement in vocational agriculture

f. Plan the introduction, content, learning experiences, and summary of a lesson

g. Develop a procedure to insure students' safety and protection

The development of all competencies rated above average in importance by four-year college agricultural education majors in each competency area should be the minimum goal for preparing four-year college agricultural education majors to teach vocational agriculture at the secondary level.

4. Consideration should be given to organizing both pre-service and in-service education courses and/or class sections on a sequential basis in the most important competency areas.

5. Ohio's teacher educators and supervisors in agricultural education should continue to plan and conduct in-service courses to develop those professional education competencies with the highest in-service education need indicator value for teachers who were four-year college agricultural education majors (professionally prepared teachers). Competencies that should have the highest priority include:

   a. Identify individual learning experiences for students based on their individual abilities while teaching in the classroom or school laboratory

   b. Provide safety apparel and devices for vocational agriculture students assigned to hazardous equipment

   c. Establish criteria for evaluating the training potential of a business or industry

   d. Convince an employer to provide a training station for cooperative vocational agriculture and develop a systematic training plan with the cooperating employer and/or the on-the-job instructor

   e. Assist the cooperating employer in verifying the legality of employing a student learner in a hazardous occupation and develop a procedure to insure student's safety and protection in the training station.

f. Assist the student-learner in on-the-job training orientation

g. Assess the student-learner's performances with the assistance of the on-the-job instructor and conduct termination procedures when conditions demand it

h. Seek Opportunities for self-evaluation of instruction

Four-Year College Technical Agriculture Majors

It was recommended that:

1. Ohio's teacher educators and supervisors in agricultural education should continue to plan and conduct in-service courses to develop those professional education competencies with the highest in-service need indicator value for four-year college technical agriculture majors (non-professionally prepared teachers).

2. Special attention should be given to organizing in-service courses on a sequential basis in the most important in-service need competency areas.

3. The development of all competencies with an in-service need indicator value of 5.5 or higher (6 = above average importance and some proficiency) in each competency area should be the minimum goal for improving the teaching skills of teachers who were four-year college technical agriculture majors (non-professionally prepared teachers). Competencies that should have the highest priority include:

   a. Plan the annual agenda to be considered by the advisory committee

   b. Collect occupational data from employers to identify vocational agriculture needs

   c. Analyze occupations with assistance of employers and labor representatives

   d. Establish criteria for evaluating the training station potential of a business or industry

e. Assist the cooperating employer in verifying the legality of employing a student-learner in a hazardous occupation and develop a procedure to insure student's safety and protection in the training station.

f. Examine the student-learner's progress reports to determine future on-the-job training experiences and related instruction, and to encourage the on-the-job instructor to follow the training plan in promoting experiences for the student-learner

g. Obtain suggestions from the on-the-job instructor to give the selection of lessons for related instruction

h. Conduct termination procedures for the on-the-job training for the student-learner when conditions demand it

Non-College Graduates

It was recommended that:

1. If non-college graduates recruited from business and industry (non-professionally prepared teachers) is to be a continuous source for meeting vocational agriculture teacher demand in Ohio, Ohio's teacher educators and supervisors in agricultural education should continue to plan and conduct in-service courses and/or class sections to prepare these individuals for teaching vocational agriculture.

2. Ohio's teacher educators and supervisors in agricultural education should give special attention to organizing and conducting a specialized in-service program so that teachers who were non-college graduates (non-professionally prepared teachers) will be proficient in performing the 256 professional education competencies at the above average proficiency level. Competencies that should have the highest priority include:

   a. Structure and devise a filing system for instructional materials, records and report forms

   b. Develop a systematic training plan with the cooperating employer and/or the on-the-job instructor and check the student-learner's progress with the on-the-job instructor and other training station personnel

c. Review student progress and/or achievement records to assess effectiveness of instruction

d. Provide remedial work for slow learners and direct student study of information and assignment sheets

e. Maintain record of safety instruction presented in compliance with safety laws and regulations

f. Arrange laboratory work areas and storage space to facilitate student work performance and to schedule laboratory equipment for maximum utilization by students

g. Plan the introduction, content and summary of a lesson

h. Devise laboratory performance tests and rating sheets

i. Uphold acceptable standards of student behavior in vocational agriculture classrooms and laboratories by encouraging students to exercise self-discipline

j. Assist students in advancing within the available degrees in the FFA organization and provide advice for entries in state and national FFA organizations

k. Supervise social and educational activities for the student FFA organization

General Recommendation

Ohio's teacher educators and supervisors in agricultural education should continue to evaluate the professional education competency needs of the three groups of vocational agricultural teachers studied so that pre-service and in-service teacher preparation programs can be up-dated according to teacher needs.

REFERENCES

Chabotar, Kent J., Sederburg, William A., and Lad, Lawrence J., "Implementing Educational Accountability: The Michigan Experience," Report No. 31. Center for Rural Manpower and Public Affairs, Michigan State University, Lansing, Michigan, November, 1973.

Cotrell, Calvin J., et al. "Model Curricula for Vocational and Technical Education," Report No. IV, A Foundation for Performance-Based Instruction. Columbus, Ohio: The Ohio State University, August, 1972.

_____, "Model Curricula for Vocational and Technical Education," Report No. V, General Objectives Set, II. Columbus, Ohio: The Ohio State University, September, 1972.

Hunt, Jon H., "Accountability at the Classroom Level," American Vocational Journal. Vol. 50, No. 3 (March, 1975), p. 28.

Kaufman, Jacob J., "Accountability: A Rational Approach to Education," American Vocational Journal. Vol. 48, No. 3 (March, 1973), p. 28.

Moore, Eddie Albert. "Professional Education Competency Needs of Three Groups of Vocational Agriculture Teachers in Ohio." Unpublished Ph.D. dissertation, Ohio State University, 1974.

Phi Delta Kappan. Volume LV, No. 5 (January, 1974) pp. 289-367.

Rabben, Kenneth J. "GAO Report on Voc. Ed. Stirs Controversy," American Vocational Journal. Vol. 50, No. 3 (March, 1975), p. 36.

Rhodes, James A. Alternative to a Decadent Society. Indianapolis, Indiana: Howard W. Sams and Company, Inc., 1969.

State Department of Education, Division of Vocational Education, Agricultural Education Service, Report of Programs, Columbus, Ohio.

Woodin, Ralph J., Supply and Demand for Teachers of Vocational Agriculture in 1973, Department of Vocational-Technical Education, University of Tennessee, Knoxville, Tennessee.

APPENDIX

The upper one-half of the professional education competencies in each category as rated in importance by the three groups of vocational agriculture teachers in Ohio are listed. Competencies in each category were ranked from highest to lowest based on the combined mean scores for the three groups of teachers.

A. Program Planning, Development and Evaluation (Thirty-three competencies in this category were included in the study).

1. Identify the competencies needed for entry into occupation
2. Determine the occupations for which training is to be offered in the vocational agriculture program
3. Assist in the identification of the school's vocational agriculture purposes and goals
4. Identify the skill, knowledge, and attitudes required for the performance of each task included in a vocational agriculture offering
5. Assess the relevancy of the vocational agriculture offerings
6. Analyze long-range needs for the offerings of the vocational agriculture program
7. Describe the occupational standards of performance for each task in an occupation
8. Collect occupational data from employers to identify vocational agriculture needs
9. Recommend a vocational agriculture program based on findings of the community survey
10. Assist in preparing the long-range program plans for vocational agriculture
11. Collect student occupational interest data to identify vocational agriculture needs
12. Communicate the date, place, and agenda for the advisory committee meetings to all persons concerned
13. Write student performance objectives for the vocational agriculture offering
14. Specify the long-range facility, equipment and supply needs for the vocational agriculture program
15. Assist in writing general objectives for the vocational agriculture program offerings
16. Establish communication with employer representatives who will be involved in a community survey

17. Analyze long-range needs for the offerings of the vocational agriculture program

B. Planning of Instruction (Twenty-three competencies in this category were included in the study).

1. Plan the content of a lesson
2. Determine student needs and interests
3. Correlate unit content with on-the-job and/or laboratory experiences
4. Obtain textbook, references, and other instructional material
5. Plan student learning experiences for a lesson
6. Select tools and/or equipment for a lesson
7. Develop original instructional materials such as individualized related assignment sheets, transparencies, and charts
8. Plan the introduction of a lesson
9. Select teaching techniques for a lesson
10. Assemble consumable supplies for instructional purposes
11. Identify the student performance objectives for a lesson
12. Write a lesson plan

C. Execution of Instruction (Thirty-six competencies in this category were included in the study).

1. Direct student laboratory experience
2. Illustrate with models and real objects
3. Present a concept or principle through a demonstration
4. Demonstrate a manipulative skill
5. Reinforce learning
6. Enrich instruction to challenge the abilities of the more capable student
7. Conduct field trips
8. Direct students in preparing laboratory work or job plans
9. Direct students in applying problem-solving techniques
10. Employ question techniques
11. Employ oral questioning techniques
12. Establish frames of reference to enable the students to understand a situation from several points of view
13. Present information by use of individualized instruction
14. Introduce a lesson
15. Acknowledge a student verbal and nonverbal clues

16. Present information with the assistance of a resource person
17. Present information with analogies
18. Present information with slides

D. Evaluation of Instruction (Twenty competencies in this category were included in the study).

1. Review student progress and/or achievement records to assess effectiveness of instruction
2. Determine student's grade based on related instruction and laboratory or on-the-job experience
3. Establish criteria for student performance
4. Devise laboratory performance tests
5. Appraise student's performance in relation to student performance objectives
6. Appraise student's products according to occupational performance standards
7. Seek opportunities for self-evaluation of instruction
8. Administer teacher-made tests
9. Engage in cooperative evaluation of achievement with students
10. Evaluate individualized assignments completed under directed study

E. Management (Twenty-seven competencies in this category were included in the study).

1. Uphold acceptable standards of student behavior in vocational agriculture classrooms and laboratories
2. Carry out approved disciplinary action when warranted
3. Provide approved safety apparel and devices for hazardous equipment
4. Control outbursts of fighting and aggressive behavior
5. Encourage students to exercise self-discipline
6. Uphold school standards of expected student behavior
7. Maintain a record of safety instruction presented in compliance with safety laws and regulations
8. Identify new tools and/or equipment needed for the academic year
9. Formulate with students acceptable standards of behavior in vocational agriculture classrooms and laboratories

10. Schedule laboratory equipment for maximum utilization by students
11. Prepare purchase requests for approved vocational agriculture equipment and supplies
12. Devise a filing system for instructional materials
13. Arrange laboratory work areas and storage space to facilitate student work performance
14. Arrange layout of the vocational agriculture laboratory to stimulate the occupational environment

F. Guidance (Twenty-two competencies in this category were included in the study).

1. Demonstrate a regard for and an interest in students as individuals
2. Demonstrate personal concern for the student and his family
3. Maintain an open door policy for student consultation
4. Develop constructive working relationships among students
5. Conduct a conference with a student
6. Communicate with prospective and continuing students during the summer
7. Present information to students on occupational opportunities
8. Recognize potential problems of students
9. Determine student's background and environment
10. Assist students in developing good study habits
11. Assist graduating students in preparing for interviews with potential employers

G. School-Community Relations (Nineteen competencies in this category were included in the study).

1. Maintain working relationships with the school administration and faculty
2. Maintain working relationships with the school supporting staff through cooperation and mutual effort
3. Plan the school-community relations activities for the vocational agriculture program
4. Obtain information from parents relative to their expectations of the vocational agriculture program
5. Conduct an open house to familiarize members of the school and community with activities of the vocational agriculture program.

6. Procure clearance from the school administration to conduct school-community relations activities related to the vocational agriculture program
7. Obtain informal feedback on the vocational agriculture program through contacts with individuals in the schocl and community
8. Acquire information from members of the community power structure (e.g., political, social and economic pressure groups) regarding their expectations of the vocational agriculture program
9. Serve in a community civic, service, or social organization to improve the image of the vocational agriculture program
10. Speak to school and community groups on the vocational agriculture program

H. Student FFA Organization (Seventeen competencies in this category were included in the study).

1. Conduct an organizational meeting for the student FFA organization
2. Assist students with the financial management of the student FFA organization
3. Acquaint prospective members and their parents with the purposes, activities, and values of the student FFA organization.
4. Participate in district, state, regional and national activities of the student FFA organization
5. Conduct a leadership training session for the officers of the student FFA organization
6. Assist students in developing a yearly program of work for the student FFA organization
7. Orient students to the student FFA organization
8. Supervise social and educational activities for the student FFA organization
9. Provide advice for student entries in the state and national student FFA organizations

I. Professional Role and Development (Fifteen competencies in this category were included in this study).

1. Acquire new occupational skills and information needed to keep pace with technological advancement in vocational agriculture
2. Maintain the ethical standards expected of a professional educator
3. Select the teaching position which is in keeping with personal and professional abilities and limitations

4. Keep up-to-date through reading professional literature
5. Maintain professional certification through enrolling in graduate, extension, and in-service education programs
6. Exchange observational visits, innovations and ideas with others in the profession
7. Consult regularly with the student teacher regarding planning, implementing and evaluating teaching
8. Promote the attainment of the goals of the teaching profession

J. Coordination (Forty-four competencies in this category were included in the study).

1. Develop a procedure to insure student's safety and protection in the training station
2. Check the student-learner's progress with the on-the-job instructor and other training station personnel
3. Maintain good working relationships with training station personnel
4. Evaluate the student-learner's work qualities and habits on the job
5. Evaluate the quality of the on-the-job training received by the studeht-learner
6. Assess safety provisions of the facilities and equipment of the prospective training stations
7. Assist the cooperating employer in verifying the legality of employing a student-learner in a hazardous occupation
8. Develop a systematic training plan with the cooperating employer and/or the on-the-job instructor
9. Assist the student-learner in on-the-job training orientation
10. Prepare the student-learner for an interview with the cooperating employer and training station personnel
11. Assist the student-learner in the solution of problems related to on-the-job training
12. Control student-learner absenteeism from school and on-the-job training
13. Develop a plan for supervision of on-the-job training
14. Provide prospective student-learners with resource materials on occupational opportunities to aid them in selecting a vocation

15. Examine the student-learner's progress reports to determine future on-the-job training experiences and related instruction
16. Develop a training agreement between student-learner, parent, school and cooperating employer
17. Identify prospective cooperative employers to provide on-the-job training stations
18. Assess the student-learner's performance with the assistance of the on-the-job instructor
19. Match a student-learner's unique characteristics with an appropriate training station
20. Obtain suggestions from the on-the-job instructor to guide the selection of lessons for related instruction
21. Check the student-learner's progress in acquiring skills on the job
22. Evaluate the student-learner's personal traits and characteristics on the job

SUMMARY OF RESEARCH SERIES

The movement towards competency-based teacher education represents the convergence of several accelerating trends. An initial step in developing programs in response to this trend is tentative competency identification. In this study the authors specifically rate competencies as a basis for later focused training. Perceptions of three groups of teachers concerning the importance of and their degree of proficiency in specific competencies are obtained.

This summary is based on a doctoral dissertation completed by Eddie A. Moore under the direction of Ralph E. Bender. Dr. Moore is currently the project coordinator, vocational and technical agriculture research project, Muskegon County Wastewater Management System, Michigan and Dr. Bender is professor and chairman, Department of Agricultural Education, The Ohio State University. The authors are recognized for their scholarship in preparing this summary. Special appreciation is due Roland L. Peterson, University of Minnesota and James B. Hamilton, The Center for Vocational Education, The Ohio State University for their critical review of this manuscript prior to its publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this top should examine the references cited in the bibliog hy.

J. David McCracken,
Series Coordinator

SR3 1975

ACCESSION NUMBER: VT102112

PUBLICATION DATE: 75

TITLE: A COMPARATIVE ANALYSIS OF TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE IN THREE VETERINARIAN LAY OCCUPATIONS.

PERSONAL AUTHOR: MCCRACKEN, J. DAVID; COOKE, FREDERICK C.

DESCRIPTOR: *COMPARATIVE ANALYSIS; *VETERINARY ASSISTANTS; TECHNICAL OCCUPATIONS; *TASK ANALYSIS; *OCCUPATIONAL SURVEYS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 24P.

ABSTRACT: THE MAJOR PURPOSE OF THIS OCCUPATIONAL SURVEY WAS TO IDENTIFY THE ESSENTIAL SKILLS PERFORMED IN THE THREE VETERINARY LAY OCCUPATIONS, ANIMAL HEALTH ASSISTANT, ANIMAL HOSPITAL RECEPTIONIST, AND ANIMAL HEALTH TECHNICIAN. THE SPECIFIC OBJECTIVES WERE TO: (1) DEVELOP AND VALIDATE AN INITIAL TASK INVENTORY; (2) IDENTIFY THE SPECIFIC TASKS PERFORMED BY INCUMBENTS IN EACH OF THE THREE VETERINARIAN LAY OCCUPATIONS; (3) DETERMINE THE RELATIVE IMPORTANCE OF THE SPECIFIC TASKS TO SUCCESSFUL EMPLOYMENT; AND (4) ANALYZE EACH TASK ACROSS THE THREE OCCUPATIONS TO PROVIDE INFORMATION FOR DECISION-MAKING IN EDUCATIONAL PREPARATION PROGRAMS. TABLES DISPLAY THE DATA COLLECTED THROUGH SURVEY INSTRUMENTS MAILED TO INCUMBENTS WHO WORKED FOR A RANDOMLY SELECTED SAMPLE OF ONE HUNDRED VETERINARIANS IN OHIO. (AUTHOR/NJ)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. DEPT. OF AGRICULTURAL EDUCATION.

VT 102 112

SUMMARY OF RESEARCH

DEPARTMENT OF AGRICULTURAL EDUCATION

The Ohio State University
Columbus, Ohio 43210

A COMPARATIVE ANALYSIS OF TASKS ESSENTIAL TO SUCCESSFUL PERFORMANCE IN THREE VETERINARIAN LAY OCCUPATIONS

by

J. David McCracken and Frederick C. Cooke

The number of persons employed in the veterinarian lay occupations has been increasing. Three occupations included in this trend are the Animal Health Assistant, Animal Hospital Receptionist, and Animal Health Technician. However, specific responsibilities for each of these occupations have not been well-defined. A more specific delineation of tasks essential for successful performance was needed to assist educational institutions desiring to develop training programs to prepare workers who might qualify for employment.

Purpose and Objectives

The major purpose of the occupational survey was to identify the skills which are performed and essential for success in each of three veterinary lay occupations. The specific objectives were to:

VT 102 112

1. Develop and validate an initial task inventory.

2. Identify the specific tasks performed by incumbents in each of three veterinarian lay occupations.

3. Determine the relative importance of the specific tasks to the successful employment of veterinarian lay personnel in the three occupations.

4. Analyze each task across the three occupations to provide information for decision-making in educational preparation programs.

Animal health technicians generally receive two years of post-secondary education or the equivalent in on-the-job training. Animal hospital receptionists usually have limited training other than on-the-job. Some animal health assistants have had two years of vocational education, but most have had no prior experience or training prior to entering the occupation.

METHODOLOGY

Objectives were accomplished by constructing an initial task inventory, validating the initial inventory, selecting a sample of incumbents, collecting data, and analyzing data.

Initial Task Inventory

Duty areas and task statements for the veterinary lay occupations were identified by searching existing publications and books. Additionally, contacts with instructors of veterinary assistant programs at both the secondary vocational school and the technical school levels assisted in clarifying the specific responsibilities in these occupations. All the tasks were assembled into one composite list.

The initial tasks were grouped into functional areas called duties. The duty areas defined for the veterinary lay occupations were:

1. Performing general office work
2. Interpreting medical terminology
3. Recording information
4. Handling and caring for animals
5. Feeding animals
6. Grooming animals
7. Performing examining-room work
8. Performing laboratory tests
9. Dispensing medicine and supplies
10. Administering medication
11. Assisting in restraining animals
12. Assisting with X-rays
13. Using and maintaining surgical equipment and small animal care equipment
14. Preparing facilities and equipment for surgery
15. Preparing animals for surgery
16. Performing emergency first aid
17. Inventorying products
18. Selling and marketing products
19. Following legal regulations
20. Maintaining facilities
21. Following safety precautions

After the task statements were grouped under the proper duty areas, each task statement was reviewed for brevity, clarity, and consistency.

Initial Inventory Validation

The initial task inventory was reviewed by six instructors of veterinary assistant programs and eleven veterinarians in various locations in the State of Ohio. The veterinarians who reviewed the task lists were selected because of their work with advisory committees of schools with programs to train veterinary lay personnel.

After securing input from these groups, extensive revisions were made in the initial list and the format of the questionnaire. The initial inventory was revised so that incumbents could review each task to determine:

1. If the task was performed at that particular veterinary practice.

2. If performed, the veterinary lay occupation responsible for performance of that task was identified. The task was also rated as to whether it was essential, useful, or not important to the designated occupation.

3. If a task was not performed in the particular practice a rating was still obtained concerning who should perform the task and the importance of the task to successful performance in the occupation.

Sample Selection

One hundred veterinarians were randomly selected from a state directory of veterinarians supplied through the cooperation of the Ohio Veterinarian Medical Association. Because it was not possible to obtain a list of the population of personnel in each of the veterinarian lay occupations, the sample of incumbents was those persons who worked for one of the veterinarians in the sample.

Data Collection

The survey was mailed on December 26, 1974. Instructions were provided with the survey instrument requesting that the instrument be completed by a responsible person within the practice. On January 15, 1975 a follow-up instrument was mailed to all veterinarians who had not yet replied, and a survey return deadline was set for January 31, 1975. No surveys were accepted beyond the deadline.

A total of 53 instruments were returned, with 40 instruments containing the required information necessary for this study.

Data Analysis

Information from the usable questionnaires was coded for key punching. Each specific task statement was coded as to whether it was performed (1 = task performed by respondent;

0 = task not performed by respondent) and the level of importance of the task (3 = essential; 2 = useful; 1 = not important). Separate code sheets were developed for each of the three occupations:

Animal Health Assistant
Animal Hospital Receptionist
Animal Health Technician

The information was key punched on IBM cards and verified by personnel at the Instruction and Research Computer Center at The Ohio State University. Computer analysis resulted in a computation of frequencies and means for each task statement. The results of a computer analysis were printed in tabular form for ease of interpretation.

FINDINGS

Necessary analyses were conducted to report findings concerning the specific tasks performed by incumbents in each of the three veterinarian lay occupations, the relative importance of the specific task to the successful employment of veterinarian lay personnel, and a comparison among the three occupations for each task. Nine per cent of the respondents received their training in high school programs, 14 per cent in technical school programs, and five per cent in nursing programs. Ninety-three per cent indicated they received training on-the-job. Training was often received from more than one source.

Tasks Performed by Workers

The 268 tasks were grouped under 21 duty areas. Each respondent checked whether each task was performed in his veterinary practice. The percentages of respondents performing each task were averaged for all tasks under each duty area. The mean percentage of incumbents who performed tasks in specified duty areas is presented in Table 1. Twenty per cent or more of the animal health assistants performed the tasks in the following duty areas (listed in order of the percentage of incumbents who performed in that area from highest to lowest):

TABLE 1

MEAN PERCENTAGE OF INCUMBENTS IN THREE OCCUPATIONS WHO PERFORM TASKS IN SPECIFIED DUTY AREAS

DUTY AREAS	Occupations		
	Assistant	Receptionist	Technician
Performing Office Work	14.8	80.4	18.6
Interpreting Medical Terminology	12.3	12.7	30.0
Recording Information	20.8	42.5	20.2
Handling and Caring for Animals	48.9	7.2	38.5
Feeding Animals	49.4	3.1	20.4
Grooming Animals	38.2	3.6	20.9
Performing Examining-Room Work	33.9	13.4	53.0
Performing Laboratory Tests	11.9	5.5	46.1
Dispensing Medicine and Supplies	23.5	22.8	36.8
Administering Medication	22.9	23.3	61.4
Assisting in Restraining Animals	51.9	26.9	45.6
Assisting with X-rays	17.5	9.7	50.7
Using and Maintaining Equipment	24.3	11.8	62.9
Preparing Facilities and Equipment for Surgery	28.1	9.7	63.4
Preparing Animals for Surgery	39.2	10.4	61.2
Performing Emergency First Aid	33.3	10.4	59.2
Inventorying Products	20.0	18.0	48.0
Selling and Marketing Products	6.6	20.9	13.6
Following Legal Regulations	11.2	20.0	32.5
Maintaining Facilities	82.5	10.5	18.0
Following Safety Precautions	62.1	20.4	44.6

Duty Area	% Performing
1. Maintaining facilities	82.5
2. Following safety precautions	62.1
3. Assisting in restraining animals	51.9
4. Feeding animals	49.4
5. Handling and caring for animals	48.9
6. Preparing animals for surgery	39.2
7. Grooming animals	38.2
8. Performing examining-room work	33.9
9. Performing emergency first aid	33.3
10. Preparing facilities and equipment for surgery	28.1
11. Using and maintaining surgical equipment and small animal care equipment	24.3
12. Dispensing medicine and supplies	23.5
13. Administering medication	22.9
14. Recording information	20.8
15. Inventorying products	20.0

Twenty per cent or more of the animal hospital receptionists performed the tasks in the following duty areas (listed in order of the percentage of incumbents who performed in that area from highest to lowest):

Duty Area	% Performing
1. Performing office work	80.4
2. Recording information	42.5
3. Assisting in restraining animals	26.9
4. Administering medication	23.3
5. Dispensing medicine and supplies	22.8
6. Selling and marketing products	20.9
7. Following safety precautions	20.4
8. Following legal regulations	20.0

Twenty per cent or more of the animal health technicians performed the tasks in the following duty areas (listed in order of the percentage of incumbents who performed in that area from highest to lowest):

Duty Area	% Performing
1. Preparing facilities and equipment for surgery	63.4
2. Using and maintaining surgical equipment and small animal care equipment	62.9
3. Administering medication	61.4

4.	Preparing animals for surgery	61.2
5.	Performing emergency first aid	59.2
6.	Performing examining-room work	53.0
7.	Assisting with X-rays	50.7
8.	Inventorying products	48.0
9.	Performing laboratory tests	46.1
10.	Assisting in restraining animals	45.6
11.	Following safety precautions	44.6
12.	Handling and caring for animals	38.5
13.	Dispensing medicine and supplies	36.8
14.	Following legal regulations	32.5
15.	Interpreting medical terminology	30.0
16.	Grooming animals	20.9
17.	Feeding animals	20.4
18.	Recording information	20.2

Duty areas in which 20% of the incumbents in all three occupations performed the tasks were: recording information, dispensing medicine and supplies, administering medication, assisting in restraining animals, and safety precautions. It was apparent from examination of the data in Table 1 that the scope of tasks performed by the receptionist was the most narrow and the breadth of tasks performed by the technician was the greatest.

Duties Essential for Successful Performance in Three Occupations

A level of importance rating was obtained for each task. The respondent could rate the task as essential, useful, or not important for successful performance in an occupation. A ranking of essential was assigned a numerical rating of "3," useful a numerical rating of "2," and not important a numerical rating of "1." The average ratings for all tasks in specified duty areas are presented in Table 2 for each of the three occupations. It is apparent from examination of the data that a high degree of correlation exists between the percentage of incumbents who perform the task and the rating assigned in Table 2.

Duty areas received a rating of 2.50 or higher for the animal health assistant follow (in order of their rating from highest to lowest):

1. Maintaining facilities
2. Following safety precautions
3. Preparing animals for surgery
4. Assisting in restraining animals

TABLE 2

MEAN RATING* OF DUTIES ESSENTIAL FOR SUCCESSFUL PERFORMANCE IN THREE OCCUPATIONS

DUTY AREAS	Occupations		
	Assistant	Receptionist	Technician
Performing Office Work	1.68	2.89	2.35
Interpreting Medical Terminology	1.85	1.98	2.38
Recording Information	2.00	2.33	2.29
Handling and Caring for Animals	2.62	1.75	2.82
Feeding Animals	2.51	1.61	2.41
Grooming Animals	2.33	1.33	2.37
Performing Examining-Room Work	2.59	2.05	2.64
Performing Laboratory Tests	1.93	1.60	2.59
Dispensing Medicine and Supplies	2.31	2.52	2.66
Administering Medication	2.27	1.58	2.82
Assisting in Restraining Animals	2.64	1.34	2.76
Assisting with X-rays	2.25	1.41	2.71
Using and Maintaining Equipment	2.25	1.41	2.78
Preparing Facilities and Equipment for Surgery	2.48	1.60	2.79
Preparing Animals for Surgery	2.69	1.00	2.84
Performing Emergency First Aid	2.60	1.31	2.72
Inventorying Products	2.37	2.06	2.71
Selling and Marketing Products	1.59	2.39	2.17
Following Legal Regulations	2.23	1.88	2.63
Maintaining Facilities	2.93	1.55	2.63
Following Safety Precautions	2.79	2.40	2.93

*Ratings were obtained by assigning these values: essential = 3, useful = 2, and not important = 1.

5. Handling and caring for animals
6. Performing emergency first aid
7. Performing examining-room work
8. Feeding animals

Duty areas receiving a rating of 2.50 or higher for the animal hospital receptionist follow (in order of their rating from highest to lowest):

1. Performing office work
2. Dispensing medicine and supplies

It should be noted that skills relating to face-to-face contact with the public were not included in this survey but might be quite critical in this occupation.

Duty areas receiving a rating of 2.50 or higher for the animal health technician follow (in order of their rating from highest to lowest):

1. Following safety precautions
2. Preparing animals for surgery
3. Administering medication
4. Handling and caring for animals
5. Preparing facilities and equipment for surgery
6. Using and maintaining surgical equipment and small animal care equipment
7. Assisting in restraining animals
8. Performing emergency first aid
9. Assisting with X-rays
10. Inventorying products
11. Dispensing medicine and supplies
12. Performing examining room work
13. Following legal regulations
14. Maintaining facilities
15. Performing laboratory tests

It was apparent that in some cases tasks were deemed essential for successful performance in an occupation even though a very low percentage of persons employed in that occupation actually performed the task. It may be that additional skills are desired beyond what incumbents now are able to perform. Also, people may naturally have higher expectations of skills needed than might actually be required for the job in which they currently function.

Composite Rating of Specific Tasks

A composite rating was calculated for each of the 268 tasks by multiplying the percentage of incumbents who perform that task by the rating of the level of importance. A value was obtained which could theoretically range from 0.00 to 3.00 for each task. These composite ratings are shown in the Table 3.

It is recommended that ratings for each task statement be examined by educators and others who are developing educational programs to determine curriculum priorities for preparing veterinarian lay personnel. Ratings with higher values should be given more emphasis in the educational program. Ratings of .40 or below would indicate a low enough priority that one might choose not to include it in the curriculum.

TABLE 3: COMPOSITE RATING* OF SPECIFIC TASKS IN THREE OCCUPATIONS

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Performing General Office Work			
Admit and dismiss patients	.46	2.23	.44
Determine purpose of visits	.14	2.34	.22
File office forms and records	.19	2.67	.33
File X-rays	.25	1.51	1.03
Greet clients	.18	2.67	.34
Notify clients of appointments	.10	1.69	.15
Operate office equipment	.21	2.30	.43
Schedule appointments	.09	2.48	.33
Use telephone	.35	2.67	.59
Wear appropriate dress for office work	.73	2.52	.88
Write memos, notes, and letters	.15	2.50	.30
Mean Rating	.25	2.15	.45
Interpreting Medical Terminology			
Identify circulatory system and function	.18	.25	.71
Identify digestive system and function	.23	.32	.83
Identify endocrine system and function	.18	.25	.65
Identify general anatomy and physiology terms	.47	.50	1.13
Identify integumentary system and function	.23	.30	.72
Identify major disease terminology	.35	.54	1.17
Identify major muscles and function	.17	.18	.57
Identify major skelatal components and function	.35	.26	.77
Identify nervous system and function	.17	.20	.64
Identify reproductive system and function	.14	.25	.90
Identify respiratory system and function	.30	.25	.71
Identify urinary system and function	.30	.28	.91
Identify various chemical terms	.18	.15	.81
Identify various microscopic cell and tissue terminology	.12	.14	.95
Interpret chemical formulations	.04	.04	.30
Mean Rating	.22	.25	.78

*Ratings were calculated by multiplying the percentage of incumbents who performed the task and the degree to which the tasks were rated as essential for successful performance in the occupation. Values could theoretically range from 0.00 to 3.00.

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Recording Information			
Balance daily cash statements	.12	1.70	.25
Balance monthly bank statements	.05	1.02	.07
Deposit daily cash receipts	.13	1.27	.07
Develop graphs and charts	.12	.34	.15
Maintain accounts receivable and accounts payable	.05	1.95	.07
Receive payments for accounts	.17	2.40	.24
Record bowel movement information	2.12	.23	.73
Record feeding information	2.17	.14	.65
Record general client information	.38	2.15	.41
Record general patient information	.96	1.42	.69
Record medication information	.92	.92	1.32
Record or attach complete pedigree record	0	.03	.20
Record surgery information	.34	.81	1.32
Record vaccination information	.25	1.97	.80
Record weight information	.68	.73	1.34
Write checks	0	.61	.10
Mean Rating	.52	1.15	.52
Handling and Caring for Animals			
Assist animals in delivering young	.70	.13	1.48
Assist animals in nursing	.72	.11	1.62
Check if animals are pregnant	.05	0	.25
Collect bowel movements	2.08	.07	.83
Control animals when handling	2.10	.27	1.75
Estimate weight of animals	1.26	.13	1.35
Evaluate overall condition of animal	1.20	.03	1.17
Exercise animals	2.26	0	.54
Identify animal heat signs	1.47	.25	1.40
Identify animals	2.08	.87	1.36
Identify breeding methods	.31	.04	.53
Induce bowel movements	1.04	.04	1.15
Observe animals regularly for problems	2.05	.17	1.33
Place animals in holding pens	2.26	.08	.83
Provide proper environment for bred animals	.69	0	.58

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Regulate air movement and temperature in holding areas	1.27	.05	.54
Separate non-compatible animals	1.83	.10	.63
Take pulse	.58	.03	1.32
Mean Rating	1.21	.13	1.03
Feeding Animals			
Add medication to feeds	1.71	.04	1.17
Determine amount of feed required by animal	1.95	.05	.84
Determine how often animals should be fed	1.76	.05	.72
Determine nutritional requirements of animals	.69	.08	.64
Determine when animals should be fed	1.48	.04	.86
Determine which feeds may be fed animals	1.00	.04	.46
Feed pre-surgical diet	.99	.04	.11
Identify basic components of feeds	.13	0	.09
Interpret information found on feed labels	.38	.04	.19
Interpret nutritional feed charts	.19	.04	.14
Place feed in containers	2.13	.08	.55
Prepare feed	2.51	.08	.56
Provide water for animals	2.48	.08	.55
Mean Rating	1.33	.05	.52
Grooming Animals			
Bathe animals	2.14	.23	.41
Clean ears	1.49	.23	1.11
Clean teeth	.72	.23	1.57
Clip nails	1.63	.25	1.59
Comb animals	2.01	.07	.56
Drain anal sacs	.77	.23	.69
Dry washed animals with towels and dryers	1.63	.07	.54
Identify clipping problems	.95	.11	.38
Identify water and soap differences	.80	.04	.23
Paint nails	.03	0	0
Perform post-clipping procedures	.37	.03	.05
Perform various clipping patterns	.47	0	.10

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Perfume animals	.32	0	.05
Pluck hair	.43	.04	.50
Mean Rating	.98	.10	.55
Performing Examining Room Work			
Apply bandages	.46	.08	1.61
Assist in diagnosing infectious and non-infectious diseases	.05	0	.55
Assist in treating diseases	.36	.04	1.64
Assist the veterinarian in determining control procedures for diseases and parasites	.30	.03	.83
Change bandages	.91	.23	1.70
Disinfect examining table and equipment	1.33	.85	1.83
Identify external parasites	1.24	.32	1.95
Place and restrain animal on examining table	1.94	.34	1.63
Prepare examination room area	1.37	.96	1.48
Use appropriate disinfectants	1.50	.68	1.33
Use proper taping techniques	.58	.10	1.15
Mean Rating	.91	.33	1.42
Performing Laboratory Tests			
Analyze fecal samples	.82	.55	1.96
Chemically examine urine	.34	.20	1.76
Classify sediments in urine	0	0	1.28
Collect urine sample	1.33	0	1.54
Convert English measurements to metric measurements	0	0	.60
Determine coagulability of blood	0	0	.66
Identify bacteria	0	0	.58
Identify parasites and parasite eggs	.57	.28	1.96
Measure solids and liquids	.22	.10	1.02
Operate centrifuge tube	.29	.17	1.81
Perform direct smear method	.16	.10	1.51
Perform flotation method	.70	.53	2.06

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Perform hemoglobin determination	.09	.13	1.25
Perform "McMaster Technique"	.03	0	.15
Pipette liquids	.06	.03	1.02
Prepare and stain blood smears	.20	0	1.51
Prepare bacterial cultures	.09	.03	1.01
Prepare, innoculate, and incubate cultures	.09	.03	.80
Prepare miscroscope slides	.25	.10	1.35
Preserve fecal samples	.35	.05	.64
Set-up and adjust microscope	.41	.07	1.64
Take blood sample	.30	.08	1.43
Titrate reactions	.03	.03	.39
Use laboratory sticks	.27	.13	1.76
Mean Rating	.27	.11	1.23
Dispensing Medicine and Supplies			
Destroy empty containers	1.10	.45	.75
Interpret prescription requests	.20	.59	.89
Interpret product labels	.22	.31	.97
Label drug containers	.43	.86	1.62
Maintain orderly storage shelves	.92	.70	1.40
Measure exact amounts for prescriptions	.39	.68	1.60
Prepare animal drug form	.04	.22	.54
Store products in proper areas	1.32	.79	1.53
Transfer products to various size containers	.91	.51	1.25
Use drug coding system	.32	.58	.67
Mean Rating	.58	.56	1.12
Administering Medication			
Administer IM injection under supervision	.35	.08	1.78
Administer IV injection under supervision	.37	.38	1.59
Administer oral medication under supervision	.85	.47	2.09
Administer rectal medication under supervision	.71	.45	1.49
Administer subcutaneous injection under supervision	.42	.29	2.11

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Administer surface medication under supervision	.89	.46	2.18
Fill syringe	.55	.48	1.94
Identify and select animal's proper medication	.25	.70	.81
Interpret veterinarian's medication prescription	.54	.38	1.53
Locate injection points on animals under supervision	.25	.15	1.83
Select proper needles	.44	0	1.94
Sterilize injection equipment	.79	.18	1.64
Mean Rating	.53	.33	1.74
Assisting in Restraining Animals			
Apply pneumatic collar	.57	.26	.54
Apply various muzzles	1.68	.10	1.29
Form temporary muzzle	1.68	.13	1.44
Identify animal's moods	1.55	.31	1.51
Open animal's mouth	1.45	.56	1.46
Properly approach animal	1.91	.62	1.66
Restrain animal's head	1.86	.19	1.61
Tape legs	.65	.43	.62
Tie animal to table	1.22	.65	1.42
Mean Rating	1.39	.36	1.28
Assisting with X-Rays			
Adjust cassette holder	.57	.05	1.90
Adjust X-ray machine settings	.36	.08	1.42
Analyze film development problems	.22	.08	1.17
Clean processing tanks	.78	.08	1.25
Develop film	.74	.08	2.08
"Fix" film	.60	.08	2.00
Identify developing chemicals	.51	.08	1.40
Identify normal X-ray positions	.51	.06	1.69
Interpret metric measurements	.13	.12	.72
Maintain standards on machine settings	.27	.26	1.22

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Maintain water and solution temperatures . . .	.48	.09	1.94
Measure part of animal to be examined	.44	.20	1.74
Mix and replace developing solution	.43	.21	1.19
Operate high-low kilovoltage switch	.20	.17	1.32
Position and read X-rays	.09	.11	.75
Position animals for X-rays	.52	.24	2.02
Read technique charts for X-ray equipment . . .	.20	.15	1.41
Read voltmeter	.18	.23	1.23
Record millimeter register	.13	.11	.99
Remove film from cassette	.45	.10	2.01
Set automatic timer	.35	.10	1.72
Set-up field X-ray equipment	.15	.10	.15
Store X-rays	.56	.33	1.73
Trim processed X-rays	.35	.23	.98
Use appropriase aprons and gloves	1.02	.20	2.18
Use processing equipment	.48	.06	1.41
Use proper film	.60	.16	1.78
Use proper screened cassettes	.40	.13	1.56
Warm-up X-ray machine	.24	.09	1.34
Mean Rating	.41	.13	1.45
Using and Maintaining Surgical Equipment and Small Animal Care Equipment			
Check equipment for defects	.75	.20	1.81
Clean and disinfect instruments and equipment .	.99	.14	2.04
Identify anesthesiology equipment	.47	.12	2.00
Identify bandage and stitch scissors	.86	.16	1.95
Identify canine tonsil snares	.69	.26	1.49
Identify cauterizing equipment	.58	.06	2.06
Identify dental equipment	.68	.22	2.16
Identify fracture equipment	.61	.30	2.14
Identify post-mortem equipment	.55	.07	1.90
Identify probes, seekers, and dry dissectors. .	.40	.09	1.51
Identify scissor tips	.59	.09	1.94
Identify surgical blades and scalpels	.64	.25	2.03
Identify transfusion equipment	.45	.03	1.85
Identify various catheters	.30	.11	2.11

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Identify various forceps	.58	.11	2.08
Identify various hemostats	.45	.07	1.99
Identify various injection equipment	.52	.07	2.03
Identify various suture needles	.65	.11	2.10
Identify various syringes	.54	.07	2.08
Interpret equipment operation instructions	.45	.03	1.73
Maintain air cleaner	.58	.11	.75
Select appropriate equipment for specific jobs	.74	.19	1.83
Sterilize instruments and equipment	.76	.17	2.13
Store various instruments and equipment	.87	.23	2.04
Use and maintain various scales and balances	.72	.07	1.24
Use and maintain X-ray equipment	.28	.11	1.63
Use colorimeter	.13	.08	1.17
Use hemogram machine	.12	.08	.74
Use incubators	.23	.07	1.06
Use urinometer	.37	.10	1.51
Mean Rating	.55	.12	1.77
Preparing Facilities and Equipment for Surgery			
Clean surgery room	1.57	.15	1.53
Control ventilation and temperature in room	.82	.10	.83
Lay-out surgical equipment	.51	.33	2.14
Perform scrubbing technique	.61	.22	1.92
Prepare drugs and chemicals	.37	.20	1.87
Prepare standard and special surgical packs	.63	.08	2.09
Prepare sterile bundles and germicide basins	.61	.08	1.99
Prepare sterile gowns, caps, and masks	.59	.08	1.90
Mean Rating	.71	.15	1.78
Preparing Animals for Surgery			
Assist in anesthetizing animals	1.24	.08	1.96
Clip animal hair	1.21	.08	1.69
Drape and position animal	.63	.15	1.77
Shave animal hair	.93	.10	1.84
Wash animals	1.38	.15	1.19

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Wash operative area on animal	.95	.08	2.04
Mean Rating	1.05	.10	1.74
Performing Emergency First Aid			
Administer artificial respiration	.87	.13	1.88
Administer oxygen	.79	.12	1.95
Apply antiseptic	.84	.16	1.95
Apply minor medication	1.00	.13	1.99
Cleanse wounds	.85	.16	1.79
Identify internal hemorrhaging symptions	.52	.13	1.26
Identify shock symptons	.82	.13	1.80
Identify various external bleeding problems . .	.81	.13	1.62
Isolate suspected rabid animals	.77	.15	.67
Maintain body temperature	1.17	.15	1.24
Prepare and transport emergency victims	1.07	.15	1.28
Prepare patient for transfusion	.67	.15	1.91
Stop external bleeding	1.00	.10	1.67
Mean Rating	.86	.13	1.61
Inventorying Products			
Determine when supplies need to be ordered . . .	.55	.48	1.72
Remove contaminated items from stock	.53	.25	1.55
Remove expired products from inventory	.46	.28	1.45
Take physical inventory of supplies	.49	.55	1.37
Use stocking forms	.35	.32	.45
Mean Rating	.47	.37	1.30
Selling and Marketing Products			
Complete sales slip	.09	.55	.21
Demonstrate items for sale	.07	.28	.14
Determine whether product requested is on hand	.15	.63	.74

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Handle customer complaints	.12	.51	.35
Make change	.10	.78	.40
Meet customers	.10	.78	.29
Operate cash register	.08	.53	.14
Prepare and arrange displays of products	.03	.29	.03
Price products for customers	.12	.27	.26
Stock shelves	.33	.47	.95
Use billing machine	.08	.52	.09
Mean Rating	.11	.51	.32
Following Legal Regulations			
Determine what duties may legally be performed by the animal care assistant	.29	.42	.80
Determine which materials may be sold without prescriptions	.22	.33	.91
Mean Rating	.25	.37	.85
Maintaining Facilities			
Clean feeders	2.48	.13	.39
Clean holding pens, cages, and runs	2.60	.10	.59
Clean waiting room	2.08	.49	.47
Disinfect pens	.85	.10	.47
Dispose of residues and trash	2.50	.10	.45
Mean Rating	2.10	.18	.45
Following Safety Precautions			
Apply first aid to minor cuts, bruises, and burns	1.17	.41	1.79
Follow safe work habits	2.18	.68	2.18
Identify potential safety hazards	2.10	.49	2.01
Store chemicals safely	1.12	.30	1.70
Use fire extinguishers	1.87	.56	1.80

TASK STATEMENTS	Occupations		
	Assistant	Receptionist	Technician
Wear appropriate protective clothing	2.05	.54	2.02
Mean Rating	1.74	.48	1.91

REFERENCES

Arco Series on Animal Grooming. New York, New York: Arco Publishing Company, 1971.

Arrington, L. R. Introduction to Laboratory Animal Science. Danville, Illinois: The Interstate Publishers Company, 1972.

Benjamin, Maxine. Outline of Veterinary Clinical Pathology. Ames, Iowa: Iowa State University, 1970.

Building and Managing a Kennel. New York, New York: Gaines Dog Research Center, 1969.

Catcott, Earl J., ed. Animal Hospital Technology. Wheaton, Illinois: AVMA Publishing Company, 1971.

First Aid for Dogs. Chicago, Illinois: Gaines Corporation, 1972.

Fundamentals of Radiology. New York, New York: Eastman Kodak Company.

Hafez, E.S.E. Reproduction and Breeding Techniques for Laboratory Animals. Philadelphia, Pennsylvania: Lea and Febiger Company, 1970.

Hanna, H. W.; Storm, Donald F. Law for Veterinary and Livestock Owner. Danville, Illinois: The Interstate Publishers Company, 1974.

Linne, Jean G. Basic Medical Laboratory Techniques. Toronto, Canada: McGraw Hill Book Company, 1970

Manual for Laboratory Animal Technicians. Publication 67-3. Joliet, Illinois: AALAS, 1970.

Melching, William H., and Borcher, Sidney D. Procedure for Constructing and Using Task Inventories. Columbus, Ohio: The Ohio State University, The Center for Vocational and Technical Education, 1973.

Purina Manual for Laboratory Animal Care. St. Louis, Missouri: Ralston Purina Educational Services.

Scheid, Dan W. Livestock Veterinary and Health Service Handbook. Fort Atkinson, Wisconsin: Naso, Inc., 1970.

Sum, R. G. Veterinary Anatomy Outline and Guide. Minneapolis, Minnesota: Burgess Publishing Company, 1967.

Veterinary Assistant. College Station, Texas: Texas A & M University, Agricultural Education Teaching Materials Center.

SUMMARY OF RESEARCH SERIES

A basic requirement for developing and improving curricula in vocational education is information concerning the tasks which are essential for successful performance in the occupational areas for which students are being prepared. Little of this type of information was available to Animal Production and Management curriculum developers in Ohio. Therefore, this study was designed to support current curriculum development efforts.

The authors are recognized for their scholarship in preparing this summary. Dr. McCracken is an Associate Professor of the Department of Agricultural Education and Frederick Cooke was a Graduate Research Associate in the same department when the information was prepared. Special appreciation is due Sidney D. Borcher, Director, Arizona Research Coordination Unit, Phoenix; Donald Gisler, Doctor of Veterinary Medicine, Sylvania, Ohio; and Al Penn, Instructor, Animal Production and Management, Montgomery County Joint Vocational School, Dayton Ohio for their critical review of the manuscript prior to its acceptance for publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited in the bibliography.

J. Robert Warmbrod
Department Research Committee

SR5 1975

ACCESSION NUMBER: VT102113

PUBLICATION DATE: JUL75

TITLE: A STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA.

PERSONAL AUTHOR: ROSS, RALPH WAYNE

DESCRIPTOR: *EDUCATIONAL ASSESSMENT; SECONDARY GRADES; *VOCATIONAL EDUCATION; *RELEVANCE (EDUCATION); JOB PLACEMENT; MULTIPLE REGRESSION ANALYSIS; CORRELATION; *PREDICTOR VARIABLES; DOCTORAL THESES

IDENTIFIER: *OKLAHOMA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 94P.; ED.D. THESIS, OKLAHOMA STATE UNIVERSITY.

ABSTRACT: THE PURPOSE OF THIS STUDY WAS TO DETERMINE IF SIGNIFICANT RELATIONSHIPS EXIST BETWEEN PROCESS VARIABLES AND A DEPENDENT PRODUCT VARIABLE, I. E., IF THERE IS A SIGNIFICANT RELATIONSHIP BETWEEN WHAT THE PROCESS EVALUATION IS MEASURING IN LOCAL SECONDARY VOCATIONAL PROGRAMS AND THE PLACEMENT RATE OF THOSE PROGRAMS OVER A THREE-YEAR PERIOD. PROCESS DATA WERE COLLECTED FROM VOCATIONAL TEACHERS BY TWO QUESTIONNAIRES PERTAINING TO PROGRAM EVALUATIONS. FISCAL DATA AND THAT USED TO COMPUTE THE THREE-YEAR PRODUCT INDEX (OUTPUT MEASURE) WERE GATHERED FROM RECORDS IN THE OKLAHOMA STATE DEPARTMENT OF EDUCATION. THE QUESTIONNAIRES, INTERCORRELATIONS AMONG ALL VARIOUS FOR SEVERAL TYPES OF VOCATIONAL EDUCATION, AND RESULTS OF REGRESSION ANALYSES ARE PRESENTED IN THE DOCUMENT. ALTHOUGH SIGNIFICANT RELATIONSHIPS WERE FOUND IN SOME OF THE RESEARCH AREAS, NO CONCLUSIONS COULD BE DRAWN AS TO THE RELATIONSHIP BETWEEN PROCESS AND A PRODUCT INDEX IN OKLAHOMA SECONDARY VOCATIONAL EDUCATION PROGRAMS. (MF)

VT 102 113

A STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA

By

RALPH WAYNE ROSS

Bachelor of Science
Central State University
Edmond, Oklahoma
1960

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1970

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
July, 1975

VT 102 113

A STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA

By

RALPH WAYNE ROSS

Bachelor of Science
Central State University
Edmond, Oklahoma
1960

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1970

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
July, 1975

Name: Ralph Wayne Ross Date of Degree: July 25, 1975

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: A STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATIONAL EDUCATION PROGRAMS IN OKLAHOMA

Pages in Study: 85 Candidate for Degree of Doctor of Education

Major Field: Vocational-Technical and Career Education

Scope and Method of Study: The purpose of the study was to examine process variables and their relationship to a three-year Product Index of secondary vocational programs in Oklahoma. A sample of 53 Vocational Agriculture, 13 Distributive Education, 11 Business and Office Education, nine Carpentry, six Auto Mechanics, and nine Industrial Cooperative Training programs that had a Product Index for school years 1971 through 1973 were selected from those vocational programs evaluated during 1973-74. The evaluation instruments used to collect the process data were the Summary Evaluation Questionnaire and the Program Evaluation Questionnaire. The Product Index data was collected through the Student Accounting System. Four major research questions with multiple sub-questions were formulated to provide data relative to the association of the variables under study. The Spearman rho correlation procedure was used to test the research questions.

Findings and Conclusions: A significant relationship was establsihed between a three-year Product Index of secondary vocational programs and the Total Overall Average Ratings of those programs. Significant relationships were established between the dependent variable and ten of the Criteria Average Ratings in at least one or more of the divisions or occupational areas. Significant relationships were established between the dependent variable and 11 of the objective data in one or more of the divisions or occupational areas. There was a significant relationship between a one-year Product Index (1973) and a three-year Product Index (1971-73) in Vocational Agriculture and Business and Office Education. It was concluded that due to the number of low correlation coefficients, large numbers of negative correlations that were insignificant, inconsistent patterns of relationships, and the small number of independent variables that were significantly related in all of the service divisions or occupational areas no conclusions could be drawn as to the relationship between processes and a three-year Product Index in secondary vocational education programs.

ADVISER'S APPROVAL_____

A STUDY OF SELECTED PROCESS EVALUATION VARIABLES
AND THEIR RELATIONSHIP TO PRODUCT CRITERIA
IN SECONDARY VOCATIONAL EDUCATION
PROGRAMS IN OKLAHOMA

Thesis Approved:

_____
Thesis Adviser

_____

_____

_____

_____
Dean of the Graduate College

ACKNOWLEDGEMENTS

This writer is deeply grateful to his committee chairman, Dr. Donald Phillips, and committee members, Dr. Kenneth St. Clair, Dr. William Frazier and Dr. James Key, for their personal support during the graduate program and their technical assistance in completing this study.

Appreciation is also expressed to Dr. William Stevenson for his support during the graduate program and for his recognition of the need for research in the area of program evaluation. Gratitude is also expressed to Dr. Larry Catherwood, who assumed a major share of the Evaluation Unit's work load while this study was being finalized. Deep gratitude is expressed to Mrs. Carolyn Swan, Mrs. Erma Decker and Mrs. Elizabeth Porter, whose prayers for my family and myself have enabled me to complete the graduate program successfully.

This study is dedicated to my wife, Harriet Ann, and our children, Elizabeth Ann, Kathryn Grace, Charity Dawn and Mary Ann. Their love and support has made the completion of the graduate program possible.

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	Statement of the Problem	1
	Purpose of the Study	2
	Need for the Study	2
	Scope of the Study	3
	Assumptions	3
	Definition of Terms	3
II.	REVIEW OF THE LITERATURE	6
	Introduction	6
	Historical Overview of Evaluation	6
	The Federal Mandate to Vocational Education	8
	The Need for Research in Evaluation	
	Process-Product Studies	13
	The Process-Product Approach to Evaluation in Oklahoma	17
III.	DESIGN AND METHODOLOGY	20
	The Design	20
	Research Questions	20
	The Population	23
	Sampling Procedure	23
	Instrumentation	24
	Analysis of the Data	27
IV.	RESULTS	30
	Tests of the Research Questions	31
	Relationship Between a Composite of Variables and a Three-Year Product Index	37
	The Multiple Regression Equations	43
V.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	46
	Introduction	46
	Findings of the Study	47
	Discussion of the Results	50
	Conclusions	52
	Recommendations	52
	Implications	53

Chapter Page

BIBLIOGRAPHY. 55

APPENDIX A - SUMMARY EVALUATION QUESTIONNAIRE 58

APPENDIX B - PROGRAM EVALUATION QUESTIONNAIRE 65

APPENDIX C - SECONDARY FOLLOW UP PRINTOUT 72

APPENDIX D - INTERCORRELATIONS AMONG ALL VARIABLES FOR VOCATIONAL AGRICULTURE 74

APPENDIX E - INTERCORRELATIONS AMONG ALL VARIABLES FOR DISTRIBUTIVE EDUCATION 76

APPENDIX F - INTERCORRELATIONS AMONG ALL VARIABLES FOR BUSINESS AND OFFICE EDUCATION. 78

APPENDIX G - INTERCORRELATIONS AMONG ALL VARIABLES FOR VOCATIONAL CARPENTRY 80

APPENDIX H - INTERCORRELATIONS AMONG ALL VARIABLES FOR AUTO MECHANICS 82

APPENDIX I - INTERCORRELATIONS AMONG ALL VARIABLES FOR INDUSTRIAL COOPERATIVE TRAINING. 84

LIST OF TABLES

Table		Page
I.	Correlation Between the Three-Year Product Index of Secondary Vocational Programs and the Total Average Ratings of Those Programs	31
II.	Correlation Between the Three-Year Product Index and the Criteria Average Rating Stratified by Service Division and/or Occupational Area	33
III.	Correlation Between the Three-Year Product Index and Objective Data Stratified by Service Division and/or Occupational Area	35
IV.	Results of Maximum R^2 Regression Analysis for Vocational Agriculture	38
V.	Results of Maximum R^2 Regression Analysis for Distributive Education	39
VI.	Results of Maximum R^2 Regression Analysis for Business and Office Education	40
VII.	Results of Maximum R^2 Regression Analysis for Vocational Carpentry	41
VIII.	Results of Maximum R^2 Regression Analysis for Auto Mechanics	42
IX.	Results of Maximum R^2 Regression Analysis for Industrial Cooperative Training	43

LIST OF FIGURES

Figure Page

I. Major Components of the Evaluation System. 11

CHAPTER I

INTRODUCTION

A recurring problem in the arena of education is the belief and acceptance by educators and the public that all educational processes presently employed have some relationship or impact on what students do after leaving our educational institutions. Proceeding on the belief and acceptance that these program characteristics are "good," the educational processes are then evaluated on the basis of their efficiency or in-house effectiveness. Such is generally the case with regional accrediting agencies that have developed process evaluation instruments which are utilized to judge the effectiveness of the process criteria. The process criteria embrace the in-house concepts as "cause" aspects of education. These agencies jointly with local education agencies spend vast amounts of time, funds and human resources each year in examining and judging processes which educators themselves have predetermined and accepted as good.

Statement of the Problem

In order for decision makers at all levels to make valid decisions, it is necessary and desirable that research be conducted to determine the relationships between the process and product variables. With these relationships established, greater levels of confidence in evaluative results can be accepted on the part of the decision maker and

resources can be conserved by evaluating only those process criteria that impact on the outcomes of educational institutions.

The Oklahoma State Department of Vocational and Technical Education is involved in the evaluation of all secondary vocational programs over a five-year period (1971-76). This evaluation involves an examination of both process and product measures (see Appendix A and B).

One of the major problems facing the State Department of Vocational and Technical Education is that it is not known what variables should be considered in evaluation of vocational programs. The establishment of significant relationships between process and product criteria would enable the department to conserve fiscal and human resources.

Purpose of the Study

The purpose of this study is to examine both subjectively and objectively measured process variables and their relationship to the product measure of secondary programs, i.e., "The Product Index" (Ross, 1973).

Need for the Study

With the continued scarcity of education dollars, it is of paramount necessity to determine what vocational educational processes have significant impact on the outputs of secondary vocational programs. The decision maker's dilemma is basically twofold at present. He must determine priorities as to certain inputs into the vocational process based on the subjective opinion that these inputs are "good", and secondly, he is forced to evaluate only the outcomes of those processes. The basic problem relates to the fact that little has been accomplished

to determine the relationship of the processes to the products.

Scope of the Study

The scope of this study was concerned only with those Oklahoma secondary vocational programs that were evaluated in the 1973-74 school year and that had a three-year Product Index (1971-73).

Assumptions

For the purpose of this study, the following assumptions were made:

1. That the data gathered by the student accounting system each year is valid and reliable.

2. That all data used in this study has or yields low interval or ordinal level measurement.

3. That the team members and teachers will rate items in an unbiased manner such that the resulting ratings will be valid.

4. That the objective data on each program is accurate.

5. That secondary vocational programs evaluated in 1973-74 are representative of all secondary vocational education programs in Oklahoma.

Definition of Terms

In order to clarify the meaning of certain terms used in this study, the following terms and their definitions are given:

Product Index - A quantitative figure which reflects the number of graduates/completors that are (a) available for employment, (b) employed in the occupation or related occupations, (c) continuing related education, and retention of students that are eligible to re-enroll in the program.

Criteria Average Rating - The averaged rating of team members and the teacher on a five-point scale on all items relating to each criteria (administration, staff, program evaluation, curriculum...) in the Summary Evaluation Questionnaire.

Total Overall Average Rating - The average of the sum total of all items rated on a five-point scale of the team members and teachers for the program.

Regular Vocational Programs - All secondary vocational programs in Oklahoma supported under part "B" of the Vocational Education Amendments of 1968 (P.L. 90-576).

Program Evaluation Questionnaire - A 20 item questionnaire that gathers objective data on each vocational program. The questionnaire is completed in September and returned to the Oklahoma State Department of Vocational and Technical Education by teachers who have been evaluated previously or are being evaluated during the current school year.

Summary Evaluation Questionnaire - A 63 item subjective evaluation questionnaire rated by the evaluation team and teacher on a five-point scale. The questionnaire is mailed in September to programs being evaluated during the current year and returned to the Oklahoma State Department of Vocational and Technical Education by September 15.

L.E.A.'s - Local education agencies (School Districts).

Product Assessment - The outputs of secondary vocational programs. In this study the product refers to a three-year product index of vocational programs.

Process Evaluation - To examine or judge the in-house effectiveness of

the inputs such as administration, staff, curriculum equipment, facilities, etc.

OTIS - Occupational Training Information System, an automated management information system designed to interface manpower demand and supply in Oklahoma.

Student Accounting System - An automated sub-system of OTIS which gathers: (a) student enrollment information of vocational programs, (b) student completion information on vocational programs, and (c) follow-up information on the status of completors of vocational programs.

Evaluation Team - A two- or three-member team per program composed of State Department personnel and/or teacher educators and/or State Advisory Council members and/or local vocational teachers.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to examine process variables and their relationship to a three-year Product Index (placement record) of secondary vocational programs in Oklahoma.

The purpose of this chapter is to provide an overview of the need to examine the association between vocational processes and product. This chapter is divided into the following sections: (1) Historical overview of evaluation, (2) The federal mandate to vocational education, (3) The need for research in evaluation, (4) Process-product studies, and (5) The process-product approach to evaluation in Oklahoma.

Historical Overview of Evaluation

Wenting and Lawson (1975) have indicated that formal systems of evaluation date as early as 2200 B. C. China used an elaborate system of competitive examinations in its civil service system. Public officials were examined every third year to determine fitness for continuing in office. After being administered three examinations, officials were either promoted or dismissed. This process closely resembles today's system of evaluation for granting tenure in public education institutions.

In the United States, before 1850, the appraisal of educational achievement had relied very heavily on oral examinations. During the last half of the nineteenth century, oral exams were replaced by written exams for admission to colleges or universities.

The growth of measurement tests during the first sixty years of the twentieth century can be divided into four phases. The pioneering phase, 1900-1915, saw the emergence of achievement tests and the work of Otis and others on group tests of intelligence. The boom phase from 1915-1930 saw rapid development in production of achievement and intelligence tests. The critical appraisal period from 1930 to 1945 was devoted to taking stock, broadening techniques and delimiting interpretations of psychological and educational tests. The period of 1945-1969 can be characterized as the period of test batteries and testing programs. The period from 1960 to the present can be identified as a second cycle of the critical appraisal phase.

Directly associated with the "boom phase" was work done by Robert Thorndike (1969). Impetus was provided by Thorndike for the early adoption of measuring techniques to evaluate changes in learner behavior.

Other early contributors to evaluation methodologies were the accreditation movement and Ralph Tyler's Eight Year Study. Tyler's (1965) work had its emphasis on the evaluation of student outcomes.

John Flanagan (1964) of the American Institute for Research, conducted a study entitled, "Project Talent", in the 1960's to determine the relationships between student abilities and characteristics and their success or failure in post-program jobs.

Ralph Tyler (1965) initiated the National Assessment Project in

1969, in which he sampled student behavior in an attempt to chart student performance from school to school and from state to state.

The Federal Mandate to Vocational Education

In discussing funding and evaluation activity from 1930 through 1963, Wenting and Lawson (1975) state:

> Until 1963, most. . .studies were the result of federally or foundation funded projects and did not relfect evaluative action on the part of the individual states or educational agencies. In 1963, with the passage of the Vocational Education Act, each state was required to establish a state advisory committee for vocational education which would be responsible for evaluation within each state. . . however. . .the state advisory committees did not assume the responsibility for evaluation as the legislation had intended (p. 7).

It was not until 1968, with the passage of the amendments to the 1963 Vocational Education Act, that emphasis was placed on the requirement for evaluation on the part of individual states and advisory councils within each state. With the passage of the 1963 act, its subsequent amendments in 1968, and the Elementary and Secondary Education Act of 1965 (ESEA), considerable pressure to evaluate was placed on state and local school systems. Contained in Title I of the amendments to the 1963 act (Public Law 90-576, 1968) were the following mandates to national and state advisory councils:

1. The national council shall "review the administration and operation of vocational education programs, including the effectiveness of such programs in meeting the purposes for which they were established."

2. The national council shall "conduct independent evaluations of programs carried out under this title."

3. The national council shall "review the possible duplication of

programs at the post-secondary and adult levels within geographic areas."

4. The state advisory council shall "evaluate vocational education programs, services, and activities assisted under this title."

Again, as in 1963, much of the intent of the legislation was not met. The major problem being that state and local agencies failed to adequately define evaluation. Even though federal legislation required evaluation of process and product for particular programs, guidelines as to the "how" of evaluation were few to nonexistent. Without consensus on the definition of evaluation or evaluative procedures, confusion was rampant. Coupled with this confusion was the fact that few state and local personnel had the necessary background and training for the design and implementation of evaluation systems.

The stage was set, and as a result, a deluge of evaluation models, frameworks, and theories was forthcoming from the academicians. Poo-yen Koo (1970) indicates that the following are only some of the definitions or terms that beset educators. Terms such as "qualitative" and "quantitative" evaluation offered by Hart (1966), "formative" and "summative" evaluation offered by Scriven (1966), "educational accountability and audit system" by Donahue and Rhodes (1970), "internal" and "external" evaluation by Gagne and Dick (1961), also Schaefer (1966), and "process" and "product" evaluation by Bradfield and Moredock (1970), also Moss (1968).

Ward's survey (1970) provides further evidence that a multitude of evaluation procedures and/or processes proliferate within the educational scene. Out of the 29 states in his survey, 24 had formal evaluation procedures, 16 were conducting varying degrees of research on

evaluation, three were tailoring the System for Statewide Evaluation of Vocational Education developed by the Center for Vocational and Technical Education in Ohio, four were using local self-evaluation, eight used a combination approach, one used a state staff supervisory evaluation, one used a team and nine were using a systems approach. Obviously there was overlapping of methods and procedures and Ward's data (1970) did not lend itself to a strict dichotomy. Nevertheless, his study does substantiate the lack of consensus on the direction and methods used to evaluate vocational education.

In explaining this phenomenon, Steele (1973) states:

> The need, both by those providing and those receiving funds, for a better understanding of evaluation and more accurate and efficient evaluation procedures triggered the expansion in ideas about evaluation that has occurred in the past few years (p. 11).

The Need for Research in Evaluation

Evans (1974) has indicated that more evaluations of ongoing educational programs should be based on an experimental design with random assignment. Although this approach might be laudable for large scale project-type evaluations, it is doubtful whether this approach is practical in programatic state and local evaluations.

Stevenson (1973), in his address to members of the American Vocational Association in the New and Related Services Division, states:

> Evaluative criteria can be divided into two categories. . .those items which cause quality (process evaluation) and those items which show quality (product evaluation). . .there must be a demonstrated relationship between the items which show quality and certain items which cause quality. For too long we have depended on experience, on observation, and on tradition to determine what we would accept as quality procedures without any real knowledge that these specified procedures are

related to the quality of the product (p. 77).

Concerning the need to determine relationships between the inputs and outcomes of vocational programs, Moss (1968) states:

> Given the present state of knowledge, the major purpose of evaluation must be to determine which program characteristics actually produce the desired outcomes. . .(p. 5).

Moss introduces the following as the major components of an evaluative system:

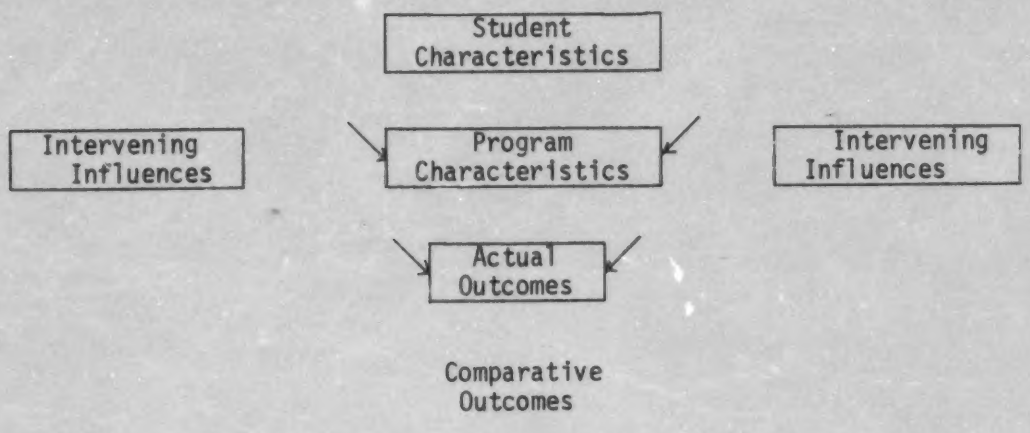


Figure 1. Major Components of the Evaluative System

Poo-yen Koo, Director of Occupational Data in the Department of Education in New Jersey, supports additional emphasis on research in this area. In a special paper, Koo (1970) states:

> Not until more research is accomplished to single out various correlations between the dependent and independent variables, or until factor analysis is used for large scale evaluation designs, will the evaluation

> of outcomes alone tell anything about the process in the program (p. 3).

Reflecting the general revolt of the taxpayers toward education as a whole, other researchers have taken a similar stand.

Krystal and Henrie (1972) state:

> Conservative taxpayers are reluctant to give schools more money unless it can be demonstrated that they are getting measurable results. . .minorities and their champions charge that schools are not educating their children. Julius Hoffman, director of the Washington Institution of Quality Education, has said, 'Education is the only industry in which the consumer, the child, is held responsible for the quality of the product'(p. 2).

In the search for relevancy in American education, be it through process evaluation or product assessment, much effort is being expended to answer critics of education and improve the school.

In examining what approach to take in evaluating instructional programs, Moss (1968) states:

> . . .the criteria by which instructional programs are to be evaluated must be the outcome--the products--of instruction. Program characteristics cannot be used as evaluative criteria, for, by so doing, we assume rather then prove, that those characteristics are good (p.6).

This viewpoint is similar to those held by Womer (1970) and supporters of the National Assessment of Educational Process, also a brochure by Michigan State University (1970), "A Systems Approach to Evaluation of Vocational Education".

In defense of process evaluation, Poo-Yen Koo (1970) states:

> . . .process evaluation should not be discredited simply because 'we assume, rather than prove, that those program characteristics are good'. . .If one scans those principles presented by Allen (1914), Prosser (1925), Wright (1926), Struck (1945), McCarthy (1950), and Roberts (1957), he will find that some of them are purely the result of logical inference, and some others have indeed been empirically validated...(p. 3).

Process-Product Studies

The author, in reviewing a multitude of journals, books, research reports, monograms, and a computerized search of ERIC (Educational Resources Information Center), documents, which included Resources in Education, Abstracts of Research Material, and Abstracts of Instructional Material, found only a few studies which had conducted research in the area of process-product relationships. This semi-void in research, pertaining to this particular area, provided additional support for the need to conduct research in this important field. A real operational problem, coupled with the fact that little research has been completed, highlighted the need for meaningful research to be conducted between process and product variables.

In reviewing the literature, this author found that most of the rhetoric concerning evaluation methodology was based on expertise and/or consensus. The author has referenced this in the earlier part of this chapter. Further evidence of this is a study conducted by Harold Starr, entitled, "Vocational Education Program Evaluation Inventory". In this study, Starr (1975) conducted a Delphi-type survey among more than 540 vocational educators in which he sought information regarding those criteria which vocational education programs should be evaluated. Of the ten criteria selected as being most important, six were identifiable as process criteria.

This author does not wish to imply that this type of research is not important; on the contrary, it is much needed, with program evaluation still in its infancy. What the literature does reveal is a chellenging, unspoken question: "Does anything we do or provide, in terms

of training, have any relationship to related post-program employment?"

As a challenge to vocational educators, specifically concerned with evaluation, Koo (1970) states:

> . . .more studies must be made regarding correlation between specific program characteristics and program outcomes. The more we know about such correlations, the more intelligently we shall be able to figure out how to improve programs as a result of program evaluation (p. 4).

In attempting to provide information in this area, a study mentioned earlier in this chapter was that by Eninger.

This study began in 1963 and was funded by two different agencies. Volume I, "The Process", was funded by the Ford Foundation. Volume II, "The Product", was funded by the Department of Labor. The purpose of the study was to determine relationships between independent variables such as (1) Student resources, and (2) School process to a dependent variable, "relatedness of the first full-time job to the occupation studied."

Multiple regression analysis was used to analyze the data. The sample population was all schools in the United States offering three or more T & I courses. A stratified random sample of 100 schools was drawn from a national population of 667 schools. The results of the study showed significant correlation coefficients in the following areas: (1) Placement related variables, (2) Teacher related variables, (3) Curriculum related variables, (4) Student resource variables, (5) Guidance related variables, and (6) Instruction related variables.

Concerning the findings of these two studies, Eninger (1968) states: "It is reasonable to infer a causal relationship between the top three variables. . .1, 2 and 3. . .and placement performance" (p. 12-8).

This study provided some insights into process-product relationships with reference to trade and industrial education. The scope of the study, however, was too limited in reference to all service divisions in order to attack the problem concerning this study. There also were some differences in both dependent and independent variables.

Another study (Blaschke, 1975) which was conducted by the Educational Turnkey Systems, Inc., for the Michigan Department of Education, examined relationships of several independent variables concerning compensatory education reading programs and a dependent variable--reading achievement. A condensed summary of the positive findings are as follows:

1. The 25 successful compensatory education reading programs spent an average of $742 per pupil and the 23 unsuccessful ones averaged $587. Thirty percent of the difference in achievement was attributed to the amount of money spent per pupil.

2. The principal's satisfaction with comp-ed curriculum decision methods had a direction positive relationship with reading achievement.

3. The greater degree of decision-making delegated to teachers and the greater amount of time they spend on managing and individualizing instruction had a direct positive relationship to reading achievement.

4. A greater amount of coordination among building staff, especially between the compensatory education teacher and the regular teachers had a direct positive relationship to reading achievement.

5. The amount of time spent by the compensatory education staff on planning and preservice training had a direct positive relationship

to reading achievement.

Variables which seemed to have no impact on achievement were as follows:

1. Class size
2. Teacher's salary
3. Teaching experience
4. Age of teacher
5. Number of children receiving free lunches

A factor which seemed to be related to low achievement was the use of paraprofessionals in the classroom.

Both of these studies refute the findings of earlier studies and the thesis that schools do not make a difference in terms of student performance or post-program occupational experience.

A study in which little or no relationship was found between multiple school independent and dependent variables was conducted by Johnston and Bachman (1972). The study, entitled "Youth in Transition Project", consisted of a national inquiry over a four-year period from the tenth grade, the higher education, military service, and the world of work. One of the objectives was to isolate school characteristics which affect young people's (boy's) test scores, values, attitudes, affective states, behavior patterns, education and occupational aspirations. Nothing that distinguished one school from another could be credited with changes which occurred in the young men. It simply did not matter whether the school was rich or poor, hired above or below average teachers, had many resources or few or how it was organized and run.

Johnston and Bachman (1972) state:

> There are differences between schools in the outcomes of their students to be sure--but when we ask what produces these differences, we find almost invariably that they can be attributed to individual differences in background and basic abilities. . .(p. 7).

Both the Eninger and the Compensatory Education study have provided the necessary research background that would support the underlying rationale of the research questions of this study.

The Process-Product Approach to Evaluation in Oklahoma

In August of 1970, the Research Coordinating Unit of Oklahoma State University, which also serves as the research arm of the Oklahoma State Department of Vocational and Technical Education, worked closely with Mr. Roy Stewart, Executive Secretary of the State Advisory Council for Vocational and Technical Education to implement steps for the evaluation of vocational programs in Oklahoma.

With direction and assistance from Dr. Francis Tuttle, State Director, and Dr. William Stevenson, Assistant State Director and Head, Division of Research, Planning and Evaluation, a five year plan was developed for the evaluation of all secondary programs in Oklahoma. Twenty percent of all secondary programs were selected by divisional areas to be evaluated each year. The evaluation effort began during school year 1971-72 and is at the present concluding the fourth phase with eighty percent of the population evaluated.

A process-product type of evaluation has been employed to evaluate both the efficiency and effectiveness of the programs.

The process evaluation of programs is accomplished through a team evaluation and teacher-self evaluation approach. The criteria of the

process, (i.e., administration and supervision, staff, program evaluation, curriculum, instructional materials, instructional procedures, library materials, community relations, advisory committee, public relations, student testing and selection, facilities and equipment, graduate placement assistance, and student organizations) were judged subjectively by the team and teacher rating the 63 items in the Summary Evaluation Questionnaire. An objective approach to assessing the quality of the process is accomplished by each vocational teacher completing a Program Evaluation Questionnaire during the year his program is scheduled to be evaluated and each year thereafter. The Program Evaluation Questionnaire yields objective data on 20 items that relate to instructional and consumable supplies, equipment, facilities, the teacher relations with employers, student desire to enter the occupation, student mobility, supervisory visits and youth organizations.

The product evaluation-assessment utilizes the Student Accounting System, a sub-system of the Occupational Training Information System, in gathering enrollment, completion and follow-up data on graduates of vocational programs. The analysis of these data by programs is utilized to determine effectivenss in terms of program placement. To do this, it was necessary to convene a task force to determine by what criteria vocational programs should be held accountable. Prior to the implementation of the 1971-72 evaluation of secondary programs, Dr. William Stevenson called a meeting of all state supervisors of the instructional divisions. The outcome of this meeting and subsequent meetings was the identification of four criteria on which programs would be held accountable. These criteria are: (1) Percent of vocational graduates available for employment, (2) Percent of graduates

employed in the occupation or related occupation, (3) Percent of graduates continuing related education, and (4) Retention of students who are eligible to re-enroll in the class. The summative results of these criteria eventually became known as the Product Index. The Evaluation Unit has calculated a Mean Product Index of 1974 graduates by divisional area on a 100 percent sample of all vocational programs. Recommendations are presently being prepared to the effect that all secondary programs that fall two standard deviations below their divisional mean be identified and referred to the appropriate state and district supervisors for special assistance for improving placement. The core of the problem confronting the Evaluation Unit is basically what the supervisor should recommend in the way of processes improvement that will assist the vocational instructor at the local level to improve his placement of graduates, i.e., what process criteria related significantly to the Product Index of vocational programs. This then was the rationale and the basis for the implementation of this study.

CHAPTER III

DESIGN AND METHODOLOGY

The major purpose of this study was to examine process variables and their relationship to the three-year Product Index of secondary vocational education programs in Oklahoma.

The purposes of this chapter are to describe: (1) The design, (2) The research questions, (3) The populations, (4) The sampling procedure, (5) The instrumentation, (6) The collection of data, and (7) The analyses of data.

The Design

The design of the study was ex post facto in nature. The independent variables, i.e., the process variables, had already occurred in 1973-74 and the research began with the observation of the dependent variable, i.e., the three-year Product Index in the fall of 1974.

Research Questions

The present study focuses on the relationship of subjective and objective independent variables to the dependent variable by division and/or occupational area. Four major research questions have been formulated to provide data relative to the association of the variables under study.

Research Question 1. Is there a significant relationship between

a three-year Product Index (1971-73) of secondary vocational programs and the Total Overall Average Ratings of those programs?

Research Question 2. Is there a significant relationship between a three-year Product Index (1971-73) of secondary vocational programs stratified by division and/or occupational area and the Criteria Average Ratings of those programs in the following areas:

A. Administrative and supervisory support

B. Staff

C. Program evaluation

D. Curriculum

E. Instructional materials

F. Instructional procedures

G. Library materials

H. Community relations

I. Advisory committee

J. Public relations

K. Student testing and selection

L. Facilities and equipment

M. Graduate placement assistance

N. Student placement assistance

O. Student organization

P. Total Overall Average Rating

Research Question 3. Is there a significant relationship between a three-year Product Index (1971-73) of secondary vocational programs stratified by division and/or occupational area and the objective data of those programs in the following areas:

A. Expenditures for supplies

B. Funds received for services

C. Expenditures for equipment

D. New equipment needed

E. Total value of present equipment

F. Facility age

G. Facility condition

H. Facility size

I. Total years teaching experience

J. Years in present position

K. Year updated occupational/skill experience

L. Year updated professional improvement

M. Degree level of teacher

N. Number of employers known

O. Employer request for graduates

P. Student desire to enter occupation

Q. Graduate mobility

R. Number of class visits to industry or business

S. Number of supervisory visits

T. School wealth (revenue per capita based on average daily attendance)

For further clarification on objective variables, refer to Appendix B.

Research Question 4. Is there a significant relationship between a one-year Product Index (1973) and a three-year Product Index (1971-73) stratified by division and/or occupational area for those programs evaluated in 1973-74?

The Population

The population for this study was all regular funded secondary vocational programs in Oklahoma. The sample selected for the study was limited to those Part B and G programs evaluated during school year 1973-74 that had a three-year Product Index. This sample constituted 111 programs in 65 schools in 15 counties. Programs within the sample that were excluded from the study were: (1) Part B programs that did not have Product Indices for all three years (1971-73), and (2) Those occupational areas where there were less than five programs.

The 1973-74 sample of programs was selected because: (1) Their evaluation was most recent, (2) They yielded the largest humber of programs with a three-year Product Index, and (3) The 1974-75 sample had not completed the evaluation cycle.

Sampling Procedure

A study was made by the Evaluation Unit of the Division of Research, Planning and Evaluation, State Department of Vocational and Technical Education in the fall of 1970 to determine the number of secondary vocational programs in each county. Also, the number of programs in each school in the Tulsa and Oklahoma City school districts were determined. Counties and metropolitan schools were randomly selected until a twenty percent sample of programs was drawn for each of the years in the five-year evaluation effort being undertaken. The names of counties with the number of programs in its schools were placed in one container. Tulsa and Oklahoma City schools with the number of programs were placed in another container. Counties and

metropolitan schools were randomly drawn until a twenty percent mix of programs was selected for each of the five years. Small adjustments were then arbitrarily made to balance the programs for each of the service division areas.

With this adjustment completed, the twenty percent mix was evenly distributed among the seven service divisions of the State Department of Vocational and Technical Education for each of the five years.

Implementation of new program starts or construction of new area schools have not drastically altered the sample size for each year.

Data relevant to the 16 subjective independent variables came from the overall average ratings of the team and teachers evaluation of each variable in the Summary Evaluation Questionnaire.

Data relevant to the 19 objective independent variables is the objective data completed by each teacher on the Program Evaluation Questionnaire. The independent variable, school wealth, was gathered from State Department of Education records. The independent variable PI-1 (1973 Product Index) was gathered through the Student Accounting System. The dependent variable data which is used to calculate the Product Index was gathered through the Student Accounting System.

Instrumentation

Summary Evaluation Questionnaire and Program Evaluation Questionnaire

All State Directors of vocational and technical education throughout the United States were requested to submit forms of evaluation material used in their respective states during the fall of 1970.

Thirty-nine of the Directors responded. All of the questionnaires provided were of the subjective-process nature. Criteria relating to major topic areas were reviewed and synthesized. Seventy-five response items were adopted for the rough draft of the Summary Evaluation Questionnaire. All of the State Supervisors of the service divisions were requested to review the criteria and response items for the purpose of approval, deletion or addition of new criteria or items. Seventy items were approved by the supervisors for inclusion in the questionnaire for the 1971-72 evaluation. The questionnaire was then submitted to Dr. Francis Tuttle, State Director of Vocational and Technical Education, and his assistants, Mr. Arch Alexander, Mr. Byrle Killian and Dr. William W. Stevenson, for their approval.

The Program Evaluation Questionnaire, a companion objective questionnaire, was developed during the same period of time. Twenty-seven criteria were arbitrarily selected, based on expertise within the Division of Research, Planning and Evaluation. The same process of approving the questionnaire was followed as with the Summary Evaluation Questionnaire. Both companion questionnaires were then used in the 1971-72 evaluation effort on twenty percent of the vocational programs. Weaknesses were revealed through the 1971-72 evaluation effort and by critiques of the staff and administration of the Central Area Vocational-Technical School at Drumright during the spring of 1972. Revision of both instruments with local-state input is ongoing with field testing continuing through school year 1974-75.

During the 1973-74 evaluation cycle, 20 items were included in the Program Evaluation Questionnaire and 63 in the Summary Evaluation Questionnaire. It is these instruments that provide the data on a

majority of the subjective and objective variables. Teachers complete both questionnaires in September. Completion by team members is an ongoing activity from September to April each year. All material is submitted to the Evaluation Unit for processing.

Student Accounting System

The Student Accounting System, now a sub-system of the Occupational Training Information System, was initially developed in the summer of 1968 by the Research Coordinating Unit at Oklahoma State University. The system has undergone revisions to its present single entry design.

The Student Accounting System, which gathers the supply information, includes information on enrollment, completion and follow-up of graduates or completors of high school vocational programs.

A study to validate the information collected with the Student Accounting System was conducted during school year 1969-70 and again in 1973-74. A sample of graduates was randomly selected in each study and a survey questionnaire was mailed out to each graduate in each of the samples. Although the responses were somewhat different than those indicated by the teachers of the graduates, the responses on the status completed by the graduate did closely approximate that indicated by the teacher in both studies.

It is this system that provides the data with which the Product Index of each vocational program is computed.

Product Index

A task force composed of all Oklahoma State supervisors and assistant state directors of vocational education met in the fall of 1970 to

discuss and agree upon what outcome measures would be considered as valid for secondary vocational education programs in the state.

After considerable study, four criteria were agreed upon and selected as outcome criteria. Each criterion was to be given equal weight. Those criteria selected were as follows:

1. Percent of graduates/completors available for employment.
2. Percent of graduates/completors employed in the occupation or related occupation.
3. Percent of graduates/completors continuing related education.
4. Retention rate of students in the program.

The task force requested that Dr. William Frazier, Director of the Research Coordinating Unit, develop the equation for computing the results of the criteria. This work was completed quickly and the computation results he termed a "Product Index".

The criteria were then presented to Dr. Francis Tuttle, State Director of Vocational and Technical Education, and he in turn presented the criteria to the State Board for Vocational and Technical Education for its approval. The Board approved the criteria which are now an official part of the evaluative measures of secondary vocational programs.

Analyses of the Data

In analyzing the data, this researcher utilized the Spearman rank-order correlation and the Stepwise regression maximum R^2 procedures.

Though the Spearman procedure was adequate to test the research questions contained in the study, the author felt that the inclusion of the Stepwise regression maximum R^2 procedure would add additional data

to this field of research. Both techniques are part of the Statistical Analysis System used in the Statistical Department at Oklahoma State University.

Output of the Spearman procedure, according to Barr and Goodnight (1972), includes in part: (1) the computation of a simple correlation table of the dependent and independent variables, (2) their approximate significance level, and (3) the number of observations making up the correlation coefficients.

Outputs of the Stepwise regression maximum R^2 improvement procedure according to Barr and Goodnight (1972), include in part: (1) the number of independent variables in the "best" model, (2) the names of independent variables in the "best" model, and (3) the corresponding R^2 statistic of the "best" model.

The output also includes the beta values and other necessary data in order to calculate the multiple regression equation(s).

The Spearman procedure permitted the organization of correlation tables to show relationships as they existed between each of the independent variables and the dependent variable by service divisions and/or occupational area.

Secondly, the Spearman procedure permitted an analysis to test the research questions contained in the study. The alpha level was preset at the .05 level for significance.

The third part of the analysis utilized the Stepwise regression maximum R^2 procedure to compute the partial and multiple coefficient of correlations between the optimum composite of predictive variables (models) and the Product Index.

Data yielded by this procedure was also utilized for the computation of multiple regression equations for prediction of Product Indices by service division and/or occupational areas.

CHAPTER IV

RESULTS

The purpose of this study was to examine process variables and their relationship to the three-year Product Index (PI-3) of secondary vocational programs in Oklahoma. The results from the analysis of data are presented in this chapter. The Spearman rho correlation procedure was used to test the research questions contained in the study. The Stepwise Maximum R^2 Regression analysis was also utilized. This procedure allowed the computation of partial and miltiple coefficients of correlations between the optimum composite (models) of predictive variables and the three-year Product Index.

The reader should be aware that the multiple R value for the first variable in each regression table (IV-IX) is, in fact, a Pearson product moment correlation coefficient which may vary slightly from the comparable Spearman rho correlation coefficient in Tables I-III.

Results of the analysis are presented in three sections as follows: (1) A test of the research questions contained in the study, (2) The computations of partial and multiple coefficient of correlations between the optimum models of predictive variables and the three-year Product Index, and (3) The formulation of a multiple regression equation.

Tests of the Research Questions

Four major research questions, with multiple sub-questions on research question two and three, were tested for significant relationship to a three-year Product Index by service division and/or occupational area. The alpha level was preset at the .05 level; however, greater levels were reported where they were found.

Research Question One

> Is there a significant relationship between a three-year Product Index (1971-73) of secondary vocational programs and the Total Average Ratings of those programs?

Reference to Table I indicates that there is a significant relationship between a three-year Product Index and the Total Average Ratings of secondary vocational programs. Although the relationship was significant, the coefficient of correlation was relatively small (.133).

TABLE I

CORRELATION BETWEEN THE THREE-YEAR PRODUCT INDEX AND THE TOTAL OVERALL AVERAGE RATINGS FOR SECONDARY VOCATIONAL PROGRAMS

Variable	All Divisions/Occupational Areas PI-3 N=111
Total Overall Average Ratings	.133*

*Significant at the .0001 level

Research Question Two

Is there a significant relationship between a three-year Product Index (1971-73) of secondary vocational programs stratified by division and/or occupational area and the Criteria Average Ratings of those programs?

Reference to Table II indicates that there was a significant relationship between the three-year Product Index and eight (8) of the Criteria Average Ratings in the division of Agriculture; one (1) in the division of Distributive Education; six (6) in the division of Business and Office; one (1) that was negative in Carpentry; none (0) in Auto Mechanics; and one (1) in Industrial Cooperative Training.

Results of the Analysis also indicate that the independent variable "Curriculum" was significantly related to the three-year Product Index more often than any of the other independent variables. Significance of this variable appeared in all three of the service divisions but in none of the occupational areas where the number of programs were smaller. In the three cooperative areas, Distributive Education, Business and Office Education, and Industrial Cooperative Training, Business and Office Education had the largest number (6) of significant correlations between the subjective independent variable and the criterion. Only one subjective variable was observed as being significant in each of the other two cooperative areas.

Results of the analysis further indicate that a majority of the Criteria Average Ratings were negatively related in the Trade and Industrial Education day-trade programs of Carpentry and Auto Mechanics. One hundred two (102) correlation coefficients were computed in all six of the service divisions and/or occupational areas on Criteria Average Ratings. From this total, 37 were negatively related of which 31 were in the two day-trade programs mentioned above.

TABLE II

CORRELATIONS BETWEEN THE THREE-YEAR PRODUCT INDEX AND THE CRITERIA AVERAGE RATING STRATIFIED BY SERVICE DIVISION AND/OR OCCUPATIONAL AREA

Variables (Criteria)	Agriculture PI-3 N=53	Distributive Education PI-3 N=13	Business Office PI-3 N=11	Carpentry PI-3 N=9	Auto Mechanics PI-3 N=6	Industrial Coop. Trng. PI-3 N=9
2. Administration & Supervision	.366*	.391	-.081	-.700**	-.314	.083
3. Staff	.214	.261	.348	-.159	-.200	.200
4. Program Evaluation	.338**	.413	.430	-.376	.085	.217
5. Curriculum	.336**	.573**	.633**	-.616	-.405	.233
6. Instructional Materials	.210	.002	.096	-.349	-.200	.400
7. Instructional Procedures	.249	.387	.309	-.184	.202	.435
8. Library Materials	.408*	.000	.385	-.200	-.314	.529
9. Community Relations	.336**	.371	.680**	-.266	-.314	.433
10. Advisory Committee	-.035	-.016	.251	-.316	-.600	.133
11. Public Relations	.074	.371	.675**	-.317	-.231	.361
12. Student Testing & Selection	.266	.459	.620**	-.426	-.428	.588
13. Facilities & Equipment	.284**	.008	.481	-.500	-.714	.750**
14. Graduate Placement Assistance	.245	-.202	.795*	-.317	-.550	.234
15. Student Placement Assistance	.297**	-.071	.563	-.333	-.714	.317
16. Student Organization	.192	.423	.281	-.254	-.057	-.266
17. Total Overall Average Rating	.357*	.374	.633**	-.333	-.428	.283

*Significant at the .01 level
**Significant at the .05 level

Research Question Three

Is there a significant relationship between a three-year Product Index (1971-73) of secondary vocational programs stratified by service division and/or occupational area and the objective data of those programs?

Reference to Table III indicates that there is a significant relationship between a three-year Product Index and seven (7) of the objective independent variables in the service division of Agriculture; one (1) in the division of Distributive Education; three (3) in the division of Business and Office Education; two (2) in the occupational area of Carpentry; one (1) in Auto Mechanics; and one (1) in Industrial Cooperative Training.

In the analysis of the objective data, four independent variables appeared more often (twice) among the three service divisions and three occupational areas than any of the other independent variables. Those four variables were: (1) Number of years taught in present position, (2) Number of class visits to related businesses, (3) School wealth, and (4) The 1973 Product Index.

The analysis of objective data also indicates that the division of Agriculture had the largest number of independent variables (7) that were significantly related to the dependent variable. The same observation was made in the analysis of subjective data. In fact, it was observed that the same general trend that occurred in the analysis of subjective data, i.e., larger numbers of positive significant correlations in Agriculture and Business and Office Education, and larger numbers of negative correlations in Trade and Industrial Education programs, occurred in the analysis of objective data. In comparing the cooperative areas per se, Business and Office Education had a greater

TABLE III

CORRELATION BETWEEN THE THREE-YEAR PRODUCT INDEX AND OBJECTIVE DATA STRATIFIED BY SERVICE DIVISION AND/OR OCCUPATIONAL AREA

Variables (Objective Data)	Agriculture PI-3 N=53	Distributive Education PI-3 N=13	Business Office PI-3 N=11	Carpentry PI-3 N=9	Auto Mechanics PI-3 N=6	Industrial Coop. Trng. PI-3 N=9
2. Expenditure for Supplies	.053	.063	.253	-.487	-.086	-.086
3. Funds Received for Services	.197	-.213	-.092	-.008	.028	-.653
4. Expenditures for Equipment	.288**	-.084	-.179	.170	-.550	-.113
5. New Equipment Needed	.037	-.369	-.178	.175	.371	.195
6. Total Value of Present Equipment	.433*	-.257	.473	.502	.000	-.050
7. Facility Age	-.108	.230	.054	.410	-.376	.260
8. Facility Condition	.387*	.433	.437	-.138	.207	.079
9. Facility Size	.173	.280	.548	-.401	.144	-.189
10. Total Years Teaching Experience	.420*	.395	.100	-.025	-.314	.016
11. Years in Present Position	.385*	.554**	.063	-.153	-.485	.008
12. Year Updated Skill Experience	.171	-.402	-.451	.000	-.130	.547
13. Year Update Prof. Improvement	.049	.000	.000	.273	.292	.458
14. Degree Level of Teacher	.261	.401	.119	.782**	-.358	.484
15. Number of Employers Known	.156	.355	.695**	.175	-.318	-.201

TABLE III (CONTINUED)

Variables (Objective Data)	Agriculture PI-3 N=53	Distributive Education PI-3 N=13	Business Office PI-3 N=11	Carpentry PI-3 N=9	Auto Mechanics PI-3 N=6	Industrial Coop. Trng. PI-3 N=9
16. Employers Request for Graduates	.154	.267	.482	.447	-.173	-.253
17. Student Desire to Enter Occup.	.246	.029	.498	-.218	-.550	.218
18. Graduate Mobility	.028	-.183	-.447	.000	.142	-.261
19. No. of Class Visits to Industry	.283**	.530	.685**	.408	.176	-.059
20. No. of Supervisory Visits	.191	.507	.317	-.715**	-.698	.179
21. School Wealth	-.064	-.011	-.218	-.383	-.898**	.678**
22. 1973 Product Index	.402*	.159	.772*	.083	.028	.616

*Significant at the .01 level
**Significant at the .05 level

number (3) of significant independent variables in relation to the objective data than both Distributive Education and Industrial Cooperative Training combined.

Research Question Four

> Is there a significant relationship between a one-year Product Index (1973) and a three-year Product Index (1971-73) stratified by division and/or occupational area for those programs evaluated in 1973-74?

Reference to Table III indicates that there was a significant relationship between a one-year Product Index and a three-year Product Index stratified by division and/or occupational area for those programs evaluated in 1973-74 in the following service divisions: (1) Vocational Agriculture, and (2) Business and Office Education.

Relationship Between a Composite of
Variables and a Three-Year
Product Index

In the second analysis, a Stepwise Maximum R^2 Regression analysis was used to compute the "best model" of predictive variables in each of the service divisions and/or occupational areas. The Stepwise procedure was also used to compute a multiple regression equation in each of the above mentioned areas. The equations will be reported in the third part of the results.

The R^2 values in Tables IV through IX reveal the amount of variation from the mean three-year Product Index that was explained by the subjective and objective independent variables. The variables in each table are listed in their order of contribution and account for the

cumulative percentage of explained variations in each of the service divisions and/or occupational areas. The remaining independent variables did not meet the statistical requirements of the Stepwise procedure for inclusion in the models.

Table IV, concerning Vocational Agriculture, indicates that the best model for Vocational Agriculture is a nine variable model which accounted for 65 percent of the explained variation. Those variables are: (1) The 1973 Product Index, (2) Facility condition, (3) Library materials Overall Average Rating (O.A.R.), (4) Public relations O.A.R., (5) Supervisory visits, (6) Equipment needed ($), (7) School wealth, (8) Field trips to related business, and (9) Instructional materials O.A.R.

TABLE IV

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR VOCATIONAL AGRICULTURE

Number	Variables	R	R^2
1	1973 Product Index	.413	.170
2	Facility Condition	.586	.343
3	Library Materials O.A.R.	.658	.420
4	Public Relations O.A.R.	.717	.515
5	Supervisory Visits	.740	.547
6	Equipment Needed ($)	.762	.581
7	School Wealth	.780	.609
8	Field Trips to Related Business	.799	.639
9	Instructional Materials O.A.R.	.809	.655

N=53

Table V, concerning Distributive Education, presents an 11 variable model as a "best model" for Distributive Education. This composite of independent variables accounts for 100 percent of the variance from the mean three-year Product Index. Variables included in the model were: (1) Student organization O.A.R., (2) Degree level of teacher-coordinator, (3) Student placement assistance O.A.R., (4) Public relations O.A.R., (5) Student testing and selection O.A.R., (6) Curriculum O.A.R., (7) Facility condition, (8) Professional improvement, (9) Field trips to related business, (10) Advisory committee O.A.R., and (11) Evaluation O.A.R.

TABLE V

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR DISTRIBUTIVE EDUCATION

Number	Variables	R	R^2
1	Student Organization O.A.R.	.624	.389
2	Degree Level of Teacher	.820	.673
3	Student Placement Assistance O.A.R.	.898	.807
4	Public Relations O.A.R.	.956	.915
5	Student Testing and Selection O.A.R.	.976	.953
6	Curriculum O.A.R.	.993	.986
7	Facility Condition	.999	.998
8	Professional Improvement	.999	.999
9	Field Trips to Related Business	.999	.999
10	Advisory Committee O.A.R.	.999	.999
11	Evaluation O.A.R.	1.000	1.000

N=13

Table VI, concerning Business and Office Education, presents a nine variable model as a "best model" for predicting a three-year Product Index in Business and Office Education. The nine variables accounted for 100 percent of the variation from the mean three-year Product Index of programs for this particular service division. The independent variables included in the composite were: (1) The 1973 Product Index, (2) Number of years taught in present position, (3) Graduate mobility, (4) Instructional materials O.A.R., (5) Administration and supervision O.A.R., (6) Total years teaching experience, (7) Advisory committee O.A.R., (8) Instructional procedures O.A.R., and (9) Staff O.A.R.

TABLE VI

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR BUSINESS AND OFFICE EDUCATION

Number	Variables	R	R^2
1	1973 Product Index	.833	.695
2	Years in Present Position	.907	.822
3	Graduate Mobility	.933	.871
4	Instructional Materials O.A.R.	.980	.961
5	Administration and Supervision O.A.R.	.992	.984
6	Total Years Teaching Experience	.999	.999
7	Advisory Committee O.A.R.	.999	.999
8	Instructional Procedures O.A.R.	.999	.999
9	Staff O.A.R.	1.000	1.000

N=11

Table VII, concerning Vocational Carpentry, indicates an eight variable model as a "best model" for predicting a three-year Product Index in Vocational Carpentry. This composite of independent variables accounted for 100 percent of the variation from the mean three-year Product Index. Independent variables included in the model as best predictors were: (1) Degree level of teacher, (2) Student desire to enter occupation, (3) Curriculum O.A.R., (4) Expenditure for equipment, (5) Student organization O.A.R.,(6) Facility size, (7) Year of professional improvement, and (8) Advisory committee O.A.R.

TABLE VII

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR VOCATIONAL CARPENTRY

Number	Variables	R	R^2
1	Degree Level of Teacher	.721	.521
2	Student Desire to Enter Occupation	.964	.929
3	Curriculum O.A.R.	.987	.975
4	Expenditure for Equipment	.996	.993
5	Student Organization O.A.R.	.999	.999
6	Facility Size	.999	.999
7	Year of Professional Improvement	.999	.999
8	Advisory Committee O.A.R.	1.000	1.000

N=9

Table VIII, concerning Auto Mechanics, presents a five variable model as a "best model" for predicting a three-year Product Index in Auto Mechanics. The five variable composite accounted for 100 percent

of the variation from the criterion. The independent variables, included in the model, were: (1) School wealth, (2) Student testing and selection O.A.R., (3) Field trips to related business, (4) Employer requests for graduates, and (5) Facility condition.

TABLE VIII

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR AUTO MECHANICS

Number	Variables	R	R^2
1	School Wealth	.858	.736
2	Student Testing and Selection O.A.R.	.982	.964
3	Field Trips to Related Business	.999	.999
4	Employer Request for Graduates	.999	.999
5	Facility Condition	1.000	1.000

N=6

Table IX, concerning Industrial Cooperative Training, reveals an eight variable model as a "best model" for predicting a three-year Product Index in Industrial Cooperative Training programs. The eight variable composite accounted for 100 percent of the variation from the mean three-year Product Index in this occupational area. Independent variables included in the model as the best predictors were: (1) Facilities and equipment O.A.R., (2) Facility age, (3) Degree level of Coordinator, (4) Funds received for services, (5) Years taught in

present position, (6) Instructional Materials O.A.R., (7) Student organization O.A.R., and (8) Instructional procedures O.A.R.

TABLE IX

RESULTS OF MAXIMUM R^2 REGRESSION ANALYSIS FOR INDUSTRIAL COOPERATIVE TRAINING

Number	Variables	R	R^2
1	Facilities and Equipment O.A.R.	.812	.659
2	Facility Age	.951	.906
3	Degree Level of Coordinator	.971	.943
4	Funds Received for Services	.985	.971
5	Years Taught in Present Position	.999	.999
6	Instructional Materials O.A.R.	.999	.999
7	Student Organization O.A.R.	.999	.999
8	Instructional Procedures O.A.R.	1.000	1.000

N=9

The Multiple Regression Equations

The use of the Spearman rho allowed the testing of the research question to determine if significant relationships did exist between the independent and dependent variables. This was the major purpose of the study; however, by using the Stepwise procedure, additional information was obtained as to what composite of independent variables comprised the "best" predictor of the criterion. Output of the Stepwise procedure included a composite of "best" predictors, their R^2

values, beta weights and other necessary data for computing the regression equations. The purpose of including multiple regression equations in the study as a final result was to provide supplementary information for predicting the dependent variable.

A brief explanation of the values in each of the equations is presented using the regression equation for Agriculture as an example: Values such as +.036, +8.46,.....-.035 are the beta weights by which the independent variables are multiplied. The products of these variables and the constant -14.96 (last value in each equation) are summed algebraically, the result being Y', the predicted three-year Product Index. The standard error of estimate, ±8.59, indicates the degree of accuracy with which it is possible to predict the dependent variable. If the distribution of scores in the sample population is normal, 68 percent of the predicted dependent variables will lie within ±8.59 units of their actual value. For a definition of each of the X_1, X_2...variables, the reader should refer to the variable numbers in Tables IV through IX respectively. The following are the multiple regression equations for each of the service divisions and/or occupational areas:

Vocational Agriculture

$$Y' = +.036X_1 + 8.46X_2 + .011X_3 - .087X_4 + 1.85X_5 + .004X_6 + .002X_7 + 8.33X_8 - .035X_9 - 14.96$$

Standard error of the estimate = ±8.59

Distributive Education

$$Y' = +.021X_1 + 15.44X_2 - .044X_3 - .157X_4 + .070X_5 + .120X_6 - 3.01X_7 + 4.76X_8 + .225X_9 + .001X_{10} + .001X_{11} - 97.4$$

Standard error of the estimate = ±.010

Business & Office Education

$$Y' = +.100X_1 - .145X_2 + .388X_3 + .436X_4 - .123X_5 + .251X_6 - .007X_7 - .007X_8 - .002X_9 - 158.7$$

Standard error of the estimate = ±.024

Auto Mechanics

$$Y' = -.098X_1 - .066X_2 - 1.30X_3 + .128X_4 + .076X_5 + 118.48$$

Standard error of the estimate = 0

Carpentry

$$Y' = +7.423X_1 - .351X_2 + .052X_3 - .0008X_4 + .004X_5 + .0001X_6 - .288X_7 - .001X_8 + 27.159$$

Standard error of the estimate = 0

Industrial Cooperative Training

$$Y' = +.191X_1 + .224X_2 - 8.08X_3 - .016X_4 + .061X_5 + .004X_6 + .0002X_7 - .001X_8 + 10.97$$

Standard error of the estimate = 0.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to determine if significant relationships exist between process variables and a dependent product variable. Stated more in layman's terms, the research questions asked: Is there a significant relationship between what the process evaluation is measuring in local secondary vocational programs and the placement rate of those programs over a three-year period. If high placement from secondary vocational programs is a desirable outcome and significant relationships can be established between process and product measures, considerable effort, both in terms of fiscal and human resources, can be conserved.

In an attempt to answer the questions, data were collected and analyzed for significant relationships. The two instruments used to collect the process data were the Summary Evaluation Questionnaire and the Program Evaluation Questionnaire. The data pertaining to school wealth were gathered through records furnished by the Oklahoma State Department of Education. The data used to compute the three-year Product Index (output measure) were gathered through the Student Accounting System of the State Department of Vocational and Technical Education.

The statistical method used to analyze the data and test the research questions contained in the study was the Spearman rho correlation coefficient. This statistical method was selected due to the level of data being tested and the number of observations in each of the samples.

A Stepwise Regression Maximum R^2 procedure was used to compute the best composite or "best model" of predictor variables. This procedure also allowed the computation of a regression equation for each of the service divisions and/or occupational areas. Both statistical techniques are a part of the Statistical Analysis System used at Oklahoma State University.

The design of the study was ex post facto in nature. This was a major limitation of the study. By observing the independent and dependent variables in retrospect, the researcher was unable to manipulate the independent variables and observe their affect on the dependent variable.

Findings of the Study

The following is a condensed summary of the findings:

A. There was a significant relationship between a three-year Product Index (1971-73) of Vocational Agriculture programs and the subjective and objective independent variables as follows: (1) Administration and supervision, (2) Program evaluation, (3) Curriculum, (4) Library materials, (5) Community relations, (6) Facilities and equipment, (7) Student placement assistance, (8) Total Overall Average Rating of the program, (9) Expenditure for equipment, (10) Total value of equipment, (11) Facility condition, (12) Total years teaching

experience, (13) Number of class visits to related industry, and (14) The 1973 Product Index.

B. There was a significant relationship between a three-year Product Index (1971-73) of secondary Distributive Education programs and the subjective and objective independent variables in the following areas: (1) Curriculum, and (2) Number of years taught in present position.

C. There was a significant relationship between a three-year Product Index (1971-73) of secondary Business and Office Education programs and the subjective and objective independent variables in the following areas: (1) Curriculum, (2) Community relations, (3) Public relations, (4) Student testing and selection, (5) Graduate placement assistance, (6) Total Overall Average Rating of the program, (7) Employer request for graduates, (8) Number of class visits to related business, and (9) The 1973 Product Index.

D. There was a significant relationship between a three-year Product Index (1971-73) of Vocational Carpentry programs and the subjective and objective independent variables in the following areas: (1) Administration and supervision, (2) Degree level of the teacher, and (3) Number of supervisory visits.

E. There was a significant relationship between a three-year Product Index (1971-73) of Vocational Auto Mechanics programs and the objective independent variable, "School wealth".

F. There was a significant relationship between a three-year Product Index for Industrial Cooperative Training and the objective independent variable, "School wealth".

G. There was a significant relationship between a three-year

Product Index and the 1973 Product Index in the service divisions of Vocational Agriculture and Business and Office Education.

H. It was found that a composite of nine variables was the "best model" of predictors of a three-year Product Index for Vocational Agriculture. The variable, Total Years Teaching Experience, accounted for more of the variation (.191) in the mean three-year Product Index than any of the other independent variables. The cumulative percent of variance accounted for by the nine variables was .655. Table IV lists the nine variables.

I. It was found that a composite of 11 variables was the "best model" of predictive variables for a mean three-year Product Index in Distributive Education. The variable, Student Organization O.A.R., was considered the best predictor and accounted for .389 percent of the cumulative variance in the criterion. The cumulative percent of variance accounted for by all 11 variables was 100 percent. Table V lists the 11 variables.

J. It was found that a composite of nine variables was the "best model" of predictors of a mean three-year Product Index for Business and Office Education. The 1973 Product Index was considered the best predictor and accounted for a higher percent (.695) of the cumulative variance in the criterion than any of the other variables. The nine variables accounted for all (100 percent) of the variance in the dependent variable. Table VI lists all nine variables.

K. It was found that a composite of eight variables was the "best model" of predictors of a three-year Product Index in Vocational Carpentry. The variable, Degree Level of the Teacher, accounted for .521 percent of the variation in the criterion and was considered the

best predictor. One hundred (100) percent of the cumulative variance was accounted for by all eight variables. Table VII lists the eight variables in order of contribution.

L. It was found that a composite of five variables was the "best model" for prediction of the dependent variable in Auto Mechanics. The variable attributing to the highest percent of variance was "School wealth". The cumulative R for this variable was .736. All five variables accounted for 100 percent of variation in the mean three-year Product Index in this occupational area. Table VIII lists all five variables.

M. It was found that a composite of eight variables was the "best model" of predictors for Industrial Cooperative Training programs. The variable, Facilities and Equipment O.A.R., accounted for the highest percent of cumulative variance in the dependent variable. The cumulative multiple R for this variable was .659. The eight variables included in the model accounted for 100 percent of the variance in the three-year Product Index for this particular occupational area. Table IX lists the eight variables in order of contribution.

Discussion of the Results

The major problem concerning this study was that it is not known what variables should be considered in the evaluation of local vocational programs to conserve fiscal and human resources. In order to justify the revision of the evaluation instruments, it would be necessary that strong correlation coefficients be established that were significant.

There seems to be little agreement among statisticians on how large a coefficient must be in order to ascertain that the relationship is strong or conversely how small in order to reject it as having a trivial relationship. The major criterion normally employed is the importance of the subject under study. The evaluation of local programs is considered as a high priority of the State Department of Vocational and Technical Education and therefore, the subject is considered very important, requiring substantial relationships before any revision of evaluation instruments can be considered.

Although the findings of the study indicated that a number (21) of variables correlate significantly with the criterion, several factors prohibit the drawing of firm conclusions at this point.

First is the level of correlation coefficients in Vocational Agriculture. The highest coefficient established was .433, which accounts for only .1875 percent of the variance in the dependent variable.

Second is the large number (61 of a possible 111) of correlations that were negative in the Trade and Industrial Education programs. Only 20 out of 111 possible correlations were negative in the three service divisions. These negative correlations raise several questions as to why Trade and Industrial Education programs, specifically the day-trade programs, are so different than those of the service divisions. Nevertheless, the large number of negative correlations, coupled with the small number of programs observed, negates the drawing of conclusions in the Trade and Industrial Education areas.

A third factor observed was the inconsistent pattern of variables that were significantly related among the service divisions and occupational areas. Examples of this inconsistency are shown by Program

Evaluation being significantly related in Agriculture, but in none of the other areas; also, Public Relations in Business and Office Education but not in others. This pattern is repeated several times.

The fourth factor which is related to the inconsistent pattern mentioned above is the lack of variables that had a significant correlation in all of the six areas observed. Only one variable "Curriculum" was significantly related in more than two divisions. For these reasons, this writer opts to adopt the conservative viewpoint in regard to the inferential ability of the variables contained in this study.

Conclusions

Low correlation coefficients, large numbers of negative correlations that were insignificant, inconsistent patterns of relationships, and the small number of independent variables that were significantly related in all of the service divisions and occupational areas prohibit the drawing of firm conclusions in this research.

The study has raised questions in regard to the phenomenon of negative correlations observed in Trade and Industrial Education. Although this study has not provided firm conclusions regarding the relationship between "process" and "product", it has provided some meaningful benchmarks for the advancement of research in this area.

Recommendations

The following recommendations are offered:

1. That additional research be conducted to identify other intervening variables which may influence a three-year Product Index.

2. That the State Department of Vocational and Technical Education not delete, add to or revise the evaluation instruments until after the 1975-74 evaluation of local vocational programs.

3. That the study be replicated as early as possible with a larger number of programs in each of the service divisions and occupational areas. The number of occupational areas should also be expanded if possible.

4. That research be conducted to ascertain why Trade and Industrial Education programs are negatively related on a high percentage of subjective and objective processes.

Implications

Even though the levels of correlations obtained in the study prohibit the drawing of firm conclusions, several implications can be drawn. On close examination of those process variables found significant, many can easily be identified as teacher activities. Secondly, it would appear that the financial ability of the school to adequately support a vocational program might warrant inclusion in any further study. A third consideration should include variables on local and state administrative support in future studies.

While there is little doubt that secondary vocational programs play a large role in developing attitudes and skill proficiencies in our young people, which prepares them for the world of work, it is this writer's view that other intervening variables also affect that entrance. These intervening variables, acting independently or in conjunction with in-school processes, determine whether or not graduates enter the

occupations for which trained or continue on to higher related education. The identification of these variables, though, await greater depths of research at this point in time. It is well known by those actively involved in research that many paths must be explored before results can be obtained that will stand under replications. It is this writer's belief that this study has provided some meaningful direction that will aid further inquiry into this area of education.

BIBLIOGRAPHY

Barr, A. J., and J. H. Goodnight.

1972 A User's Guide to the Statistical Analysis System. Raleigh, North Carolina: North Carolina State University.

Blaschke, C.

1975 "Michigan Cost Effectiveness Study." Washington, D. C.: Education Turnkey Systems, Inc.

Eninger, M. V.

1968 The Process and Product of T & I High School Level Vocational Education in the United States. Pittsburgh, Pennsylvania: Educational Systems Research Institute, O.E., Department of Health, Education and Welfare.

Evans, J. W.

1974 "Evaluating Educational Programs. . .Are We Getting Anywhere?" Educational Researcher, Vol. 3, No. 8 (September), 7-12.

Flanagan, J., F. Davis, J. Dailey, M. Shaycroft, D. Orr, I. Goldberg, and C. Neyman.

1964 Project TALENT: The Identification, Development and Utilization of Human Talents. Pittsburg: University of Pittsburg Press.

Johnston, L., and J. Bachman.

1972 "Are American High Schools Effective?" Newsletter, Vol. 1, No. 16 (Autumn), 1-7.

Krystal, Sheila, and H. Samuel.

1972 "Educational Accountability and Evaluation." Washington, D. C.: U. S. Government Printing Office, PREP Report No. 35, DHEW Publication No. (O.E.), 72-9.

Michigan State University, Department of Secondary Education and Curriculum.

1970 "A Systems Approach to the Evaluation of Vocational Education," East Lansing Michigan: Michigan State University.

Moss, Jerome, Jr.

1968 The Evaluation of Occupational Education Programs. Minneapolis, Minnesota: Research Coordinating Unit.

Po-yen, Koo.

1970 "Evaluation." Trenton, New Jersey: Special Paper, State of New Jersey, Department of Education.

Public Law 90-576

1968 "Amendments to the Vocational Education Act of 1963." Washington, D. C.: U. S. Government Printing Office.

Ross, R. W.

1973 A Guide for State Directed Evaluation of Secondary Vocational Education Programs in Oklahoma. Stillwater, Oklahoma: State Department of Vocational and Technical Education.

Scriven, M.

1966 The Methodology of Evaluation. Lafayette, Indianna: Purdue University, The Social Science Education Consortium, Publication 110.

Starr, H.

1975 "Vocational Education Program Evaluation Inventory." Columbus, Ohio: Ohio State University, Center for Vocational and Technical Education.

Steele, S. M.

1973 Contemporary Approaches to Program Evaluation: Implications for Evaluating Programs for Disadvantaged Adults. Washington, D. C.: Education Resources Division, Capitol Publications, Inc.

Stevenson, W. W.

1973 "Oklahoma Evaluates Its Evaluation System." American Vocational Journal, Vol. 48, No. 2 (February), 77-79.

Thorndike, R. L., and E. Hagen.

1969 Measurements and Evaluation in Psychology and Education. 3rd Edition, New York: John Wiley and Sons, Inc.

Tyler, R. W.

1965 "Assessing the Progress of Education." Phi Delta Kappan, Vol. 47 (April), 13-16.

Ward, G.

1970 "Program Evaluation--Where It's At." Stillwater, Oklahoma: Oklahoma: Oklahoma State University, Research Coordinating Unit, Project Report #11.

Wenting, T. L., and T. E. Lawson.

1975 Evaluating Occupational Education and Training Programs. 1st Edition, Boston: Allyn and Bacon, Inc.

Womer, F. B.

1970 "The National Assessment of Educational Programs: Concept and Organization." Ann Arbor, Michigan: University of Michigan, School of Education, Interview Capsule, Vol. 3, No. 2.

Van Dalen, D. B.

1966 Understanding Educational Research. 2nd Edition, New York: McGraw-Hill, Inc.

APPENDIX A

SUMMARY EVALUATION QUESTIONNAIRE

VOCATIONAL-TECHNICAL EDUCATION
SUMMARY EVALUATION
QUESTIONNAIRE

Name of School _____

Name of Teacher _____

Name of Program _____

Name of Evaluator _____

Date _____

For State Department Use Only

School Code (1-9) _____

Program Code (10-15) _____

School Class Code (16-17) _____

Evaluator Teacher Code (18-20) _____

Teacher Dependency Code (21-22) _____

INSTRUCTIONS

This instrument is to be completed by the vocational teacher as a part of the evaluation of his program. Read each question carefully and check the appropriate rating.
THIS QUESTIONNAIRE MUST BE RETURNED BEFORE SEPTEMBER 15, 1973.

Rating Scale

0 = Not applicable
1 = Poor, major improvement is needed
2 = Below average, improvement needed
3 = Average
4 = Excellent, well done
5 = Superior, outstanding

ADMINISTRATION AND SUPERVISION

		1	2	3	4	5	0
1.	Administrative personnel encourage and support in-service training for teachers						
2.	Administrative personnel will allow in-school release time for teachers to visit vocational programs in other schools for program improvement						
3.	Administrative personnel encourage teachers to replace worn or obsolete equipment						
4.	State supervisory and consultant personnel give assistance to local administrators and teachers in program projection, planning, and evaluation . .						
5.	State supervisory and consultant personnel's assistance was satisfactory during the last school year						

STAFF

6. The vocational teacher has the personal qualifications to be an effective teacher (the ability to lead, organize, maintain class control, supervise, communicate, etc.) . . . . . .

7. The vocational teacher(s) has the necessary background of related occupational work experience . . . . . .

8. The vocational teacher has recently or is presently participating in school activities such as class sponsor, student council, etc. . . . . .

9. The vocational teacher participates in community activities, such as civic organizations, chamber of commerce, etc. . . . . .

10. The vocational teacher takes active measures to further his professional growth and development.

11. The vocational teacher's methods of teaching are adaptable to individual needs, interests, and rates of learning . . . . . .

EVALUATION

12. The vocational teacher(s) prepares and carries out a plan of continuous evaluation for program improvement and development (in-house evaluation) . . . . . .

13. There is a planned program which is followed for the periodic revision of courses of study in light of changing community, socioeconomic, mechanics, and technological changes . . . . .

CURRICULUM

14. Education in your vocational program provides students with a range of occupational goals . .

15. The curriculum for your vocational program is concerned with the overall development of each pupil . . . . . .

16. There is close coordination and cooperation between the vocational program and the related academic and guidance staff of the school system.

17. The State Course of study for your particular program is followed . . . . . .

18. There is a "common core" of learnings which is stressed for all vocational students and related materials are given to individual students in their areas of interest in your program . . . . . .

19. The core of learnings in the vocational program develops understanding and skills necessary for all students for entry-level employment . . . . . .

INSTRUCTIONAL MATERIALS AND SUPPLIES

20. Related study materials are available for student use in all areas of training . . . . . .

21. The vocational teacher has access to and uses supplementary materials of instruction. . . . . .

INSTRUCTIONAL ACTIVITIES AND PROCEDURES

22. The vocational teacher selects effective materials and resources . . . . . .

23. The vocational teacher is acquainted with the instructional materials before presenting them to the class . . . . . .

24. The vocational teacher uses the instructional materials effectively . . . . . .

25. Adequate and appropriate instructional supplies are provided for the vocational program . . . .

26. The Vocational Department considers evaluation to be an integral part of instruction . . . . . .

27. All students are occupied at a definite assignment.

28. Only the minimum number of students is assigned to each task assignment . . . . . .

LIBRARY MATERIALS

29. Adequate library facilities are available for the vocational teacher's and students' needs . . . .

30. Library and instructional materials are filed in such a manner that they are readily accessible to the students or instructor . . . . . .

COMMUNITY RELATIONS

31. The vocational teacher becomes familiar with the business community through surveys (questionnaires, telephone contacts, or personal interviews) . . . . . .

32. The vocational teacher enriches the curriculum with related resources (guest speakers, etc.) . .

33. Vocational classes visit businesses and industries related to their occupation . . . . . .

ADVISORY COMMITTEE

34. A representative formal advisory committee assists in improving and expanding the vocational program . . . . . .

35. The advisory committee meets as a group in scheduled meetings . . . . . .

PUBLIC RELATIONS

36. Informative materials enlighten educators, parents, students, and the general public concerning the vocational program . . . . . .

37. Informational materials are made available to the public in a variety of ways (radio, TV, etc.) . .

STUDENT SELECTION AND TESTING

38. Students are tested on aptitude, interest, and ability prior to entering the vocational program.

39. Guidance is a part of the orientation of pupils entering the vocational program . . . . . .

40. Guidance is a part of the learning activities of pupils in the vocational classes . . . . . .

FACILITIES AND EQUIPMENT

41. Machines and equipment are arranged in such a manner as to emphasize safety, function, and class control . . . . . .

42. The size and quality of the classroom and/or shop are adequate to have an effective program in light of its philosophy and objectives . . . . . .

43. The extent and quality of the equipment are adequate to have an effective program in keeping with the philosophy and objectives . . . . . .

44. Materials and supplies are stored in a systematic way . . . . . .

45. An ample amount of storage space is available for supplies, equipment, and projects of the program.

46. Sufficient funds are made available when the purchase of new equipment is needed. . . . . .

47. Sufficient funds are made available for immediate repairs to malfunctioning equipment . . . . . .

48. To what extent is obsolete equipment replaced in the program . . . . . .

49. To what extent is the equipment modern and representative of that being used in industries representative of your field . . . . . .

50. All equipment is operative and in good working order . . . . . .

51. The classroom and/or shop is orderly and attractive and provides an example of good housekeeping.

GRADUATE PLACEMENT

52. There is an organized plan for the placement of graduates seeking employment . . . . . .

53. The teacher assists graduates in finding job opportunities . . . . . .

STUDENT PLACEMENT

54. There is an organized plan for the placement of students seeking employment prior to program completion . . . . . .

55. The teacher assists student in finding job opportunities (prior to program completion) . .

56. Information is maintained on the occupational status of former students . . . . . .

STUDENT ORGANIZATION

57. The Vocational teacher(s) sponsors a youth organization in which students plan the organization and activities . . . . . .

58.	A majority of the total class are members of the youth organization					
59.	Club meetings are held regularly with students conducting the proceedings					
60.	Committees are formed and make contributions to the improvement of the youth organization, school, and community					
61.	Opportunity for all members to serve on committees is provided					
62.	To what extent did members participate in local, district, and state activities					
63.	The club enriches the instructional program in the attainment of the primary program objectives .					

APPENDIX B

PROGRAM EVALUATION QUESTIONNAIRE

PROGRAM EVALUATION QUESTIONNAIRE

Name of School _____

Name of County _____

Name of Teacher _____

Name of Program _____

Date _____

For State Dept. Use Only

School Code (1-9) _____

Program Code (10-15) _____

Teacher Dept. Code (16-17) _____

Similar Sch. Code (18-19) _____

INSTRUCTIONS

This instrument is to be completed by the vocational teacher as a part of the evaluation of his program. Read each question carefully and circle the appropriate answers. THIS QUESTIONNAIRE MUST BE RETURNED BEFORE SEPTEMBER 15, 1973.

SUPPLIES SECTION

1. What was the total amount of funds spent on instructional supplies and consumable supplies for your program or department during the last fiscal year.

ANSWER:

01	$100 or less	21	$2001 - $2100
02	$101 - $200	22	$2101 - $2200
03	$201 - $300	23	$2201 - $2300
04	$301 - $400	34	$2301 - $2400
05	$401 - $500	25	$2401 - $2500
06	$501 - $600	26	$2501 - $3000
07	$601 - $700	27	$3001 - $3500
08	$701 - $800	28	$3501 - $4000
09	$801 - $900	29	$4001 - $4500
10	$901 - $1000	30	$4501 - $5000
11	$1001 - $1100	31	$5001 - $5500
12	$1101 - $1200	32	$5501 - $6000
13	$1201 - $1300	33	$6001 - $6500
14	$1301 - $1400	34	$6501 $7000
15	$1401 - $1500	35	$7001 - $7500
16	$1501 - $1600	36	$7501 - $8000
17	$1701 - $1700	37	$8001 - $8500
18	$1701 - $1800	38	$8501 - $9000
19	$1801 - $1900	39	$9001 - $9500
20	$1901 - $2000	40	$9501 - up
		41	Not applicable

2. What was the total amount of funds received for services rendered during the last fiscal year for your program or department? (NOTE: Sale of projects, shop fees, services, etc.)

ANSWER:

01	None	12	$1001 $1500
02	0 - $50	13	$1501 - $2000
03	$51 - $100	14	$2001 $3000
04	$101 - $200	15	$3001 $4000
05	$201 - $300	16	$4001 - $5000
06	$301 - $400	17	$5001 - $6000
07	$401 - $500	18	$6001 - $7000
08	$501 - $600	19	$7001 - $8000
09	$601 - $700	20	$8001 - $9000
10	$701 - $800	21	$9001 - $10,000
11	$801 $1000	22	$10,001 - above
		23	Not applicable

EQUIPMENT SECTION

3. What has been the total amount of funds expended for the purchase of new equipment (small equipment, large equipment, audiovisual equipment, etc.) in your vocational or technical program or department in the last fiscal year?

ANSWER:

01	Less than $100	16	$2801 - $3000
02	$101 - $200	17	$3001 - $3200
03	$201 - $400	18	$3201 - $3400
04	$401 - $600	19	$3401 - $3600
05	$601 - $800	20	$3601 - $3800
06	$801 - $1000	21	$3801 - $4000
07	$1001 - $1200	22	$4001 - $4200
08	$1201 - $1400	23	$4201 - $4400
09	$1401 - $1600	24	$4401 - $4600
10	$1601 - $1800	25	$4601 - $4800
11	$1801 - $2000	26	$4801 - $5000
12	$2001 - $2200	27	$5001 - $5500
13	$2201 - $2400	28	$5501 - $6000
14	$24 1 - $2600	29	$6001 - up
15	$2601 - $2800	30	Not applicable

4. Indicate the cost of new equipment needed in your vocational or technical program or department (Note: Include the cost for replacement of obsolete equipment if it is needed.)

ANSWER:

01	$100 or less	21	$2001 - $2100
02	$101 - $200	22	$2101 - $2200
03	$201 - $300	23	$2201 - $2300
04	$301 - $400	24	$2301 - $2400
05	$401 - $500	25	$2401 - $2500
06	$501 - $600	26	$2501 - $3000
07	$601 - $700	27	$3001 - $3500
08	$701 - $800	28	$3501 - $4000
09	$801 - $900	29	$4001 - $4500
10	$901 - $1000	30	$4501 - $5000
11	$1001 - $1100	31	$5001 - $5500
12	$1101 - $1200	32	$5501 - $6000
13	$1201 - $1300	33	$6001 - $6500
14	$1301 - $1400	34	$6501 - $7000
15	$1401 - $1500	35	$7001 - $7500
16	$1501 - $1600	36	$7501 - $8000
17	$1601 - $1700	37	$8001 - $8500
18	$1701 - $1800	38	$8501 - $9000
19	$1801 - $1900	39	$9001 - $9500
20	$1901 - $2000	40	$9501 - up
		41	Not applicable

5. Indicate the total present value of all equipment in your shop or lab for your program or department. (Note: Machines, benches, chairs, desks, textbooks, audiovisual equipment, etc.)

ANSWER:

01	$100 or less	24	$7501 - $8000
02	$101 - $300	25	$8001 - $8500
03	$301 - $500	26	$8501 - $9000
04	$501 - $700	27	$9001 - $9500
05	$701 - $900	28	$9501 - $10,000
06	$901 - $1100	29	$10,001 - $10,500
07	$1101 - $1300	30	$10,501 - $11,000
08	$1301 - $1500	31	$11,001 - $11,500
09	$1501 - $1700	32	$11,501 - $12,000
10	$1701 - $1900	33	$12,001 - $13,000
11	$1901 - $2100	34	$13,001 - $15,000
12	$2101 - $2400	35	$15,001 - $18,000
13	$2401 - $2700	36	$18,001 - $22,000
14	$2701 - $3000	37	$22,001 - $28,000
15	$3001 - $3500	38	$28,001 - $36,000
16	$3501 - $4000	39	$36,001 - $46,000
17	$4001 - $4500	40	$46,001 - $56,000
18	$4501 - $5000	41	$56,001 - $66,000
19	$5001 - $5500	42	$66,001 - $76,000
20	$5501 - $6000	43	$76,001 - $86,000
21	$6001 - $6500	44	$86,001 - $96,000
22	$6501 - $7000	45	$96,001 - above
23	$7001 - $7500		

FACILITY SECTION

6. Indicate the year in which your facility was constructed.

ANSWER:

01	1972 to present	15	1957 - 1958
02	1970 - 1971	16	1956 - 1957
03	1969 - 1970	17	1955 - 1956
04	1968 - 1969	18	1954 - 1955
05	1967 - 1968	19	1953 - 1954
06	1966 - 1967	20	1952 - 1953
07	1965 - 1966	21	1951 - 1952
08	1964 - 1965	22	1950 - 1951
09	1963 - 1964	23	1945 - 1949
10	1962 - 1963	24	1940 - 1944
11	1961 - 1962	25	1930 - 1939
12	1960 - 1961	26	1920 - 1929
13	1959 - 1960	27	Prior to 1920
14	1958 - 1959		

7. What is the present condition of your facilities?

ANSWER:

01 Excellent
02 Good
03 Fair
04 Poor

8. What is the total square footage of your shop, classroom, toolroom, etc.?

ANSWER:

01	1200 Sq. Ft. or less	16	4001 - 4200
02	1201 - 1400	17	4201 - 4400
03	1401 - 1600	18	4401 - 4600
04	1601 - 1800	19	4601 - 4800
05	1801 - 2000	20	4801 - 5000
06	2001 - 2200	21	5001 - 5300
07	2201 - 2400	22	5301 - 5600
08	2401 - 2600	23	5601 - 5900
09	2601 - 2800	24	5901 - 6200
10	2801 - 3000	25	6201 - 6500
11	3001 - 3200	26	6501 - 7000
12	3201 - 3400	27	7001 - 7500
13	3401 - 3600	28	7501 - 8000
14	3601 - 3800	29	8001 - up
15	3801 - 4000		

STAFF SECTION

9. How many years have you taught a vocational or technical subject?

ANSWER:

01	Less than one year	17	Sixteen years
02	One year	18	Seventeen years
03	Two years	19	Eighteen years
04	Three years	20	Nineteen years
05	Four years	21	Twenty years
06	Five years	22	Twenty-one years
07	Six years	23	Twenty-two years
08	Seven years	24	Twenty-three years
09	Eight years	25	Twenty-four years
10	Nine years	26	Twenty-five years
11	Ten years	27	Twenty-six years
12	Eleven years	28	Twenty-seven years
13	Twelve years	29	Twenty-eight years
14	Thirteen years	30	Twenty-nine years
15	Fourteen years	31	Thirty years
16	Fifteen years	32	Thirty-one or more years

10. How long have you taught in your present position?

ANSWER:

01	Less than one year	17	Sixteen years
02	One year	18	Seventeen years
03	Two years	19	Eighteen years
04	Three years	20	Nineteen years
05	Four years	21	Twenty years
06	Five years	22	Twenty-one years
07	Six years	23	Twenty-two years
08	Seven years	24	Twenty-three years
09	Eight years	25	Twenty-four years
10	Nine years	26	Twenty-five years
11	Ten years	27	Twenty-six years
12	Eleven years	28	Twenty-seven years
13	Twelve years	29	Twenty-eight years
14	Thirteen years	30	Twenty-nine years
15	Fourteen years	31	Thirty years
16	Fifteen years	32	Thirty-one or more years

11. When was the last year you updated your skill experience by either full-time employment, part-time employment or by in-service training in the area which you teach (Summer or after school hours)?

ANSWER:
01 This year
02 One year ago
03 Two years ago
04 Three years ago
05 More than three years ago
06 Does not apply

12. When was the last year you were enrolled in a professional class (college)?

ANSWER:
01 This year
02 One year ago
03 Two years ago
04 Three years ago
05 More than three years ago

13. Indicate the highest degree level you have attained at the present time.

ANSWER:
01 Non-degree
02 Associate degree
03 Bachelor's Degree
04 Master's Degree
05 Specialist Degree
06 Doctorate

BUSINESS RELATIONS SECTION

14. How many business firms or employers that are related to your vocational or technical program do you know that will offer full-time employment to your graduates? (Note: Within a 75-mile radius)

ANSWER:
01 One
02 Two
03 Three
04 Four
05 Five
06 Six
07 Seven
08 Eight
09 Nine
10 Ten
11 Eleven
12 Twelve
13 Thirteen
14 Fourteen
15 Fifteen
16 Sixteen - Twenty
17 Twenty-one - Thirty
18 Thirty-one - Forty
19 Forty-one - Fifty
20 None
21 Not applicable

15. How many employers related to your vocational or technical program have inquired about hiring graduates on a full-time basis during the last fiscal year.

ANSWER:
01 One
02 Two
03 Three
04 Four
05 Five
06 Six
07 Seven
08 Eight
09 Nine
10 Ten
11 Eleven
12 Twelve
13 Thirteen
14 Fourteen
15 Fifteen or more
16 None
17 Not applicable

16. Upon graduation from high school, release from military service or completion of post secondary education, what percent of the total students enrolled have as their objective entrance into full-time employment in the occupation or related occupation for which they are being trained? (Note: Please poll all classes and calculate the overall percentage - Please read this question to the class.)

ANSWER:

01	10% - 20%	07	71% - 80%
02	21% - 30%	08	81% - 90%
03	31% - 40%	09	91% - 100%
04	41% - 50%	10	None
05	51% - 60%	11	Not applicable
06	61% - 70%		

17. What percent of the upcoming graduates in your program will move or commute up to 75 miles, if employment is available? (Note: Please poll all seniors and calculate percentage.)

ANSWER:

01	0% - 10%	06	51% - 60%
02	11% - 20%	07	61% - 70%
03	21% - 30%	08	71% - 80%
04	31% - 40%	09	81% - 90%
05	41% - 50%	10	91% - 100%
		11	Not applicable

18. How many times during the last full fiscal year did you visit related business firms with your class?

ANSWER:

01	One time	09	Nine times
02	Two times	10	Ten times
03	Three times	11	Eleven times
04	Four times	12	Twelve times
05	Five times	13	Thirteen times
06	Six times	14	Fourteen times
07	Seven times	15	Fifteen or more times
08	Eight times	16	None
		17	Not applicable

DISTRICT SUPERVISORY VISITS

19. How many times was your district-area supervisor in your classroom, shop or lab or accompanied you in visiting training stations during the last fiscal year? (Note: Do not count contest or P.I. meetings.)

ANSWER

01	One time	07	Seven times
02	Two times	08	Eight times
03	Three times	09	Nine times
04	Four times	10	Ten times
05	Five times	11	None
06	Six times	12	Not applicable

YOUTH ORGANIZATIONS

20. Circle the appropriate number if you have one of the following organizations:

ANSWER:

01 DECA - Distributive Education Clubs of America
02 FFA - Future Farmers of America
03 FBLA - Future Business Leaders of America
04 VICA - Vocational Industrial Clubs of America
05 FHA - Future Homemakers of America
06 None

APPENDIX C

SECONDARY FOLLOW UP PRINTOUT

STATE DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION

DIVISION OF RESEARCH, PLANNING, AND EVALUATION
EVALUATION UNIT

** STUDENT FOLLOW-UP REPORT **

School Code 000111222
Name Stevenson High School
Program Code 170302 School Year 73-74
Name Auto Mechanics

DESCRIPTION	SCHOOL NUMBER	SCHOOL PERCENT	STATE PERCENT
TOTAL GRADUATES	19	52.8	10.9
GRADUATES AVAILABLE FOR PLACEMENT	11	57.9	57.0
Graduates employed in related occupations	9	81.8	66.7
Graduates employed in non-related occupations	2	18.2	27.3
Graduates seeking employment			3.7
Graduates employed part-time			2.3
GRADUATES NOT AVAILABLE FOR EMPLOYMENT	7	36.8	43.0
Graduates continuing related education	2	28.6	41.1
Graduates continuing non-related education	1	14.3	19.0
Graduates in armed forces	4	57.1	27.8
Graduates not in labor force			.6
UNKNOWN	1	05.3	11.7
STUDENT DROPOUT	5	13.9	10.4
Dropout employed in related occupations	2	40.0	14.5
RETENTION	3	50.0	
PRODUCT INDEX		.66	

Data for the Student Follow-Up Report is taken from the Student Status Report completed by the teacher.

APPENDIX D

INTERCORRELATIONS AMONG ALL VARIABLES

FOR VOCATIONAL AGRICULTURE

INTERCORRELATIONS AMONG ALL VARIABLES FOR VOCATIONAL AGRICULTURE

Variables	PI-3	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.402																																				
3.Total GAR	.357	.148																																			
4.Administration	.366	.127	.601																																		
5.Staff	.214	.087	.785	.449																																	
6.Evaluation	.338	.208	.607	.467	.536																																
7.Curriculum	.336	.266	.783	.625	.677	.575																															
8.Inst.Materials	.210	.067	.753	.500	.717	.434	.619																														
9.Inst.Procedures	.249	.120	.833	.401	.611	.473	.706	.726																													
10.Library Materials	.408	.043	.723	.406	.484	.451	.502	.676	.677																												
11.Community Relation	.336	.151	.814	.419	.642	.501	.672	.560	.667	.618																											
12.Advisory Committee	.035	.107	.248	.179	.150	.121	.229	.257	.143	.152	.311																										
13.Public Relations	.074	.158	.721	.386	.502	.384	.594	.454	.641	.417	.623	.134																									
14.Student Testing	.226	.149	.266	.279	.133	.231	.319	.222	.266	.157	.261	.084	.341																								
15.Facility & Equip.	.264	.092	.778	.428	.494	.411	.436	.468	.692	.681	.596	.146	.490	.123																							
16.Graduate Placement	.245	.133	.531	.428	.330	.345	.434	.363	.395	.303	.454	.310	.533	.266	.326																						
17.Stud. Placement	.297	.126	.683	.487	.479	.517	.613	.538	.555	.479	.567	.567	.521	.259	.506	.567																					
18.Stud. Organizat'on	.192	.201	.767	.319	.687	.416	.619	.527	.664	.367	.367	.616	.651	.070	.421	.452	.446																				
19.Supplies	.053	.115	.032	.062	.010	.056	.087	.010	.068	.009	.038	.022	.018	.225	.029	.272	.210	.000																			
20.Services	.197	.093	.029	.033	.086	.194	.058	.140	.056	.099	.086	.040	.001	.136	.019	.108	.124	.006	.447																		
21.Equip.Expenditures	.288	.141	.456	.194	.341	.295	.416	.338	.494	.273	.355	.143	.304	.280	.396	.331	.420	.441	.270	.280																	
22.Equip. Needed	.037	.004	.162	.119	.021	.264	.079	.153	.185	.244	.124	.132	.115	.103	.156	.017	.151	.021	.088	.064	.063																
23.Equip. Value	.433	.286	.491	.269	.293	.282	.318	.478	.433	.604	.295	.028	.355	.364	.425	.279	.273	.374	.018	.025	.306	.060															
24.Facility Age	.108	.207	.216	.063	.000	.183	.136	.101	.055	.084	.198	.049	.248	.111	.415	.254	.100	.011	.064	.317	.298	.141	.025														
25.Facility Condition	.387	.046	.393	.206	.336	.360	.151	.160	.179	.242	.334	.080	.339	.277	.509	.244	.193	.270	.016	.024	.294	.022	.400	.382													
26.Facility Size	.173	.090	.209	.173	.116	.140	.124	.106	.081	.096	.021	.240	.099	.225	.409	.252	.141	.065	.069	.104	.101	.256	.090	.303	.370												
27.Tot.Teaching Exp.	.420	.203	.188	.281	.145	.274	.111	.007	.079	.210	.198	.028	.001	.109	.219	.253	.204	.065	.021	.043	.173	.116	.394	.011	.294	.172											
28.Yrs.-Pres.Position	.385	.183	.089	.235	.076	.239	.119	.047	.002	.149	.169	.075	.050	.033	.076	.173	.088	.041	.088	.042	.038	.056	.279	.078	.161	.114	.081										
29.Skill Exp.	.171	.142	.161	.136	.110	.028	.205	.167	.244	.039	.039	.223	.166	.043	.024	.082	.234	.220	.143	.047	.258	.224	.068	.081	.306	.080	.362	.339									
30.Prof. Improvement	.049	.133	.018	.035	.078	.011	.073	.034	.009	.151	.153	.087	.112	.032	.158	.068	.119	.136	.055	.092	.051	.178	.143	.062	.176	.277	.301	.307	.478								
31.Degree Level	.261	.244	.197	.278	.182	.235	.001	.167	.140	.241	.127	.018	.060	.228	.132	.191	.057	.067	.062	.203	.205	.012	.337	.114	.203	.074	.583	.492	.108	.298							
32.Employers Known	.156	.021	.181	.124	.184	.036	.172	.215	.180	.106	.191	.069	.001	.238	.147	.090	.258	.096	.275	.295	.101	.048	.253	.029	.120	.210	.087	.056	.128	.117	.168						
33.Employers Request	.154	.056	.159	.149	.248	.274	.128	.204	.146	.251	.142	.081	.115	.178	.074	.144	.287	.122	.094	.195	.085	.002	.356	.222	.037	.264	.307	.286	.160	.114	.132	.553					
34.Stud. Desire	.246	.047	.413	.129	.214	.249	.297	.197	.374	.346	.443	.257	.387	.104	.365	.394	.334	.316	.101	.036	.139	.063	.173	.198	.169	.253	.145	.147	.005	.114	.010	.285	.151				
35.Graduate Mobility	.028	.048	.023	.193	.109	.008	.151	.039	.010	.068	.019	.088	.078	.090	.048	.110	.037	.198	.071	.014	.059	.164	.220	.049	.081	.282	.012	.013	.146	.111	.037	.105	.030	.293			
36.Field Trips	.283	.170	.166	.070	.040	.085	.254	.098	.193	.218	.242	.035	.211	.352	.051	.380	.274	.082	.145	.003	.105	.091	.326	.013	.002	.005	.389	.333	.148	.115	.128	.177	.307	.185	.221		
37.Supervisory Visits	.191	.231	.089	.207	.030	.217	.089	.073	.061	.103	.090	.044	.125	.155	.028	.261	.230	.140	.131	.283	.044	.091	.090	.039	.063	.219	.317	.246	.030	.051	.191	.311	.370	.073	.003	.229	
38.School Wealth	.064	.031	.103	.265	.066	.123	.111	.100	.046	.045	.116	.280	.186	.304	.048	.189	.071	.148	.032	.043	.039	.082	.291	.027	.295	.030	.069	.045	.112	.144	.249	.183	.259	.064	.185	.056	.262

N=53

Correlation coefficients $\geq$ .273 are significant at the .05 level

Correlation coefficients $\geq$ .354 are significant at the .01 level

APPENDIX E

INTERCORRELATIONS AMONG ALL VARIABLES

FOR DISTRIBUTIVE EDUCATION

INTERCORRELATIONS AMONG ALL VARIABLES FOR DISTRIBUTIVE EDUCATION

Variables	PI-73	2	3	4	5	6	7	8	9	10	11	12	13	14	16	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.159																																				
3.Total DAR	.374	.153																																			
4.Administration	.391	.159	.470																																		
5.Staff	.261	.353	.706	.084																																	
6.Evaluation	.413	.386	.527	.333	.131																																
7.Curriculum	.573	.195	.438	.038	.593	.135																															
8.Inst.Materials	.002	.116	.390	.012	.435	.616	.451																														
9.Inst.Procedures	.387	.060	.658	.196	.488	.327	.371	.662																													
10.Library Materials	.000	.165	.157	.339	.315	.384	.247	.488	.113																												
11.Community Relations	.371	.119	.939	.514	.547	.435	.447	.342	.540	.292																											
12.Advisory Committee	.016	.198	.740	.052	.546	.290	.188	.345	.561	.036	.679																										
13.Public Relations	.371	.146	.836	.287	.549	.585	.511	.413	.434	.001	.805	.618																									
14.Student Testing	.459	.068	.571	.533	.112	.350	.401	.229	.233	.390	.789	.294	.599																								
15.Facility & Equip.	.008	.121	.629	.316	.341	.575	.114	.360	.666	.203	.427	.597	.481	.004																							
16.Graduate Placement	.202	.135	.035	.085	.091	.121	.063	.345	.155	.136	.008	.325	.291	.106	.029																						
17.Stud. Placement	.071	.137	.178	.147	.060	.301	.143	.034	.224	.049	.160	.160	.013	.070	.282	.441																					
18.Stud. Organization	.423	.117	.868	.328	.561	.505	.490	.229	.539	.063	.842	.783	.774	.565	.528	.265	.107																				
19.Supplies	.063	.396	.330	.310	.576	.255	.177	.048	.024	.271	.178	.060	.260	.087	.153	.254	.132	.018																			
20.Services	.213	.361	.096	.185	.178	.679	.212	.006	.360	.188	.026	.017	.002	.051	.497	.026	.462	.004	.003																		
21.Equip. Expenditures	.084	.140	.335	.090	.576	.183	.423	.362	.047	.219	.321	.317	.548	.144	.033	.378	.194	.341	.198	.592																	
22.Equip. Needed	.369	.233	.016	.198	.243	.123	.499	.197	.387	.345	.051	.013	.236	.068	.209	.347	.090	.002	.078	.243	.267																
23.Equip. Value	.257	.426	.011	.104	.132	.533	.022	.233	.105	.153	.018	.077	.037	.084	.088	.242	.067	.001	.063	.742	.598	.433															
24.Facility Age	.230	.094	.321	.391	.033	.544	.095	.164	.320	.378	.187	.181	.393	.148	.572	.105	.124	.384	.060	.251	.050	.503	.248														
25.Facility Condition	.433	.171	.453	.020	.227	.208	.475	.207	.290	.082	.478	.290	.644	.414	.020	.103	.165	.377	.090	.264	.201	.083	.000	.020													
26.Facility Size	.280	.201	.282	.293	.096	.625	.235	.063	.492	.552	.111	.246	.276	.026	.756	.067	.178	.341	.185	.572	.263	.301	.127	.814	.021												
27.Tot.Teaching Exp.	.395	.199	.002	.459	.145	.069	.060	.168	.247	.051	.058	.433	.064	.011	.118	.364	.251	.245	.163	.143	.188	.154	.157	.291	.331	.365											
28.Yrs.-Pres.Position	.554	.606	.188	.406	.133	.224	.055	.078	.256	.155	.189	.245	.236	.204	.104	.252	.380	.008	.021	.177	.169	.041	.031	.145	.519	.345	.823										
29.Skill Exp.	.402	.538	.167	.048	.173	.092	.046	.238	.063	.379	.185	.198	.078	.003	.249	.311	.302	.066	.350	.324	.045	.216	.399	.503	.195	.290	.260	.206									
30.Prof. Improvement	.000	.154	.154	.154	.000	.234	.116	.155	.077	.464	.077	.387	.466	.038	.386	.077	.463	.431	.253	.123	.376	.467	.154	.388	.267	.450	.077	.038	.156								
31.Degree Level	.401	.428	.064	.339	.267	.162	.076	.069	.101	.065	.072	.513	.000	.069	.062	.347	.413	.337	.170	.217	.365	.058	.072	.121	.412	.217	.892	.866	.217	.300							
32.Employers Known	[illegible]	.493	.066	.403	.135	.088	.159	.524	.126	.238	.142	.441	.194	.181	.120	.193	.084	.168	.355	.028	.440	.130	.030	.060	.225	.143	.565	.569	.383	.253	.658						
33.Employers Request	.267	.011	.108	.202	.074	.390	.259	.690	.188	.325	.094	.108	.025	.017	.005	.114	.335	.037	.317	.322	.347	.043	.501	.140	.170	.087	.160	.490	.088	.319	.449	.590					
34.Stud. Desire	.029	.288	.347	.476	.248	.234	.161	.078	.116	.281	.420	.179	.333	.341	.003	.022	.282	.430	.109	.693	.558	.447	.727	.191	.164	.154	.025	.066	.248	.263	.230	.071	.294				
35.Graduate Mobility	.183	[illegible]	.578	.399	.403	.218	.032	.451	.758	.342	.482	.506	.273	.160	.710	.168	.172	.355	.152	.455	.101	.250	.237	.093	.020	.388	.241	.215	.411	.039	.049	.085	.043	.088			
36.Field Trips	[illegible]	.299	.366	.441	.480	.546	.165	.254	.097	.128	.188	.052	.254	.004	.281	.062	.194	.263	.655	.301	.030	.005	.186	.349	.062	.294	.189	.218	.110	.155	.197	.458	.513	.017	.154		
37.Supervisory Visits	.507	.367	.455	.308	.221	.729	.218	.182	.364	.201	.398	.145	.222	.309	.269	.226	.483	.384	.257	.694	.414	.348	.550	.249	.063	.312	.029	.192	.001	.357	.203	.288	.527	.324	.180	.618	
38.School Wealth	.011	.047	.137	.083	.467	.374	.530	.268	.054	.194	.111	.174	.216	.014	.137	.072	.556	.346	.071	.747	.707	.069	.637	.006	.080	.294	.261	.361	.251	.419	.508	.196	.599	.701	.235	.045	.433

N=13

Correlation coefficients $\geq$ .553 are significant at the .05 level

Correlation coefficients $\geq$ .684 are significant at the .01 level

APPENDIX F

INTERCORRELATIONS AMONG ALL VARIABLES FOR BUSINESS AND OFFICE EDUCATION

INTERCORRELATIONS AMONG ALL VARIABLES FOR BUSINESS AND OFFICE EDUCATION

Variables	PI-3	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.772																																				
3.Total OAR	.633	.665																																			
4.Administration	-.081	-.045	.054																																		
5.Staff	.348	.284	.606	.550																																	
6.Evaluation	.430	.494	.850	-.279	.332																																
7.Curriculum	.633	.656	.671	.191	.519	.552																															
8.Inst. Materials	.096	.160	.481	.404	.589	.530	.301																														
9.Inst. Procedures	.309	.272	.792	-.018	.596	.860	.405	.717																													
10.Library Materials	.385	.623	.643	-.055	.518	.642	.524	.348	.596																												
11.Community Relations	.680	.589	.858	-.273	.359	.873	.434	.392	.739	.580																											
12.Advisory Committee	.291	.567	.543	-.093	.140	.494	.132	.360	.283	.277	.567																										
13.Public Relations	.675	.740	.880	-.234	.264	.877	.539	.386	.694	.524	.914	.649																									
14.Student Testing	.620	.662	.794	-.004	.361	.511	.603	-.048	.409	.515	.558	.265	.644																								
15.Facility & Equip.	.481	.527	.933	.281	.733	.768	.646	.648	.818	.513	.721	.511	.777	.629																							
16.Graduate Placement	.795	.795	.778	.170	.510	.486	.686	.172	.358	.658	.653	.369	.627	.813	.606																						
17.Stud. Placement	.563	.718	.596	-.045	.440	.576	.665	.202	.381	.880	.611	.302	.547	.468	.454	.740																					
18.Stud. Organization	.281	.488	.205	.290	.516	-.011	.362	.512	.129	.693	.004	-.136	.025	.358	.170	.470																					
19.Supplies	.253	.235	.027	-.064	.283	.004	.191	.277	-.032	.037	.069	.372	.186	-.207	.064	.083	.129	.007																			
20.Services	-.092	-.358	-.052	.271	.379	-.305	-.136	-.131	.080	-.011	-.264	-.573	-.400	.210	-.034	.026	-.265	.337	-.199																		
21.Equip.Expenditures	-.179	-.055	.129	.317	.083	.037	-.370	.474	.289	.032	.048	.232	.074	.027	.170	.023	-.298	.006	-.205	.228																	
22.Equip. Needed	-.178	-.036	-.471	-.146	-.281	-.425	-.141	-.457	-.639	.152	-.362	-.067	-.459	-.265	-.611	.004	.296	.289	.240	-.168	.353																
23.Equip. Value	.473	.372	.649	-.137	.148	.599	.317	.418	.409	.529	.635	.830	.739	.479	.514	.606	.455	.135	.298	-.415	.393	-.062															
24.Facility Age	.054	.337	.228	.406	.073	.245	.370	.632	.196	.009	.034	.376	.307	-.013	.374	.085	.004	-.067	.153	-.479	.348	-.307	.466														
25.Facility Condition	.437	.223	.550	.159	.182	.499	.224	.544	.533	-.118	.578	.370	.646	.242	.618	.248	-.085	-.405	-.064	-.223	.372	-.813	-.372	.497													
26.Facility Size	.548	.298	.511	-.038	.340	.160	.289	-.292	.182	.029	.372	.088	.370	.740	.433	.487	.067	.087	-.068	.610	-.170	-.382	.053	-.372	.248												
27.Tot.Teaching Exp.	.100	-.036	.243	.449	.731	.000	.188	.454	.211	.064	.073	.220	-.083	.004	.376	.218	.036	.074	.665	.326	.078	-.059	.078	.013	.064	.204											
28.Yrs.-Pres.Position	.063	-.095	.187	.410	.617	-.002	.292	.418	.155	-.004	-.025	.088	-.150	.004	.301	.182	-.022	-.016	.655	.325	.004	-.043	.025	.098	.037	.135	.944										
29.Ski.. Exp.	-.451	-.645	-.776	.064	-.325	-.617	-.291	-.228	-.516	-.716	-.713	-.594	-.685	-.750	-.580	-.783	-.580	-.327	.098	.000	-.391	.064	-.783	-.032	-.227	-.341	-.065	.032								
30.Prof Improvement	.000	-.095	-.021	.042	-.129	.177	-.010	.285	.000	.075	.240	.141	.037	-.323	-.085	.113	.266	-.329	.059	-.447	.032	.283	.124	.133	.162	-.519	.032	.074	-.075							
31.Degree Level	.119	.537	.329	-.119	.120	.300	.329	.120	.000	.422	.240	.734	.302	.241	.239	.392	.478	.121	.545	-.456	-.120	.450	.664	.240	-.210	-.063	.301	.300	-.462	.140						
32.Employers Known	.695	.750	.881	.009	.416	.790	.622	.409	.596	.687	.888	.597	.859	.663	.740	.859	.770	.194	.035	-.316	.077	-.162	.729	.237	.483	.279	.095	.034	-.811	.349	.424					
33.Employers Request	.482	.606	.697	-.342	.316	.688	.338	.221	.497	.757	.776	.628	.651	.542	.477	.693	.710	.226	.282	-.164	.050	.154	.744	-.119	.058	.226	.220	.144	-.846	.233	.653	.782				
34.Stud. Desire	.498	.579	.364	-.418	-.108	.570	.506	.020	.175	.381	.582	.372	.627	.177	.242	.340	.674	-.027	.116	-.771	-.545	.135	.354	.149	.173	-.042	-.340	-.338	-.191	.347	.354	.589	.420			
35.Graduate Mobility	-.447	-.765	-.682	.188	-.185	-.695	-.313	-.377	-.457	-.637	-.761	-.869	-.811	-.422	-.561	-.585	-.651	-.153	-.186	.572	-.186	-.002	-.894	-.314	-.320	-.836	.015	.144	.776	-.233	-.653	-.820	-.796	-.597		
36.Field Trips	.685	.806	.780	.102	.635	.676	.698	.459	.652	.856	.707	.353	.731	.564	.722	.754	.853	.655	.099	-.127	-.009	-.145	.563	.220	.251	.222	.094	-.011	-.629	-.016	.275	.792	.609	.511	-.675	
37.Supervisory Visits	.317	.635	.695	-.231	.174	.775	.284	.394	.548	.673	.774	.852	.837	.375	.626	.433	.577	.024	.078	-.606	.116	-.145	.774	.296	.372	.051	-.068	-.203	-.683	.180	.569	.763	.710	.628	-.953	.622
38.School Health	-.216	.123	.258	.371	.640	.369	.231	.844	.460	.316	.112	.441	.195	-.223	.470	-.052	.193	.092	.346	-.334	.286	-.169	.386	.677	.191	-.498	.380	.346	-.070	.180	.391	.197	.127	.073	.379	.325	.435

N=11

Correlation coefficients $\geq$ .602 are significant at the .05 level

Correlation coefficients $\geq$ .735 are significant at the .01 level

APPENDIX G

INTERCORRELATIONS AMONG ALL VARIABLES

FOR VOCATIONAL CARPENTRY

INTERCORRELATIONS AMONG ALL VARIABLES FOR VOCATIONAL CARPENTRY

Variables	PI-3	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.083																																				
3.Total OAR	.333	.166																																			
4.Administration	.700	.016	.300																																		
5.Staff	.159	.310	.831	.109																																	
6.Evaluation	.376	.317	.001	.125	.679																																
7.Curriculum	.616	.383	.683	.550	.529	.786																															
8.Inst.Materials	.349	.074	.749	.246	.609	.619	.553																														
9.Inst.Procedures	.134	.083	.836	.092	.628	.924	.694	.692																													
10.Library Materials	.200	.150	.450	.750	.159	.200	.450	.425	.376																												
11.Community Relations	.266	.200	.683	.166	.781	.928	.700	.698	.953	.333																											
12.Advisory Committee	.316	.100	.733	.583	.470	.610	.616	.260	.644	.700	.650																										
13.Public Relations	.317	.025	.937	.104	.755	.819	.510	.803	.836	.351	.887	.602																									
14.Student Testing	.426	.251	.560	.744	.552	.478	.728	.410	.508	.694	.627	.702	.436																								
15.Facility & Equip.	.500	.600	.200	.633	.033	.100	.166	.408	.008	.583	.033	.300	.217	.217																							
16.Graduate Placement	[illegible]	.267	.719	.125	.459	.924	.728	.649	.932	.292	.887	.510	.743	.466	.092																						
17.Stud. Placement	.233	.183	.750	.183	.487	.928	.8[illegible]6	.434	.887	.300	.816	.716	.644	.468	.050	.870																					
18.Stud. Organization	.254	.101	.838	.050	.854	.740	.5[illegible]5	.658	.663	.135	.711	.508	.825	.272	.169	.493	.610																				
19.Supplies	.487	.428	.571	.201	.754	.523	.630	.602	.383	.008	.512	.075	.493	.409	.134	.358	.319	.675																			
20.Services	.008	.666	.725	.151	.770	.792	.557	.590	.699	.008	.759	.244	.656	.330	.413	.699	.607	.686	.634																		
21.Equip.Expenditures	.170	.570	.127	.144	.270	.068	.127	.006	.307	.536	.170	.493	.239	.081	.263	.247	.212	.138	.665	.275																	
22.Equip. Needed	.175	.092	.596	.443	.227	.298	.276	.705	.415	.753	.259	.443	.609	.302	.569	.373	.234	.391	.130	.237	.453																
23.Equip. Value	.502	.560	.301	.343	.569	.218	.502	.269	.025	.075	.158	.016	.126	.386	.058	.016	.075	.434	.848	.394	.829	.092															
24.Facility Age	.410	.025	.117	.376	.350	.168	.376	.350	.231	.158	.376	.075	.180	.638	.184	.231	.058	.000	.493	.072	.217	.138	.369														
25.Facility Condition	.138	.772	.019	.435	.399	.248	.158	.025	.074	.574	.198	.386	.029	.004	.752	.164	.069	.140	.514	.641	.748	.487	.517	.218													
26.Facility Size	.401	.359	.111	.769	.051	.223	.128	.091	.223	.555	.145	.512	.017	.433	.692	.360	.111	.060	.021	.467	.157	.231	.240	.133	.614												
27.Tot.Teaching Exp.	.025	.751	.168	.210	.004	.033	.236	.090	.118	.320	.126	.523	.288	.110	.421	.059	.033	.077	.442	.418	.732	.203	.491	.008	.727	.519											
28.Yrs.-Pres.Position	.153	.434	.263	.102	.081	.252	.076	.178	.256	.068	.297	.561	.371	.102	.068	.179	.289	.164	.373	.163	.608	.000	.397	.068	.429	.283	.857										
29.Skill Exp.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000									
30.Prof. Improvement	.273	.410	.273	.136	.483	.550	.547	.000	.343	.410	.410	.136	.137	.206	.410	.343	.547	.417	.552	.485	.559	.550	.550	.275	.650	.210	.346	.000	.000								
31.Degree Level	.782	.074	.149	.521	.300	.037	.447	.076	.112	.037	.149	.074	.224	.149	.409	.037	.186	.151	.169	.358	.190	.187	.299	.261	.199	.344	.113	.038	.000	.306							
32.Employers Known	.175	.133	.125	.209	.308	.159	.451	.106	.302	.301	.125	.108	.163	.260	.150	.386	.376	.297	.059	.131	.213	.046	.218	.344	.139	.120	.177	.226	.000	.137	.523						
33.Employers Request	.447	.244	.295	.430	.038	.313	.033	.129	.313	.008	.168	.084	.258	.338	.354	.322	.320	.283	.195	.478	.262	.385	.338	.775	.060	.484	.166	.034	.000	.138	.509	.186					
34.Stud. Desire	.218	.336	.83[illegible]	.092	.944	.708	.436	.557	.616	.084	.798	.470	.822	.493	.109	.506	.470	.811	.644	.761	.167	.240	.468	.286	.374	.000	.106	.283	.000	.414	.338	.447	.000				
35.Graduate Mobility	.000	.470	.865	.084	.860	.814	.546	.630	.755	.142	.806	.436	.780	.358	.235	.662	.655	.846	.601	.948	.133	.371	.350	.012	.434	.267	.182	.000	.000	.414	.413	.232	.510	.838			
36.Field Trips	.408	.383	.314	.238	.274	.196	.110	.530	.517	.306	.459	.127	.495	.115	.119	.356	.182	.199	.034	.219	.504	.427	.474	.222	.161	.266	.340	.113	.000	.349	.609	.102	.165	.248	.296		
37.Supervisory Visits	.716	.297	.331	.451	.072	.341	.323	.478	.175	.161	.255	.085	.440	.196	.263	.406	.153	.164	.313	.216	.008	.482	.235	.123	.056	.013	.081	.078	.000	.139	.304	.111	.012	.266	.145	.152	
38.School Health	.383	.000	.250	.600	.243	.142	.383	.034	.058	.416	.066	.050	.309	.635	.316	.041	.016	.457	.084	.312	.036	.066	.150	.661	.118	.290	.168	.314	.000	.000	.586	.744	.649	.360	.428	.110	.061

N=9

Correlation coefficients $\geq$ .666 are significant at the .05 level

Correlation coefficients $\geq$ .796 are significant at the .01 level

APPENDIX H

INTERCORRELATIONS AMONG ALL VARIABLES

FOR AUTO MECHANICS

INTERCORRELATIONS AMONG ALL VARIABLES FOR AUTO MECHANICS

Variables	PI-3	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.028																																				
3.Total OAR	.428	.542																																			
4.Administration	.314	.257	.428																																		
5.Staff	.200	.428	.942	.371																																	
6.Evaluation	.085	.942	.600	.200	.942																																
7.Curriculum	.405	.579	.898	.318	.811	.492																															
8.Inst.Materials	.202	.257	.257	.828	.200	.371	.405																														
9.Inst.Procedures	.202	.057	.318	.753	.376	.144	.044	.405																													
10.Library Materials	.314	.257	.428	1.0	.371	.200	.318	.828	.753																												
11.Community Relations	.314	.142	.885	.600	.942	.257	.753	.428	.463	.600																											
12.Advisory Committee	.600	.771	.657	.085	.428	.714	.637	.200	.202	.085	.257																										
13.Public Relations	.231	.927	.695	.000	.521	.811	.794	.057	.044	.000	.318	.840																									
14.Student Testing	.428	.600	.828	.542	.657	.657	.686	.257	.521	.542	.600	.714	.724																								
15.Facility & Equip.	.714	.371	.371	.771	.257	.257	.144	.428	.463	.771	.485	.142	.144	.485																							
16.Graduate Placement	.550	.318	.011	.057	.811	.405	.691	.115	.088	.057	.753	.608	.411	.463	.318																						
17.Stud. Placement	.714	.428	.771	.028	.657	.371	.811	.028	.318	.828	.600	.771	.608	.485	.257	.898																					
18.Stud. Organization	.057	.869	.579	.115	.463	.695	.794	.115	.191	.115	.260	.666	.941	.492	.376	.323	.950																				
19.Supplies	.086	.451	.376	.463	.579	.318	.264	.376	.323	.463	.753	.347	.338	.028	.405	.405	.231	.279																			
20.Services	.028	.371	.200	.085	.428	.085	.115	.257	.289	.085	.485	.257	.463	.085	.314	.492	.085	.521	.753																		
21.Equip. Expenditures	.550	.637	.028	.637	.028	.492	.220	.289	.411	.637	.231	.144	.485	.173	.927	.088	.028	.491	.382	.405																	
22.Equip. Needed	.371	.142	.200	.828	.028	.085	.028	.542	.695	.828	.200	.085	.028	.600	.771	.173	.142	.202	.028	.142	.695																
23.Equip. Value	.000	.753	.028	.666	.115	.550	.264	.405	.647	.666	.376	.608	.676	.057	.637	.044	.318	.738	.720	.637	.764	.463															
24.Facility Age	.376	.376	.405	.405	.463	.579	.132	.057	.867	.405	.376	.057	.264	.608	.115	.800	.231	.117	.058	.202	.014	.434	.250														
25.Facility Condition	.207	.621	.414	.000	.414	.828	.105	.414	.525	.000	.207	.414	.420	.621	.000	.210	.000	.210	.210	.207	.105	.207	.105	.840													
26.Facility Size	.144	.318	.173	.521	.173	.115	.485	.115	.794	.521	.057	.318	.382	.231	.492	.411	.608	.588	.014	.202	.617	.753	.632	.617	.420												
27.Tot.Teaching Exp.	.314	.028	.314	.885	.142	.085	.318	.828	.608	.885	.314	.085	.231	.600	.600	.173	.028	.115	.028	.371	.434	.885	.318	.347	.000	.463											
28.Yrs.-Pres.Position	.485	.200	.485	.771	.257	.085	.550	.771	.405	.771	.371	.371	.492	.714	.542	.028	.257	.376	.057	.485	.200	.771	.057	.231	.000	.202	.942										
29.Skill Exp.	.130	.392	.654	.654	.654	.392	.664	.654	.664	.654	.654	.130	.531	.654	.130	.132	.130	.531	.265	.130	.132	.392	.132	.664	.316	.132	.654	.654									
30.Prof. Improvement	.292	.097	.097	.487	.097	.292	.198	.097	.891	.487	.097	.097	.000	.487	.292	.297	.487	.198	.099	.097	.297	.683	.396	.891	.707	.891	.487	.292	.447								
31.Degree Level	.356	.119	.239	.717	.000	.000	.303	.717	.424	.717	.119	.239	.363	.597	.678	.242	.000	.242	.242	.597	.303	.836	.060	.242	.000	.363	.956	.956	.547	.608							
32.Employers Known	.318	.144	.637	.927	.637	.000	.424	.637	.794	.927	.811	.028	.058	.637	.782	.352	.202	.080	.632	.376	.617	.695	.691	.529	.210	.470	.695	.608	.664	.495	.695						
33.Employers Request	.173	.115	.753	.463	.840	.115	.808	.550	.220	.463	.808	.115	.323	.347	.202	.632	.579	.411	.750	.280	.044	.057	.220	.132	.105	.367	.231	.[illegible]	.564	.198	.060	.602					
34.Stud. Desire	.550	.405	.057	.376	.202	.637	.220	.695	.794	.376	.028	.057	.073	.115	.347	.073	.231	.014	.132	.405	.294	.231	.088	.647	.040	.279	.463	.521	.000	.495	.485	.132	.235				
35.Graduate Mobility	.142	.828	.257	.200	.028	.771	.231	.314	.028	.200	.200	.771	.753	.600	.142	.028	.200	.579	.782	.542	.318	.200	.695	.318	.621	.028	.142	.314	.130	.292	.350	.202	.347	.318			
36.Field Trips	.176	.617	.088	.353	.353	.441	.044	.264	.350	.353	.529	.617	.502	.264	.264	.223	.088	.492	.940	.794	.360	.088	.806	.089	.213	.134	.088	.264	.134	.000	.369	.492	.537	.000	.882		
37.Supervisory Visit	.98	.091	.576	.637	.455	.212	.706	.758	.030	.637	.637	.273	.277	.299	.576	.462	.637	.277	.462	.091	.330	.333	.184	.246	.439	.277	.576	.698	.417	.311	.508	.585	.706	.770	.212	.187	
38.School Health	.098	.231	.028	.000	.173	.318	.056	.028	.600	.000	.057	.406	.044	.028	.621	.338	.621	.161	.056	.057	.800	.144	.073	.676	.420	.220	.028	.173	.531	.495	.121	.044	.132	.573	.028	.883	.062

N=6

Correlation coefficients $\geq$ .811 are significant at the .05 level

Correlation coefficients $\geq$ .917 are significant at the .01 level

APPENDIX I

INTERCORRELATIONS AMONG ALL VARIABLES

FOR INDUSTRIAL COOPERATIVE TRAINING

INTERCORRELATIONS AMONG ALL VARIABLES FOR INDUSTRIAL COOPERATIVE TRAINING

Variables	PI-3	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
2.Product Index-1973	.616																																				
3.Total GAR	.283	.733																																			
4.Administration	.083	.016	.250																																		
5.Staff	.208	.716	.850	.208																																	
6.Evaluation	.237	.627	.895	.198	.912																																
7.Curriculum	.233	.666	.616	.233	.716	.619																															
8.Inst.Materials	.400	.900	.750	.200	.783	.794	.650																														
9.Inst.Procedures	.435	.637	.786	.209	.664	.623	.383	.753																													
10.Library Materials	.529	.756	.613	.218	.613	.704	.672	.840	.784																												
11.Community Relations	.033	.250	.600	.000	.550	.702	.266	.300	.543	.338																											
12.Advisory Committee	.133	.066	.233	.533	.033	.016	.066	.116	.251	.142	.016																										
13.Public Relations	.361	.495	.823	.092	.815	.877	.563	.546	.730	.504	.857	.067																									
14.Student Testing	.588	.709	.823	.294	.613	.755	.453	.815	.945	.782	.487	.218	.677																								
15.Facility & Equip.	.250	.716	.566	.216	.566	.502	.350	.566	.711	.596	.400	.400	.613	.747																							
16.Graduate Placement	.234	.829	.527	.225	.652	.420	.786	.711	.189	.476	.033	.150	.270	.367	.334																						
17.Stud. Placement	.317	.426	.435	.368	.543	.550	.510	.451	.445	.738	.376	.435	.368	.375	.383	.268																					
18.Stud. Organization	.208	.216	.533	.133	.450	.410	.066	.250	.058	.184	.300	.166	.310	.126	.133	.326	.142																				
19.Supplies	.086	.166	.678	.103	.448	.701	.379	.345	.528	.417	.621	.183	.582	.461	.051	.025	.433	.416																			
20.Services	.453	.180	.138	.019	.217	.273	.088	.150	.427	.179	.613	.099	.544	.379	.453	.183	.008	.198	.143																		
21.Equip.Expenditures	.113	.348	.113	.530	.226	.135	.313	.156	.428	.004	.278	.174	.210	.288	.052	.668	.183	.113	.477	.186																	
22.Equip. Needed	.195	.025	.450	.042	.051	.115	.017	.119	.247	.128	.400	.263	.384	.351	.127	.162	.273	.297	.431	.126	.560																
23.Equip. Value	.050	.151	.142	.470	.050	.067	.361	.244	.135	.097	.126	.483	.162	.097	.075	.004	.113	.084	.313	.254	.136	.562															
24.Facility Age	.260	.075	.100	.025	.361	.018	.117	.025	.080	.069	.243	.411	.118	.072	.252	.194	.122	.016	.339	.000	.289	.326	.004														
25.Facility Condition	.079	.079	.158	.079	.026	.105	.131	.263	.066	.000	.184	.579	.026	.159	.395	.039	.264	.553	.409	.140	.192	.168	.385	.730													
26.Facility Size	.189	.129	.189	.278	.029	.080	.268	.268	.180	.045	.069	.488	.010	.135	.268	.035	.330	.139	.494	.568	.036	.417	.843	.105	.141												
27.Tot.Teaching Exp.	.016	.252	.193	.159	.210	.113	.252	.193	.257	.190	.184	.655	.110	.063	.243	.510	.324	.672	.095	.080	.412	.171	.033	.377	.411	.905											
28.Yrs.-Pres.Position	.008	.153	.008	.093	.025	.162	.025	.034	.500	.382	.017	.383	.150	.274	.272	.435	.290	.638	.132	.222	.604	.095	.012	.244	.430	.132	.884										
29.Skill Exp.	.947	.547	.000	.410	.273	.068	.547	.410	.137	.552	.136	.000	.009	.207	.547	.550	.412	.947	.425	.244	.572	.489	.069	.276	.505	.245	.138	.139									
30.Prof. Improvement	.458	.254	.165	.550	.073	.032	.330	.183	.211	.115	.174	.706	.069	.078	.055	.386	.084	.128	.294	.309	.512	.248	.152	.360	.174	.328	.502	.440	.527								
31.Degree Level	.484	.080	.018	.316	.018	.018	.242	.074	.318	.046	.335	.055	.357	.263	.598	.336	.261	.316	.327	.096	.330	.247	.131	.169	.324	.545	.272	.352	.153	.123							
32.Employers Known	.201	.420	.285	.200	.142	.122	.151	.369	.143	.101	.042	.352	.067	.330	.159	.320	.093	.613	.113	.169	.094	.261	.487	.194	.611	.451	.614	.562	.207	.175	.140						
33.Employers Request	.253	.033	.101	.151	.160	.194	.227	.143	.065	.323	.219	.492	.127	.046	.270	.042	.500	.708	.087	.140	.008	.025	.631	.212	.720	.464	.672	.504	.485	.222	.018	.710					
34.Stud. Desire	.218	.008	.470	.621	.151	.380	.176	.016	.506	.038	.697	.142	.610	.470	.285	.367	.101	.336	.487	.519	.715	.788	.152	.228	.252	.010	.033	.128	.552	.259	.535	.305	.297				
35.Graduate Mobility	.261	.860	.165	.087	.243	.201	.156	.182	.209	.157	.452	.635	.452	.070	.461	.218	.599	.313	.126	.377	.081	.102	.682	.408	.743	.343	.526	.422	.214	.196	.360	.645	.586	.210			
36.Field Trips	.050	.256	.034	.418	.008	.176	.094	.065	.154	.137	.595	.501	.172	.189	.444	.214	.000	.350	.433	.132	.093	.066	.116	.050	.648	.030	.521	.366	.421	.400	.172	.077	.571	.254	.151		
37.Supervisory Visits	.179	.290	.376	.504	.299	.163	.350	.222	.273	.081	.222	.094	.245	.271	.273	.412	.360	.206	.079	.091	.049	.314	.250	.521	.243	.030	.081	.043	.070	.221	.172	.275	.625	.133	.111	.018	
38.School Health	.698	.423	.305	.355	.254	.178	.033	.106	.448	.341	.254	.695	.350	.487	.081	.034	.383	.271	.193	.053	.017	.166	.061	.401	.589	.081	.478	.311	.417	.147	.587	.034	.489	.247	.446	.630	.095

N=9

Correlation coefficients $\geq$ .666 are significant at the .05 level

Correlation coefficients $\geq$ .796 are significant at the .01 level

VITA

Ralph Wayne Ross

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF SELECTED PROCESS EVALUATION VARIABLES AND THEIR RELATIONSHIP TO PRODUCT CRITERIA IN SECONDARY VOCATOINAL EDUCATION PROGRAMS IN OKLAHOMA

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born in McCloud, Oklahoma, November 21, 1934, the son of Mr. and Mrs. Ollie Ross.

Education: Graduated from Harrah High School, Harrah, Oklahoma in May, 1953; received the Bachelor of Science in Education degree from Central State University, Edmond, Oklahoma in August, 1960; received the Master of Science degree in Trade and Industrial Education in July, 1970 and completed the requirements for the Doctor of Education degree at Oklahoma State University, Stillwater, Oklahoma, July 25, 1975.

Professional Experience: United States Army, 1953 through 1956; Industrial Arts teacher at Shawnee Junior High, 1960 through 1967; Vocational Carpentry teacher at Shawnee High School, 1967 through 1969, and Local Director of Vocational Education, Shawnee Public School, Shawnee, Oklahoma, 1969 through 1970; research staff assistant, Oklahoma State University and Coordinator of Evaluation with the State Department of Vocational and Technical Education, Stillwater, Oklahoma, 1970 through 1975.

Professional Organizations: American Vocational Education Research Association, Iota Lambda Sigma and Phi Delta Kappa.

ACCESSION NUMBER: VT102114

PUBLICATION DATE: 75

TITLE: A RESOURCE GUIDE FOR THE MARYLAND PLAN'S GROUP PROJECT AND LINE PRODUCTION.

PERSONAL AUTHOR: DAY, GERALD F.

DESCRIPTOR: *RESOURCE GUIDES; *MANAGEMENT GAMES; *INDUSTRIAL EDUCATION; ORGANIZATION; GRADE 8; ROLE PLAYING; SIMULATION

IDENTIFIER: *MARYLAND PLAN

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 71P.

ABSTRACT: THIS GUIDE WAS DEVELOPED TO AID TEACHERS IN THE USE OF THE MARYLAND PLAN'S GROUP PROCESSES, THE GROUP PROJECT AND LINE PRODUCTION METHODS. THE MARYLAND PLAN IS A JUNIOR HIGH SCHOOL INDUSTRIAL ARTS PROGRAM WHICH PROVIDES A THEORETICAL AND PRACTICAL UNDERSTANDING OF THE ROLE OF INDUSTRY AND TECHNOLOGY IN OUR SOCIETY. THE EIGHTH GRADE PROGRAM FOCUSES ON A CONTEMPORARY APPROACH TO THE STUDY OF AMERICAN INDUSTRY THROUGH TWO GROUP PROCESSES. THE PRIMARY USE OF THIS GUIDE IS TO AID THE TEACHER IN EVALUATING AND UNDERSTANDING HOW INDUSTRIAL MANAGEMENT TECHNIQUES CAN BE USED BY THE STUDENTS IN AN EDUCATIONAL SETTING. THE GUIDE IS DIVIDED INTO FOUR SECTIONS. THE FIRST SECTION IS AN OVERVIEW OF THE ENTIRE MARYLAND PLAN. THE SECOND SECTION CONTAINS INFORMATION ABOUT AND EXAMPLES OF INDUSTRIAL ORGANIZATION CHARTS. JOB DESCRIPTIONS AND RELATED INFORMATION ARE CONTAINED IN THE NEXT SECTION. INFORMATION ABOUT INDUSTRIAL FORMS AND MATERIALS ARE INCLUDED IN THE LAST SECTION. IN THE GROUP PROJECT METHOD, THE CLASS ESTABLISHES A COMPANY AND EACH STUDENT SELECTS A POSITION TO ROLE PLAY. STAFF MEETINGS, SPECIAL MEETINGS, AND PRESENTATIONS PLAY IMPORTANT PARTS IN THIS GROUP PROCESS. WITH THE LINE PRODUCTION METHOD, THE CLASS SELECTS A PRODUCT AND ORGANIZES A COMPANY WITH A MANAGEMENT STRUCTURE BASED ON HIGH-VOLUME PRODUCTION INDUSTRIES. THIS GUIDE SHOULD BE USED TO SUPPLEMENT DONALD MALEY'S BOOK, THE MARYLAND PLAN: THE STUDY OF INDUSTRY AND TECHNOLOGY IN THE JUNIOR HIGH SCHOOL. (AUTHOR/NJ)

INSTITUTION NAME: MARYLAND UNIV., COLLEGE PARK. DEPT. OF INDUSTRIAL EDUCATION.

VT 102 114

A Resource Guide for the Maryland Plan's)UP PROJECT and LINE PRODUCTION

by GERALD F. DAY

VT 102 114

A RESOURCE GUIDE FOR THE MARYLAND PLAN'S GROUP PROJECT AND LINE PRODUCTION

Written and Edited by

Gerald F. Day
Department of Industrial Education
University of Maryland

1975

3

TABLE OF CONTENTS

ACKNOWLEDGMENTS iv

USE OF GUIDE 1

THE MARYLAND PLAN 2
- Seventh Grade Program 3
- Eighth Grade Program 3
  - Group project 3
  - Line production 4
- Ninth Grade Program 4
- Summary 5

ORGANIZATION CHARTS 6
- Types of Charts 6
- Types of Authority 8
  - Line and staff authority 9
  - Functional authority 12
- Project Organization and Management 12
- Constructing Organization Charts 15
- Examples of Organization Charts 16

JOB DESCRIPTIONS 21
- Job Description Format 21
- Maryland Plan Job Descriptions 25
  - Plant Manager 26
  - Personnel Director 28
  - Education and Training Director 30
  - Public Relations Director 32
  - Safety Director 34
  - Finance Director 36
  - Procurement Director 38
  - Inventory Control Director 40
  - Production Manager 42
  - Research and Development Director 44
  - Design Engineer 46
  - Plant Engineer 48
  - Plant Maintenance Director 50
  - Quality Control Director 52
  - Line Foreman 54
  - Union Steward 56
  - Marketing Director 58

FORMS 60
- Form Design 60
- Form Control 61
- Form References 62
- Form Design Checklist 63

REFERENCES 65

ACKNOWLEDGMENTS

This resource guide was made possible through the assistance of many individuals and industries.

The author is particularly grateful to Dr. Donald Maley, originator of the Maryland Plan, for his guidance, assistance, and encouragement throughout the writing of this guide and the author's tenure at the University of Maryland.

Special acknowledgment is extended to Mr. George Haney, industrial arts department chairman at Earle B. Wood Junior High School, whose job descriptions were used as the basis for the descriptions included in this guide.

Appreciation is also expressed to the numerous students, teachers, supervisors, and administrators who aided in this effort. A special thanks to Dr. Karl Gettle, Dr. James Hastings, Paul Skellchock, W. Harley Smith, and Kendall Starkweather.

Finally, gratitude goes to the many companies which sent information, especially Bethlehem Steel, Black and Decker, Ford, IBM, Purolator, Kodak, and Sperry Univac.

USE OF GUIDE

This guide was developed in order to facilitate teachers who are using the Maryland Plan's group processes, the group project and line production methods. The need for this guide has been expressed by those using the Maryland Plan, and it is hoped that this resource will be of valuable assistance.

The guide is divided into four sections. The first section is an overview of the entire Maryland Plan. The second section contains information and examples of industrial organization charts. Job descriptions and related information are contained in the next section. Information about industrial forms and materials are included in the last section.

This guide is intended to be used by the teacher, but may be made available to students at the teacher's discretion. Students should be encouraged to use their own resourcefulness and ingenuity.

The teacher may want to encourage students to develop a similar resource guide or maintain a resource file for their own classroom use. Examples of organizational charts, job descriptions, and industrial forms, including the ones developed by the class, could be kept in a loose-leaf binder or filing cabinet. Each class could add to and refine the file's materials. When students interview their industrial counterpart, they could obtain industrial forms, manuals, and materials.

The teacher should continuously evaluate, update, and improve his or her skills as a facilitator of education. The primary use of this guide is to aid the teacher in evaluating and understanding how industrial management techniques can be used by the students in an educational setting. In order to guide and facilitate students, the instructor must understand how industrial organizations function to produce goods and services for society. This guide contains only a sampling of information, and the teacher is encouraged to expand upon and modify it to meet local conditions.

This guide should be used to supplement Donald Maley's book, The Maryland Plan: The Study of Industry and Technology in the Junior High School.

THE MARYLAND PLAN

The Maryland Plan is a junior high school industrial arts program which provides students with a theoretical and practical understanding of the role of industry and technology in our society. Starting at the seventh grade and continuing through the ninth, the program provides students with an opportunity to study technology - its evolution, utilization and significance; industry - its organization, materials, occupations, processes, and products; and the social and economic problems and benefits resulting from the technological and industrial nature of society. Figure 1 graphically conveys the organizational and content structure of the program.

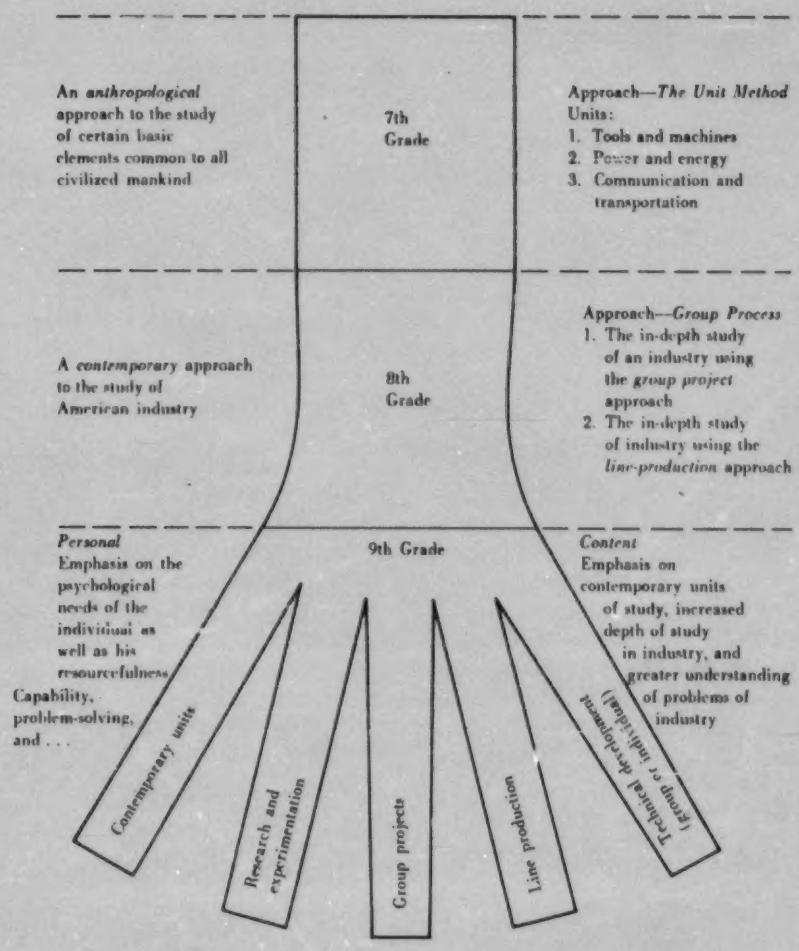


Figure 1. A Schematic of The Maryland Plan. (From Maley, 1973)

Seventh Grade Program

The seventh grade program is based on an anthropological study of one of three broad and comprehensive units which contain basic elements common to mankind's technological development. The development of and contribution to the growth of civilization of tools and machines, power and energy, or communication and transportation can be selected by the class for study.

After the unit is decided upon, each student selects an area or subtopic of which to research, investigate, plan and construct a project. For example, the Model T Ford would be a subtopic under the unit dealing with communication and transportation. In researching a subtopic, the student utilizes community resources such as libraries, museums, historical societies, governmental agencies, antique dealers, model makers, industries, and commercial firms. Data collected from this investigation is used to construct a model of the individual's subtopic and is also reported to the class in a seminar setting.

Eighth Grade Program

The eight grade program focuses on a contemporary approach to the study of American industry through two group processes, the group project and line production.

Group project. The group project method interprets the industries which produce on a project basis. Such low-volume industries would include space projects, ships, aircraft, buildings, and custom-built objects. The class selects a major raw material processing industry to study in-depth, such as steel, paper, cement, glass, or plastics. The students select, plan, organize, and construct a model or panel display which represents or depicts the production operations of the chosen industry. The model or panel display should utilize mechanization, programmed systems, and communication systems to convey the industry to the viewer.

The class establishes a company and each student selects a position to role play. In addition, all students are workers in the production department and each contributes his or her skills in the construction of the project. Staff meetings, special meetings, and presentations play important parts in this group process. Each student in a management position shares information and plans presentations to facilitate in the management, planning, operation, and production of the project. Films, field trips, guest speakers, demonstrations, and reports are integral elements in this educational activity.

Line production. The line production activity deals with high-volume industrial techniques. This method conveys industries which mass produce such items as automobiles, furniture, televisions, clothing, and appliances using such concepts as interchangeable parts, assembly lines, automation, jigs and fixtures, and other line production techniques.

The class selects a product which can be manufactured using the line production method and organizes a company with a management structure based on high-volume production industries. Each student selects a management role to play, different from the one he or she had in the group project. The class effort is directed towards designing the product, raising capital through the issuance of stock, production line planning, designing and fabricating jigs and fixtures, training of personnel, marketing, and other industrial activities. Staff meetings, special meetings and presentations are again significant parts of this activity.

In both the group project and line production, the role playing activity enlarges the realm of student participation in keeping with his or her interests, aspirations, and capabilities. Through these group experiences, the organization of industry, productivity, occupational opportunities, automation, cybernetics, labor-management relations, financial structure, problems, and other concepts can be experienced by the students.

Ninth Grade Program

The ninth grade program provides opportunities to increase the students' understanding of industry and technology through a multi-pronged plan which takes into account the students' needs, resourcefulness, capabilities, aspirations, and interests. The teacher and students may select one of five instructional programs: contemporary units; research and experimentation; group project; line production; and technical development.

The contemporary units of study focus on either modern industry or technology. The group project can be used to study a specific modern industry or area of technology. The line production activity should provide for an increased depth of learning and greater sophistication than the eighth grade experience.

The research and experimentation program allows the student to select a problem for investigation, research, testing, experimentation, and solving. The problem may deal with consumer products, industrial processes and materials, or other areas of concern. After defining the problem, the student must investigate and gather existing information.

Appropriate and valid tests, which may involve the construction of testing apparatus, are run. Throughout this process, each student informs the class of his or her progress in a seminar setting. The exchange of ideas, sharing of information, development of analytic abilities, communication skills, and problem-solving techniques are important elements in the R&E program.

The technical development activity allows a student to choose a technical area in which he or she would like to develop knowledge and skills. In areas such as photography, metallurgy, graphics, and electronics, the student has the freedom to experiment, construct, research, and test different techniques, materials, and processes. This activity can be carried on as independent study or conducted as a group experience if there are other students with similar interests.

Summary

As can be observed, the Maryland Plan is student-orientated. It is designed around the developmental tasks, aspirations, and interests of youth. It is concerned with providing students with broad, varied experiences which will encourage self-initiative, self-exploration, self-reliance, and self-fulfillment. The student learns to learn for himself/herself. The development of the individual, not the construction of projects, is the most important aspect of the program.

The teacher is a manager and facilitator of educational activities rather than the source of all information. The teacher no longer lectures and demonstrates how to make projects,but rather facilitates, stimulates, reinforces, guides, and evaluates the development of students.

ORGANIZATION CHARTS

One of the first steps in both the group project and line production is that of devising a personnel organization chart. An organization chart represents, in graphic form, the major functions and the lines of authority of an organization as of a given point in time. The chart presents a picture of how the dynamic activities of an industry are coordinated into a working unit, and helps avoid confusion and conflict which might result from an overlapping or haphazard arrangement of duties. The importance of organizational structure is reflected in the following Peanuts cartoon.

© 1966 United Feature Syndicate.

The following section contains information about organization charts, with examples of different spans of control and reporting relationships for manufacturing industries.

Types of Charts

Organization charts range in complexity from a simple listing of titles to those utilizing color and photographs for key position personnel. There are basically three types of charts: vertical, horizontal, and concentric or circular. The mechanics of constructing a chart are not difficult, but the placement of positions is critical.

The most common type of organizational charting is the vertical chart, which shows the hierarchy of divisions, departments, and executives ranked from top to bottom. The chief executive at the top level is located at the top of the chart, with succeeding levels of authority moving toward the bottom. Figure 2 is an example of a vertical organizational chart.

Another variation of charting is the horizontal chart, which is read from left to right, putting the top echelon at the left and each successive, subordinate echelon extending toward the right. Figure 3 shows two types of horizontal charts.

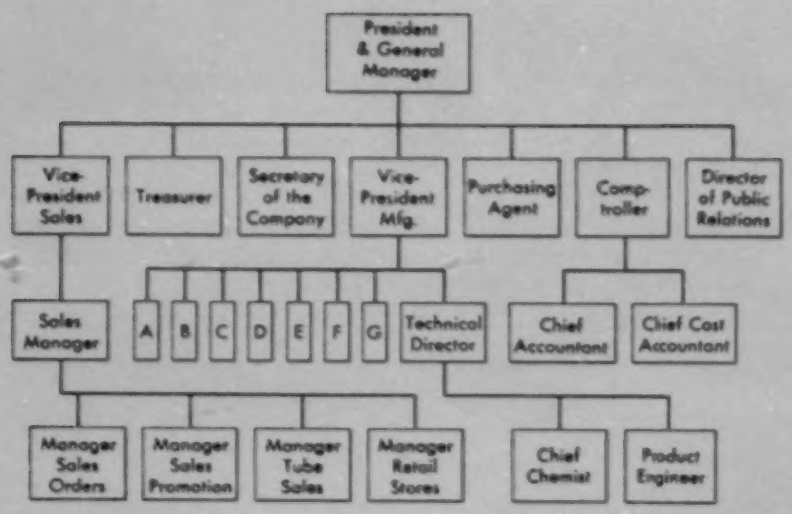


Figure 2. Traditional Type of Organization Chart. (From McFarland, 1970)

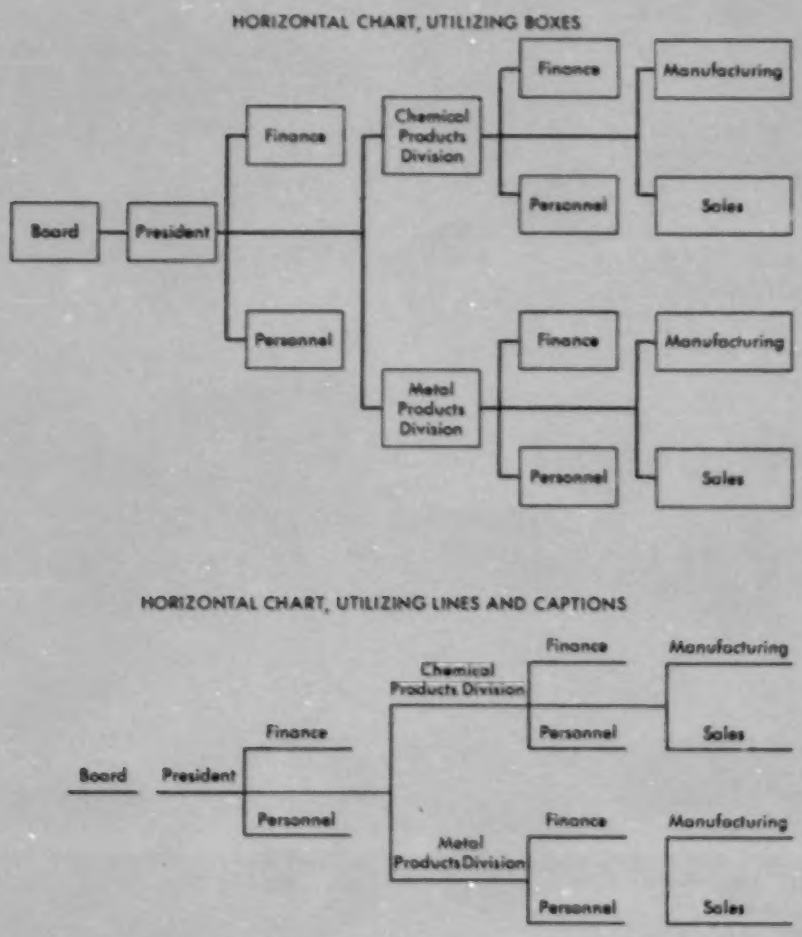


Figure 3. Horizontal Charts. (From McFarland, 1970)

Concentric or circular charts represent still another type of charting. The top executive is shown in the center of a series of concentric circles, with each successive echelon extending in all directions outward. This type of charting supposedly eliminates the status implicated in the vertical and horizontal charts and portrays the outward flow of authority. Figure 4 shows a concentric-circle chart of the same organization represented in Figure 2.

Figure 4. Concentric Organization Chart. (Note: Circles indicate echelon level; black connecting lines indicate flow of authority.) (From McFarland, 1970)

Types of Authority

The formal structure of an organization depends on the size of the company, the nature of its activities, the type of products or services, and many other variables. There are basically two types of authority or organizational functions

that can be modified and adapted to the variables of most organizations, the line and the staff.

Line and staff authority. Line refers to those positions in the organization that have responsibility and authority and are accountable for accomplishment of the primary organizational objectives. Line authority entitles a superior to direct the work of a subordinate, which is a command relationship. Figure 5 illustrates a simple line organization.

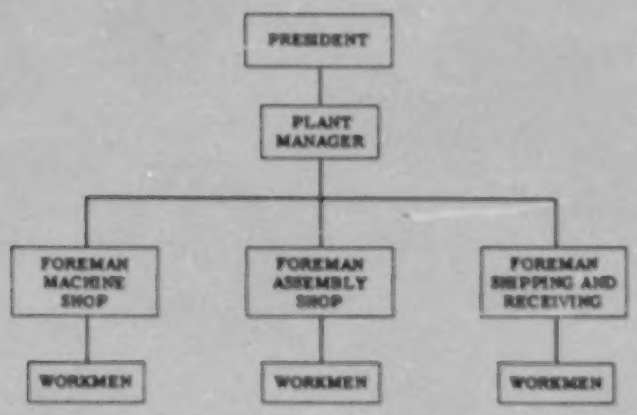


Figure 5. A Simple Line Organization. (From George, 1970)

Staff authority is advisory or service-oriented. A person or department possessing staff authority has the right to advise, plan, recommend, or assist those with line authority. A staff function is one that has been separated from a primary chain of command for purposes of specialization to produce economy and effectiveness of operation. Figures 6 and 7 show charts of line and staff organizations.

The key to distinguishing between line and staff is not the function itself, but rather the degree to which the function contributes directly to the accomplishment of organizational objectives for a specific company. For example, in most manufacturing firms, production or manufacturing, sales or marketing, and finance are regarded as line functions, while personnel, research and development, and other functions are usually classified as staff.

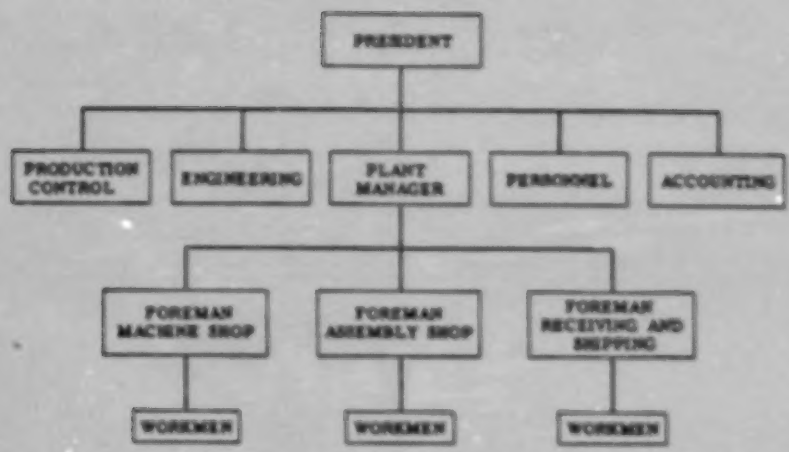


Figure 6. A Simple Line and Staff Organization. (From George, 1970)

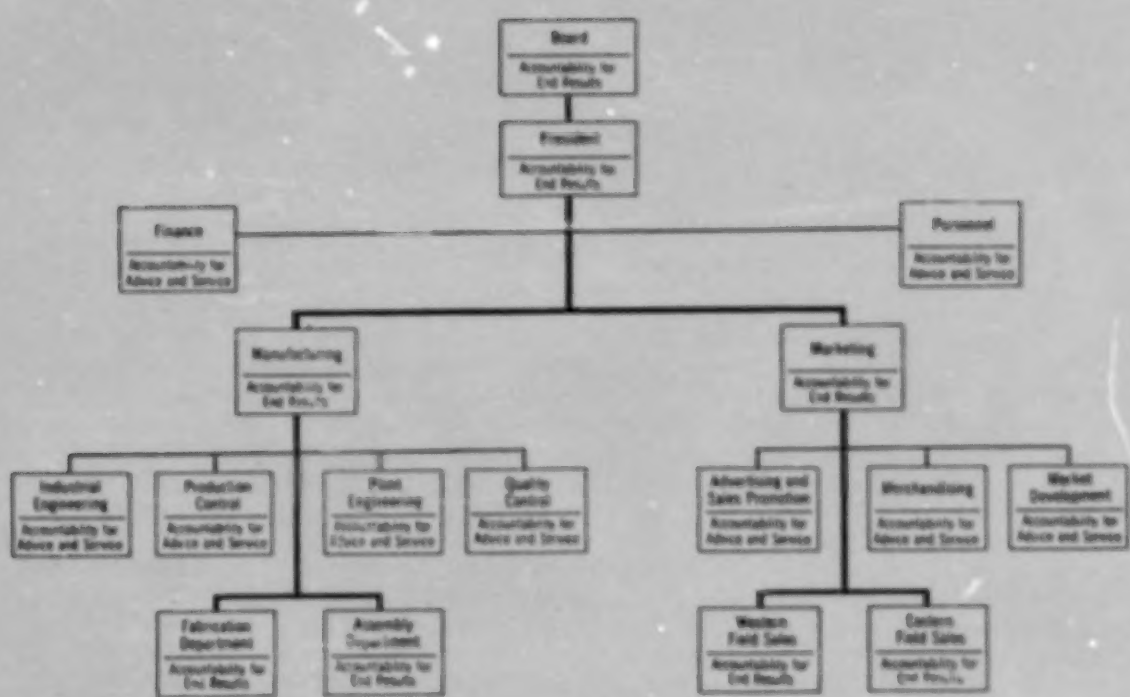


Figure 7. A Line and Staff Chart. (The heavy line indicates line authority.) (From Carzo and Yanouzas, 1968)

It should be noted that the same person or position may have both line and staff authority. For example, the personnel director has line authority over the employees in the personnel department and exercises staff authority when furnishing advice to other departments.

In addition, the same function may either be line or staff, depending on the type of business. In a manufacturing firm, production and marketing are line functions, while in a retailing organization, buying and selling are considered line functions. In a private personnel placement agency, the personnel function is a line function.

In conclusion, if a function is directly related to the customer of the organization or is related to the main objectives of the industry, it is usually regarded as a line function.

A greater use of staff authority in industry and the business world has led to a growth in conflicts between line and staff executives. No area of management has caused more friction and loss of time and effectiveness. Many times, the line-staff relationship is a reflection of the personal strengths and weaknesses of the people involved.

In summarizing the characteristics of the line-staff relationship, the following can be said:

1. Line functions are accountable for accomplishing the basic objectives on the enterprise and must be delegated authority for final decisions in the attainment of end results.

2. Staff functions are created for the purpose of providing advice and service to the line and other staff units in performing specialized work. Both line and staff are delegated authority to carry out their responsibilities and make decisions. However, the authority and decisions differ as to the kind and degree. Staff authority is advisory and service-oriented.

3. Staff should offer its advice and services when and where it believes it is needed. It is not necessary for staff to wait for action. It should keep itself informed about the problems confronting the organization, make plans, and help the line solve difficult operating problems.

4. Line should give serious consideration to the advice and services offered by staff functions. Staff should be used when it possesses more information than is available to line. When there is doubt, the sole criterion for acceptance of advice should be whether it is in the company's best interest to do so.

5. Line managers have the authority to accept, reject, or modify the advice or services offered by staff. The only exception is in those cases where management, as a company policy, has decided that specified staff advice or services will be used by all company units.

Functional authority. Another type of authority which is mentioned in the literature is functional authority. Functional authority gives a manager power over specified processes, practices, or matters relating to activities undertaken by personnel within or outside his or her department. A line manager may be given limited authority and a manager in another department may be delegated specialized or functional authority to carry out certain activities.

Thus, functional authority is similar to staff authority but it gives the right to command in matters pertaining to its function. This type of authority is not restricted to managers of a particular type of department. Functional authority may be exercised by line or staff managers, although the latter are delegated it more due to their specialized responsibilities.

Departments can also have functional authority. For example, if a product research department is given functional authority, then other departments would be required to follow its orders with respect to meeting consumer product preferences.

Project Organization and Management

The two group processes in the Maryland Plan are the group project and line production. Whereas the line production deals with mass production, the group project is concerned with industrial projects or one-time manufacturing activities.

In recent years, much attention has been given to project management. In large firms which undertake large, long-range, one-time projects, such as prototypes of aircrafts, building construction, or areas of new product development, project managers are designated to see the projects to completion. The project management type of organization needs quicker response and a more unified approach to achieving the project's objectives than the conventional organization. In the conventional organization structure, the successful completion of the manufacturing objectives is fragmented throughout the company's general management, manufacturing, engineering, and other functional areas. Within the project management concept, the responsibility and accountability of successful project completion rest primarily with the project manager.

Usually, the project manager and his staff are selected from the functional departments within the company's organization. After successful completion of the project, the members are reassigned to their departments or continue as a new product group.

Figure 8 shows one type of project management where a central group provides a source of staff assistance, control, and overall coordination. Project managers have full authority over their project's functional activities, such as design, manufacturing, and personnel.

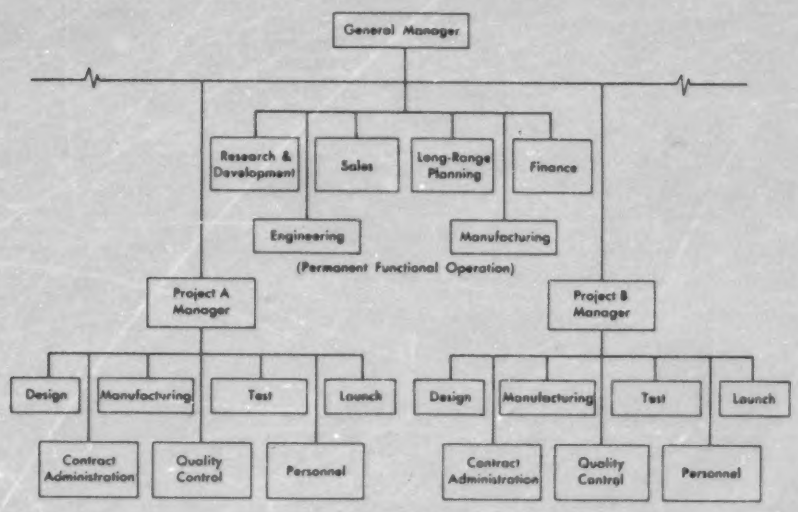


Figure 8. Pure Project Management, Showing Full Authority of Project Manager. (From Steiner and Ryan, 1968)

A matrix type of organization, shown in Figure 9, can be used with projects. The functional activities are departmentalized with the functional managers retaining their line authority over their people who are assigned to the project.

The last type of project organizational design is called the "influence" organization, illustrated in Figure 10. The project manager acts as a staff person to the general manager who supervises the functional group. The project manager monitors the activities of the project, exerting control through persuasion and influence.

Although these types of organizational structures may not work in a classroom situation due to the number of students in class and other variables, it would be valuable for the teacher to communicate the concepts to the class.

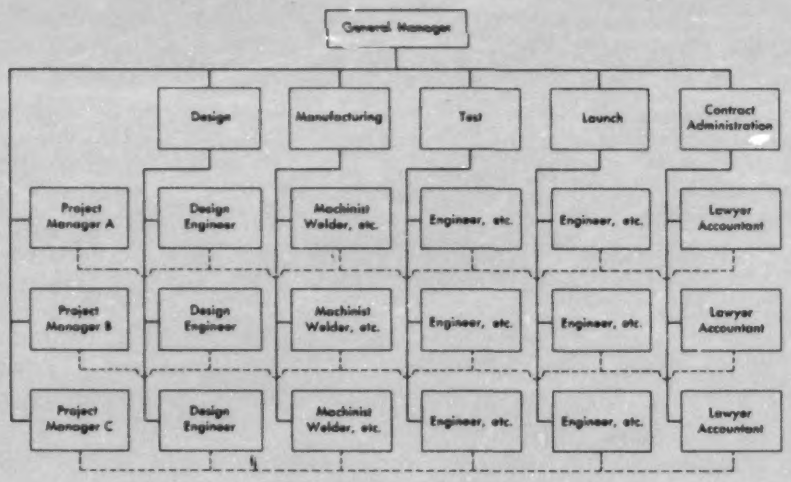


Figure 9. Matrix Organization in Project Management, Showing Shared Authority. (From Steiner and Ryan, 1968)

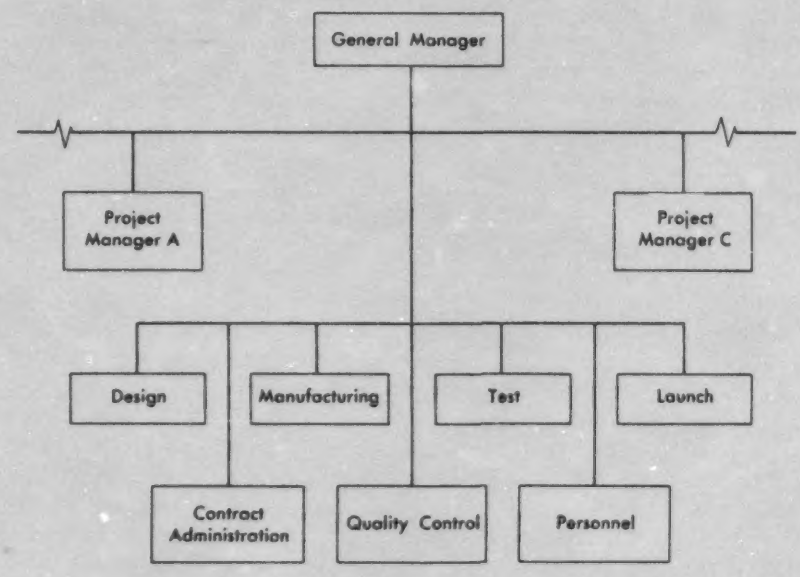


Figure 10. Influence Organization in Project Management, Showing Monitoring Authority. (From Steiner and Ryan, 1968)

Constructing Organization Charts

There are a variety of techniques available in constructing an organization chart. Since in large industrial organizations there is usually a rapid change in organizational structure and personnel, photographic layouts, flannel boards, removable position blocks, and other flexible methods are widely used. However, paper is still the most widely used media.

In constructing a chart, after the decisions have been made as to the structure, it must be determined what information is to appear on the chart. Drawing variations and practices vary considerably as to the nature and amount of information to be included. The following suggestions have been proposed for constructing a vertical organization chart:

1. Identify the chart fully by stating the name of the company, the date of preparation, and the title and name of the person or department responsible for preparation. If the chart is for one unit or department, include such information as part of the title. An approval signature may be necessary from a chief executive.

2. Use rectangular boxes to show either an organizational unit, division or a person. Committees and plural executives should occupy one box.

3. The vertical placement of the boxes shows relative positions in the organizational hierarchy. Due to space limitations, line units may be located below staff units.

4. Any given horizontal row of boxes should be of the same size and include only those positions having the same organizational rank.

5. Vertical and horizontal solid lines are used to show the flow of line authority.

6. Dotted or broken lines may be used to show functional or staff authority. (Some proponents advocate the avoidance of dotted lines because they make the chart more difficult to interpret.)

7. Lines of authority enter at the top center of a box and leave at the bottom center; they do not run through the box.

8. The position's title should be placed in each box. The title should be descriptive and show function.

9. Include the name of the person currently holding the

position unless personnel turnover is so great that rapid revisions would be necessary. Many companies include the name of only the top executives since there is less of a turnover in these positions.

10. When preparing a separate unit or department chart, include the superior to whom the unit reports.

11. Include a legend to explain special characteristics.

12. Keep the chart as simple as possible.

Examples of Organization Charts

The remainder of this section is devoted to different company organization charts which can be used as reference in constructing your class's organization chart.

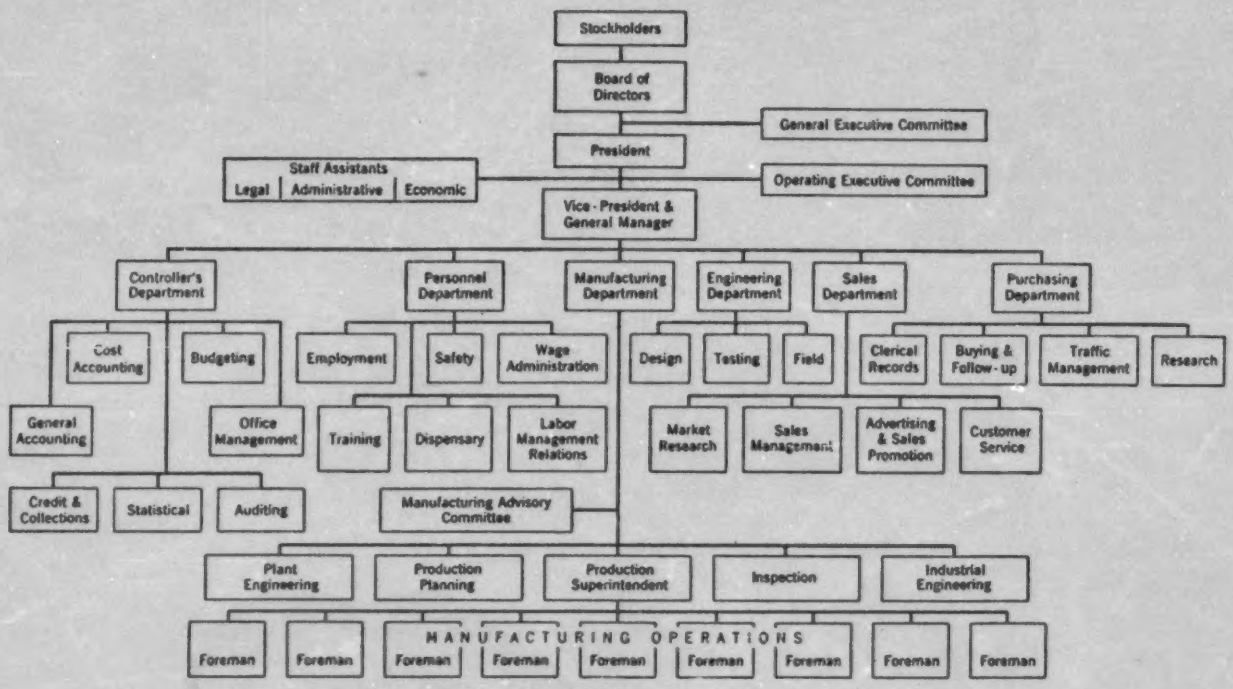


Figure 11. Organization Chart of a Manufacturing Firm. (From Anderson, 1960)

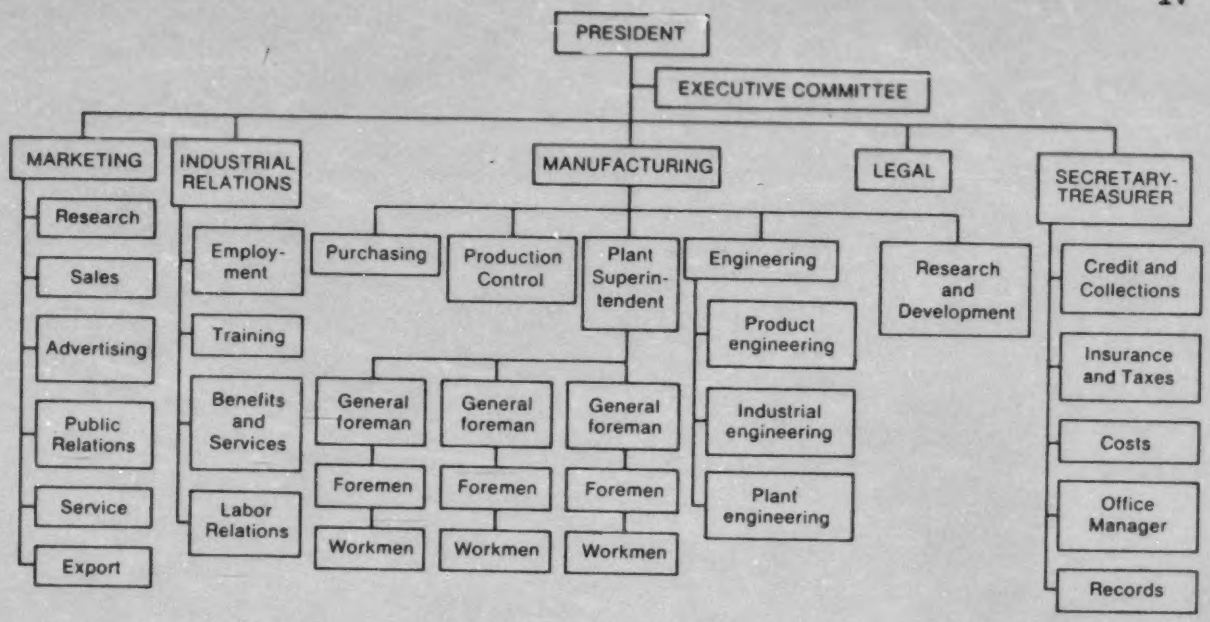


Figure 12. Typical Organization Chart of a Medium-size Manufacturing Company. (From Amrine, Ritchey, and Hulley, 1966)

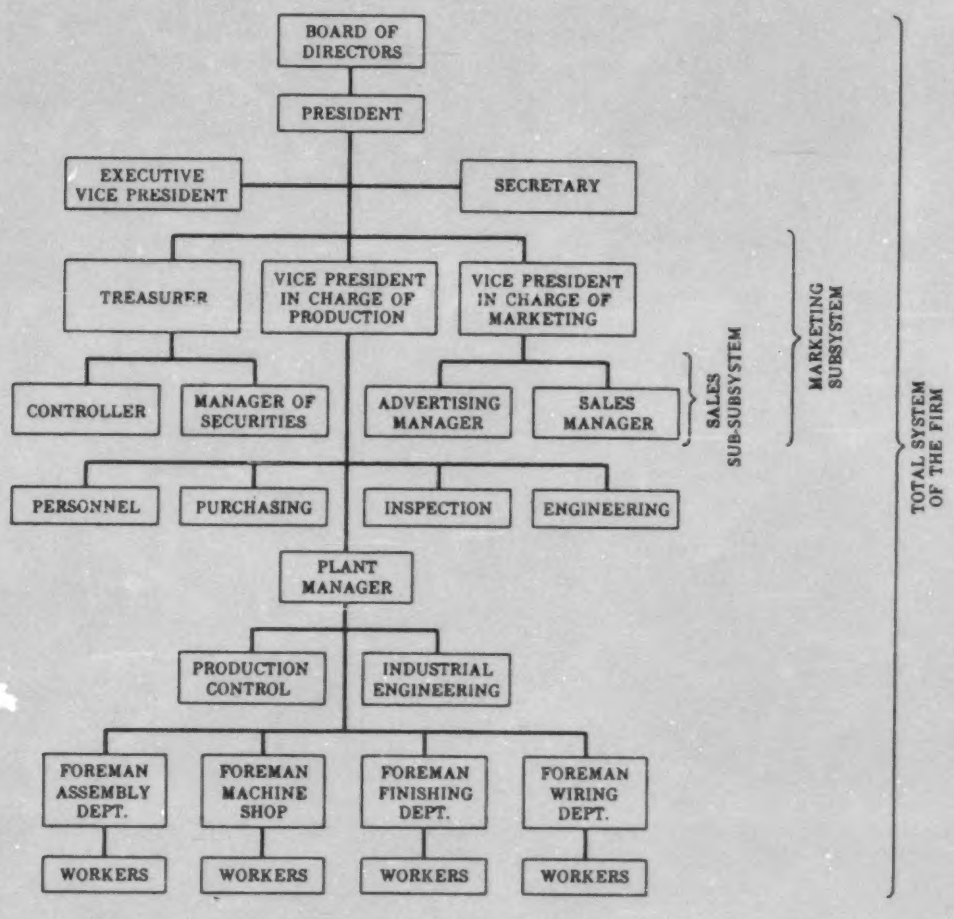


Figure 13. Organization Chart showing Typical Line and Staff Relationships. (From George, 1970)

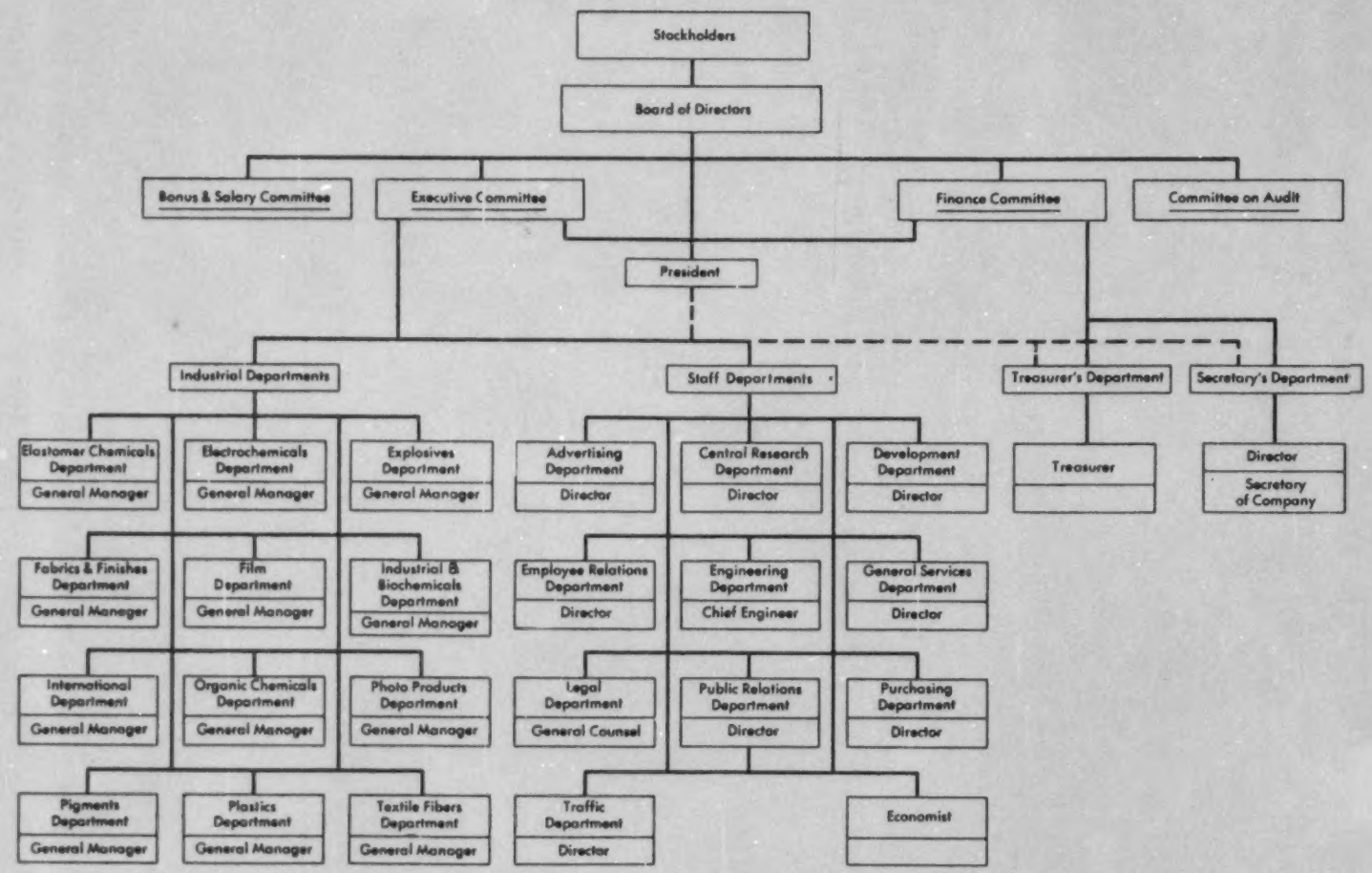


Figure 14. Committee Structure of E. I. du Pont de Nemours & Company. (From White, 1963)

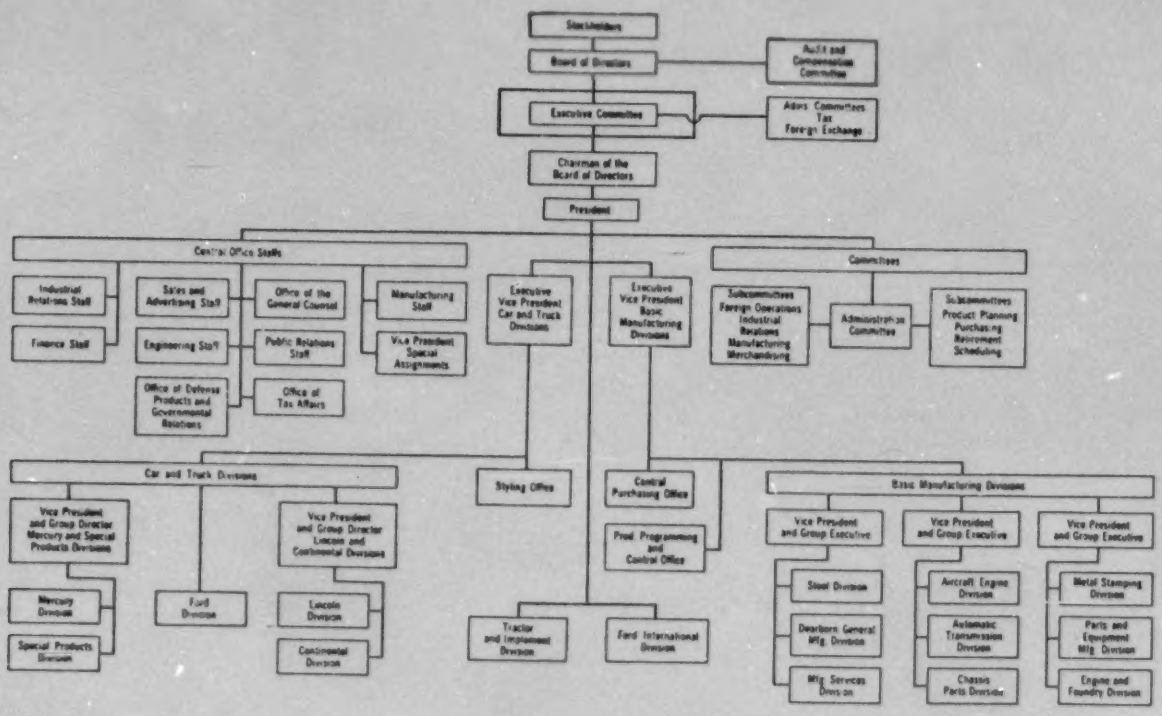


Figure 15. Ford Motor Company. (Courtesy of Ford)

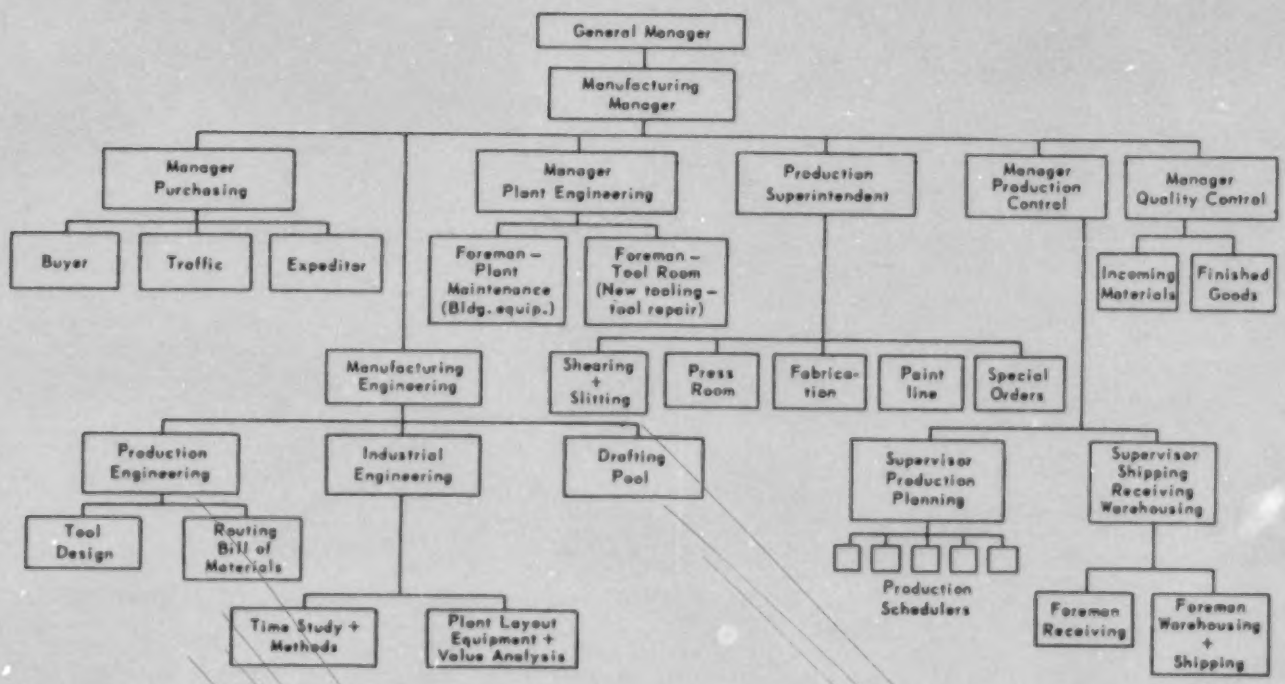


Figure 16. Manufacturing Organization Chart. (From Moore, 1970)

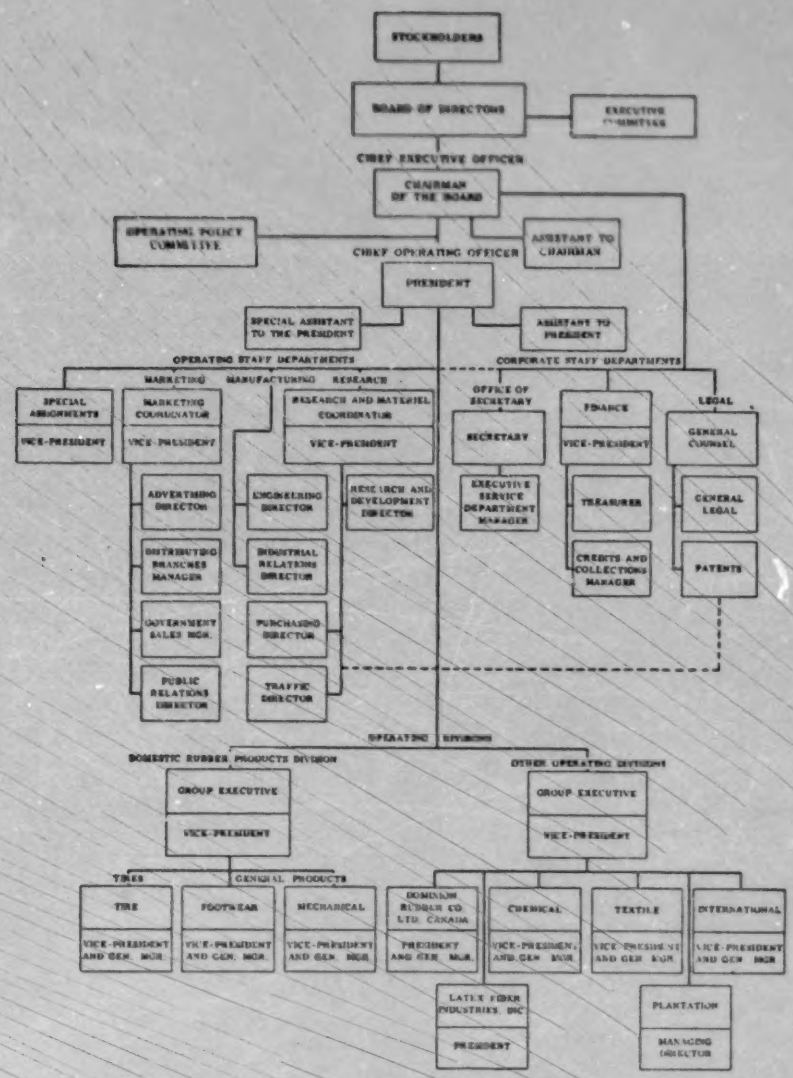
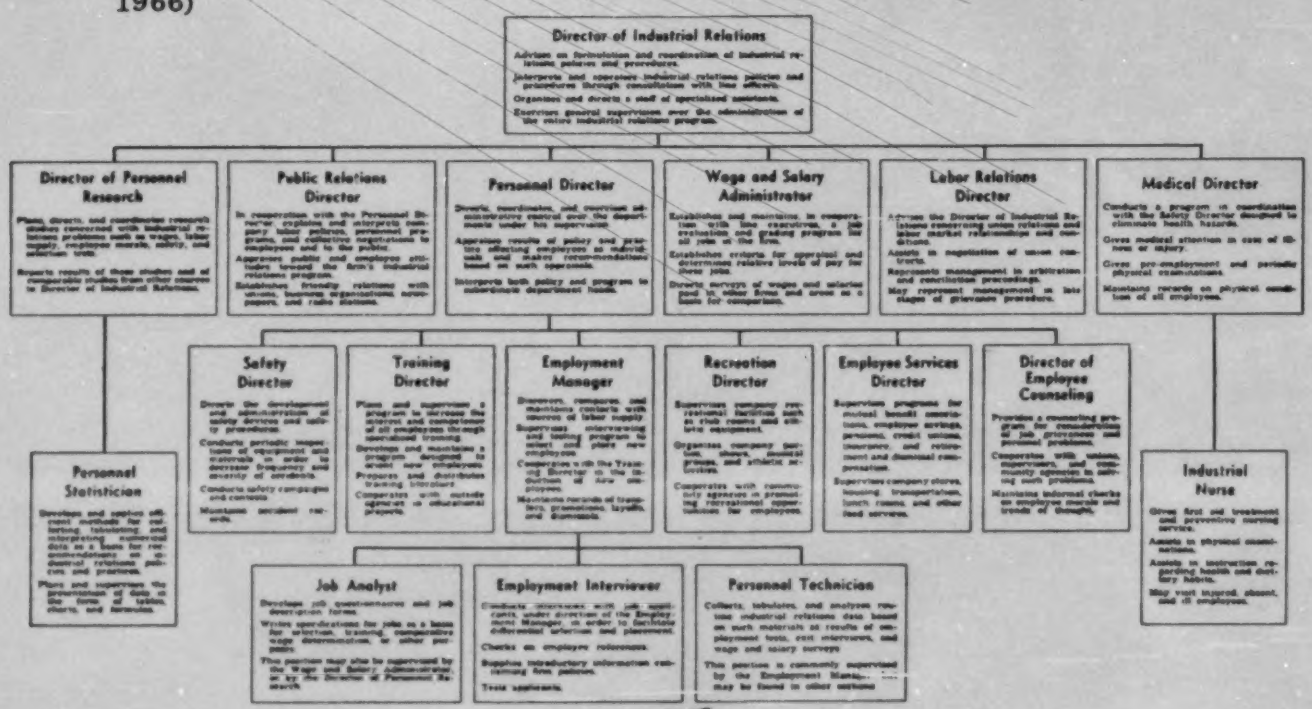


Figure 17. (right) Organization Chart of the U.S. Rubber Company. (From U.S. Rubber Co., 1968)

Figure 18. (below) Industrial Relations Organization Chart. (From Amrine, Ritchey, and Hulley, 1966)



JOB DESCRIPTIONS

In addition to the organization chart, job descriptions are needed to define the various positions in a company. A job description is a written statement of a position's purpose, duties, responsibilities, and working conditions.

Job descriptions are important in the Maryland Plan because role playing is one of the primary learning experiences in the group processes. In addition to being a worker in the production department, each student carries out the responsibilities and functions of a position in the organization and communicates that position's aspects to the rest of the class. The resourcefulness and ingenuity of each student is reflected in this activity.

The following section contains background information and examples of job descriptions.

Job Description Format

Job descriptions vary from company to company, but there are basically five parts to a description. First is the job title which should be descriptive of the position. It should reflect the job's duties and responsibilities accurately. The second element is a short description which explains the purpose and scope of the job. Third, the responsibilities and tasks are stated. The kind of work and how it is done, where the position fits into the organization, and the degree of freedom should be indicated. The fourth element is the nature and degree of relationships between the position with others within the organization and those outside the organization which the employee will deal with. This section would include the position's immediate supervisor. The final part is a quantitative overview, including such things as the number and type of employees supervised, what production volume is involved, how many plants are affected, and so on. Other facets such as working conditions, date of preparation and revisions of the description, and approval signatures are usually part of a description.

There is a distinction between a job description and a job specification. While a job description is a document of the duties, responsibilities, and working conditions of a job, a job specification pertains to the worker trait requirements and personal qualifications, such as education, experience, skills, and other criteria needed for successful job performance. These two documents are usually combined into one, but may be separate depending on company policy.

Whether a job description goes into minute detail or merely sketches the major duties of the job depends upon the uses to which it will be put. If the purpose is to define the major positions in an organization and show their relationship, the description may be relatively brief. If the purpose is for training, the description may be very detailed.

Job descriptions can be used for several reasons: (1) to assist in the establishment of organizational relationships; (2) to orient and educate new employees; (3) as standards for control; and (4) for personnel activities such as screening, training, merit pay, and job evaluation. If the job description is used for evaluative purposes, it may have to be approved by a management-union committee as to what duties and responsibilities constitute a particular job.

Below is a job description format form, followed by a sample job description.

JOB DESCRIPTION

Department	Standard Code .....
Subdivision	Standard Title .....
Branch of Plant	Plant Title .....
Date	Plant Code .....

Summary of Duties

Detailed Statement of Work Performed

Source of Supervision

Tools and Equipment

Materials

Responsibility (For safety of others, company funds or property, for performance of work without supervision, etc.)

Qualifications Required:

Special Knowledge:

Previous Experience:

Physical:

Working Conditions:

Surroundings:

Hazards:

Relation to Other Jobs

Promotion from:

Promotion to:

BLACK & DECKER MANUFACTURING COMPANY

BENCH-MARK JOB

POSITION TITLE: Director of Product Development

POSITION NUMBER: 20

OTHER TYPICAL TITLES: Chief Engineer

PRIMARY PURPOSE OF JOB (Why the Company has this job):

To manage the engineering design and development of new and revised products and product lines which will meet or exceed established divisional growth goals. Such products are to be within performance, quality, cost and time specifications which the Director of Product Development helps to determine. In addition, provide for engineering maintenance redesign and cost reduction for the division's product lines to equal or better the product offerings of current or potential competitors.

RESPONSIBILITIES (Major responsibilities for which incumbent is held accountable):

1. Participate in formulation of corporate and divisional policies. Takes a leading role in formulating policy as related to product content and to engineering department activities. Interprets policy and procedures for subordinates and associates to help them determine proper courses of action.
2. Establishes and maintains an effective and economical organizational structure to accomplish the overall engineering task of his division.
3. Staffs, trains, and motivates a mix of technically talented people to fill the requirements of his organization plan. Within corporate guidelines, administers wage and salary plans, work planning and review plans, personnel training and development plans.
4. In cooperation with Marketing and Manufacturing personnel, establishes cost, schedule and technical goals for product development projects. Approves plans for reaching project goals and reviews progress to insure plans are met.
5. Approves expense and capital equipment budgets and performance for his area of responsibility, within limits established by corporate direction.
6. Establishes and maintains effective relationships with functional heads of Marketing, Manufacturing, Finance, Personnel, etc., for planning and providing a dominant competitive posture regarding the products of his division.
7. Provides an engineering organization which excels in current technologies affecting the division's products. Monitors technical investigations within industry which have potential significance for the Company, and brings new technology to use at the proper time.

REPORTS TO: Vice President - Operations

DIRECTS WORK OF (Representative positions directly supervised):

Product Development Managers, Senior Project Engineers, and Plant Resident Engineers

POSITION TITLE: Director of Product Development

POSITION NUMBER: 20

KNOWLEDGE AND SKILLS REQUIRED (What the incumbent must know to function in his job: education, specialized technical knowledge and skills, managerial skills, skills of negotiation and persuasion):

Education: BS in Engineering (minimum). Formal or informal training in business management and industrial psychology.

Experience: Ten years varied experience in design and manufacture of related products. At least five years in management of complex engineering programs involving multiple projects.

Skills: Ability to relate technical planning and progress with the requirements for running a competitive business. Ability to interpret and contribute to the advance of a highly inter-related marketing, manufacturing, engineering complex. Ability to motivate a large staff of technical people to achieve demanding goals.

USE OF KNOWLEDGE AND SKILLS (Decision making – extent to which individual can commit Company OR problem solving – creative thinking, decision influencing, etc., which focus on difficulty of mental application):

Decision making: Can commit entire division to a given technical direction. Decisions affect entire product line over many years of production. Instrumental in establishing and maintaining product line function and costs, and hence, corporate profitability over a very long time period.

Problem solving: Must analyze and reach decisions within a complex technical administrative situation. Must make trade-offs between conflicting top-level objectives so as to arrive at best overall solution for Company.

SCOPE AND IMPACT OF THE POSITION (Consider number and level of people supervised, annual budgets, sales volume, markets-business development, control of financial resources, goods purchased, etc.):

Human resources: Directs, develops, and evaluates 3 to 5 engineering managers. Indirectly supervises 30 to 60 engineers, designers, and draftsmen.

Budget: Directly controls expenditures of up to $1,000,000. Work output influences $60 to $100 million in sales.

Overall impact: Directly influences corporate success in meeting overall growth objectives through provision of superior products and cost positions.

Maryland Plan Job Descriptions

The role playing activities that the students carry on in the Maryland Plan are similar to those in an industrial manufacturing firm. The following job descriptions, which were taken from ones already developed by the staff at the Earle B. Wood Junior High School, are presented to help facilitate the teacher.

These descriptions can be used in several ways by the teacher, depending on the type of students, size of the class, time allocation of the course, and other variables. First of all, the teacher can used them as a guide and evaluative aid. For below-average students or when time is a factor, the descriptions may be made available to students as reference. Most students, however, should be able to use their resourcefulness to find their position's responsibilities, functions, and activities in other ways.

The teacher may even require each student to write-up his or her position's job description which then could be placed in the Personnel Director's file or booklet. Another method is to have the Personnel Director write job descriptions of the major management positions.

Although the group project and line production have slightly different organizational structures, only one set of job descriptions is presented in this resource guide. With a few modifications, the descriptions can be used for both group processes.

The teacher is encouraged to add to and modify these job descriptions to meet the local needs and situation. The teacher should be cognizant of the fact that different companies use different job titles for the same job functions and responsibilities. For example, in one company the person in charge of plant maintenance may be called the Plant Engineer, whereas in another company, the same responsibilities may be done by the Plant Maintenance Director.

Another point of information is that different companies use different title ranking systems. For example, the 3M Company uses the following system: vice president, executive director, director, manager, and supervisor. The teacher should advise the class of this and the class should devise a system based on their company's structure.

The following job descriptions can be easily combined (Design Engineer and Research and Development Director) or expanded (Marketing Director into a Sales Director and Advertising Director), depending on the class size and company's structure.

TITLE: PLANT MANAGER

PRIMARY PURPOSE OF JOB: The Plant Manager is responsible for scheduling, supervising, and coordinating all company activities, including those of manufacturing, packaging, plant facilities and equipment operation, engineering, maintenance, plant and process design, technical service, warehousing, and marketing.

RESPONSIBILITIES:

1. Formulate, or receive and recommend for approval, proposals for policies on manufacturing, packaging, plant facilities, engineering, maintenance, and all other company activities. Administer such policies when approved by the Board of Directors.

2. Develop a master schedule or calendar of events, including such activities as:

   A. Full staff meetings related to the progress and/or problems of production.
   B. Selected department meetings related to the progress and/or problems of production.
   C. Special programs and educational presentations.
   D. Construction activities of the product.
   E. Pilot and final production runs.

3. Determine projected deadlines for various stages of the production cycle, including such aspects as:

   A. Product Design
   B. Prototype Model
   C. Purchasing of all Materials
   D. Sale of Stock
   E. Production Steps
   F. Market Research
   G. Jigs and Fixture Design
   H. Plant Layout
   I. Production Flow
   J. Pilot Production Run
   K. Final Production Run
   L. Advertising
   M. Product Sales

4. Supervise and coordinate all departments. Keep informed about the progress and problems in each department. Progress report forms and written progress reports from each department may be necessary.

5. Schedule and preside over staff meetings.

6. Develop methods and procedures for evaluating each department's performance.

7. Interpret and explain the purposes and plans of the Board of Directors to managers and employees of the company, and the public at large, as appropriate.

8. Ensure that operating units of the company receive adequate advice and service from the staff units, and promote cooperative effort between line and staff at all levels.

9. Report the progress of the company to the Board of Directors, as required.

10. Represent the company and promote good relations with customers, employees, stockholders, governmental agencies, suppliers, and the general public.

11. Sign, execute, and deliver in the name of the corporation such bonds, mortgages, deeds, contracts, and other instruments authorized by the bylaws of the company.

12. Develop forms and records that will be useful in carrying out the responsibilities of the Plant Manager.

OTHER TYPICAL TITLES:

President (in small companies)
General Manager
Project Director (for the group project)

TITLE: PERSONNEL DIRECTOR

PRIMARY PURPOSE OF JOB: The Personnel Director is responsible for organizing and coordinating internal employee relations policies, including: recruiting, hiring, and placing workers; labor relations; wage and salary administration; safety and health; benefits; and employee services.

RESPONSIBILITIES:

1. Develop a list of the management positions identified in class and write the names of each class member next to their position. Duplicate this list, distribute it to each class member, and post a copy on the company bulletin board.

2. Develop a personnel organization chart to show line and staff responsibilities.
   A. Develop a chart on 8 1/2 x 11 paper, duplicate it and distribute it to each class member.
   B. Construct a large chart for display in the room.

3. Record class attendance each day and shift appropriate personnel as needed to cover important areas or jobs.

4. Develop a list of needed production jobs from the production operations identified by the production engineering department.

5. Develop procedures for the hiring and placement of all workers needed on the production line.

6. Develop a system for recording the hours worked by employees. Consider the following:
   A. Time card
   B. Time card collecting box
   C. Time card rack
   D. Time card punch-in / punch-out device

7. Develop a program that will promote good relations between management and labor (workers).
   A. Employee suggestion system (suggestion box)
   B. Employee awards
   C. Company newspapers (consult with Public Relations Director)
   D. Others

8. Maintain employee records and reports.

9. Represent management on labor-management committee and grievance procedures.

10. Investigate employment complaints.

11. Write job description for each company position.

12. Distribute identification (badges, cards) to employees.

13. Organize recreational/social programs.

14. Work with Education and Training Director in developing the overall education program.

15. Exercise general supervision over all company benefits, programs and services.

16. Responsible for company health and safety programs.

17. Develop other forms and records that will be useful in carrying out the responsibilities of Personnel Director.

18. Oversee the departments under the personnel department on the personnel organization chart. Keep informed of the activities and progress of these departments.

19. Direct and maintain various activities designed to promote and maintain a high level of employee morale.

20. Formulate, recommend for approval, and administer wage and salary administration objectives, policy and procedures; evaluate and report results.

OTHER TYPICAL TITLES:

Employment Manager
Industrial Relations Director
Labor Relations Director

TITLE: EDUCATION AND TRAINING DIRECTOR

PRIMARY PURPOSE OF JOB: The Education and Training Director is responsible for developing and organizing a comprehensive program of education and in-plant training; for scheduling, conducting, and presiding over educational seminars and training sessions; and for establishing an effective evaluation system of all reports and presentations.

RESPONSIBILITIES:

1. Develop an educational program, along with the teacher and the Plant Manager, so that the class may learn about industry. List some interesting topics which would deal with the following concepts:
   A. Mass Production
   B. Automation and Cybernetics
   C. Labor-Management Relations
   D. Finance
   E. Industry-Government Relations
   F. The Market Economy
   G. Production Planning and Control
   H. Marketing
   I. Accounting

   Assign the topics to various members of the class to report on as part of the educational program. Other reports that should be assigned are the reports about the various occupations in the company organization.

2. Develop an educational seminar program or calendar with the head of the company.

3. Serve as the chairman of the educational program seminars.

4. Locate and preview possible educational films. Order and schedule these films for showing at various periods throughout the program. The Education and Training Director may wish to consult with other members and use their assistance in presenting films where topics relate to their departmental functions. Topics to consider include:
   A. History of Manufacturing
   B. Industrial Revolution
   C. Mass Production
   D. Automation
   E. Labor Unions
   F. Labor-Management Relations
   G. Advertising and Marketing
   H. Accounting and Finance

I. Stocks and Bonds
J. Product Design
K. Research and Development
L. Production Planning
M. Quality Control
N. Industrial Packaging
O. Others

5. Arrange for field trips to relevant industries or businesses.

6. Arrange for guest speakers from industry to make a presentation relating to their job in industry. The speaker could be the father of a student employee who would be able to speak to the class.

7. Help the members of the class who may ask for assistance in finding information about their report topics.

8. Research the most efficient and effective training technologies and equipment to attain learning objectives of a training program.

9. Develop and carry out a training program for the company workers on the various machines and jigs and fixtures. The Personnel Director should be consulted to insure all workers are adequately trained.

10. Develop an appropriate system for effectively evaluating the following kinds of educational activities:
    A. Written reports
    B. Class presentations
    C. Jigs and fixtures seminar critique
    D. Training programs

11. Work with the Safety Director to establish any educational needs in that area.

12. Develop the necessary forms and records that will be useful in carrying out the responsibilities of the Education and Training Director.

OTHER TYPICAL TITLES:

Education Officer
Manpower Development and Training Manager
Training Director

TITLE: PUBLIC RELATIONS DIRECTOR

PRIMARY PURPOSE OF JOB: The Public Relations Director is in charge of communicating effectively with all of the company's publics: class, student body, faculty, stockholders, parents, and community. This person should develop the company's image as: (1) a responsible industry leader and good corporate citizen; (2) a manufacturer of reliable best-value products; (3) a sound stock investment; and (4) any other characteristics favorable to the company's prestige and growth.

RESPONSIBILITIES

1. Determine a company name, logo, and slogan.
   - A. The entire class should be requested to offer suggestions.
   - B. Suggestions should relate to the selected product.
   - C. Name, slogan, and logo must be selected immediately following company formation and product selection.
   - D. Company name should be placed on all company memos, directives, letters, drawings, posters, charts, bulletin boards, and other company property. Make rubber stamps, tags, and/or labels that are printed, stenciled, and/or lettered.

2. Develop a public relations bulletin board.
   - A. Bulletin board should contain company name.
   - B. Bulletin board should be divided into appropriate divisions to include memos and directives from various departments: personnel, design, safety, production engineering, advertising, education and training, etc.

3. Develop a well-organized vertical file of all materials (department directives, letters, plans, production flow charts, union cards, procurement forms, etc.) that are duplicated for distribution.

4. Develop one or more of the following written publications describing the company function, company personnel, product to be manufactured, and other related activities of the class.
   - A. Write an article or press release for the company newspaper, school newspaper, and/or other local newspapers.
   - B. Design and develop an attractive brochure or company booklet.

C. Publish company newsletters to be issued periodically describing company operations and employee activities. (Consult with Personnel Director.)
D. Assist the Finance Director in preparing stock reports and concluding financial statements (annual report) for distribution to stockholders.

5. Act as host to all guests visiting the company.
   A. Invite the principal, assistant principals, counselors, librarians, teachers, school secretaries, parents, etc. to view class activities.
   B. Introduce yourself to all guests that may visit the industrial arts department and explain the company activities of the class.
   C. Distribute to all guests copies of such public relations materials as brochures, company newsletters, newspaper articles, buttons, company cards, etc.

6. Consider the following public relations activities:
   A. Construct signs and posters publicizing the company.
   B. Make buttons or identification cards for company employees to wear.
   C. Make personalized company cards that entitle employees to certain privileges.
   D. Take photographs of various company activities to be placed on bulletin boards and to be used for other publicity.
   E. Assist Marketing Director with developing displays and exhibits of company activities (product model, etc.) to be placed in the library and/or school showcases.
   F. Make book markers, note pads, or other devices containing company name, logo, and/or slogan to be distributed in such places as the library, central office, other classes, etc. for publicity purposes.
   G. Plan a company "open house" (during the final production run) and invite different administrators, counselors, teachers, librarians, librarian aids, parents, etc. to view the class activity.
   H. Write a company newsletter.
   I. Make film to convey the company's image.

<u>OTHER TYPICAL TITLES</u>:

Communications Director
Public Affairs Director

TITLE: SAFETY DIRECTOR

PRIMARY PURPOSE OF JOB: The Safety Director is responsible for inspecting protective qualities of plant equipment and employee clothing; for appraising potential health hazards and accident problems; for communicating information on accident prevention and safety standards; and for promoting attitudes of safety performance within all areas of the company.

RESPONSIBILITIES:

1. Administer accident prevention programs and assist in the control of occupational and health hazards.

2. Establish and maintain safety standards, correlating various accident prevention programs with national standards, including Workmen's Compensation Laws and the Occupational Safety and Health Act (OSHA).

3. Conduct regular safety inspections, investigate accidents and initiate corrective steps where needed.

4. Advise and assist all supervisory levels on safety techniques directly and through safety committee activities.

5. Assure use of specified protective equipment and devices.

6. Develop safety instructions and regulations regarding employee use of tools, machines, and equipment in the company plant. Consider developing:
   A. Safety instruction sheets to be distributed and explained to all employees (safety handbook, etc.)
   B. Charts and posters to be displayed in appropriate areas of the room.
   C. Safety slogans.

7. Design and develop a suitable company accident reporting form.

8. Keep an accurate record in the safety department's file of all employee accidents.

9. Develop a company policy that provides benefits to employees for accidents occuring during company time.

10. Create a safety award for those with the best accident-free record in the company and present these awards periodically.

A. Safety award certificate.
B. Other types of prizes, etc.

11. Construct a safety chart that records the number of accident-free work days.

12. Conduct educational programs and assist in accident prevention training programs. Collect various types of safety equipment and protective clothing - goggles, hard hats, gloves, shoes, etc. - and make an educational display of these items in the classroom.

13. Design and develop necessary forms and records that will be useful in carrying out the responsibilities of the Safety Director.

OTHER TYPICAL TITLES:

Health and Safety Engineer

TITLE: FINANCE DIRECTOR

PRIMARY PURPOSE OF JOB: The Finance Director is responsible for coordinating and supervising all company finance; for making complete and accurate records of all financial transactions; and for preparing and issuing financial statements. This person administers approved policies and procedures pertaining to accounting, auditing, budgets, inventory and stock control, payroll, and tax activities.

RESPONSIBILITIES:

1. Develop a certification of incorporation for the company.

2. Write and present to the class a report on the topic of stocks and bonds.

3. Design a stock and/or bond certificate.

4. Develop procedures for issuing and redeeming stocks and/or bonds.
   A. Submit to the Marketing Director information about the location, date, and price of the stock so that appropriate advertising can be developed.
   B. Form a committee to conduct the selling of stock. Consult the Personnel Director.
   C. Record all stock transactions.

5. Establish and administer a method of accounting and cost control throughout the company.

6. Obtain from appropriate departments tentative budget requests for various direct costs such as materials and labor, and indirect costs such as plant overhead, marketing, and maintenance.

7. Prepare a budget forecast. This information will assist in determining the total production cost and the amount of capital needed to cover anticipated expenses.

8. Maintain records on accounts receivable or credits (money taken in or collected from each department) and accounts payable or debits (money paid out).

9. Prepare, analyze, and interpret financial data for management.

10. Develop a bank checking account and deposit system.

11. Audit and tally weekly time cards for correctness in hours, vacation time, absences, sickness, and other information.

12. Distribute payroll to all personnel, and check and answer all inquiries received from personnel concerning payroll.

13. Supervise maintenance of procedures relating to customer claims and adjustments.

14. Provide for systematic collection and follow-up of all delinquent accounts.

15. Conduct all tax activities of the company.

16. Work closely with the Procurement Director and Inventory Control Director in maintaining inventory and stock control records.

17. Along with management, determine the cost of the product and the profit to be returned to the stockholders.

18. Prepare and issue a concluding financial statement or annual report.

19. Direct the liquidation of all company assets and profits after the line production has been completed.

20. Develop all forms and records that will be useful in carrying out the responsibilities of the Finance Director.

OTHER TYPICAL TITLES:

Accounting Supervisor
Comptroller
Controller
Credits and Collections Manager
General Credit Manager
Treasurer

TITLE: PROCUREMENT DIRECTOR

PRIMARY PURPOSE OF JOB: The Procurement Director is responsible for obtaining all necessary materials, tools, and equipment requested by all departments.

RESPONSIBILITIES:

1. Direct purchasing activities for all materials and supplies required by the company.

2. Maintain company's integrity and reputation by method of negotiating with suppliers and by seeing that there is clear understanding with suppliers concerning:
   A. Terms and conditions of all purchase contracts.
   B. Ownership of special equipment.

3. Assist plant manufacturing departments in obtaining proper specifications, quotations, delivery terms and costs, and provide information regarding material availability to affected departments.

4. Assure the timely delivery of purchased materials (materials delivered to the plant through purchasing; delivered to operating departments through inventory Control).

5. Develop necessary forms that can be used for procuring the materials, tools, and equipment needed for the company.

6. Obtain and issue all materials, tools, and equipment that are requested by other department personnel. These items should be obtained in the most economical and fastest way. Consider the following procedures:
   A. Use the telephone to determine availability and lowest cost.
   B. Write letters to determine availability and lowest cost.
   C. Visit local stores and other retail/wholesale outlets.
   D. Request assistance from parents or other adults.

7. Keep the records and accounting department informed of the quantity and cost of all materials used.

8. Submit to the Inventory Control Director all items not immediately issued. (The Inventory Control Director should label and appropriately store all such items in the company warehouse until issued.)

9. Develop a ledger to record neatly and accurately all requisition and purchase transactions. This ledger should contain:
   A. The name of the department submitting the requisition.
   B. The quantity, description, and cost of the purchased items.
   C. A copy of every purchase requisition submitted by the requesting department.
   D. Sales receipts showing cost of purchased items.

10. Work with Quality Control Director to insure quality of purchased materials and equipment.

11. Develop the necessary forms and records that will be useful in carrying out the responsibilities of the Procurement Director.

12. Work closely with the Finance Director and Inventory Control Director in maintaining inventory and stock control records.

OTHER TYPICAL TITLES:

Contracts Manager
Purchasing Manager or Director

TITLE: INVENTORY CONTROL DIRECTOR

PRIMARY PURPOSE OF JOB: The Inventory Control Director is responsible for controlling all materials, supplies, and equipment, including finished products. Duties include arranging the leasing of warehousing facilities and maintaining optimum inventory levels.

RESPONSIBILITIES:

1. Draw up a contract to lease a locked warehouse area (storage cabinet or bench locker) in the industrial arts laboratory and label this area with the company name.

2. Develop an inventory control system which will decouple the various production processes, from raw materials to the finished product.

3. Develop an inventory identification tag to include:
   A. Department or individual requesting storage.
   B. Type or name of item being stored.
   C. Quantities of items being stored.

4. Develop a form for keeping an accurate inventory of all company supplies and equipment housed in the company warehouse.

5. House all company supplies, raw materials, pre-cut parts, tools, equipment, etc. for each department in the warehouse area. All items should be fastened or grouped together when necessary.

6. Receive and tag all items obtained by the Procurement Director.

7. Work with other responsible departments in determining optimum inventory level as reflected by projected consumer demand and production level.

8. Coordinate and control in-stock and projected purchases of raw materials. Work closely with Procurement Director and Finance Director.

9. Keep a running account of all materials and products associated with the company.

10. Make regular inventory status reports to the company.

11. Establish procedures for rapidly issuing and collecting all needed on-line supplies and equipment during the time the production line runs are in operation.

A. Prior to each daily production line run prepare for rapid distribution all necessary production line supplies and equipment before employees report to work.

B. Following each daily production line run, collect, count, group, tag, and place in appropriate containers all production line supplies and equipment (including product parts or finished products) for storage in the company warehouse.

12. Work with other responsible departments in the efficient deployment of labor and machines in an attempt to limit waste of inventories.

13. Design and develop other necessary forms and records that will be useful in carrying out the responsibilities of the Inventory Control Director.

OTHER TYPICAL TITLES:

Materials Control Manager
Warehousing Director

TITLE: PRODUCTION MANAGER

PRIMARY PURPOSE OF JOB: The Production Manager is responsible for the overall management, direction and coordination of manufacturing operations in carrying out company objectives at the lowest cost, consistent with quality requirements. This person delegates authority to key supervisors in production, production control, package development, plant engineering, purchasing and other related operations.

RESPONSIBILITIES:

1. Oversee all manufacturing activities.

2. Assist the Design Engineer with the construction of preliminary product prototypes from the various preliminary design sketches.

3. Assist the Research and Development Director with research study of examining, experimenting, and testing the product prototypes.

4. Assist the Design Engineer with the construction of of a final prototype of the product selected for manufacture.

5. Analyze the final product prototype and develop (with assistance from the Design Engineer, Research and Development Director, and Quality Control Director) a flow chart, a schematic diagram, or PERT chart showing:
   A. All pieces and parts of the product.
   B. All production steps or operations necessary to fabricate, assemble, finish, and market the product.
   C. All tools, machines, and other types of special equipment required to fabricate, assemble, finish, and market the product.

6. Work with the Line Foreman and Public Relations Director to construct additional pieces of each product part. These product parts are to be mounted and labeled on a suitable display board showing the completed sequence or flow of manufacture from raw materials to completed product.

7. Complete and submit to the Procurement Director requisitions for the ordering of all materials and equipment for manufacturing product.

8. Assist Plant Engineer in developing a plant layout of machines and work stations.

9. Direct the solution of production problems as they arise, working closely with appropriate personnel.

10. Design and develop necessary forms and records that will be useful in carrying out the responsibilities of the Production Manager.

11. Authorize all changes in scheduling or manufacturing procedures when original plans cannot be carried out.

12. Keep management informed of progress and problems of manufacturing.

OTHER TYPICAL TITLES:

Manufacturing Director
Production Control Manager
Production Engineer
Production Planning Supervisor

TITLE: RESEARCH AND DEVELOPMENT DIRECTOR

PRIMARY PURPOSE OF JOB: The Research and Development Director is responsible for developing, conducting, and supervising all necessary tests and experiments on product prototypes, jigs, fixtures, or other production devices; and for providing advice to various management departments concerning all test findings and conclusions.

RESPONSIBILITIES:

1. Assist the Design Engineer with the construction of preliminary product prototypes from the design sketches.

2. Conduct a careful research study on the preliminary product prototypes to determine which one should be selected for production.
   A. Approve the purchase of materials to construct the prototypes.
   B. Collect and record all data, carefully examining, experimenting, and testing the product prototypes in terms of:
      (1). The most appealing design - aesthetic quality. Consult the Marketing Director.
      (2). The best production design - manufacturing feasibility.
      (3). The most functional design - performance or operational quality.
   C. Consult the Design Engineer, Production Manager, Quality Control Director, and Marketing Director for their input.
   D. The Research and Development Director and Design Engineer are responsible for making the final decision on the product design and should submit a written report to management showing all data collected to support that decision.

3. Assist the Design Engineer with the construction of a final prototype of the product selected for manufacture.

4. Assist the Production Manager in developing a list of necessary production steps or operations, a sequence or flow of these production operations, and a plant production layout design.

5. Conduct laboratory experiments and tests to determine solutions to production problems.

6. Check and test the performance and operation of all production jigs and fixtures.

7. Consult with the Marketing Director to determine the total number of products that should be manufactured for a realistic sales program.

8. Design and develop necessary forms and records that will be useful in carrying out the responsibilities of the Research and Development Director.

9. Working with the Quality Control Director, test all materials and finished products for possible improvements.

OTHER TYPICAL TITLES:

Chief Research Engineer
Product Development Director
Research and Engineering Supervisor

TITLE: DESIGN ENGINEER

PRIMARY PURPOSE OF JOB: The Design Engineer is responsible for preparing preliminary product design sketches, developing final working drawings, and constructing the final prototype.

RESPONSIBILITIES:

1. Prepare preliminary sketches showing various designs of the proposed product idea.

2. Construct accurate prototypes of the various preliminary product sketches. Use assistance from the Research and Development Director, Quality Control Director, Production Manager , and Marketing Director.

3. Assist the Research and Development Director and Marketing Director in examining and testing the preliminary product prototypes to determine:
   A. Will the product sell as designed?
   B. Can the product be manufactured as designed?
   C. Will the product function and operate as designed?

4. Develop a set of final working drawings of the selected product design, including:
   A. Pictorial drawing.
   B. Multi-view orthographic working drawing noting product size (dimensions), type of material to be used, and kind of finish to be applied.

5. Construct an accurate and final prototype of the product. Consult the Research and Development Director, Quality Control Director , Production Manager, and Marketing Director.

6. Duplicate and distribute working sketches to each member of the class. Post one set of working drawings on the company bulletin board.

7. Assist the Production Manager in developing a list of necessary production steps or operations, a sequence or flow of these production operations, and a plant production layout design.

8. Design and develop necessary forms and records that will be useful in carrying out the responsibilities of the Design Engineer.

9. Assist the Line Foreman in constructing all jigs and fixtures. (This activity may be assigned to individual workers by the Personnel Director, or to a Tool Design Engineer if the company is large.)

10. With assistance from the Marketing Director, design the packaging for the product, including the material, cost, style, and artwork. The package must be attractive, durable, and protective.

OTHER TYPICAL TITLES:

Chief Design Draftsman
Research and Design Engineer

TITLE: PLANT ENGINEER

PRIMARY PURPOSE OF JOB: The Plant Engineer is responsible for ordering all necessary equipment, tools, and machinery and determining the most effective plant layout of the physical facilities and manpower for the manufacture of the product.

RESPONSIBILITIES:

1. Analyze all factors and data that affect plant operation, including:
   - A. External transportation facilities
   - B. Receiving operations (unloading, inspection, etc.)
   - C. Production activities
   - D. Service operations
   - E. Quality control
   - F. Manpower
   - G. Packaging operations
   - H. Storage operations
   - I. Shipping operations

2. Determine the best combination of men, materials, machines, and money.
   - A. Minimize materials handling.
   - B. Maintain flexibility of arrangement.
   - C. Hold down investment in equipment.
   - D. Make economical use of floor space.
   - E. Promote effective utilization of manpower.
   - F. Provide for employee convenience, safety, and comfort.

3. Determine the general flow pattern for the materials in process.

4. Design the individual work stations or production centers.

5. Design methods of handling materials, including conveyor systems, pulleys, etc.

6. Draw a floor plan and/or make a model of the plant layout. Indicate:
   - A. Arrangement of tools, machines, and other production equipment.
   - B. Location of all electrical outlets.
   - C. Flow of materials and supplies in the production line.
   - D. Quality control stations.
   - E. Work stations and operations performed.
   - F. Other required information.

7. Work with the Safety Director, Quality Control Director, and Plant Maintenance Director to insure coordination for a safe and efficient plant layout.

8. Submit a budget to the Finance Director of all costs related to the plant operation.

9. Develop necessary forms and records that will be helpful in carrying out the responsibilities of the position.

10. Make arrangements to use facilities (other labs) with the teacher in charge of lab.

OTHER TYPICAL TITLES:

Production Engineer

TITLE: PLANT MAINTENANCE DIRECTOR

PRIMARY PURPOSE OF JOB: The Plant Maintenance Director supervises and coordinates a plant maintenance program of all equipment, tools, machines, and facilities at the lowest cost and the highest productivity.

RESPONSIBILITIES:

1. Identify all items to be maintained.

2. Establish a maintenance work crew.

3. Develop procedures for cleaning up the lab at the end of the period. Assign clean-up responsibilities to each worker and supervise all clean-up activities necessary to ensure a clean and well organized plant.

4. Inspect and supervise work done by the worker or the maintenance crew.

5. Develop a work order form to request the repair and/or replacement of defective tools, machines, or equipment that can not be maintained.

6. Schedule all maintanance work.

7. Maintain records of all maintenance work completed.

8. Inspect and lubricate machines on a regular basis. Sharpen tool bits, replace broken blades, etc.

9. Determine materials and labor budget for maintenance work and submit to the Finance Director.

10. Develop maintenance checklists for use by inspectors or workers.

11. Work closely with the Safety Director and Plant Engineer in maintaining the plant's tools and equipment.

12. Post pertinent items on the company bulletin board.

13. Provide plant security if needed.

14. Request necessary tools, equipment and supplies for maintenance.

15. Supervise and direct the installation of production equipment and apparatus in the plant. The Plant Engineer will assist with this activity.

16. Develop a program of preventive maintenance for equipment and tools.

17. Develop forms and records that will be useful in carrying out the responsibilities of the Plant Maintenance Director.

OTHER TYPICAL TITLES:

Plant Engineer
Physical Plant Manager
Plant Operations and Maintenance Director

TITLE: QUALITY CONTROL DIRECTOR

PRIMARY PURPOSE OF JOB: The Quality Control Director is responsible for developing and maintaining performance, reliability, and safety standards to: measure and inspect the quality of the fabricated parts; measure and inspect the quality of the assembled parts; and measure and inspect the quality of the finished product.

RESPONSIBILITIES:

1. Working with the Procurement Director, inspect and test all incoming materials.

2. Initiate a quality work incentive program to remind and encourage workers to perform quality work in manufacturing the company product.
   A. Develop slogans and post them in the lab area to remind workers of building quality into the product.
   B. Design quality control badges or buttons to be worn by workers during production.
   C. Develop awards for those workers producing the least number of rejected parts or finished products, and issue these awards at the end of the production run.

3. Assist the Design Engineer with the construction of preliminary product prototypes from various preliminary design sketches.

4. Assist the Research and Development Director with examining, experimenting, and testing the product prototypes.

5. Assist the Design Engineer with the construction of a final prototype of the product selected for manufacture. Determine final acceptable tolerances.

6. Assist the Production Manager in developing a list of necessary production steps or operations and a sequence or flow of these production operations.

7. Develop various gages to measure the accuracy of fabricated parts at critical operations on the production line. These critical operations include those production line stages where fabricated parts must fit together (interchangeability of parts).

8. Identify on the production flow chart stations at various points on the production line for inspecting the quality of parts fabrication, parts assembly, and finished product.

Consult the Line Foreman and neatly mark (color code) these inspections stations on the production line flow chart.

9. Check the quality of all jigs and fixtures. All jigs and fixtures should meet the following standards:
   A. Construction durability - Is the jig or fixture solidly constructed with appropriate materials to withstand the repeated use during a production run?
   B. Safety features - Does the jig or fixture contain appropriate guards, plastic shields, and other safety devices to protect the operator during the production run? (Consult with the Safety Director.)

10. Design and develop product inspection and guarantee forms. Consider developing the following:
   A. An inspection slip or tag to be included in the packaged product.
   B. A reject slip or tag identifying the return of a defective part or product to a particular station for additional work or repair.
   C. A product guarantee to be packaged with the product.

11. Coordinate and communicate activities relative to the development and implementation of product safety standards, codes and common consumer law.

12. Coordinate product accident investigations and accumulate, analyze and follow-up all reported accidents and product liability cases, communicating findings and initiating corrective action and recommendations.

13. Maintain a complaint control system to assure good customer relations and to identify corrective action follow-up.

14. Develop and maintain a customer attitude survey system. Work with the Marketing Director on this.

15. Develop forms and records that will be useful in carrying out the responsibilities of the Quality Control Director.

<u>OTHER TYPICAL TITLES</u>:

Director of Product Reliability and Quality Assurance
Inspection Director

TITLE: LINE FOREMAN

PRIMARY PURPOSE OF JOB: The Line Foreman is responsible for supervising all assigned workers during jigs and fixtures construction, pilot production runs, and final production runs; and for assisting personnel in the departments of design, research and development, quality control, and production engineering.

RESPONSIBILITIES:

1. Assist the Production Manager in developing a list of necessary production steps or operations, a sequence or flow of these production operations, and a plant production layout design.

2. Develop a list of jigs and fixtures necessary for the complete production of the company product. Consult the Production Manager and Design Engineer.
   A. Identify only those jigs and/or fixtures necessary for the production run - parts fabrication, parts sub-assembly, final assembly, and finishing.
   B. Specify the quantity of jigs and/or fixtures for each operation.
   C. Name and/or code each jig and fixture.
   D. Submit jigs and fixtures list to the Personnel Director so that assignments can be made.

3. Establish and enforce a due date for the completion and testing of all jigs and fixtures. Consult with the Plant Manager and have these due dates posted on the company's master calendar.

4. Supervise the construction of all jigs and fixtures and lend technical assistance where needed.

5. During the production run, request materials, tools, manpower and maintenance as they are needed in your assigned area.

6. Work with the Safety Director, the Quality Control Director, and the Education and Training Director when they request your help.

7. Supervise all activities during the pilot run and final production runs - from parts fabrication to packaged product. (During this period, the Line Foreman is responsible for all labor or production worker functions.)

8. Assist the Education and Training Director in training the workers in the production line.

9. With assistance from the Personnel Director and Production Manager, develop a system for evaluating worker performance.

OTHER TYPICAL TITLES:

General Foreman
Production Foreman
Shop Foreman

TITLE: UNION STEWARD

PRIMARY PURPOSE OF JOB: The Union Steward is responsible for organizing and developing a union in the company; developing and enforcing a union or work contract; and for handling and helping to settle all worker grievances.

RESPONSIBILITIES:

1. Investigate the topic of labor unions - their history, function, and present-day purpose in industry.
   A. Prepare a written report on what unions are, how they developed, and what purposes they serve in industry today.
   B. Make a presentation to the class using the above information. (Consult with the Education and Training Director regarding presentation schedule.)

2. Persuade the class of the need to organize and form a labor union.

3. Develop a work or union contract which establishes wages and hours; sick leave benefits; other working conditions and fringe benefits; and grievance procedures. Have it approved and amended by union members. Negotiate the work contract with company management (Plant Manager and his representatives). Return it to membership for final ratification.

4. Design and develop a union membership card to be carried by all union members of the company.

5. Prepare other membership identification for union members.

6. Hold union meetings when necessary.

7. Prepare union news bulletins to be issued periodically.
   A. Include news about local union members.
   B. Include news about national union workers - contract settlements, contract disputes, strikes, etc.

8. Post on the company union bulletin board:
   A. Notices of union meetings.
   B. Other union-related information.
   C. National union events and developments.

9. Contact the AFL-CIO and/or labor union organizations to arrange for a guest speaker.

10. Negotiate with the company management in order to improve working conditions.

11. Develop a form for handling grievances, and negotiate all grievances submitted by the workers with management.

12. In the event that a strike should occur, prepare picket signs and strike placards to be used by union members.

13. Design and develop other necessary forms and records that will be useful in carrying out the responsibilities of the Union Stewart.

OTHER TYPICAL TITLES:

Shop Steward

TITLE: MARKETING DIRECTOR

PRIMARY PURPOSE OF JOB: The Marketing Director develops and adminsters the marketing objectives, programs, and policies of the company, insuring maximum sales volume at minimum cost. This person plans, directs, and coordinates the advertising and sales personnel toward the accomplishment of the company's objectives.

RESPONSIBILITIES:

1. Conduct a market research study to determine what product the company should produce, and identify potential markets.

2. Advise the Design Engineer on the construction of the preliminary and final product prototypes.

3. Develop advertising announcing the sale of company stock. Consult with the Finance Director to obtain information regarding when, where, how much, and the type of stock to be sold. Use posters, flyers, public address announcements, homeroom announcements, newspaper ads, and any other media to convey the information to potential markets.

4. Conduct a market research study to determine the most appealing design for the company product.

5. Insure that sales forecasts are prepared, and recommend short and long-term sales goals. Make every effort to see that assigned sales volume and profit goals are achieved.

6. Prepare a budget (advertising, sales, etc.) based on an understanding of the product and sales promotion objectives.

7. Direct sales planning. Analyze competitive products and selling techniques, consumer research, marketing legislation, sales budgets, quotas, and other relevant information.

8. Decide pricing policies, including quantities, terms and conditions of sales, etc. Approve delegation of pricing authority and individual pricing questions which have policy implications.

9. Develop an advertising and publicity campaign to stimulate a demand for the product. Direct the

administration of all advertising, sales promotion, and market research activities, and approve the selection of advertising agencies and services.

10. Consult with the appropriate directors to determine the total number of products that should be manufactured for the most effective and efficient sales program.

11. Develop a sales order form that could be used (with an appropriate display of the product) at different locations.

12. Design and develop a sales receipt booklet to be used during product sales.

13. Coordinate a sales team to be made up from members of the class, and develop an incentive system to promote product sales. Consider developing the following:
    A. Charts showing sales progress made by each salesman and/or the company that could be posted on the company bulletin board.
    B. Salesman awards and prizes to the person(s) with the best sales record.

14. Help the Design Engineer determine the packaging for the product, including the material, cost, style, and artwork. Insure an attractive, durable, and protective package.

15. Maintain a record of all sale transactions and deposit all cash from sales in the company bank. (Use cash deposit slips developed by the Finance Director.)

16. Submit to the Finance Director a record of all sales transactions.

17. Design and develop other forms and records that will be useful in carrying out the responsibilities of the Marketing Director.

<u>OTHER TYPICAL TITLES</u>:

Advertising and Sales Promotion Director

FORMS

Practically all of the communications, reporting, analysis, and coordination of information within an industry utilizes forms. The liaison between departments, within departments, with customers, vendors, and outside agencies must be accomplished through forms. The forms used in industry can significantly increase or seriously hamper production.

In designing forms, the fundamental consideration is the maximum promotion of the manufacturing objectives. Good form design and procedures can: reduce the amount of clerical labor required for filing; increase management efficiency by providing required information and eliminating nonessential data; and reduce printing and paper costs.

The following section deals with form design and control. No attempt was made to include examples of different forms since they are too numerous. However, a form design checklist and two references are recommended.

Form Design

Maximum efficiency at the lowest cost, interpretation, and application are important principles in designing forms. The system technician or specialist who designs forms must know the data that will be presented on a new form and the flow of the form through the organization. The specialist must cooperate with the future users of the form, which is usually a difficult and time-consuming task. If differences in opinion arise, the head of the systems function and the executives of the users' departments may have to be consulted for final determination.

A well-designed form presents all the required information and is easy to use. Many design techniques have been introduced, especially by form manufacturers. Color schemes, kind and weight of paper stock, carbons for copies, omitting or emphasizing certain data, and reproduction techniques available are all considerations that must be weighted for maximum efficiency.

The checklist contained at the end of this section may be used to analyze form design.

The design and control of forms have become such complex functions that many industries have created a systems function department or other specialized unit which can devote full attention to forms. However, forms concern all parts of an organization, and thus, there is need for close cooperation

between the staff responsible for the forms and the users.

Suggestions for new or revised forms usually come from the users or from procedural changes from management. Before designing a new form, it should be determined whether it would be possible to use an existing form.

Form Control

Since the cost and utilization of forms are a significant part of the overhead and operating expenses of a company, management must closely control forms. Effective control should provide for the following:

1. Control of form procurement and inventories. An efficient system for ordering, stocking, and issuing the correct quantities to authorized users.

2. Systematic elimination of useless and conflicting forms, and creation of new well-designed forms as required.

3. Ease of identification of forms.

4. A means of enforcing and following-up action requested by forms.

5. A central source containing every form in use in the company arranged in a logical fashion and cross-indexed.

6. Search for low-cost form materials and printing.

7. Emphasis on form simplicity and utilization.

Each form designed should have a separate folder with its complete history. This folder should be kept up-to-date and can be analyzed to determine whether the form should be continued revised. The goal is always towards reduction in the number of forms. By keeping a folder, similar forms used by different departments can be merged into one.

Form flow charts should be constructed to describe how each form carries information within and/or outside the organization. The charts indicate the particular tasks that must be performed and possibly the time required to complete the tasks.

It is also advisable for those in main functional positions to write brief procedural manuals which should include detailed instructions specifying how to perform involved repetitive operations using forms to communicate with different members

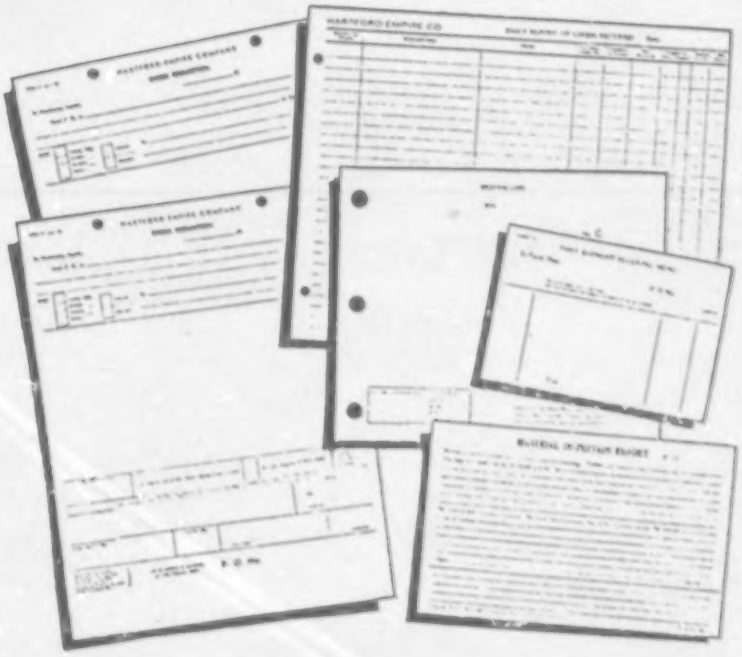
of an organization. These manuals establish order, and participation by different departments and individuals follow a proper sequence.

Form References

There are many references available to the students dealing with the design and control of forms. Forms collected from industry and those developed by former classes could be kept in a vertical file.

The American Management Association has published two excellent books on forms. The AMA Book of Employment Forms edited by Elizabeth Marting contains some 700 pages of several hundred examples of personnel forms. It costs $23 for AMA members and $30 for nonmembers. Forms Design and Control by Julius Kaiser contains information on forms design, manufacturing, routing, and contains many examples of forms. The cost is $12.50 to AMA members and $16.50 to nonmembers.

Both books can be ordered from the AMA, 135 West 50th Street, New York, New York 10020.



Form Design Checklist

I. General Use

____1. Are the purposes of the form necessary?
____2. Does the form completely accomplish its purposes?
____3. Can some other form be used for this purpose?
____4. Can this form be combined with some other form?
____5. Should the form be divided into separate forms?
____6. Are all necessary copies included?
____7. Are all copies necessary?
____8. Does the title indicate the use of the form?
____9. Is the title distinctive and descriptive?

II. Content

____10. Has the form-control number been included?
____11. Are all recurring data printed?
____12. Have spaces been left for required dates?
____13. For forms to be transmitted, should spaces be provided for "to" and "from" information?
____14. Has required space for signatures and approvals been included?
____15. Should simple routing or handling instructions be printed on the form?
____16. Is serial numbering desirable?
____17. Are all included items necessary?

III. Arrangement

____18. Have adequate spacing and margin standards been used?
____19. Has it been tested for proper spacing?
____20. Are the most important data in the most prominent locations?
____21. Should both sides of form be used?
____22. Are data required for filing and sorting prominently located?
____23. Is spacing sequence logical (minimum hand travel and easiest motions)?
____24. Is sequence of items same as on forms from which information is transcribed?
____25. Is sequence of items the same as used on similar forms?
____26. If it is to be mailed outside, should form be designed for window envelope?

IV. Sources of Information

____27. Have all users and potential users been consulted for suggestions?

____28. Have the persons responsible for the system been consulted for suggestions and approvals (supervisors, system men, etc.)?

V. Paper and Printing

____29. Is the size standard?
____30. Are the grades and weights standard and correct for usage, expected life, filing, and handling?
____31. Has colored paper been considered?
____32. Have all other required items been accurately specified on printing request (e.g., size of order, method of printing, ink, holes for binders and special machines, collating requirements, carbon requirements, etc.)?

(From Barish, 1951)

REFERENCES

Albers, H. H. Principles of Management. New York: John Wiley & Sons, 1967.

Allen, L. The Management Profession. New York: McGraw-Hill, 1964.

Amrine, H. T., J. A. Ritchey, and O. S. Hulley. Manufacturing Organization and Management. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Anderson, R. C. Management Practices. New York: McGraw-Hill, 1960.

Baltimore County Board of Education. Manufacturing - The High Volume Fabrication Industries. Towson, Md.: Baltimore County Public Schools, 1971.

Baltz, H. B. and R. B. Baltz. Fundamentals of Business Analysis. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Barish, N. N. Systems Analysis for Effective Administration. New York: Funk & Wagnalls, 1951.

Bittel, L. R. The Nine Master Keys of Management. New York: McGraw-Hill, 1972.

Black & Decker Manufacturing Company. A Guide to Overall Performance Appraisal. Towson, Md.: Black & Decker, 1974.

Buffa, E. S. Modern Production Management. New York: John Wiley & Sons, 1973.

Carzo, R. J. and J. N. Yarouzas. Formal Organization: A Systems Approach. Homewood, Ill.: Richard D. Irwin, Inc., 1968.

Donnelly, J. H., J. L. Gibson, and J. M. Ivancevich. Fundamentals of Management: Functions, Behavior, Models. Austin, Texas: Business Publications, 1971.

George, C. S. Management for Business and Industry. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Hall, G. L. The Management Guide. San Francisco, Calif.: Standard Oil Company, 1956.

Haner, F. T. and J. C. Ford. Contemporary Management. Columbus, Ohio: Charles E. Merrill, 1973.

Kaiser, J. Forms Design and Control. New York: American Management Association, 1968.

Katz, R. L. Management of the Total Enterprise. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

Koontz, H. and C. O'Donnell. Principles of Management: An Analysis of Managerial Function. New York: McGraw-Hill, 1972.

Lazarus, H., E. K. Warren, and J. E. Schnee. The Progress of Management: Process and Behavior in a Changing Environment. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Lorsch, J. W. and P. R. Lawrence. Organization Planning: Cases and Concepts. Homewood, Ill.: Richard D. Irwin, Inc., 1972.

Maley, D. The Maryland Plan: The Study of Industry and Technology in the Junior High School. New York: Bruce, 1973.

Marting, E. AMA Book of Employment Forms. New York: American Management Association, 1963.

Massie, J. L. Essentials of Management. Englewood Cliffs, N.J.: Prentice-Hall, 1964.

McFarland, D. E. Management: Principles and Practices. New York: Macmillan, 1970.

Mescon, M. H., W. R. Hammond, L. L. Byars, and J. R. Forest, Jr. The Management of Enterprise. New York: Macmillan, 1973.

Miner, J. B. The Management Process: Theory, Research, and Practices. New York: Macmillan, 1973.

Moore, R. F. (editor) AMA Management Handbook. New York: American Management Association, 1970.

Owens, R. N. Management of Industrial Enterprises. Homewood, Ill.: Richard D. Irwin, Inc., 1967.

Pugh, D. S. (editor) Organization Theory. Baltimore, Md.: Penguin, 1971.

Schlender, W. E., W. G. Scott, and A. C. Filley. Management in Perspective: Selected Readings. New York: Houghton Mifflin, 1965.

Sexton, W. P. Organization Theories. Columbus, Ohio: Charles E. Merrill, 1971.

Sisk, H. L. Principles of Management: A Systems Approach to the Management Process. Cincinnati, Ohio: South-Western, 1969.

Steiner, G. A. and W. G. Ryan. Industrial Project Management. New York: Macmillan, 1968.

Townsend, R. Up The Organization. New York: Alfred A. Knopf, 1973.

United States Department of Commerce. U.S. Industrial Outlook. Washington, D.C.: United States Government Printing Office, 1975.

United States Department of Labor. Dictionary of Occupational Titles, Volumes I and II. Washington, D.C.: United States Government Printing Office, 1965.

White, K. K. Understanding the Company Organization Chart, AMA Research Study No. 56. New York: American Management Association, 1963.

Wickesberg, A. K. Management Organization. New York: Appleton-Century-Crofts, 1966.

Wikstrom, W. S. Managing by - and with - Objectives. New York: The Conference Board, Inc., 1968.

Woodward, J. Industrial Organization: Theory and Practice. Fair Lawn, N.J.: Oxford University Press, 1965.

ACCESSION NUMBER: VT102115

PUBLICATION DATE: JAN75

TITLE: OTIS (OCCUPATIONAL TRAINING INFORMATION SYSTEM). CYCLE SEVEN REPORT 1975. SUPPLEMENT 1: STATEWIDE TOTALS AND DESCENDING RANK ORDER OF PROGRAM CLUSTERS.

PERSONAL AUTHOR: MORTON, J.B., AND OTHERS

DESCRIPTOR: *INFORMATION SYSTEMS; *VOCATIONAL EDUCATION; *MANPOWER NEEDS; *EDUCATIONAL PROGRAMS; *TABLES (DATA)

IDENTIFIER: OKLAHOMA; OTIS; OCCUPATIONAL TRAINING INFORMATION SYSTEM

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 113P.

ABSTRACT: THE PURPOSE OF THIS REPORT IS TO ENUMERATE CURRENT DATA ON MANPOWER SUPPLY AND DEMAND FOR SELECTED OCCUPATIONS AND TRAINING PROGRAMS IN OKLAHOMA. THE DATA PRESENTED REPRESENTS THE BEST INFORMATION AVAILABLE ABOUT THE MANPOWER SUPPLY AND DEMAND CONDITIONS ESTIMATED TO EXIST DURING THE PERIOD FROM JULY 1974 THROUGH JUNE 1975. FOLLOWING AN EXPLANATION OF THE HISTORY, PURPOSES, LIMITATIONS, AND PROCEDURES OF THIS INFORMATION SYSTEM, THE MANPOWER SUPPLY AND DEMAND TABLES ARE DISPLAYED. APPENDIXES INCLUDE A STUDENT STATUS FORM AND THE OCCUPATIONAL TRAINING INFORMATION SYSTEM FLOW CHART. (LJ)

INSTITUTION NAME: OKLAHOMA STATE DEPT. OF VOCATIONAL AND TECHNICAL EDUCATION, STILLWATER. DIV. OF RESEARCH, PLANNING, AND EVALUATION.

VT 102 115

OTIS

OCCUPATIONAL TRAINING INFORMATION SYSTEM

CYCLE SEVEN REPORT 1975

Supplement 1 | Statewide Totals and Descending Rank Order of Program Clusters

VT 102 115

2

ATTENTION

In lieu of the present economic condition, it is important that the reader understands that the data presented is the best information available on the manpower supply and demand estimated to exist during the time July 1, 1974, to June 30, 1975. The figures in the manpower supply and demand tables should be viewed dynamically and not regarded as absolute values. This is especially true with certain industries where changes in the plans of a single firm could significantly influence the manpower demand in a given occupation. Any information of manpower needs is subject to error due to shifts in the economy, unexpected new industry starts, and other intervening variables.

CYCLE SEVEN REPORT

OCCUPATIONAL TRAINING INFORMATION SYSTEM

Supplement I

Statewide Totals and Descending
Rank Order of Program Clusters

J. B. Morton
Paula Keller
William W. Stevenson

Oklahoma State Department of Vocational and Technical Education
Division of Research, Planning, and Evaluation
Information Services Unit
Stillwater, Oklahoma
January, 1975

This publication, printed and issued by the Oklahoma State Department of Vocational and Technical Education, is authorized by the State Board of Vocational and Technical Education. 1300 copies have been prepared and distributed at a cost to the taxpayer of the State of Oklahoma $1039.48

FOREWARD

The Occupational Training Information System (OTIS) was designed to provide current information on the supply and demand for people trained in selected vocational and technical occupations. Since its inception in 1968, those responsible for operating the system have constantly sought to improve and make the information more usable. OTIS is an excellent example of the application of theory to the solution of critical problems in vocational and technical education.

OTIS is a valuable tool to the administrator faced with the decision of program selection. The growing emphasis on accountability in the entire field of education creates the necessity on the part of those responsible for program offerings to allocate the scarce training dollar to those areas where the greatest need exists.

We are pleased that a number of state agencies, school districts, teachers, and guidance counselors utilize the OTIS publication to plan training programs and to help direct students toward occupational goals. It is our hope that the OTIS Cycle Seven Report will prove to be helpful to both the educator and the student.

Stillwater, Oklahoma
January, 1975

Francis Tuttle, State Director of
Vocational and Technical Education

ACKNOWLEDGMENTS

This report is the result of the efforts of a great number of people in a number of agencies. The agencies that have contributed to the growth and continued development of the Occupational Training Information System (OTIS) are:

Board of Nurse Registration and Nurse Education
Governor's Comprehensive Manpower Planning Staff
Manpower Administration, U.S. Department of Labor
Manpower Development & Training Division
Oklahoma Employment Security Commission
Oklahoma Industrial Development Department
Oklahoma State Department of Vocational and Technical Education
Oklahoma State Office of Community Affairs and Planning
Oklahoma State University: Research Foundation, Manpower Research and Training Center, and School of Occupational and Adult Education
Ozarks Regional Commission

Among those whose contributions helped to make the report possible are Dr. Francis Tuttle of the Oklahoma State Department of Vocational and Technical Education who provides continuing support and leadership, Mr. Will Bowman, Mr. Bill Hunter, Dennis Martin, and the staff of the Planning and Research Division of the Oklahoma Employment Security Commission who made notable contributions with their provision of the updated demand information and registrants supply data for the report.

Appreciation is expressed to the vocational education teachers, to all of the state supervisors of the Oklahoma State Department of Vocational and Technical Education, to Dr. Charles Hopkins, Dr. William Frazier, Mrs. Vickie Kurrasch, Mrs. Nancella Dobbins, Mrs. Karen Thomas and her staff for their help in the collection and processing of the data provided by the State Department, and to Mr. Bob Patton and his staff for their assistance in printing. We are indebted to Dr. Gene Smith, Mrs. Edwina Lyle and Mr. Ron Kraft with the Systems Design and Computer Services for their assistance with the data in the Student Accounting System.

We are indebted to Mr. Bob Keck with the State Regents for Higher Education for his excellent cooperation and for providing the student data from certain institutions. Credit should be given to Miss Frances Waddle and her staff of the Board of Nurse Registration and Nurse Education for their cooperation in obtaining the number of registered nurses and licensed practical nurses. Credit should also be given to Ken Hager

and his staff in the Oklahoma Council for Health Careers, (particularly Marsha Andres and Vicki Coffman) for their cooperation and assistance. In addition, thanks is expressed to Mr. Hugh Lacy and the CETA staff for providing information on their graduates.

Mr. Rucker Blankenship, Mr. Jerry Morton, and Mr. Andy Dean of the Governor's Comprehensive Manpower Planning staff should be commended for gathering information from the federal programs under their supervision for the manpower supply information.

Appreciation is expressed to Mr. E.R. Jeffers, Executive Secretary of the Oklahoma Private School Board, for the benefit of his experience and advice and for giving us the privilege of using their files on the Oklahoma private schools to gather required information on graduates in that sector.

We are indebted to the OTIS Advisory Committee for their guidance and direction in the future improvement of this system. The committee is listed below.

OTIS Advisory Committee

Mr. Arch B. Alexander
Deputy State Director
State Department of Vocational
and Technical Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Rucker Blankenship, Director
Governor's Comprehensive Manpower
Planning Staff
1100 N. Classen Drive
Oklahoma City, Oklahoma 73103

Mr. Orlie Boehler, Director
Southern Oklahoma Development
Association (SODA)
Box 3125
Ardmore Air Park
Ardmore, Oklahoma 73401

Mr. W. J. Bowman, Chief
Research and Planning Division
Oklahoma Employment Security Commission
Will Rogers Memorial Office Building
Oklahoma City, Oklahoma 73105

Mr. Jack Boyd, Director
Oklahoma Health Planning Agency
Health Planning Commission
4901 N. Lincoln
Oklahoma City, Oklahoma 73105

Dr. A. Lee Hardwick
U.S. Office of Education
1114 Commerce Street
Dallas, Texas 74202

Mr. Tom Crouch
Oklahoma Economic Development
Association (OEDA)
Beaver, Oklahoma 73932

Dr. E. T. Dunlap, Chancellor
Oklahoma State Regents for
Higher Education
Oliver Hodge Memorial Bldg.
Oklahoma City, Oklahoma 73105

Mr. L. B. Earp, Director
District No. 1
P.O. Drawer E
Vinita, Oklahoma 74301

Dr. Marvin T. Edmison, Director
Research Foundation
Oklahoma State University
Stillwater, Oklahoma 74074

Dr. William D. Frazier, Director
Research Coordinating Unit
State Department of Vocational
and Technical Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Larry E. Goodman
Association of Central Oklahoma
Government (ACOG)
1100 Classen Drive
221 Plaza Court Building
Oklahoma City, Oklahoma 73100

Mr. Ken Hager, Executive Secretary
Oklahoma Council of Health Careers
836 Northeast 15
Oklahoma City, Oklahoma 73104

Mr. Larry Hansen, Assistant State Director
Business, Finance, and Purchasing
State Department of Vocational
and Technical Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Bill Hill, Director
Kiamichi Economic Development District
Wilburton, Oklahoma 74578

Mr. Fred Huffine
Northern Oklahoma Development
Association (NODA)
Enid, Oklahoma 73701

Mr. Dale A. Hughey, Assistant State Director
State Coordinator of Area Vocational-Technical
Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Bill Hunter
Research and Planning Division
Oklahoma Employment Security Commission
Will Rogers Memorial Office Building
Oklahoma City, Oklahoma 73105

*Chairman of the OTIS Advisory Committee

Mr. Hank Jacobs, Coordinator
Industrial and Technical Services
Room 507, Will Rogers Building
Oklahoma City, Oklahoma 73105

Mr. Pat Jacobs
Oklahoma City Manpower Director
331 West Main
Center Building
Oklahoma City, Oklahoma 73102

Mr. E. R. Jeffers
State Accrediting Agency
Box 53067, Capitol Station
Historical Building
Oklahoma City, Oklahoma 73105

Mr. Byrle Killian, Assistant State Director
State Department of Vocational
and Technical Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Glen Knight, Director
Central Oklahoma Economic Development
Association (COEDA)
16 East Ninth Street
Shawnee, Oklahoma 74801

Mr. Jerry Lasker, Director
Indian National Council of
Governments (INCOG)
200 Civic Center, Room 215
Tulsa, Oklahoma 74100

Mr. John Montgomery, Administrator
Oklahoma State Office of Community
Affairs and Planning
4901 North Lincoln Boulevard
Oklahoma City, Oklahoma 73105

Mr. Clark McWhorter
Southwest Oklahoma Development
Association (SWODA)
Burns Flat, Oklahoma 73624

*Dr. Donald S. Phillips, Associate Professor
Technical Education
406 Classroom Building
Oklahoma State University
Stillwater, Oklahoma 74074

Dr. Howard Rosen
Office of Manpower and Research
U.S. Department of Labor
Manpower Administration
1730 M Street, Northwest
Washington, D.C. 30310

Mr. Walter Rapp, Director
Oklahoma Employment Security Commission
Will Rogers Memorial Office Building
Oklahoma City, Oklahoma 73105

Mr. Larry Sand, Director
Eastern Oklahoma Development
District (EODD)
Box 1367
Muskogee, Oklahoma 74401

Oneida Sawyer
Manpower Representative
Human Resources Development Institute
1710 North Broadway, Suite 4
Oklahoma City, Oklahoma 73103

Mr. Vernon M. Setterholm, President
Association of Private Schools
Spartan School of Aeronautics
8820 E. Pine Street
Tulsa, Oklahoma 74151

Dr. John Shearer
College of Business Administration
Oklahoma State University
Stillwater, Oklahoma 74074

Colonel Homer Snodgrass, Director
Association of South Central
Oklahoma Government (ASCOG)
802 Main Street
Duncan, Oklahoma 73533

Dr. William W. Stevenson, Assistant State Director
Head, Division of Research, Planning,
and Evaluation
State Department of Vocational
and Technical Education
1515 West Sixth Street
Stillwater, Oklahoma 74074

Mr. Roy P. Stewart, Executive Director
Advisory Council for Vocational
and Technical Education
4010 N. Lincoln
Oklahoma City, Oklahoma 73105

Mr. Phil Tomlinson
Ozarks Regional Commission
Central Oklahoma Economic
Development District
16 East Ninth Street
Shawnee, Oklahoma 74081

Dr. Lloyd Wiggins, Associate Professor
Technical Education
Oklahoma State University
Stillwater, Oklahoma 74074

Mr. Harry Wolohon
Tulsa Manpower Director
200 Civic Center
Tulsa, Oklahoma 74103

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION	1
	History of OTIS	1
	Purpose	2
	Limitations	2
	Procedures	3
II.	MANPOWER SUPPLY AND DEMAND TABLES	7
	How to Use the Tables	7
	Statewide Totals	8
III.	A DESCENDING ORDERING OF PROGRAM CLUSTERS RANKED BY STATEWIDE NET MANPOWER DEMAND	42
APPENDIX A.	STUDENT STATUS	93
APPENDIX B.	OTIS PROCEDURAL FLOW CHART	97
INDEX:	STATEWIDE TOTALS AND A DESCENDING ORDERING OF PROGRAM CLUSTERS	99

CHAPTER I

INTRODUCTION

History of OTIS

It became apparent in Oklahoma that if existing manpower training and related agencies were to make their maximum contribution to the development of human resources, intensive efforts would have to be made in the direction of statewide manpower planning. The recognition of a need for statewide manpower planning is manifested in federal and state legislation, legislative acts, and in the establishment of coordinating committees and commissions in Oklahoma and in the nation. However, the need remained for the development and demonstration of an effective information system and related procedure for implementing statewide manpower planning.

In Oklahoma, two studies which explored the need for statewide manpower planning were completed in 1967. One was by Ling-Temco-Vought System Management Service and the other by Oklahoma State University. These studies were oriented toward identifying the actions and sequential steps necessary for the establishment of a flexible occupational training system that could provide skilled manpower to satisfy the state's present and future demand. In the spring of 1968, representatives from the Research Department of the Industrial Development and Park Department, the State Department of Vocational and Technical Education, and the Oklahoma Employment Security Commission met to discuss the needs for a statewide research and demonstration project. This project would bring maximum resources to bear on implementing the strategy for economic development which had as its major premise the development of a skilled labor force. Subsequently, the Manpower Research and Training Center at Oklahoma State University was approached to react in detail to the feasibility of such a project. In July of 1968, a proposal was submitted to the concerned agencies whereupon the State Department of Vocational and

Technical Education and the Industrial Development and Park Department agreed to a preliminary funding of the project. Cooperation was provided by the Oklahoma Employment Security Commission and the Association of Private Schools.

Organizations which supported and/or cooperated in the development of the system included the Oklahoma State Department of Vocational and Technical Education, the Manpower Administration of the U. S. Department of Labor, the Oklahoma Industrial Development and Park Department, the Ozarks Regional Commission, the Research Foundation for Oklahoma State University, the Oklahoma Employment Security Commission, the State Accrediting Agency, the Manpower Research and Training Center at Oklahoma State University, the School of Occupational and Adult Education at Oklahoma State University, and the Oklahoma Research Coordinating Unit.

At an OTIS Advisory Committee meeting in January, 1970, the members representing these organizations transferred operational responsibilities to the newly formed Division of Research, Planning, and Evaluation of the Oklahoma State Department of Vocational and Technical Education.

Purpose

The purpose of this report is to enumerate current data on manpower supply and demand on selected occupations and training programs in Oklahoma.

Limitations

The data presented here represents the best information available on the manpower supply and demand conditions estimated to exist during the time July 1, 1974, until June 30, 1975. However, the figures in the manpower supply and demand tables should be viewed dynamically and not regarded as absolute values. This is especially true with certain industries where changes in the plans of a single firm could significantly influence the manpower demand in a given occupation. Any information of manpower needs is subject to error due to shifts in the economy, unexpected new industry starts, and other intervening variables.

Procedures

The procedures used to collect and analyze the data in this report are presented in two major sub-sections; these are manpower supply and manpower demand.

Sub-Section One - Manpower Supply

There are seven primary sources of manpower supply data used in this report; i.e., the Oklahoma State Department of Vocational and Technical Education, the Governor's Comprehensive Manpower Planning Staff, the State Accrediting Agency, the Oklahoma Employment Security Commission, the Oklahoma Board of Nurse Registration and Nurse Education, the Oklahoma Council for Health Careers and the State Regents for Higher Education.

The Student Accounting System operated by the Oklahoma State Department of Vocational and Technical Education provides information on three categories of manpower supply; i.e., high school vocational program graduates, post high school vocational program graduates, and adult vocational program graduates. The files for the Manpower Development Training Act (MDTA) and Comprehensive Employment and Training Act (CETA) graduates are maintained in the State Department office and are used as the source for "Federal" supply data.

The data entered into the tables in Chapter II for secondary and post secondary vocational and technical students are calculated in the following manner:

1. The first phase of the problem was to find the percentage of the 1973-74 students who have dropped out or completed each of the vocational programs and to find out how many are available for job placement. This was done by searching the Student Accounting System for:

    a. Those who dropped out of school and are employed full time in the field for which they were trained (Student Status Report, Code J)*

    b. The number of students who are unknown (Student Status, Code O)*

    c. Those who are not available for placement (Student Status Report, Codes E, F, H)*

    d. Those who are available for placement (Student Status Report, Codes A, B, C, D, I)*

e. The total number with completion response (Student Status Report, Codes A through L and O)*

f. The total number enrolled in the program for each occupational objective

The percentage of students who dropped out of school and are employed full time in the field for which they are trained or completed the program and were available for the labor market was calculated by:

$$PC = \frac{a + d}{a + d + b + C} \times \frac{f}{e}$$

If there was insufficient information to calculate the percentage, the percentage was based upon, "A Follow-Up Study of Graduates, 1974," Oklahoma Department of Vocational and Technical Education.

2. The second phase was to calculate the numbers of students available for the labor market by accumulating the number of students who completed the program (Student Status Report, Codes A through F, H, I)* from the 1973-74 Student Accounting System and multiplying it by the percentage worked out above for each occupational objective.

Secondary programs, other than vocational-technical programs, funded by the State Department of Vocational-Technical Education, provide input into the labor market. A survey of the Oklahoma City and Tulsa school systems was used as a sample for industrial arts programs. Nine statewide samples of schools were used in obtaining information on business and office training programs. Supply input has been calculated from the results of these surveys and is included in this publication.

The figures entered into the tables in Chapter II for adults are calculated by searching the Student Accounting System and other available records for:

g. The number of adult preparatory students,

h. The number of adult supplementary students in adult classes for each occupational objective

The formula used to calculate percentage available for the labor market was:

$$PC = \frac{g}{g+h} \times .89 \times \frac{\text{(Student Status codes ABCDI)}}{\text{(Student Status codes A through F, H, I)}}$$

The factor .89 was used to eliminate duplicated enrollment. The adult enrollment for 1973-74 was used to calculate the figures in the table in Chapter II.

One hundred percent of the graduates in the Federal programs is listed as available to the labor market.

Data on private school graduates were obtained from the license application required annually by House Bill 1403 and from telephone conversations with selected private schools' administrators. This licensing procedure is supervised by the State Accrediting Agency.

The Oklahoma Employment Security Commission provides the number of qualified registrants who are available to fill jobs listed in the OTIS Report.

The Oklahoma Board of Nurse Registration and Nurse Education and the Oklahoma State Department of Vocational and Technical Education provide data on the number of nurses who are available for the labor market.

Sub-Section Two - Manpower Demand

The primary data on manpower demand utilized in this report has been developed by the Oklahoma Employment Security Commission (OESC) based upon a comprehensive survey conducted during 1971 with an original sample of 2,633 firms. The firm listing included firms covered by the unemployment insurance laws and was augmented by a mixture of the larger non-covered establishments such as government agencies, hospitals, and other non-profit organizations. These firms were listed by industrial divisions in descending order by employment size. All of the establishments comprising the upper 50 percent of the industry's employment total were included in the survey. Of the remaining firms in the industry, 20 percent and 5 percent samples were selected from the third and fourth quartiles respectively. During June of 1971 questionnaires, job descriptions, and instructions were mailed to the surveyed firms. For the next two months, personal visits were made to the state's largest employers to solicit their cooperation. The OESC was able to survey 83.8 percent of the employment in the areas surveyed.

For the OTIS Cycle Seven Report, the data base was updated by the Research and Planning Division of OESC. Basically, the update consisted of reviewing the larger firms' employment changes. These were analyzed to see if they were following the previously

projected trend. Those establishments that varied from their forecast were contacted by OESC personnel to confirm the change and secure new projections. Furthermore, all newly established large firms were visited by OESC personnel to get employment information. This data was then incorporated into the data base and used to update the demand information.

The 1973 survey of health occupations which was conducted by the Oklahoma Employment Security Commission in conjunction with the Oklahoma State Department of Vocational and Technical Education was used to supplement the demand information. This survey sampled employers in the health occupations, such as hospitals, nursing homes, government agencies, and private practice. The Oklahoma Employment Security Commission combined all of the data from the agencies above and edited it in terms of known economic conditions to produce the figures interfaced in the manpower demand column of the tables.

Other manpower demand information has been developed by Jesse B. Mitchell, "Employment Opportunities and Educational Needs in Off-Farm Agri-Business Occupations in Oklahoma," State Department of Vocational and Technical Education, September, 1971, and by the Oklahoma State University Agricultural Economics Department's Farm Manpower projections.

CHAPTER II

MANPOWER SUPPLY AND DEMAND TABLES

How to Use the Tables

The Net Additional Manpower Requirements Table utilizes the clustering of related occupations which are matched with programs that train workers for those occupations. A cluster may contain one or more occupations and one or more types of programs. The occupations are identified by Dictionary of Occupational Titles codes and the programs are identified by U.S. Office of Education Codes. The occupations are indexed for statewide totals and Descending Ordering of Program Clusters tables on the last three pages of the report. Some of the clusters are limited by the form of available data; demand data on drafting is not reported by level of drafting skills needed and, therefore, all levels of training are interfaced against the aggregate demand for draftsmen.

The vocational and technical supply is subtracted from the demand to obtain demand minus vo-tech supply. When demand exceeds supply, the demand minus vo-tech supply is positive; where the demand is less than the supply, the demand minus supply is negative. The negative numbers are indicated in the tables by the negative sign (-). Other supply, such as Federal, private schools and OESC registrants will be considered when calculating the net manpower requirements.

Although many factors influence the choice of program offerings in any given situation, one of the major considerations is the demand for the graduates of the program. When planning new programs or selecting a possible future occupation, one should examine the net manpower requirements within the region where the program will be offered, in the adjacent regions, the net manpower requirements in the Standard Metropolitan Statistical Area (SMSA) closest to the region, and the statewide net manpower requirements. In addition, any factor which influences the local labor market such as new industry starts should be considered.

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 5									
*180.118.0 FIELDMAN	60								
*404.887.0 PRUNER--PICKER	80								
**409.163.0 FARM MANAGER	816								
*413.181.0 FEEDLOT WORKER	66								
**421.883.0 FARM HAND, GENERAL	64								
		1,025							010100 AGRICULTURAL PRODUCTION
TOTAL	1,086	1,025			61				
CLUSTER NO. 10									
162.158.0 BUYER (WHOLESALE/ RETAIL AGRI)	103							62	
*520.885.0 FEED/FERTILIIER MIXER	43								
		70							010200 AGRICULTURAL SUPPLIES/SERV-ICE
TOTAL	146	70			76			62	

*Employment Opportunities and Educational Needs in Off-Farm Agri-Business Occupations - Jesse Mitchell

**Oklahoma State University Farm Manpower Projections

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 15									
*599.885.0 MILL OPERATOR	51								
*624.281.0 AGRICULTURAL MECHANIC	227								
		610		1					010300 AGRICULTURAL MECHANICS
		23	3						179902 FARM MACHINERY REPAIR
TOTAL	278	633	3	1	-359				
CLUSTER NO. 20									
465.887.0 LIVESTOCK CARETAKER	89							26	
*919.887.0 YARDMAN	115								
		15							010400 AGRICULTURAL PRODUCTS
TOTAL	204	15			189			26	
CLUSTER NO. 25									
*142.081.0 FLORAL DESIGN	114						26		
*406.168.0 GREENHOUSE MAN	154								
407.884.0 GROUNDS KEEPER	168					11		48	
		16							010500 ORNAMENTAL HORTICULTURE
		22							040500 FLORISTRY
TOTAL	436	38			398	11	26	48	

*Employment Opportunities and Educational Needs in Off-Farm Agri-Business Occupations - Jesse Mitchell

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 30									
252.358.0 SERVICE SALESMAN	327	24						50	040100 ADVERTISING SERVICES
		28							040400 FINANCE AND CREDIT
TOTAL	327	52			275			50	
CLUSTER NO. 35									
165.068.0 PUBLIC RELATIONS	45	4						26	040100 ADVERTISING SERVICES
TOTAL	45	4			41			26	
CLUSTER NO. 40									
132.068.0 COPY WRITER	16	2						4	040100 ADVERTISING SERVICES
TOTAL	16	2			14			4	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 45									
260-289.0 SALES OCCUPATIONS (GOODS)	1,012							282	
290.478.0 SALES CLERK	2,596							575	
292.358.0 SALESMAN-DRIVER (ROUTEMAN)	240							85	
915.867.0 SERVICE STATION ATTENDANT	455							138	
		46							010200 AGRICULTURAL SUPPLIES/SERVICE
		127	6				39		040200 APPAREL AND ACCESSORIES
		27							040300 AUTOMOTIVE
		127		88					040600 FOOD DISTRIBUTION
		149							040800 GENERAL MERCHANDISE
		13							040900 HDW, BLDG, MAT, FARM SUPPLIES & EQP
		27							041000 HOME FURNISHING
		3							041200 INDUSTRIAL MARKETING
		4							041400 INTERNATIONAL TRADE
		22							041600 PETROLEUM
		11							041800 RECREATION AND TOURISM
		106	6						042000 RETAIL TRADE
		23							043100 WHOLESALE TRADE
									090204 HOME FURNISHING SERVICES
TOTAL	4,303	685	12	89	3,517		39	1,080	

22

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 50									
310.868.0 HOSTESS	138							21	
311.878.0 WAITRESS OR WAITER	1,674							595	
319.138.0 FOOD SERVICE SUPERVISOR	93							13	
		109							040700 FOOD SERVICES
		137							090203 FOOD MANAGEMENT PROD. & SERVICE
		27							172900 OTHER FOOD OCCUPATIONS
		35							172904 WAITER OR WAITRESS
TOTAL	1,905	308			1,597			629	
CLUSTER NO. 55									
242.368.0 HOTEL CLERK	220							38	
									041100 HOTEL AND LODGING
TOTAL	220				220			38	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 6C									
166.168.0 SPECIAL AGENT	47							17	
169.188.0 UNDERWRITER	51							14	
241.168.0 CLAIM ADJUSTER	48							24	
250.258.0 INSURANCE SALESMAN	172							47	041300 INSURANCE
TOTAL	318				318			102	
CLUSTER NO. 65									
191.287.0 REAL ESTATE APPRAISER	31							6	041700 REAL ESTATE
TOTAL	31				31			6	
CLUSTER NO. 7C									
162.158.1 PURCHASING AGENT	72	42	18	17				22	049900 DISTRIBUTIVE EDUCATION, OTHER
TOTAL	72	42	18	17	-5			22	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 75									
189.168.0 MANAGER, TRAINEE	298							127	
			102						049901 MID MANAGEMENT
TOTAL	298		102		196			127	
CLUSTER NO. 80									
079.378.1 DENTAL OFFICE ASSISTANT	126							40	
		73					50		070101 DENTAL ASSISTING
TOTAL	126	73			53		50	40	
CLUSTER NO. 85									
078.368.3 DENTAL HYGIENIST	25							8	
			8						070102 DENTAL HYGIENIST (ASSOC)
TOTAL	25		8		17			8	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 90									
078.381.0 MEDICAL LABORATORY ASSISTANT	107					16		11	
			67						070203 MEDICAL LABORATORY ASSISTING
TOTAL	107		67		40	16		11	
CLUSTER NO. 95									
100.388.0 MEDICAL RECORD LIBRARIAN	16								
		3		5					070210 MEDICAL RECORD TECHNICIAN
TOTAL	16	3		5	8				
CLUSTER NO. 100									
075.378.0 REGISTERED NURSE BACC,DIPL,ASSOC	840							46	
			227						070299 NURSING (BACCALAUREATE)
			124						070300 NURSING (DIPLOMA PROGRAM)
			286						070301 NURSING (ASSOCIATE DEGREE)
TOTAL	840		637		203			46	

26

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 105									
079.378.0 LICENSED PRACTICAL NURSE (L.P.N.)	774			537				110	070302 PRACTICAL (VOC) NURSING
TOTAL	774			537	237			110	
CLUSTER NO. 110									
355.878.0 NURSE AIDE	1,639	195		228			59	783	070303 NURSE ASST. (AID/ORDERLY)
TOTAL	1,639	195		228	1,216		59	783	
CLUSTER NO. 115									
355.878.1 PSYCHIATRIC AIDE	70							21	070304 PSYCHIATRIC AID
TOTAL	70				70			21	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 120									
079.378.2 SURGICAL TECHNICIAN	87							22	
			9	3					070305 SURGICAL TECHNICIAN
TOTAL	87		9	3	75			22	
CLUSTER NO. 125									
079.368.1 OCCUPATIONAL THERAPIST AIDE	14							5	
		2	5	6					070401 OCCUPATIONAL THERAPY ASST.
TOTAL	14	2	5	6	1			6	
CLUSTER NO. 130									
355.878.2 PHYSICAL THERAPIST AIDE	45							18	
		4	4						070402 PHYSICAL THERAPY ASST. (AID)
TOTAL	45	4	4		37			18	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 135									
078.368.2 RADIOLOGIC TECHNOLOGIST	72							7	
			62				99		070501 RADIOLOGIC TECH. (X-RAY)
TOTAL	72		62		10		99	7	
CLUSTER NO. 140									
079.378.3 ENVIRONMENTAL HEALTH TECH.	6								
			6						070721 ENVIRONMENTAL HEALTH TECH
TOTAL	6		6						
CLUSTER NO. 145									
078.368.0 E.E.G. TECHNICIAN	7								
									070901 E.E.G. TECHNICIAN
TOTAL	7				7				

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 150									
078.368.1 E.K.G. TECHNICIAN	18							7	070902 E.K.G. TECHNICIAN
TOTAL	18				18			7	
CLUSTER NO. 155									
079.368.0 INHALATION THERAPIST	44		47					10	070903 INHALATION THERAPY TECH.
TOTAL	44		47		-3			10	
CLUSTER NO. 160									
079.368.2 MEDICAL OFFICE ASSISTANT	101	68	4				90	50	070904 MEDICAL OFFICE ASSISTANT
			1						070914 MEDICAL ASSISTANT
TOTAL	101	68	5		28		90	50	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 165									
223.887.0 CENTRAL SUPPLY WORKER	38							7	070903 CENTRAL SUPPLY TECHNICIAN
TOTAL	38				38			7	
CLUSTER NO. 170									
355.878.4 MEDICAL EMERGENCY TECHNICIAN	30		30						070907 MEDICAL EMERGENCY TECH.
TOTAL	30		30						
CLUSTER NO. 175									
079.378.5 COMMUNITY MENTAL HEALTH WORKER	40		9					6	070915 COMMUNITY MENTAL HEALTH
TOTAL	40		9		31			6	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 180									
249.388.1 MEDICAL RECORD CLERK	55							7	079901 MEDICAL RECORD CLERK
TOTAL	55				55			7	
CLUSTER NO. 185									
219.388.1 WARD CLERK	181	1		3				27	079902 WARD CLERK
TOTAL	181	1		3	177			27	
CLUSTER NO. 190									
079.378.4 DIETARY TECHNICIAN	23		5					3	079911 DIETARY TECHNICIAN
TOTAL	23		5		18			3	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 195									
729.281.0 BIOMEDICAL ELECT. EQUIPMENT TECH.	6		5					1	079921 BIOMEDICAL ELECTRONIC EQUIP. TEC
TOTAL	6		5		1			1	
CLUSTER NO. 196									
712.381.0 DENTAL LABORATORY TECHNICIAN	52							9	070103 DENTAL LAB TECHNICIAN
TOTAL	52				52			9	
CLUSTER NO. 197									
078.381.1 NUCLEAR MEDICINE TECHNOLOGIST	6		11					2	070503 NUCLEAR MED TECHOLOGY
TOTAL	6		11		-5			2	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 198									
074.378.0 PHARMACY ASSISTANT	30							7	
TOTAL	30				30			7	
CLUSTER NO. 200									
359.878.0 NURSERY SCHOOL ATTENDANT	204							76	
		89	4						090201 CARE AND GUIDANCE OF CHILDREN
TOTAL	204	89	4		111			76	
CLUSTER NO. 205									
781.884.0 CUTTER (HAND OR MACHINE)	81							20	
785.381.0 SEAMSTRESS OR TAILOR	121							30	
786.782.0 SEWING MACHINE OPERATOR	1,874							417	
		98		9					090202 CLOTHING MGMT. PROD. & SERVICE
									090204 HOME FURNISHING SERVICES
		18							173302 TAILORING
TOTAL	2,076	116		9	1,951			467	

34

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 210									
321.138.0 HOUSEKEEPER	559	12					30	66	090205 INSTITUTIONAL & HOME MGMT. SERV
TOTAL	559	12			547		30	66	
CLUSTER NO. 215									
359.878.1 TEACHER AIDE	202							68	090201 CARE AND GUIDANCE OF CHILDREN
TOTAL	202				202			68	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 220									
160.288.0 COST ESTIMATOR	62							6	
168.288.0 CLAIMS EXAMINER	18							2	
186.168.0 BANK CASHIER	29							13	
209.388.1 STATEMENT CLERK	48							34	
210.388.0 BOOKKEEPER	674							251	
211.368.0 CASHIER	757							128	
212.368.0 BANKING TELLER	255							60	
215.388.0 BOOKKEEPING MACHINE OPERATOR	290							32	
215.488.0 PAYROLL CLERK	218							62	
217.388.0 TRANSIT CLERK	45							26	
219.488.0 ACCOUNTING CLERK	554							143	
249.368.0 CREDIT CLERK	45							12	
249.368.1 CLAIMS CLERK (INSURANCE)	93							17	
249.368.2 NEW ACCOUNT CLERK	66							9	
		44	15	71			446		140100 ACCOUNTING AND COMPUTING
TOTAL	3,154	44	15	71	3,024		446	805	
CLUSTER NO. 225									
213.000.0 DATA ENTRY EQUIPMENT OPERATOR	535							212	
		171	6	97			390		140200 BUSINESS DATA PROCESSING
TOTAL	535	171	6	97	261		390	212	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 230									
209.388.0 CLERK-TYPIST	1,207							419	
219.388.3 GENERAL OFFICE CLERK	1,791							678	
237.368.0 ADMITTING CLERK	56							19	
249.383.0 LOAN CLOSER	23							13	
		694		63			497		140300 GENERAL OFFICE CLERICAL OCCUP.
		120	30	107					140900 TYPING & RELATE OCCUPATIONS
TOTAL	3,077	814	30	170	2,063		497	1,131	
CLUSTER NO. 235									
235.862.0 TELEPHONE OPERATOR	319							101	
		30		4					140400 INFORM, COMMUNICATIONS OCCUP.
TOTAL	319	30		4	285			101	
CLUSTER NO. 240									
232.368.0 POST OFFICE CLERK	264							26	
233.388.0 MAIL CARRIER	198							20	
									140403 MAIL AND POSTAL CLERKS
TOTAL	462				462			46	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 245									
205.368.0 PERSONNEL CLERK	182	1						54	140600 PERSONNEL, TRAINING & RELATED
TOTAL	182	1			181			54	
CLUSTER NO. 250									
201.368.0 SECRETARY	1,780					71		475	
202.388.0 STENOGRAPHER	603	672	17	77		160	572	195	140700 SECRETARY OR STENOGRAPHER
TOTAL	2,383	672	17	77	1,617	231	572	670	
CLUSTER NO. 255									
162.288.0 TITLE CLERK	26	2	30	6				11	140800 SUPERVISORY & ADMIN. MGMT.
TOTAL	26	2	30	6	-12			11	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 260									
029.281.0 LABORATORY TESTER	97							10	160105 CHEMICAL TECHNOLOGY
TOTAL	97				97			10	
CLUSTER NO. 265									
005.181.0 CIVIL ENGINEERING TECHNICIAN	73							9	
018.188.0 SURVEYOR	66		2					10	160106 CIVIL TECHNOLOGY
TOTAL	139		2		137			19	
CLUSTER NO. 270									
003.181.0 ELECTRONICS TECHNICIAN	149							18	
003.181.1 ELECTRICAL TECHNICIAN	54							34	
			103						160107 ELECTRICITY 160108 ELECTRONIC TECHNOLOGY
TOTAL	203		103		100			52	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 275									
638.281.0 MAINTENANCE MECHANIC MILLWRIGHT	22								
710.281.1 ELECTROMECHANICAL TECHNICIAN	30							5	
		22	22						160109 ELECTROMECHANIC TECHNOLOGY
TOTAL	52	22	22		8			5	
CLUSTER NO. 280									
012.288.0 INDUSTRIAL ENGINEERING TECH.	53							7	
			4						160111 INDUSTRIAL TECHNOLOGY
TOTAL	53		4		49			7	
CLUSTER NO. 285									
710.281.0 INSTRUMENT REPAIRMAN	57							11	
			1						160112 INSTRUMENTATION TECHNOLOGY
			12	5					172100 INSTRUMENT MAINT. & REPAIR
TOTAL	57		13	5	39			11	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 290									
007.181.0 MECHANICAL ENGINEERING TECH	35							9	
019.281.0 QUALITY CONTROL TECHNICIAN	150							15	
			14						160113 MECHANICAL TECHNOLOGY
TOTAL	185		14		171			24	
CLUSTER NO. 295									
542.230.0 STILLMAN (PETROLEUM REFINING)	19							1	
549.380.0 PUMPMAN (PETROLEUM REFINING)	26							2	
									160116 PETROLEUM TECHNOLOGY
TOTAL	45				45			3	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 300									
001.281.0 DRAFTSMAN ARCHITECTURAL	39							20	
003.281.0 DRAFTSMAN ELECTRICAL	37							8	
003.281.1 DRAFTSMAN ELECTRONIC	12							6	
005.281.0 DRAFTSMAN CIVIL	36							10	
007.181.1 DIE DESIGNER	39							5	
007.281.0 DRAFTSMAN, MECHANICAL	186							47	
010.281.0 DRAFTSMAN, GEOLOGICAL	40							3	
017.281.0 DRAFTSMAN, MAP	20							6	
			47						160198 DRAFTING AND DESIGN
		148	26	47			160		171300 DRAFTING
TOTAL	409	148	73	47	141		160	105	
CLUSTER NO. 305									
020.188.0 BUSINESS PROGRAMMER	190							54	
213.382.1 DIGITAL COMPUTER OPERATOR	137							24	
219.388.2 PROGRAM CODER	203							44	
			73				22		160401 COMPUTER SCIENCE
TOTAL	530		73		457		22	122	

42

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 310									
139.288.0 TECHNICAL PUBLICATIONS WRITER	22							6	160699 TECHNICAL WRITING
TOTAL	22				22			6	
CLUSTER NO. 315									
637.281.0 AIR CONDITIONING MECHANIC	167					64		43	
		138	86	96			74		170100 AIR CONDITIONING
		10		47					173000 REFRIGERATION
TOTAL	167	148	86	143	-210	64	74	43	
CLUSTER NO. 320									
827.281.0 HOUSEHOLD APPLIANCE REPAIRMAN	99							23	
		16					125		170261 APPLIANCE REPAIR
TOTAL	99	16			83		125	23	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 325									
807.381.0 AUTO BODY REPAIRMAN	166					46		55	
845.781.0 AUTO PAINTER	63							22	
		169	30	44			26		
TOTAL	229	169	30	44	-14	46	26	77	170301 BODY AND FENDER
CLUSTER NO. 330									
620.281.0 AUTO MECHANIC	808					141		138	
620.281.1 AUTO - AIR CONDITIONING	70							10	
		747	99	120			75		
TOTAL	878	747	99	120	-88	141	75	148	170302 AUTO MECHANICS
CLUSTER NO. 335									
185.168.0 AUTO PARTS MANAGER	40							42	
223.387.0 AUTO PARTS CLERK	149							77	
		23							
		31	9						040300 AUTOMOTIVE
									170399 AUTOMOTIVE SERVICES
TOTAL	189	54	9		126			119	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 340									
621.281.0 AIRCRAFT AND ENGINE MECHANIC	66							55	
621.281.1 JET ENGINE MECHANIC	26							7	
621.781.0 AIRCRAFT ACCESSORIES MECHANIC	29						9	4	
		72		15			2		170401 AIRCRAFT MAINTENANCE
TOTAL	121	72		15	34		11	66	
CLUSTER NO. 345									
141.081.0 ILLUSTRATOR--COMMERCIAL ARTIST	47							27	
141.081.1 LAYOUT MAN (PRINT, & PUBLISHING)	27							8	
		21	32	3					170700 COMMERCIAL ART
TOTAL	74	21	32	3	18			35	
CLUSTER NO. 350									
143.062.0 PHOTOGRAPHER OR CAMERAMAN	50							14	
		13		18					170900 COMMERCIAL PHOTOGRAPY
TOTAL	50	13		18	19			14	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 355									
741.884.0 SPRAY PAINTER	175							35	
841.781.0 PAINTER OR PAPERHANGER	146							12	
860.381.0 CARPENTER	617							169	
899.381.0 MAINTENANCE MAN, BUILDING	293							114	
			42						160197 BUILDING CONSTRUCTION
		462		10					171001 CARPENTRY
TOTAL	1,231	462	42	10	717			330	
CLUSTER NO. 360									
321.381.0 LINEMAN	79							25	
822.381.0 TELEPHONE INSTALLER	65							31	
824.281.0 ELECTRICIAN	423							98	
829.381.0 CABLE SPLICER	21							7	
		32	81	18			90		171002 ELECTRICITY
		36		16					171400 ELECTRICIAN RELATED
TOTAL	588	68	81	34	405		90	161	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 365									
515.782.0 GRINDING MILL OPERATOR (MINING)	36								
859.883.0 HEAVY EQUIPMENT OPERATOR	292					23		118	
		8		13					171003 HEAVY EQUIPMENT
TOTAL	328	8		13	307	23		118	
CLUSTER NO. 370									
844.884.0 CEMENT MASON	116							52	
861.381.0 BRICKLAYER	282							72	
		66		2					171004 MASONRY
TOTAL	398	66		2	330			124	
CLUSTER NO. 375									
862.381.0 PLUMBER AND PIPEFITTER	222							66	
		12	35	8			55		171007 PLUMBING AND PIPEFITTING
TOTAL	222	12	35	8	167		55	66	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 380									
638.281.0 MAINTENANCE MECHANIC MILLWRIGHT								23	
801.781.0 STRUCTURAL STEEL WORKER	160							47	
809.381.0 LAYOUT MAN (STRUCTURAL)	50							15	
									171099 CONSTRUCTION & MAINT. TRADE
TOTAL	210				210			85	
CLUSTER NO. 383									
638.281.0 MAINTENANCE MECHANIC MILLWRIGHT	122								
				12					171099 CONSTRUCTION & MAINT. TRADE
TOTAL	122			12	110				
CLUSTER NO. 385									
382.884.0 JANITOR	531						30	199	
		28							171100 CUSTODIAL SERVICES
TOTAL	531	28			503		30	199	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 390									
625.281.0 DIESEL MECHANIC	293					15		46	
		103	66	7					171200 DIESEL MECHANICS
TOTAL	293	103	66	7	117	15		46	
CLUSTER NO. 395									
721.281.0 ELECTRIC MOTOR REPAIRMAN	71							9	
									171403 MOTOR REPAIRMAN
TOTAL	71				71			9	
CLUSTER NO. 400									
726.781.0 ELECTRONIC ASSEMBLER	290							346	
828.281.0 ELECTRONIC MECHANIC	74							52	
		84		95					171502 ELECTRONICS
TOTAL	364	84		95	185			398	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 405									
720.281.0 RADIO AND TV REPAIRMAN	116							36	
823.281.0 RADIO MECHANIC	39							15	
			22						160191 ELEC REPAIRMAN (RADIO/TV)
		60		47					171503 RADIO/TV
TOTAL	155	60	22	47	26			51	
CLUSTER NO. 410									
361.885.0 LAUNDRY PERSONNEL	226							21	
		2	1						171600 LAUNDERING & DRY CLEANING
TOTAL	226	2	1		223			21	
CLUSTER NO. 415									
132.288.0 COPY READER	15							2	
651.782.0 CYLINDER-PRESS MAN	48							7	
651.782.1 OFFSET-PRESS MAN	105							23	
		82	43	6					171902 PRINTING
TOTAL	168	82	43	6	37			32	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 420									
518.381.0 CUREMAKER	53							7	172301 FOUNDRY
TOTAL	53				53			7	
CLUSTER NO. 425									
600.280.0 MACHINIST	460						15	5	
600.381.0 LAYOUT MAN (MACHINE SHOP)	50							1	
601.280.0 TOOL AND DIE MAKERS	68							10	
601.280.1 TOOL MACHINE OPERATOR	75					52		3	
603.280.0 PRECISION GRINDER	78							6	
609.885.0 PRODUCTION MACHINE TOOL OPERATOR	531					39		34	
619.782.0 SHEAR OPERATOR	87							20	
705.684.0 BENCH GRINDER	123							9	
		129	30	66					172302 MACHINE SHOP
TOTAL	1,472	129	30	66	1,247	91	15	88	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 430									
806.731.0 AIRCRAFT-STRUCTURE ASSEMBLER	87							13	170401 AIRCRAFT MAINTENANCE
807.684.0 AIRCRAFT SUB-ASSEMBLY ASSEMBLER	78	38					20	12	172304 METAL TRADES, COMBINED
TOTAL	165	38			127		20	25	
CLUSTER NO. 435									
617.380.0 BRAKE OPERATOR	68							7	
619.360.0 METAL FABRICATOR	153							3	
804.281.0 SHEET METAL WORKER	279	38		30				51	172305 SHEET METAL
TOTAL	500	38		30	432			61	

52

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 440									
810.782.0 WELDING MACHINE OPERATOR	138							17	
810.884.0 WELDER, ARC						39	19		
812.884.0 WELDER, COMBINATION	837					215	41	1[illegible]5	
816.782.0 FLAME CUTTER MACHINE OPERATOR	30							6	
816.884.0 FLAME CUTTER, HAND	37							8	
		258		147			99		172306 WELDING AND CUTTING
TOTAL	1,042	258		147	637	254	159	157	
CLUSTER NO. 445									
500.380.0 PLATER (ELECTRO PLATING)	30							6	
									172399 METALWORKING
TOTAL	30				30			6	
CLUSTER NO. 450									
504.782.0 HEAT TREATER	43							3	
									160116 METALURGICAL TECHNOLOGY
									172400 METALURGY
TOTAL	43				43			3	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 455									
373.384.0 FIREMAN	121		29					20	160602 FIRE SAFETY 172801 FIREMAN TRAINING
TOTAL	121		29		92			20	
CLUSTER NO. 460									
375.268.0 POLICEMAN	171							31	
377.868.0 DEPUTY SHERIFF	34		12					3	160605 POLICE SCIENCE 172802 LAW ENFORCEMENT TRAINING
TOTAL	205		12		193			34	
CLUSTER NO. 465									
168.168.0 BUILDING INSPECTOR	27							9	172899 PUBLIC SERVICE OCCUPATIONS
TOTAL	27				27			9	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 470									
195.108.0 SOCIAL WORKER	121							59	172899 PUBLIC SERVICE OCCUPATIONS
TOTAL	121				121			59	
CLUSTER NO. 475									
195.228.0 RECREATION LEADER	75							34	172899 PUBLIC SERVICE OCCUPATIONS
TOTAL	75				75			34	
CLUSTER NO. 480									
526.781.0 BAKER	89							12	
			11						172901 BAKER
TOTAL	89		11		78			12	
CLUSTER NO. 485									
313.131.0 CHEF	55							16	
313.281.0 COOK	1,269					8		281	
		24	22						172902 COOK/CHEF
TOTAL	1,324	24	22		1,278	8		297	

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 490									
316.884.0 MEAT CUTTER	240							57	
525.381.0 BUTCHER, ALL ROUND	111							28	
525.884.0 BONER OR SKINNER	45							14	
		10		12			50		172903 BUTCHER (MEAT CUTTER)
TOTAL	396	10		12	374		50	99	
CLUSTER NO. 495									
318.887.0 DISHWASHER	651							424	172999 QUANTITY FOOD OCCUP., OTHER
TOTAL	651				651			424	
CLUSTER NO. 500									
625.281.1 SMALL ENGINE REPAIRMAN	226							59	
		54	17	53					173100 SMALL GASOLINE ENGINE REPAIR
TOTAL	226	54	17	53	102			59	

56

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 505									
950.782.0 STATIONARY ENGINEER	92							16	
952.782.0 POWER PLANT OPERATOR	49							9	
									173200 STATIONARY ENERGY SOURCES OCC
TOTAL	141				141			25	
CLUSTER NO. 510									
780.381.0 FURNITURE UPHOLSTERER	103							16	
		11	41	7					173500 UPHOLSTERY
TOTAL	103	11	41	7	44			16	
CLUSTER NO. 515									
660.280.0 CABINETMAKER	114							33	
669.330.0 MILLMAN	82							7	
763.381.0 FURNITURE FINISHER	87							8	
		2		25					173600 WOODWORKING
		39		23					173601 CABINET MAKING
TOTAL	283	41		48	194			48	

57

MANPOWER DEMAND AND SUPPLY
FISCAL 1974-75

STATEWIDE TOTALS

CLUSTERS OF OCCUPATIONS	DEMAND	VO-TECH SUPPLY			DEMAND MINUS VO-TECH SUPPLY	OTHER SUPPLY			CLUSTERS OF PROGRAMS
		SECONDARY	POST SECONDARY	ADULT		FEDERAL	PRIVATE SCHOOLS	DESC. REGISTR.	
CLUSTER NO. 525									
706.684.0 ASSEMBLER, METAL PRODUCTS	998							140	
				40					179900 TRADE AND INDUSTRIAL OCC.
TOTAL	998			40	958			140	
CLUSTER NO. 530									
184.168.0 TRAFFIC MANAGER	51							21	
902.883.0 DUMP TRUCK DRIVER	130							24	
904.883.0 TRACTOR TRAILER TRUCK DRIVER	366							152	
905.883.0 TRUCK DRIVER (HEAVY)	475							235	
906.883.0 TRUCK DRIVER (LIGHT)	504							154	
913.463.0 BUS DRIVER	214							45	
922.383.0 FORKLIFT OPERATOR	262							59	
929.887.0 MATERIAL HANDLER	1,108							246	
		15		46			20		179901 TRUCK DRIVER
TOTAL	3,110	15		46	3,049		20	936	
CLUSTER NO. 535									
899.281.0 MAINTENANCE MAN EQUIPMENT	388							25	171003 HEAVY EQUIPMENT
TOTAL	388				388			25	

CHAPTER III

A DESCENDING ORDERING OF PROGRAM CLUSTERS RANKED BY DEMAND MINUS VOCATIONAL-TECHNICAL SUPPLY

In this chapter a descending rank order of program clusters by demand minus vocational-technical supply is presented. The program cluster with the greatest net manpower demand is ranked one (1) and is followed in order by the program clusters with lesser demand.

It must be remembered that the net manpower demand figures are only projections not absolute values. Comparison of the ranks of specific clusters must be accompanied by an examination of the difference in net manpower demand between the clusters.

The rank ordering is provided as a simple analysis of the tables. It may be used to quickly identify program clusters by vocational and technical divisions in which training is needed on a statewide and/or regional basis.

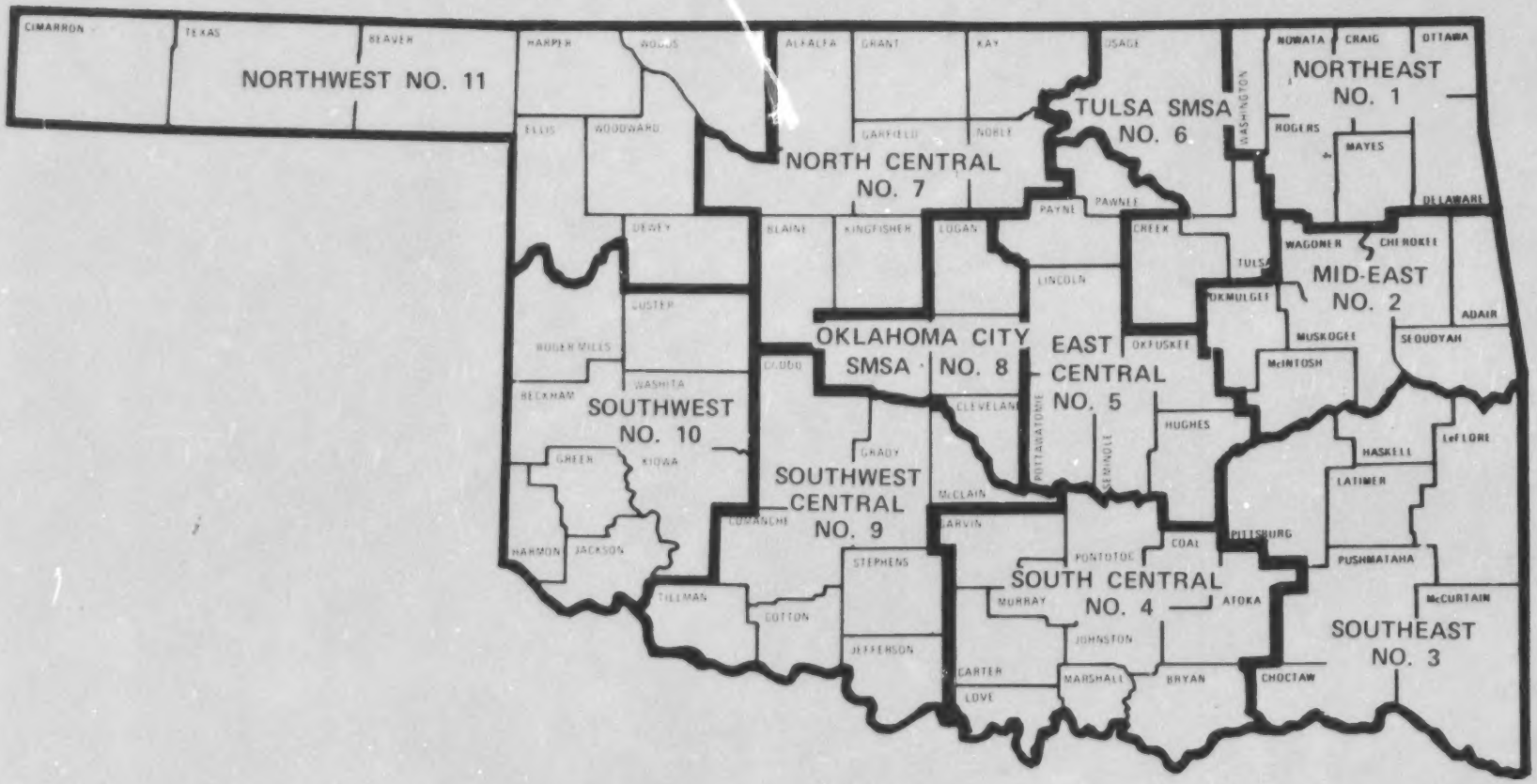


FIGURE 1: STATE PLANNING REGIONS USED IN INTERFACING

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	C. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
1	CLUSTER: 45												
	OCCUPATIONS:												
	260-289.0 SALES OCCUPATIONS (GOODS)												
	290.478.0 SALES CLERK												
	292.358.0 SALESMAN-DRIVER (ROUTEMAN)												
	915.867.0 SERVICE STATION ATTENDANT												
	PROGRAMS:												
	010200 AGRICULTURAL SUPPLIES/SERVICE												
	040200 APPAREL AND ACCESSORIES												
	040300 AUTOMOTIVE												
	040600 FOOD DISTRIBUTION												
	040300 GENERAL MERCHANDISE												
	040900 HDW. BLDG. MAT. FARM SUPPLIES & EQP												
	041000 HOME FURNISHING												
	041200 INDUSTRIAL MARKETING												
	041400 INTERNATIONAL TRADE												
	041600 PETROLEUM												
	041800 RECREATION AND TOURISM												
	042000 RETAIL TRADE												
	043100 WHOLESALE TRADE												
	030204 HOME FURNISHING SERVICES	3,517	17[illegible]	253	136	146	201	833	162	1,237	202	85	91

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
2	CLUSTER: 530												
	OCCUPATIONS:												
	184.167.0 TRAFFIC MANAGER												
	902.883.0 DUMP TRUCK DRIVER												
	904.883.0 TRACTOR TRAILER TRUCK DRIVER												
	905.883.0 TRUCK DRIVER (HEAVY)												
	906.883.0 TRUCK DRIVER (LIGHT)												
	913.463.0 BUS DRIVER												
	922.883.0 FORKLIFT OPERATOR												
	929.887.0 MATERIAL HANDLER												
	PROGRAMS:												
	179901 TRUCK DRIVER	3,049	202	150	103	125	186	823	151	982	178	94	55

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
3	CLUSTER: 220												
	OCCUPATIONS:												
	160.288.0 COST ESTIMATOR												
	165.288.0 CLAIMS EXAMINER												
	184.168.0 BANK CASHIER												
	209.388.1 STATEMENT CLERK												
	210.388.0 BOOKKEEPER												
	211.368.0 CASHIER												
	212.368.0 BANKING TELLER												
	215.388.0 BOOKKEEPING MA-CHINE OPERATOR												
	215.482.0 PAYROLL CLERK												
	217.388.0 TRANSIT CLERK												
	218.488.0 ACCOUNTING CLERK												
	240.388.0 CREDIT CLERK												
	240.368.1 CLAIMS CLERK (INSURANCE)												
	249.368.0 NEW ACCOUNT CLERK												
	PROGRAMS:												
	140100 ACCOUNTING AND COMPUTING	3,024	148	140	93	125	146	792	164	1,102	195	70	49
4	CLUSTER: 230												
	OCCUPATIONS:												
	305.362.0 CLERK-TYPIST												
	319.488.3 GENERAL OFFICE CLERK												
	337.368.0 ADMITTING CLERK												
	349.138.0 LOAN CLOSER												
	PROGRAMS:												
	140200 GENERAL OFFICE CLERICAL OPERA.												
	140000 TYPING & RELATE OCCUPATIONS	2,063	44	39	72	45	125	725	95	773	71	50	24

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
5	CLUSTER: 205												
	OCCUPATIONS:												
	781.884.0 CUTTER (HAND OR MACHINE)												
	785.381.0 SEAMSTRESS OR TAILOR												
	786.782.0 SEWING MACHINE OPERATOR												
	PROGRAMS:												
	090202 CLOTHING MGMT. PROD. & SERVICE												
	090204 HOME FURNISHING SERVICES												
	173302 TAILORING	- 1,951	179	64	126	213	304	114	169	225	218	106	233
6	CLUSTER: 250												
	OCCUPATIONS:												
	201.368.0 SECRETARY												
	202.388.0 STENOGRAPHER												
	PROGRAMS:												
	140700 SECRETARY OR STENOGRAPHER	1,617	36	56	32	56	85	483	55	708	34	50	22

64

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
7	CLUSTER: 50												
	OCCUPATIONS:												
	310.885.0 HOSTESS												
	311.678.0 WAITRESS OR WAITER												
	319.132.0 FOOD SERVICE SUPERVISOR												
	PROGRAMS:												
	040700 FOOD SERVICES												
	090203 FOOD MANAGEMENT PROD. & SERVICE												
	172900 OTHER FOOD OCCUPATIONS												
	172904 WAITER OR WAITRESS	1,597	97	201	94	94	100	290	116	338	130	78	59
8	CLUSTER: 495												
	OCCUPATIONS:												
	313.131.0 CHEF												
	313.361.0 COOK												
	PROGRAMS:												
	172932 COOK/CHEF	1,278	44	75	36	63	31	341	72	481	80	36	19

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
9	CLUSTER: 425												
	OCCUPATIONS:												
	600.280.0 MACHINIST												
	600.381.0 LAYOUT MAN (MACHINE SHOP)												
	601.230.0 TOOL AND DIE MAKERS												
	601.280.1 TOOL MACHINE OPERATOR												
	603.280.0 PRECISION GRINDER												
	609.885.0 PRODUCTION MACHINE TOOL OPERATOR												
	615.782.0 SHEAR OPERATOR												
	705.884.0 BENCH GRINDER												
	PROGRAMS:												
	172302 MACHINE SHOP	1,247	195	74	23	50	85	426	132	238	13	7	4
10	CLUSTER: 110												
	OCCUPATIONS:												
	355.878.0 NURSE AIDE												
	PROGRAMS:												
	070303 NURSE ASST. (AID/ORDERLY)	1,216	11	90	46	136	101	290	53	313	62	60	54
11	CLUSTER: 525												
	OCCUPATIONS:												
	706.884.0 ASSEMBLER, METAL PRODUCTS												
	PROGRAMS:												
	179900 TRADE AND INDUSTRIAL OCC.	958	195	26	9	8	54	235	221	153	65	-13	5

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
12	CLUSTER: 355												
	OCCUPATIONS:												
	741.684.0 SPRAY PAINTER												
	841.781.0 PAINTER OR PAPERHANGER												
	860.381.0 CARPENTER												
	899.381.0 MAINTENANCE MAN, BUILDING												
	PROGRAMS:												
	160107 BUILDING CONSTRUCTION												
	170201 CARPENTRY	717	-8	-33	-29	16	25	245	70	353	54	17	7
13	CLUSTER: 499												
	OCCUPATIONS:												
	318.687.0 DISHWASHER												
	PROGRAMS:												
	172999 QUANTITY FOOD OCCUP., OTHER	651	32	40	23	27	30	175	29	226	41	17	11

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
14	CLUSTER: 440												
	OCCUPATIONS:												
	810.782.0 WELDING MACHINE OPERATOR												
	810.884.0 WELDER, ARC												
	812.884.0 WELDER, COMBINATION												
	816.782.0 FLAME CUTTER MACHINE OPERATOR												
	815.884.0 FLAME CUTTER, HAND												
	PROGRAMS:												
	172306 WELDING AND CUTTING	637	28	64	33	21	14	310	64	63	6	13	21
15	CLUSTER: 210												
	OCCUPATIONS:												
	321.138.0 HOUSEKEEPER												
	PROGRAMS:												
	090205 INSTITUTIONAL & HOME MGMT. SERV	547	18	40	15	19	30	159	18	177	36	22	13
16	CLUSTER: 385												
	OCCUPATIONS:												
	382.884.0 JANITOR												
	PROGRAMS:												
	171100 CUSTODIAL SERVICES	503	24	28	16	23	21	151	26	168	30	11	5

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
17	CLUSTER: 240												
	OCCUPATIONS:												
	232.368.0 POST OFFICE CLERK												
	233.388.0 MAIL CARRIER												
	PROGRAMS:												
	140403 MAIL AND POSTAL CLERKS	462	17	25	10	11	13	133	12	204	23	10	4
18	CLUSTER: 305												
	OCCUPATIONS:												
	020.188.0 BUSINESS PROGRAMMER												
	213.382.1 DIGITAL COMPUTER OPERATOR												
	219.368.2 PROGRAM CODER												
	PROGRAMS:												
	160401 COMPUTER SCIENCE	457	12	-7	-2	4	8	217	11	210	3	1	
19	CLUSTER: 435												
	OCCUPATIONS:												
	617.380.0 BRAKE OPERATOR												
	619.380.0 METAL FABRICATOR												
	804.281.0 SHEET METAL WORKER												
	PROGRAMS:												
	172305 SHEET METAL	432	41	15	15	20	30	140	29	111	24	3	4

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
20	CLUSTER: 360												
	OCCUPATIONS:												
	821.361.0 LINEMAN												
	822.381.0 TELEPHONE INSTALLER												
	824.261.0 ELECTRICIAN												
	829.381.0 CABLE SPLICER												
	PROGRAMS:												
	171002 ELECTRICITY												
	171400 ELECTRICIAN RELATED	405	9	8	20	29	23	72	30	144	41	18	9
21	CLUSTER: 25												
	OCCUPATIONS:												
	142.061.0 FLORAL DESIGN												
	405.168.0 GREENHOUSE MAN												
	407.884.0 GROUNDS KEEPER												
	PROGRAMS:												
	010600 ORNAMENTAL HORTICULTURE												
	040500 FLORISTRY	398	15	45	9	40	14	88	36	110	23	8	10
22	CLUSTER: 535												
	OCCUPATIONS:												
	899.281.0 MAINTENANCE MAN EQUIPMENT	388	34	16	19	21	23	113	26	89	29	11	7

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
23	CLUSTER: 490												
	OCCUPATIONS:												
	316.884.0 MEAT CUTTER												
	525.381.0 BUTCHER, ALL ROUND												
	525.684.0 BONER OR SKINNER												
	PROGRAMS:												
	172903 BUTCHER (MEAT CUTTER)	374	11	28	12	21	12	88	14	165	18	-4	9
24	CLUSTER: 370												
	OCCUPATIONS:												
	844.884.0 CEMENT MASON												
	861.381.0 BRICKLAYER												
	PROGRAMS:												
	171004 MASONRY	330	16	-22	25	21	23	72	26	98	29	20	22
25	CLUSTER: 60												
	OCCUPATIONS:												
	165.168.0 SPECIAL AGENT												
	169.168.0 UNDERWRITER												
	241.168.0 CLAIM ADJUSTER												
	250.258.0 INSURANCE SALESMAN												
	PROGRAMS:												
	041300 INSURANCE	318	16	10	5	9	10	88	15	147	12	5	1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
26	CLUSTER: 365												
	OCCUPATIONS:												
	515.782.0 GRINDING MILL OPERATOR (MINING)												
	859.883.0 HEAVY EQUIPMENT OPERATOR												
	PROGRAMS:												
	171003 HEAVY EQUIPMENT	307	12	17	16	24	21	59	24	96	22	9	7
27	CLUSTER: 235												
	OCCUPATIONS:												
	235.862.0 TELEPHONE OPERATOR												
	PROGRAMS:												
	180400 INFORM. COMMUNICATIONS OCCUP.	285	19	24	10	14	15	59	16	111	25	-12	4
28	CLUSTER: 30												
	OCCUPATIONS:												
	252.358.0 SERVICE SALESMAN												
	PROGRAMS:												
	040100 ADVERTISING SERVICES												
	040400 FINANCE AND CREDIT	275	20	24	11	8	11	71	10	100	12	4	4

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
29	CLUSTER: 225												
	OCCUPATIONS:												
	213.000.0 DATA ENTRY EQUIPMENT OPERATOR												
	PROGRAMS:												
	140200 BUSINESS DATA PROCESSING	261	46	14	8	-5	6	82	-4	120	-11	5	
30	CLUSTER: 105												
	OCCUPATIONS:												
	079.378.0 LICENSED PRACTICAL NURSE (L.P.N.)												
	PROGRAMS:												
	070302 PRACTICAL (VOC) NURSING	237	-20	3	5	57	36	67	18	36	23		12
31	CLUSTER: 410												
	OCCUPATIONS:												
	361.885.0 LAUNDRY PERSONNEL												
	PROGRAMS:												
	171600 LAUNDERING & DRY CLEANING	223	10	12	8	13	13	48	14	61	21	14	9

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
32	CLUSTER: 55												
	OCCUPATIONS:												
	242.363.0 HOTEL CLERK												
	PROGRAMS:												
	041100 HOTEL AND LODGING	220	9	16	7	8	10	53	10	79	12	11	5
33	CLUSTER: 380												
	OCCUPATIONS:												
	638.281.0 MAINTENANCE MECHANIC MILLWRIGHT												
	801.781.0 STRUCTURAL STEEL WORKER												
	809.381.0 LAYOUT MAN (STRUCTURAL)												
	PROGRAMS:												
	171099 CONSTRUCTION & MAINT. TRADE	210	20	8	9	6	27	53	12	65	7	2	1
34	CLUSTER: 100												
	OCCUPATIONS:												
	075.374.0 REGISTERED NURSE BACC,DIPL,ASSOC												
	PROGRAMS:												
	070299 NURSING (BACCALAUREATE)												
	070300 NURSING (DIPLOMA PROGRAM)												
	070301 NURSING (ASSOCIATE DEGREE)	203	21	20	17	1	14	25	22	10	16	26	31

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
35	CLUSTER: 215												
	OCCUPATIONS:												
	359.878.1 TEACHER AIDE	202	9	14	11	16	17	31	17	48	23	10	6
36	CLUSTER: 75												
	OCCUPATIONS:												
	189.168.0 MANAGER, TRAINEE												
	PROGRAMS:												
	049001 MID MANAGEMENT	196	-29	24	5	10	17	56	7	89	17	-5	5
37	CLUSTER: 515												
	OCCUPATIONS:												
	660.280.0 CABINETMAKER												
	669.380.0 MILLMAN												
	763.381.0 FURNITURE FINISHER												
	PROGRAMS:												
	173600 WOODWORKING												
	173601 CABINET MAKING	194	10	-3	-7	22	7	46	10	66	16	24	3
38	CLUSTER: 460												
	OCCUPATIONS:												
	375.268.0 POLICEMAN												
	377.668.0 DEPUTY SHERIFF												
	PROGRAMS:												
	180605 POLICE SCIENCE												
	172602 LAW ENFORCEMENT TRAINING	193	8	13	4	10	8	58	8	69	10	3	2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
39	CLUSTER: 20												
	OCCUPATIONS:												
	466.887.0 LIVESTOCK CARETAKER												
	919.887.0 YARDMAN												
	PROGRAMS:												
	010600 AGRICULTURAL PRODUCTS	189	1	5	63	7		21	12	45	5	16	14
40	CLUSTER: 400												
	OCCUPATIONS:												
	726.781.0 ELECTRONIC ASSEMBLER												
	828.281.0 ELECTRONIC MECHANIC												
	PROGRAMS:												
	171502 ELECTRONICS	185	21	31	28	37	16	5	-1	42	1	5	
41	CLUSTER: 245												
	OCCUPATIONS:												
	205.368.0 PERSONNEL CLERK												
	PROGRAMS:												
	140600 PERSONNEL, TRAINING & RELATED	181	9	7	3	5	11	52	5	74	10	3	2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
42	CLUSTER: 185												
	OCCUPATIONS:												
	219.388.1 WARD CLERK												
	PROGRAMS:												
	079002 WARD CLERK	177	9	12	4	16	13	41	5	59	9	4	5
43	CLUSTER: 290												
	OCCUPATIONS:												
	007.181.0 MECHANICAL ENGINEERING TECH												
	019.281.0 QUALITY CONTROL TECHNICIAN												
	PROGRAMS:												
	160113 MECHANICAL TECHNOLOGY	171	-5	2	1	6	7	51	10	93	3	2	1
44	CLUSTER: 375												
	OCCUPATIONS:												
	862.381.0 PLUMBER AND PIPEFITTER												
	PROGRAMS:												
	171007 PLUMBING AND PIPEFITTING	167	11	1	11	10	20	16	16	45	18	12	7

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
45	CLUSTER: 300												
	OCCUPATIONS:												
	001.281.0 DRAFTSMAN ARCHITECTURAL												
	003.281.0 DRAFTSMAN ELECTRICAL												
	003.281.1 DRAFTSMAN ELECTRONIC												
	005.281.0 DRAFTSMAN CIVIL												
	007.181.1 DIE DESIGNER												
	007.281.0 DRAFTSMAN, MECHANICAL												
	010.281.0 DRAFTSMAN, GEOLOGICAL												
	017.281.0 DRAFTSMAN, MAP												
	PROGRAMS:												
	160199 DRAFTING AND DESIGN												
	171300 DRAFTING	141	-6	-8	-13	-2	-4	69	5	138	-40	1	1
45	CLUSTER: 505												
	OCCUPATIONS:												
	950.782.0 STATIONARY ENGINEER												
	952.782.0 POWER PLANT OPERATOR												
	PROGRAMS:												
	173200 STATIONARY ENERGY SOURCES OCC	141	9	10	5	3	7	34	10	47	12	3	1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
47	CLUSTER: 265												
	OCCUPATIONS:												
	005.181.0 CIVIL ENGINEERING TECHNICIAN												
	018.188.0 SURVEYOR												
	PROGRAMS:												
	160106 CIVIL TECHNOLOGY	137	4	3	4	9	7	36	6	55	9	4	
48	CLUSTER: 430												
	OCCUPATIONS:												
	806.781.0 AIRCRAFT-STRUCTURE ASSEMBLER												
	807.884.0 AIRCRAFT SUB-ASSEMBLY ASSEMBLER												
	PROGRAMS:												
	170401 AIRCRAFT MAINTENANCE												
	172304 METAL TRADES, COMBINED	127		-2				54	-3	83	-3		
49	CLUSTER: 335												
	OCCUPATIONS:												
	185.168.0 AUTO PARTS MANAGER												
	223.387.0 AUTO PARTS CLERK												
	PROGRAMS:												
	040300 AUTOMOTIVE 170399 AUTOMOTIVE SERVICES	126	4	6	1	5	6	21	2	73	10	-4	2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
50	CLUSTER: 470												
	OCCUPATIONS:												
	195.108.0 SOCIAL WORKER												
	PROGRAMS:												
	172879 PUBLIC SERVICE OCCUPATIONS	121	3	10	13	9	8	17	4	39	12	4	2
51	CLUSTER: 390												
	OCCUPATIONS:												
	625.281.0 DIESEL MECHANIC												
	PROGRAMS:												
	171200 DIESEL MECHANICS	117	10	14	9	4	12	33	-1	47	-12	9	-8
52	CLUSTER: 200												
	OCCUPATIONS:												
	359.878.0 NURSERY SCHOOL ATTENDANT												
	PROGRAMS:												
	090201 CARE AND GUIDANCE OF CHILDREN	111	-2	10	-1	8	7	36	11	35	9	-6	4

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
53	CLUSTER: 383												
	OCCUPATIONS:												
	638.281.0 MAINTENANCE MECHANIC MILLWRIGHT												
	PROGRAMS:												
	171099 CONSTRUCTION & MAINT. TRADE	110	18	11	14	8	3	15	11	25	2	3	
54	CLUSTER: 500												
	OCCUPATIONS:												
	625.281.1 SMALL ENGINE REPAIRMAN												
	PROGRAMS:												
	173100 SMALL GASOLINE ENGINE REPAIR	102	6	-2	7	8	-6	41	2	57	-15	3	1
55	CLUSTER: 270												
	OCCUPATIONS:												
	003.181.0 ELECTRONICS TECHNICIAN												
	003.181.1 ELECTRICAL TECHNICIAN												
	PROGRAMS:												
	160107 ELECTRICITY 160108 ELECTRONIC TECHNOLOGY	100	13	-1	-4	1	-23	65	-2	59	-5	-3	

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
56	CLUSTER: 260												
	OCCUPATIONS:												
	029.281.0 LABORATORY TESTER												
	PROGRAMS:												
	160105 CHEMICAL TECHNOLOGY	97	6	4	2	5	8	27	16	19	6	3	1
57	CLUSTER: 455												
	OCCUPATIONS:												
	373.884.0 FIREMAN												
	PROGRAMS:												
	160502 FIRE SAFETY 172801 FIREMAN TRAINING	92	4	5	2	5	-14	30	5	45	7	2	1
58	CLUSTER: 320												
	OCCUPATIONS:												
	827.281.0 HOUSEHOLD APPLIANCE REPAIR												
	PROGRAMS:												
	170201 APPLIANCE REPAIR	83	4	7	4	3	2	22	7	25	5	3	1
59	CLUSTER: 480												
	OCCUPATIONS:												
	526.781.0 BAKER												
	PROGRAMS:												
	172901 BAKER	78	3		2	7	4	18	5	29	7	2	1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
60	CLUSTER: 10												
	OCCUPATIONS:												
	162.158.0 BUYER (WHOLESALE/ RETAIL AGRI)												
	520.885.0 FEED/FERTILIIER MIXER												
	PROGRAMS:												
	010200 AGRICULTURAL SUPPLIES/SERV-ICE	76	6	6		4	1	10	13	32	8	-3	-1
61	CLUSTER: 120												
	OCCUPATIONS:												
	079.378.2 SURGICAL TECHNICIAN												
	PROGRAMS:												
	070305 SURGICAL TECHNICIAN	75	1	8	3	5	7	17	3	15	8	4	4
61	CLUSTER: 475												
	OCCUPATIONS:												
	195.228.0 RECREATION LEADER												
	PROGRAMS:												
	172899 PUBLIC SERVICE OCCUPATIONS	75	4	6	3	7	7	13	6	19	5	3	2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
63	CLUSTER: 395												
	OCCUPATIONS:												
	721.281.0 ELECTRIC MOTOR REPAIRMAN												
	PROGRAMS:												
	171403 MOTOR REPAIRMAN	71	4	6	3	2	4	18	3	27	2	1	1
64	CLUSTER: 115												
	OCCUPATIONS:												
	355.878.1 PSYCHIATRIC AIDE												
	PROGRAMS:												
	070304 PSYCHIATRIC AID	70	24					3		16			27
65	CLUSTER: 5												
	OCCUPATIONS:												
	180.118.0 FIELDMAN												
	404.887.0 PRUNER--PICKER												
	409.168.0 FARM MANAGER												
	413.181.0 FEEDLOT WORKER												
	421.883.0 FARM HAND, GENERAL												
	PROGRAMS:												
	010100 AGRICULTURAL PRODUCTION	61	29	49	24	-23	-69	8	73	-21	-35	27	-1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
66	CLUSTER: 180												
	OCCUPATIONS:												
	249.388.1 MEDICAL RECORD CLERK												
	PROGRAMS:												
	079901 MEDICAL RECORD CLERK	55	5	6	1	7	6	8	3	9	6	3	1
67	CLUSTER: 80												
	OCCUPATIONS:												
	079.378.1 DENTAL OFFICE ASSISTANT												
	PROGRAMS:												
	070101 DENTAL ASSISTING	53	7	8	5	9	10	6	-2	-2	4	5	3
67	CLUSTER: 420												
	OCCUPATIONS:												
	518.381.0 COREMAKER												
	PROGRAMS:												
	172301 FOUNDRY	53	22	3		2	1	11	9	5			
69	CLUSTER: 196												
	OCCUPATIONS:												
	712.381.0 DENTAL LABORATORY TECHNICIAN	52	1	2		1	2	23	1	21	1		

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
70	CLUSTER: 280												
	OCCUPATIONS:												
	012.288.0 INDUSTRIAL ENGINEERING TECH.												
	PROGRAMS:												
	150111 INDUSTRIAL TECHNOLOGY	49	3	1	1	1	2	18	1	18	4		
71	CLUSTER: 295												
	OCCUPATIONS:												
	542.280.0 STILLMAN (PETROLEUM REFINING)												
	549.380.0 PUMPMAN (PETROLEUM REFINING)												
	PROGRAMS:												
	160116 PETROLEUM TECHNOLOGY	45	3			7		14	10	5	2	3	1
72	CLUSTER: 510												
	OCCUPATIONS:												
	780.381.0 FURNITURE UPHOLSTERER												
	PROGRAMS:												
	173500 UPHOLSTERY	44	11	-13	5	19	4	9	6	8	-8	2	1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
73	CLUSTER: 450												
	OCCUPATIONS:												
	504.732.0 HEAT TREATER												
	PROGRAMS:												
	160114 METALURGICAL TECHNOLOGY												
	172400 METALURGY	43	9	5		2		13	5	8	1		
74	CLUSTER: 35												
	OCCUPATIONS:												
	165.068.0 PUBLIC RELATIONS												
	PROGRAMS:												
	049100 ADVERTISING SERVICES	41	1		1	1	1	12	1	21	2	1	
75	CLUSTER: 90												
	OCCUPATIONS:												
	078.381.0 MEDICAL LABORATORY ASSISTANT												
	PROGRAMS:												
	070203 MEDICAL LABORATORY ASSISTING	40	3	7	5	4	-1	17	-4	7	11	-12	3

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
75	CLUSTER: 285												
	OCCUPATIONS:												
	710.281.0 INSTRUMENT REPAIRMAN												
	PROGRAMS:												
	160112 INSTRUMENTATION TECHNOLOGY												
	172100 INSTRUMENT MAINT. & REPAIR	39	3	1	1	1	3	20	2	4	2	2	
76	CLUSTER: 165												
	OCCUPATIONS:												
	223.887.0 CENTRAL SUPPLY WORKER												
	PROGRAMS:												
	070905 CENTRAL SUPPLY TECHNICIAN	38	1	2	1	1	2	10	2	13	4	2	
77	CLUSTER: 130												
	OCCUPATIONS:												
	355.878.2 PHYSICAL THERAPIST AIDE												
	PROGRAMS:												
	070402 PHYSICAL THERAPY ASST. (AID)	37	4	3	1	3	3	6	3	4	5	3	2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
77	CLUSTER: 415												
	OCCUPATIONS:												
	132.286.0 COPY READER												
	651.782.0 CYLINDER-PRESS MAN												
	651.782.1 OFFSET-PRESS MAN												
	PROGRAMS:												
	171902 PRINTING	37	6	9	3	3	-1	-5	1	29	-10	1	1
78	CLUSTER: 340												
	OCCUPATIONS:												
	621.281.0 AIRCRAFT AND ENGINE MECHANIC												
	621.281.1 JET ENGINE MECHANIC												
	621.281.0 AIRCRAFT ACCESSORIES MECHANIC												
	PROGRAMS:												
	170401 AIRCRAFT MAINTENANCE	34	1	-2	1	2	-10	18	10	16	-1		-1
79	CLUSTER: 175												
	OCCUPATIONS:												
	079.378.5 COMMUNITY MENTAL HEALTH WORKER												
	PROGRAMS:												
	070915 COMMUNITY MENTAL HEALTH	31	1	4	5	3	2	13	8	8	2	1	

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
79	CLUSTER: 65												
	OCCUPATIONS:												
	191.287.0 REAL ESTATE APPRAISER												
	PROGRAMS:												
	041700 REAL ESTATE	31	2	2	2	1	3	5	2	11	2	1	
80	CLUSTER: 198												
	OCCUPATIONS:												
	074.378.0 PHARMACY ASSISTANT	30	3	4	1	2	2	5	2	8	2	1	
80	CLUSTER: 445												
	OCCUPATIONS:												
	500.380.0 PLATER (ELECTRO PLATING)												
	PROGRAMS:												
	172399 METALWORKING	30		3			2	12		11	2		
81	CLUSTER: 160												
	OCCUPATIONS:												
	079.368.2 MEDICAL OFFICE ASSISTANT												
	PROGRAMS:												
	070904 MEDICAL OFFICE ASSISTANT												
	070914 MEDICAL ASSISTANT	28	7	5	4	6	2	4	-4	12	-13	2	3

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND M US VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
82	CLUSTER: 465												
	OCCUPATIONS:												
	168.168.0 BUILDING INSPECTOR												
	PROGRAMS:												
	172899 PUBLIC SERVICE OCCUPATIONS	27	2	2	1	1	2	6	2	7	3	1	
83	CLUSTER: 405												
	OCCUPATIONS:												
	720.281.0 RADIO AND TV REPAIRMAN												
	828.281.0 RADIO MECHANIC												
	PROGRAMS:												
	160191 ELEC REPAIRMAN (RADIO/TV)												
	171603 RADIO/TV	26	-9	5	3	1	5	16		7	-10	4	4
84	CLUSTER: 310												
	OCCUPATIONS:												
	139.288.0 TECHNICAL PUBLICATIONS WRITER												
	PROGRAMS:												
	160699 TECHNICAL WRITING	22	1					8		13			

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
85	CLUSTER: 350												
	OCCUPATIONS:												
	143.062.0 PHOTOGRAPHER OR CAMERAMAN												
	PROGRAMS:												
	170900 COMMERCIAL PHOTOGRAPY	19	-9		1	1	2	4	1	22	-1	-2	
86	CLUSTER: 150												
	OCCUPATIONS:												
	078.368.1 E.K.G. TECHNICIAN												
	PROGRAMS:												
	070902 E.K.G. TECHNICIAN	18		2	1	1	1	3	1	7	1	1	
86	CLUSTER: 190												
	OCCUPATIONS:												
	079.378.4 DIETARY TECHNICIAN												
	PROGRAMS:												
	079911 DIETARY TECHNICIAN	18	3	3				6	1	2	2		1

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND - MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
86	CLUSTER: 345												
	OCCUPATIONS:												
	141.081.0 ILLUSTRATOR--COMMERCIAL ARTIST												
	141.081.1 LAYOUT MAN (PRINT. & PUBLISHING)												
	PROGRAMS:												
	170700 COMMERCIAL ART	18	2	2		1		-3		26	-10		
89	CLUSTER: 85												
	OCCUPATIONS:												
	078.368.1 DENTAL HYGIENIST												
	PROGRAMS:												
	070102 DENTAL HYGIENIST (ASSOC)	17	1	2	1	3	3	4	2	-3	2	1	1
90	CLUSTER: 40												
	OCCUPATIONS:												
	132.088.0 COPY WRITER												
	PROGRAMS:												
	040100 ADVERTISING SERVICES	14	1	1			1	3	1	8	1		

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
91	CLUSTER: 135												
	OCCUPATIONS:												
	078.368.0 RADIOLOGIC TECHNOLOGIST												
	PROGRAMS:												
	070501 RADIOLOGIC TECH. (X-RAY)	10	3	5	2	3	4	-1	3	-6	5	-9	1
92	CLUSTER: 95												
	OCCUPATIONS:												
	100.388.0 MEDICAL RECORD LIBRARIAN												
	PROGRAMS:												
	070210 MEDICAL RECORD TECHNICIAN	8	1	1	1	1	1	1	2	1	-2	1	
92	CLUSTER: 275												
	OCCUPATIONS:												
	638.281.0 MAINTENANCE MECHANIC MILLWRIGHT												
	710.281.1 ELECTROMECHANICAL TECHNICIAN												
	PROGRAMS:												
	100109 ELECTROMECHANIC TECHNOLOGY	8	4	5	1	-2	4	-15		10		1	

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
94	CLUSTER: 145												
	OCCUPATIONS:												
	019.384.0 R.F.G. TECHNICIAN												
	PROGRAMS:												
	470201 R.F.G. TECHNICIAN		7	2			1	2		2			
95	CLUSTER: 129												
	OCCUPATIONS:												
	079.368.0 OCCUPATIONAL THERAPIST AIDE												
	PROGRAMS:												
	470401 OCCUPATIONAL THERAPY ASST.		1	1		-5		4	1	-1			1
95	CLUSTER: 159												
	OCCUPATIONS:												
	019.261.0 BIOMEDICAL ELECT. EQUIPMENT TECH.												
	PROGRAMS:												
	479931 BIOMEDICAL ELECTRONIC EQUIP. TEC		1	1				2		-2			

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
97	CLUSTER: 140												
	OCCUPATIONS:												
	079.378.3 ENVIRONMENTAL HEALTH TECH.												
	PROGRAMS:												
	070721 ENVIRONMENTAL HEALTH TECH	0						-2		2			
97	CLUSTER: 170												
	OCCUPATIONS:												
	355.878.4 MEDICAL EMERGENCY TECHNICIAN												
	PROGRAMS:												
	070907 MEDICAL EMERGENCY TECH.	0	-14	2	4	7	2	4	1	-6			
99	CLUSTER: 155												
	OCCUPATIONS:												
	079.368.0 INHALATION THERAPIST												
	PROGRAMS:												
	070903 INHALATION THERAPY TECH.	3	3	3	2	2	4	10	3	37	6	1	

96

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. C. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
100	CLUSTER: 70												
	OCCUPATIONS:												
	162.156.1 PURCHASING AGENT												
	PROGRAMS:												
	040900 DISTRIBUTIVE EDUCATION,OTHER	-5	-10	1	1		-7	18	-3	3	1	-9	
100	CLUSTER: 197												
	OCCUPATIONS:												
	078.381.1 NUCLEAR MEDICINE TECHNOLOGIST												
	PROGRAMS:												
	070503 NUCLEAR MED TECHOLOGY	-5		1		1	-11	2		2			
102	CLUSTER: 255												
	OCCUPATIONS:												
	162.288.0 TITLE CLERK												
	PROGRAMS:												
	140800 SUPERVISORY & ADMIN. MGMT.	-12		-5	-17	-6		4		10	2		

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
103	CLUSTER: 325												
	OCCUPATIONS:												
	807.381.0 AUTO BODY REPAIRMAN												
	845.781.0 AUTO PAINTER												
	PROGRAMS:												
	170301 BODY AND FENDER	-14	-43	-5	-3	-8	11	29		22	-16	-4	3
104	CLUSTER: 330												
	OCCUPATIONS:												
	620.281.0 AUTO MECHANIC												
	620.281.1 AUTO - AIR CONDITIONING												
	PROGRAMS:												
	170302 AUTO MECHANICS	-88	-57	-11	-13	-13	-1	44	-4	69	-103	3	-2
105	CLUSTER: 315												
	OCCUPATIONS:												
	637.281.0 AIR CONDITIONING MECHANIC												
	PROGRAMS:												
	170100 AIR CONDITIONING												
	173000 REFRIGERATION	-210	-22	-43	-19	-9	3	-39	-8	-17	-42	-12	-2

A DESCENDING ORDERING OF PROGRAM CLUSTERS

RANKED BY DEMAND MINUS VO-TECH SUPPLY

RANK	PROGRAM CLUSTERS	DEMAND MINUS VO-TECH SUPPLY	N. E. #1	M. E. #2	S. E. #3	S. C. #4	E. C. #5	TULSA SMSA #6	N. C. #7	OKLA. CITY SMSA #8	S.W.C. #9	S. W. #10	N. W. #11
106	CLUSTER: 15												
	OCCUPATIONS:												
	599.985.0 MILL OPERATOR												
	624.281.0 AGRICULTURAL MECHANIC												
	PROGRAMS:												
	010300 AGRICULTURAL MECHANICS												
	179902 FARM MACHINERY REPAIR	-359	-33	-62	-70	-43	-47	-15	-13	-13	-10	-30	-15

APPENDIX A

Oklahoma State Department of
Vocational and Technical Education
1515 W. 6TH Stillwater, Oklahoma 74074
Student Status Report-Due October 1

Division:
Voc. Class:
School:
Date:

Soc. Sec. No.	Alpha Letter	Student Name	Occ. Obj. Code	Voc. Class
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

NOTE:

All students who are not on this printout but are enrolled in your program this year should be recorded on the enrollment form (SAS-1).

As the armed forces is voluntary, consider former students who are now in the armed forces is being employed.

INSTRUCTIONS

I. For each student on this report who was in your training program last year and is enrolled in the program again this year:
   1. Check to see if the student's social security number is correct. If it is not, write the correct social security number in the space (blocks) provided above the printed social security number.
   2. Check to see if the student's occupational objective number has changed. If it has, code the correct occupational objective code (see codes on back of sheet) in the space (blocks) provided above the printed occupational objective code.
   3. Write the name of the vocational class that the student is attending on the shaded line in the column headed Vocational Class.

II. For a student on this report who has completed the training program, dropped out, transferred, or whose status is unknown enter the appropriate alphabetic letter listed below, in the column headed Alpha Letter.

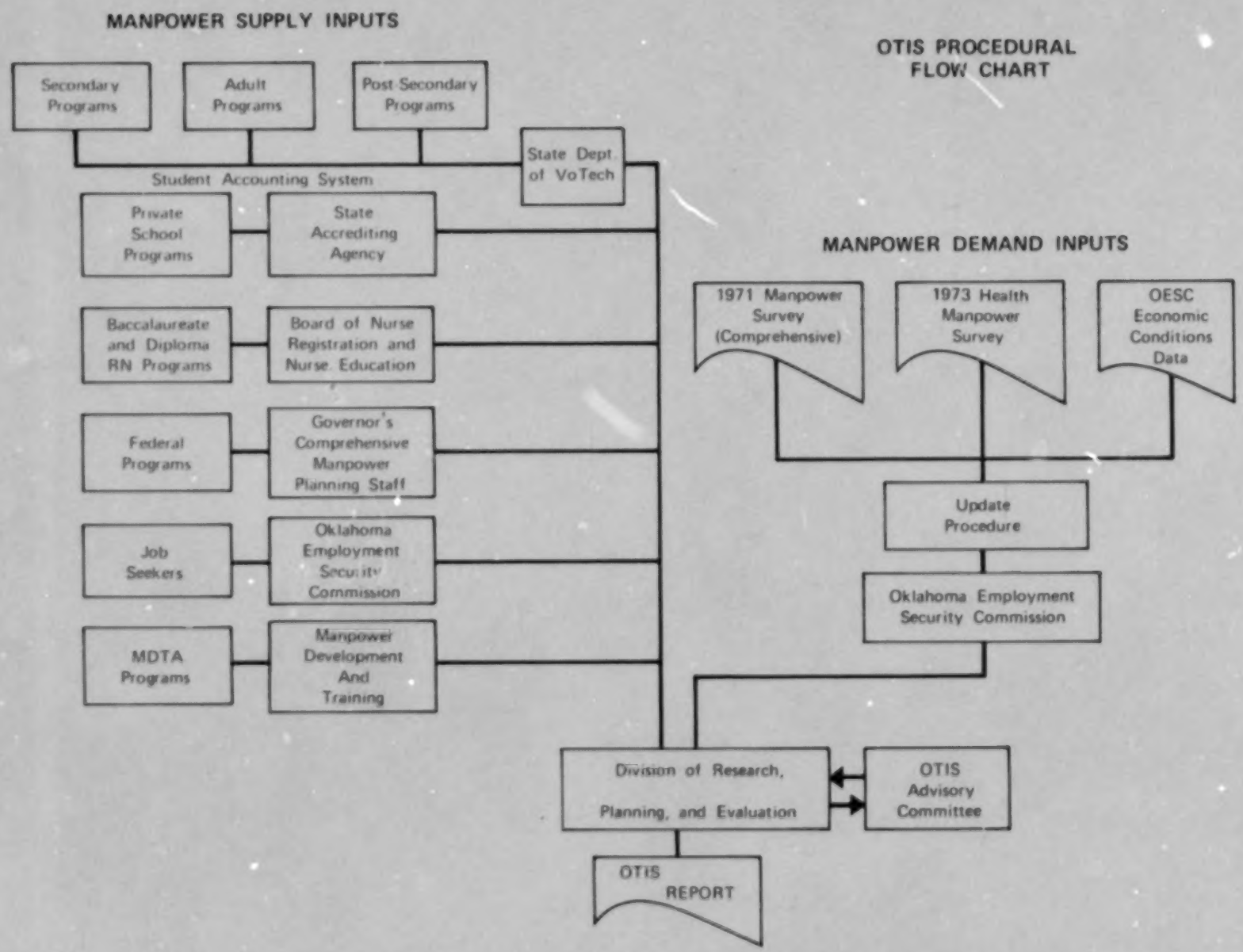
III. For a student who was not in your program last year, enter the alphabetic letter "P" in the column headed Alpha Letter.

Alphabetic Letter

COMPLETED THE TRAINING PROGRAM AND IS	
A	Working full time--in occupation for which trained
B	Working full time--in Related occupation
C	Working full time--in Unrelated occupation
D	Working part time (does not include those in school full time)
E	Continuing education full time in Related Vocational - Technical Field
F	Continuing education full time in Unrelated Vocational Technical or other field
G	In school in other course work
H	Not employed and Not seeking
I	Not employed but is seeking
DROPPED OUT OF THE PROGRAM AND IS	
J	Working full time--in Field for which trained
K	Working full time--not in Field for which trained
L	Not employed full time
M	Remaining in School
N	TRANSFERRED to another school
O	Unknown or Deceased
P	Was not in training program
Q	Comprehensive Home Ec

APPENDIX B

OTIS PROCEDURAL FLOW CHART



Statewide Totals and a Descending Ordering
of Program Clusters

Accountant	* 5, 53**
Accounting Clerk	25, 53
Admitting Clerk	26, 53
Agricultural Mechanic	9, 89
Air Conditioning and Refrigeration	32, 88
Aircraft Accessories Mechanics	34, 79
Aircraft & Engine Mechanics	34, 79
Aircraft-Structure Assembler	41, 69
Aircraft Sub-Assembly Assembler	41, 69
Appliance Repairman	32, 72
Assembler-Metal Products	47, 56
Auto Air Conditioning	33, 88
Auto Body Repairman	33, 88
Auto Mechanics	33, 88
Auto Painter	33, 88
Auto Parts Clerk	33, 67
Auto Parts Manager	33, 67
Baker	44, 72
Bank Cashier	25, 53
Banking Teller	25, 53
Bench Grinder	40, 56
Biomedical Equipment Technician	22, 86
Bookkeeper	25, 53
Bookkeeping Machines Operator	25, 53
Boner or Skinner	45, 61
Brake Operator	42, 59
Brick Layer	36, 61
Building Inspector	43, 81
Bus Driver	47, 52
Business Programmer	31, 59
Butcher, All Round	45, 61
Buyer (Wholesaler/Retail)	8, 73
Cabinet Maker	46, 65
Cable Splicer	35, 60
Carpenter	35, 57
Cashier	25, 53
Cement Mason	36, 61
Central Supply Worker	20, 78
Chef	44, 55
Civil Engineer Technician	28, 69
Claim Adjuster	13, 61
Claims Clerk (Insurance)	25, 53
Claims Examiner	25, 53
Clerk-Typist	* 26, 53**
Community Health Worker	21, 79
Cook	44, 55
Copy Reader	39, 79
Copywriter	10, 83
Coremaker	40, 75
Cost Estimator	25, 53
Credit Clerk	25, 53
Cutter (Hand or Machine)	23, 54
Cylinder-Press Man	39, 79
Dental Hygienist	14, 82
Dental Lab Technician	22, 75
Dental Office Assistant	14, 75
Deputy Sheriff	43, 65
Dietary Technician	21, 82
Die Designer	40, 68
Diesel Mechanics	38, 70
Digital Computer Operator	31, 59
Dishwasher	45, 57
Draftsman, Architectural	31, 68
Draftsman, Civil	31, 68
Draftsman, Electrical	31, 68
Draftsman, Electronics	31, 68
Draftsman, Geological	31, 68
Draftsman, Map	31, 68
Draftsman, Mechanical	31, 68
Dump Truck Driver	47, 52
E.E.G. Technician	18, 85
E.K.G. Technician	19, 82
Electric Motor Repairman	38, 74
Electrical Technician	28, 71
Electrician	35, 60
Electromechanical Technician	29, 84
Electronics Assembler	38, 66
Electronics Mechanic	39, 66
Electronics Technician	28, 71
Environmental Health Technician	18, 86
Farm Hand, General	8, 74
Farm Manager	8, 74
Feed/Fertilizer Mixer	8, 73
Feedlot Worker	8, 74
Fieldman	8, 74
Fireman	43, 72
Flame Cutter, Hand	44, 58
Flame Cutter Machine Operator	42, 58

*Statewide Totals
**Descending Ordering of Program Clusters

Floral Design	* 9, 60**
Food Service Supervisor	12, 55
Forklift Operator	47, 52
Furniture Finisher	46, 65
Furniture Upholsterer	46, 76
General Office Clerk	26, 53
Greenhouse Man	9, 60
Grinder Mill Operator (Mining)	36, 62
Groundskeeper	9, 60
Heat Treater	42, 77
Heavy Equipment Operator	36, 62
Hostess	12, 55
Hotel Clerk	12, 64
Housekeeper	24, 58
Illustrator-Commercial Artist	34, 83
Industrial Technician	29, 76
Inhalation Therapy Technician	19, 86
Instrument Man	29, 77
Insurance Salesman	13, 61
Janitor	37, 58
Jet Engine Mechanic	34, 79
Laboratory Tester	28, 72
Laundry Personnel	39, 63
Layout Man (Machine Shop)	40, 56
Layout Man (Printing & Publications)	34, 83
Layout Man (Structural)	37, 64
Licensed Practical Nursing (L.P.N.)	16, 63
Lineman	35, 60
Livestock Caretaker	9, 66
Loan Closer	26, 53
Machinist, All-Round	40, 56
Mail Carrier	36, 59
Maintenance Man, Building	35, 57
Maintenance Man, Equipment	47, 60
Maintenance Mechanics Millwright	37, 71
Management Trainee	14, 65
Material Handler	47, 59
Meat Cutter	45, 61
Medical Emergency Technician	20, 86
Medical Lab Assistant	15, 77
Medical Office Assistant	79, 80
Medical Records Clerk	21, 75
Medical Records Librarian	15, 84
Metal Fabricator	41, 59
Mill Man	46, 65
Mill Operator	9, 89
New Accounts Clerk	25, 53
Nuclear Medical Technician	*22, 87**
Nurse Aide	16, 56
Nursery School Attendant	23, 70
Occupational Therapist Aide	17, 85
Offset-Press Man	39, 79
Painter or Paper Hanger	35, 56
Payroll Clerk	25, 53
Personnel Clerk	27, 76
Pharmacy Assistant	23, 80
Photographer or Cameraman	34, 82
Physical Therapist Aide	20, 78
Plater (Electro Plating)	42, 80
Plumber	36, 67
Policeman	43, 65
Post Office Clerk	26, 59
Power Plant Operator	46, 68
Precision Grinder	40, 56
Production Machine Tool Operator	40, 56
Program Coder	31, 59
Pruner-Picker	8, 79
Psychiatric Aide	16, 74
Public Relations	10, 77
Pumpman (Petroleum Refining)	30, 76
Purchasing Agent	13, 87
Quality Control Technician	30, 67
Radio & TV Repairman	39, 81
Radio Mechanic	39, 81
Radiologic Technician	18, 84
Real Estate Appraiser	13, 80
Recreation Leader	44, 73
Registered Nurse (Bacc., Dipl., Assoc.)	15, 64
Sales Clerk	11, 51
Sales Occupations (Goods)	11, 51
Salesman-Driver (Routeman)	11, 51
Seamstress or Tailor	23, 54
Secretary	27, 54
Service Salesman	10, 62
Service Station Attendant	11, 51
Sewing Machine Operator	23, 54
Shear Press Operator	40, 56
Sheet Metal Worker	41, 59
Small Engine Repair	45, 71
Social Worker	44, 70
Special Agent	13, 61
Spray Painter	35, 57
Statement Clerk	25, 53
Stationary Engineer	46, 68
Stenographer	27, 54

*Statewide Totals
**Descending Ordering or Program Clusters

Stillman (Petroleum Refining)	*30, 76**
Structural Steel Worker	37, 64
Surgical Technician	17, 73
Surveyor	28, 69
Teacher Aide	24, 65
Technical Publications Writer	32, 81
Telephone Installer	35, 60
Telephone Operator	26, 62
Title Clerk	27, 87
Tool & Die Maker	40, 56
Tool Machine Set-up Operator	40, 56
Tractor Trailer Truck Driver	47, 52
Traffic Manager	47, 52
Transit Clerk	25, 53
Truck Driver (Heavy)	47, 52
Truck Driver (Light)	47, 52
Underwriter	13, 61
Waitress or Waiter	12, 55
Ward Clerk	21, 67
Welder, Arc	42, 58
Welder, Combination	42, 58
Welding Machine Operator	42, 58
Yardman	9, 66

*Statewide Totals
**Descending Ordering or Program Clusters

ACCESSION NUMBER: VT102117

PUBLICATION DATE: 30JUN74

TITLE: A COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM FOR CAREER DEVELOPMENT IN GRADES K-14. FINAL REPORT.

DESCRIPTOR: *PILOT PROJECTS; *CAREER EDUCATION; *PROGRAM DEVELOPMENT; VOCATIONAL EDUCATION; COMPREHENSIVE PROGRAMS; CONCEPT FORMATION

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 434P.

ABSTRACT: THIS DOCUMENT IS COMPOSED OF TWO VOLUMES, THE FINAL REPORT FOR THE PINELLAS COUNTY (FLORIDA) COMPREHENSIVE CAREER EDUCATION PROJECT, AND APPENDICES RELATED TO THE FINAL REPORT. THE FINAL REPORT COVERS THE PERIOD FROM JANUARY 1972 THROUGH JUNE 1973 AND DESCRIBES THE IMPLEMENTATION OF CAREER EDUCATION CONCEPTS IN 10 PILOT SCHOOLS. CAREER EDUCATION CONCEPTS WERE INTEGRATED INTO EXISTING PROGRAMS AT VARIOUS GRADE LEVELS FROM K-14. THE FINAL REPORT DESCRIBES IN DETAIL THE VARIOUS ACTIVITIES OF THE PROJECT INCLUDING EVALUATION PROCEDURES. THE APPENDICES INCLUDE MATERIALS USED DURING AND PRODUCTS RESULTING FROM THE PROJECT. (LJ)

CONTRACT NUMBER: OEG-0-72-0735

INSTITUTION NAME: FLORIDA STATE DEPT. OF EDUCATION, TALLAHASSEE. DIV. OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION.

SPONSORING AGENCY NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 117

Final Report

PINELLAS COUNTY COMPREHENSIVE CAREER EDUCATION PROJECT

DIVISION OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

GUS SAKKIS
SUPERINTENDENT

JACK B. SHUMATE
EXECUTIVE ASSISTANT SUPERINTENDENT, VTAE

MYRTLE E. HUNT
DIRECTOR OF CAREER EDUCATION

850 – 34th STREET SOUTH
ST. PETERSBURG, FLORIDA 33711

"Meeting The Challenge"

VT 102 117

FINAL REPORT

Project No. V 261018L
Grant No. CEG-0-72-0735

A Comprehensive Vocational Education Program for Career Development in Grades K-14

Research and Development Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

School Board of Pinellas County, Florida

Rev. Arthur L. Albers, Chairman
Dr. Charles J. Crist, Vice-Chairman
Mr. Calvin A. Hunsinger
Mrs. Martha Rudy Wallace
Mr. Ron Fisher
Mrs. Jane S. Manson
Mr. Bryan C. Goode

Mr. Gus Sakkis
Superintendent

Mr. Jack B. Shumate
Executive Assistant Superintendent, VTAE

Mrs. Myrtle E. Hunt
Director, Career Education
850 - 34th Street South
St. Petersburg, Florida 33711

June 30, 1973

FINAL REPORT

Project No. V 261018L
Grant No. OEG-0-72-0735

A Comprehensive Vocational Education Program
for Career Development in Grades K-14

Research and Development Project in Vocational Education
Conducted Under
Part C of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Bureau of Occupational and Adult Education, Office of Education, U. S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

School Board of Pinellas County, Florida

Rev. Arthur L. Albers, Chairman
Dr. Charles J. Crist, Vice-Chairman
Mr. Calvin A. Hunsinger
Mrs. Martha Rudy Wallace
Mr. Ron Fisher
Mrs. Jane S. Manson
Mr. Bryan C. Goode

Mr. Jack B. Shumate
Executive Assistant Superintendent, VTAE

Mrs. Myrtle E. Hunt
Director, Career Education
850 - 34th Street South
St. Petersburg, Florida 33711

June 30, 1973

FLOYD T. CHRISTIAN
Commissioner of Education
Department of Education
Tallahassee, Florida

JOE D. MILLS
Director
Division of Vocational, Technical and Adult Education

E. A. EMMELHAINZ
Assistant Director
Division of Vocational, Technical and Adult Education

KENNETH M. EADDY
Bureau Chief
Vocational Research and Evaluation
Division of Vocational, Technical and Adult Education

CAREER EDUCATION STAFF

Mrs. Myrtle E. Hunt, Director

Mrs. Dorothy Snidow, Supervisor
Evaluation and Curriculum

Mr. Donald Rosenberger, Supervisor
Elementary

Mr. Clarence Givens, Coordinator
Guidance Services

Mr. Thomas Noble, Coordinator
Placement Services

Mrs. Marie Charles, Vocational Consultant
Business Education

Mr. George Cary, Vocational Consultant
Trade & Technical

Mrs. Crystal Coester, Occupational Specialist

Mrs. Marie Camanse, Data Control Coordinator

Mrs. Ruth Dikman, Executive Secretary

Mrs. Bonnie Ahrens, Clerk

Mrs. Dorothy Bitterli, Clerk

EVALUATION CONSULTANTS

Internal Evaluator: Dr. Tom Justiz

External Evaluator: Dr. Allen B. Moore, Site Team Director
Southern Association of Colleges and Schools

TABLE OF CONTENTS

	Page
Summary of the Project	1
The Situation	8
The Problem	10
Pinellas County Comprehensive Career Education Project (An Overview)	11
Goals and Objectives	19
Procedures	21
Operational Goals	23
Expected Outcomes of the Project	30
Component Reports	34
Summary of Inservice Data	53
Placement and Follow-Up	100
Community, Committee, and University Involvement	108
Calendar of Critical Incidents	174
Synopsis of Visits to Site by Key Personnel	187
Costs	190
Attitudes Toward New Roles of Counselor and Occupational Specialist	198
Process Diary	211
Parent and Staff Attitudes Toward Career Education	246
External Evaluator's Reports of Visitations	276
Product Evaluation of the Eight Career Education Elements	327
Pontiac, Michigan, Research Design Continued	412
Summary of Findings, Conclusions, and Recommendations	421

(continued)

TABLE OF CONTENTS (Continued)

VOLUME II
APPENDICES

		Appendix Page Number
APPENDIX A:	Contracts	1
APPENDIX B:	Evaluation Milestones	35
APPENDIX C:	Media Reports of the Project	36
APPENDIX D:	School Principal's Questionnaire	56
APPENDIX E:	The 26 Product Evaluation Instruments . . .	59
APPENDIX F:	Product Evaluation Scoring Keys	157
APPENDIX G:	Critical Correspondence	165
APPENDIX H:	Organization Chart and Job Description . .	206
APPENDIX I:	Steering Committees	220
APPENDIX J:	Quarterly Reports	223
APPENDIX K:	"COST" (COUNSELOR/OCCUPATIONAL SPECIALIST/ TEACHER TEAM), AND	
	"CAB" (CAREER ACTIVITY BOOK)	263
APPENDIX L:	Career Education Resolution	301

SUMMARY OF THE PROJECT

Origin of the Project and Time Period Covered

The Pinellas County Comprehensive Career Education Project was funded as a Part C (VEA 1968), demonstration research and development grant, by the U. S. Office of Education. Funds were directed to Pinellas County by the Florida Department of Education through the office of Dr. Kenneth Eaddy, Bureau Chief, Vocational Research and Evaluation.

The grant was part of the $9,000,000 in discretionary funds allocated to individual states for the development of mini career education models. The District School Board of Pinellas County received $280,556 to be used for implementing career education concepts in ten pilot schools (K-14).

Mr. Joe D. Mills, then Executive Assistant Superintendent for Vocational, Technical and Adult Education, in Pinellas County, supervised the development and submission of the project and contributed to final selection of the director.

The project was funded for 18 months (January 1, 1972 through June 30, 1973). Project staff included a director, 2 supervisors, 2 coordinators, and 2 secretaries.

Goals and Objectives

Broadly stated project goals and objectives were designed to provide: (1) self-awareness and career-awareness at the elementary level, (2) career orientation and career exploration at the junior high level, (3) in-depth exploratory and skill development in specific clusters at the senior high and post-secondary level, (4) placement and follow-up services to all students exiting career education pilot schools, (5) intensified guidance and counseling services at all levels K-14, (6) inservice staff development workshops relating to career education for personnel in pilot schools, (7) an organized system for dissemination of career education information to interested and concerned persons, (8) development of a comprehensive plan for articulation of career education in Pinellas County, and (9) an organized effort to establish a system for evaluating both processes and products of career education.

Procedures

Prior to acceptance of the project, the superintendent's staff reviewed the career education concept and studied USOE guidelines relating to administration and implementation. It was decided that a program of career education would require more administrative coordination and planning than that being done for programs now in operation. The primary reasons being (1) the increased interaction required with the community at large, (2) the need for integration of career education curricula

across all subject matter areas, (3) the need for educational professional development of all staff, (4) the need for coordination of program development with other educational agencies, (5) acceptance of responsibility for placement and follow-up of students exiting the system, and (6) the increase in per pupil costs for which new monies must ultimately be sought.

After administrative commitment was ascertained, the project proposal was presented to (1) all county level supervisors and administrators, including VTAE and pupil personnel services, (2) elementary and secondary principals, (3) selected key staff members from proposed pilot schools, and (4) the School Board of Pinellas County.

Responsibility for final selection of pilot schools was delegated by the Superintendent to the Executive Assistant Superintendent of VTAE and other key personnel. Schools were selected on the basis of staff interest and student need for the program. After tentative selections were made, an orientation workshop was held for representatives of the schools. All personnel attending were charged with responsibility for informing others and getting support for the program in individual schools. Letters of support and acceptance were then solicited from the schools. All schools invited to participate accepted. (See letters of acceptance in Appendix G.) One senior high school, however, was dropped from the program prior to the implementation phase.

Following final approval of the project, a director and other staff were selected. (See Appendix H, Job Descriptions.) It was determined that in order to initiate a successful career education program, the Superintendent, Board of Education, Project Director and Staff, and other key personnel supporting the concept, would need to express commitment publicly. This series of events followed:

1. The School Board passed a resolution supporting career education. (Appendix G)

2. Steering committees composed of representatives of the school and community were appointed. (See Appendix I)

3. The philosophical bases and general emphasis of the career education endeavor were developed.

4. Student and community needs were considered.

5. Priorities were determined on the basis of both student and community needs and the constraints of time and money.

6. Long and short-range goals were developed.

7. Product objectives and expected outcomes were established to assure accountability for the program.

8. A third-party evaluator was selected.

9. An inservice staff development program was planned and implemented.

10. Selected processes for implementation of objectives in pilot schools were identified.

11. A master plan for implementation with what was considered to be an appropriate time frame was designed.

12. System-wide constraints (not related to the project) were identified and means of removing them received attention.

13. An organized system for keeping the public informed about the project was developed.

14. A comprehensive internal evaluation scheme to measure outcomes for both process and product was developed.

The Pinellas project was implemented in 9 pilot schools: 4 elementary, two junior high, 1 senior high and 2 post-secondary. Combined enrollment in the schools exceeded 8,000. Approximately 400 staff members serve those schools. Project goals were especially designed to bring together already operating components of career education in the county. A concerted effort was made to identify and integrate effective elements of other programs and projects (both academic and vocational) to build a composite, articulated program of career education.

During the first year of operation the program was organized around nine basic components: (1) elementary K-6, (2) junior high (7-9), (3) senior high and post-secondary (10-14), (4) guidance and counseling, (5) inservice staff development, (6) placement and follow-up, (7) public relations and public information, (8) articulation, and (9) evaluation. Components receiving major emphasis during school year 1972-73 included: (1) elementary, (2) guidance and counseling, (3) inservice staff development, and (4) evaluation. All other components will receive increasing emphasis during the second phase of operation (1973-74).

Students (K-14) were helped to develop decision-making skills--thus enabling a systematic application of information to rational processes with regard to the eight elements identified in the national career education model and 15 occupational or career clusters developed by USOE. These

elements and clusters (See listing in Appendix K) were used to weave comprehensive career education into a sound basic program in Pinellas County.

Accomplishments and Results

Career education concepts were integrated into already existing programs at various grade levels K-14. Activities designed to focus on self-awareness and career awareness were conducted as integral parts of ongoing studies in language arts, math, science, social studies, vocational education, music, art, health, and foreign languages.

Project concepts provided a new and different focus which had considerable impact on the structure of education for students in pilot schools. The project may ultimately become a model for other career education efforts in Florida. Career education in Pinellas County is for all youth and adults, including the college bound; and because true career choice is developmental, it starts in pre-kindergarten where children first begin to become aware of themselves, the nature of work, and the kinds and requirements of the work to which they are best suited--and it continues throughout secondary, post-secondary, and adult programs.

This experientially centered curriculum provides a comprehensive and personalized program of education focused on careers. It not only provides academic instruction, job information and skill development--but more importantly, it helps students develop positive attitudes regarding the personal, social, psychological and economic significance of work. Career related activities provide for fusion of the intellectual and affective aspects of learning, and the practical application of acquired skills--all aimed at helping students keep pace with and adjust to the rapid social and technological changes in society.

Extensive guidance activities conducted by both guidance personnel and classroom teachers assisted in the development of self-understanding, personal values, attitudes, interests and abilities, as they related to others and as they related to potential career choices. Pilot schools attempted to unify the schools' educational program, consisting of academic, vocational and guidance experiences, around an occupational and career development theme--using self-awareness and career awareness as visible vehicles.

Both process and product evaluation (according to measures recorded in May, 1973) indicated positive growth toward stated objectives. A post-test only design was used and statistically significant differences at 0.01 were noted between pilot and control schools on a number of elements. Instruments used to obtain differences have not all had adequate field testing to determine validity and reliability. The instruments will be further developed and field tested during 1973-74.

Evaluation

All part C, research and development career education projects, were required to contract for an independent evaluation. Pinellas County Board of Public Instruction contracted with The Southern Association of Colleges and Schools to provide this service. A contract was granted in July, 1972. Dr. Janie Jones made the initial visits to the project in April and July, 1972. When Dr. Jones left SACS to accept another position, the responsibility was assigned to Dr. A. B. Moore, presently a Specialist with The Center for Vocational and Technical Education (CVTE) at Ohio State University. Dr. Moore had previous experience in evaluation of career education projects through association with The Center for Occupational Education, North Carolina State University, Raleigh, North Carolina.

Dr. Moore and three other Career Education Specialists conducted the balance of the site team visits to Pinellas County career education schools between December, 1972, and June 30, 1973. Other site team members included Mrs. Marquita McLean, Guidance and Counseling Director, Board of Public Instruction, Cincinnati, Ohio; Mrs. Maybelle Black, Director of K-6 Components for 20 career education projects in the State of Ohio, and Dr. Marvin Robertson, Specialist in the evaluation of secondary and post-secondary programs, and placement and follow-up, at the University of Georgia, Athens, Georgia.

In addition to the required third-party evaluation, Pinellas County also contracted with Dr. Thomas Justiz to provide internal evaluation services for the project. Dr. Justiz was an evaluation specialist with CVTE at Ohio State University during the early months of the Comprehensive Career Education Project, and later became Ohio State Site Team Director at the Pontiac, Michigan Career Education Site.

The external and internal evaluators met with the career education staff in December, 1972, to develop philosophy and evolve a plan for formal evaluation of the project.

The goals of the project were examined and restated, and a set of research questions (hypotheses) was drawn up related to the revised goals. A milestone-type schedule (Appendix B) suggested certain instruments and procedures for data collection and analysis, as well as an interlinking relationship between the external and internal evaluators. It was recognized by the project staff that not all of the research questions (hypotheses) would be fully evaluated in the first year of the project and several would depend on subsequent funding. Major questions to be answered during the first year were determined to be: (1) To what extent have career education concepts been implemented in the pilot schools? (2) How can we measure student performance (and ultimately student growth) in career education? and (3) How can we develop standardized tests to measure student growth in career education?

Conclusions and Recommendations

The schools in Pinellas County are part of a dynamic society which has consistently created demand for new insights into learning processes, new ways of teaching and workable strategies for relating the traditional academic focus of the classroom situation to the real world outside the school.

Students, parents, educators, business and professional people, and civic organizations are calling for more effective and efficient resolution of educational and societal problems. Education is the responsible link between social needs and social improvements; therefore, new and better relationships in education must be provided to help individual students find satisfactory places in society.

Large numbers of Pinellas County youth fail to see any relationship between school experiences and identifiable steps beyond school. This view is especially common to the large percentage of students not planning to attend college. The relationship between education and the individual's life work should be readily apparent to all students.

Career education is needed for all students, K-14, adult and continuing. Adults are faced with many difficult problems in adjusting to and preparing for the dual roles of family members and workers. Many must redirect careers a number of times during adult life. Assistance in career planning and personal development should be a continuing service provided by the schools. Consideration must also be given to the more severe problems of disadvantaged and handicapped students--those representing the results of failures in education and other social systems.

If career education is to meet the challenge of change, it must assume major responsibility for creating self-awareness, career awareness, and career consciousness in all students, at all levels, to help develop necessary competencies, attitudes, and values that will enable the visualization of a career life and the accompanying life-style.

Career education must be designed to meet the diversity of needs which are resulting from an increasingly complex student population in Pinellas County. The goals must range from providing college preparatory courses to the offering of a wide range of technically oriented occupational courses designed to meet manpower and other economic needs pertinent to the area.

The curriculum for career education must be constantly reviewed, evaluated and revised. Implementation strategies must also be exposed to the same processes. The complex and rapid changes in today's world demand new answers and approaches to curriculum design. If education is to keep pace, traditionally slow speeds of curriculum change and other educational procedures must be accelerated. Typical methods of instruction which

divide the world of knowledge into artifically created segments fail to provide students with an understanding of the world in which various segments of this same knowledge must be related in a logical, meaningful fashion.

Human relations skills have long been recognized as crucial to occupational success. The ability to get along with others has been proven to be of vast importance in the realm of industry. Personnel managers in the Pinellas-Hillsborough Metropolitan area are asking educators for emotionally stable people who can adjust easily, get along with fellow workers and possess a pool of transferable skills. Educators must find a way to direct curriculum and organize educational resources to meet these needs.

In the quest for relevancy in education, nothing is more important than providing every youth and adult in Pinellas County with the capabilities necessary to make intelligent career decisions and the opportunity to prepare for entry and progress in such careers. As part of a dynamic social order, the Pinellas County School system must provide people with the ability to project themselves into future career roles, analyze these roles, and relate these projected roles to a meaningful, happy and productive life. Such are the purposes of career education.

The Pinellas County Comprehensive Career Education Project, a functional system for career development, has provided partial solutions to these serious educational problems. A carefully designed system of career education will ultimately prepare students for more successful work lives by (1) improving the basis for occupational choice, (2) facilitating the acquisition of job skills, (3) enhancing educational achievement in all subject areas at all levels, and (4) making education more meaningful and truly relevant to students.

The career education project staff recommends:

1. Continuation and gradual expansion of the career education movement in the county school system. A comprehensive five-year plan has been prepared and submitted for approval.

2. Continuation and further development of the COST/CAB (Counselor, Occupational Specialist, Teacher/Career Activity Book) Instructional System and the comprehensive evaluation model designed to evaluate the system.

3. Continuation of emphasis on an evolving role for guidance and counseling as an integral part of the career education delivery system.

THE SITUATION

Pinellas County, Florida, is a predominantly urban county, located midway of the state and directly on the Gulf of Mexico. Current population is reported as 600,000 plus, and the county covers a land area of 264 square miles. The largest city is St. Petersburg (235,654), but the county also includes several other cities: Clearwater (county seat), Tarpon Springs, Dunedin, Largo, Safety Harbor, Seminole and numerous other incorporated areas with separate municipal governments.

Recreational, cultural, and sports facilities are numerous. Tourism is encouraged and the county has some of the finest white-sand beaches in the state. Pinellas County is considered the hub of tourist activity on the suncoast. Tourism rates increase annually, with over three million visitors reported during 1971, an 11.2% increase over 1970. Approximately 275,000 tourists visit monthly. In 1971, Pinellas County topped all other Florida counties -- up 141% in ten years -- with new records being set each month. The effects of tourism on the county's total economy, labor force demands and educational programs is of vital significance.

The county's population is 91.5% white, 8.2% black, and 0.3% other. Fifty percent of Pinellas families are in the middle income range, $5,000 to $15,000; 37% receive under $5,000. The latter group includes many retired persons living solely on social security benefits. Families with incomes over $15,000 represent 13% of the total population. Business and professional people are predominant in this group, but there are also many retired persons with substantial incomes.

A strong commercial climate is evidenced by such diversified industries as construction, boat building and repair, chemicals, communications, electronics, concrete products, fishing tackle, optical supplies, plastic products, furniture, clothing, citrus, and seafoods, along with the many businesses and services needed to support a booming water-oriented tourist industry -- and an ever expanding permanent population.

The opening of Disney World has had an important economic impact on the Pinellas County area and is a vital element of a new dimension in tourism. Located just 80 miles from Pinellas County, the direct flow of Disney World visitors entering the county has already resulted in many new and expanded tourist attractions and facilities. This is reflected in the dominance of trade and service industries and jobs in food service, hospitality, retailing, health, and other personal services.

Florida showed a census count of 6,790,929 in 1970. Based on recent trends, this will increase by 38.7% to 9,378,700 in 1980. The number of new residents pouring in will total more than 2.5 million in this decade.

The Pinellas peninsula is one of the major urban growth areas in the nation. It is already the most populous county on the Florida West Coast, and it is expected to acquire 220,771 more residents by 1980. This 42.7% increase would give Pinellas a total of 742,000 people and continue its rank of third largest county in the state. (Dade and Broward are larger.)

Expansion rates in metropolitan Pinellas have consistently passed that of the Tampa Bay Area, the state, the southeast, and the nation. Beginning in the late 1950's estimates indicate that 50% of the population increase was retirees, while 35% came from persons moving into the county because of job opportunities.

The rapid pace of population growth in Pinellas County since the 1960's represents one of the central forces in educational planning. The 1960 census listed a total of 375,000 residents. The 1970 census shows a county population of 522,329, an increase of 39.4% in the ten year period. Planning estimates indicate that by 1985 Pinellas County will increase in population by over 50% to approximately 800,000 permanent residents. The U. S. Department of Commerce predicts that this metropolitan area will add more people in the next five years than any other metropolitan district in the state.

Changes in population age group distribution are of particular significance when planning for projected educational needs to facilitate area labor market requirements. In addition, the vast increase in the total population amplifies the importance of age group distribution changes as it affects the needs for programs to serve the various age brackets. The latest (1970)census reports that:

1. 22.5% of Pinellas residents are under 18
2. About half of the county population is under 50
3. 28.9% are over 65

If predictions hold true, by 1985 the population in the 18-24 age bracket will increase 28.6% over 1965, making this the age range of largest growth. This increase in the younger age group reflects rising demands for more educational facilities to serve students of all ages, and for educational programs of a more dynamic nature.

It is true that many retired persons live in Pinellas County; however, an upward trend in the number of young families has been demonstrated by the growth of the school system. The Pinellas County school system is the fourth largest in the state. The total K-12 enrollment is 90,177 in 76 elementary schools, 20 junior high schools, 11 senior high schools, and 6 exceptional child centers. Enrollment in the county's four vocational and adult education centers is 14,267. Total enrollment of all educational centers, as of September 25, 1972, was 104,444.

A seven-member elected school board sets policy and provides leadership for the county's 4,733 instructional and administrative staff, and 3,208 supporting services staff members. Operating budget for fiscal 1972-73 was $83,003,985.

The current labor force participation rate is low in Pinellas County due to a below average number of persons between the ages of 14 and 64 and to the lower rate of job-holding for both males and females between the ages of 45 and 65. An increasingly tight labor market is indicated by the very low unemployment rate (1.4%) thus accentuating the pressures on business - industry manpower replacement and expansion. This combination of rising levels of total employment, increasing population, and the expanding job market vividly represents career related educational needs.

Increasing wage rates, more productivity, expanding income levels, less volatile business cycles and stablized employment can be some of the economic rewards of future progress in the county. Underlying all of this is the assumption that the county school system has the ability to cope with deterrents and meet individual and group educational needs.

The responsibility of career education is to provide an open road to the future in programs where individuals can fulfill personal potential and meet changing labor market requirements. This will require careful and constant surveillance of a multitude of "change factors" affecting all socioeconomic progress. Planning in the field of education requires both the comparison and analysis of the past and detailed study of relationships to future projections. As the tempo of technological progress increases, programs must keep pace with education's commitment to the society it serves.

THE PROBLEM

The schools in Pinellas County are part of a dynamic society which has consistently created demand for new insights into learning processes, new ways of teaching, and workable strategies for relating the traditional academic focus of the classroom situation to the real world outside the school.

Students, parents, educators, business and professional people, and civic organizations are calling for more effective and efficient resolution of educational and societal problems. Education is the responsible link between social needs and social improvements; therefore, new and better relationships in education must be provided to help individual students find a satisfactory place in society.

A functional system of Career Education would seem to provide partial solutions to these serious educational problems. A carefully designed system of Career Education in Pinellas County will ultimately prepare students for more successful work lives by improving the basis for occupational choice, by facilitating the acquisition of job skills, and by enhancing educational achievement in all subject matter and at all levels by making all education more meaningful and truly relevant to students.

The contract for this project appears in Appendix A.

PINELLAS COUNTY COMPREHENSIVE CAREER EDUCATION PROJECT

(AN OVERVIEW)

The Pinellas County Comprehensive Career Education Project was funded as a Part C (VEA 1968), demonstration research and development grant, by the U. S. Office of Education. Funds were directed to Pinellas County by the Florida Department of Education through the office of Dr. Carl Proehl, Director, Vocational, Technical and Adult Education. Dr. Kenneth Eaddy, Bureau Chief, Vocational Research and Development, acted as chief state project administrator.

The grant was part of the $9,000,000 in discretionary funds allocated to individual states for the development of mini career education models. The District School Board of Pinellas County received $280,556 to be used for implementing career education concepts in ten pilot schools (K-14).

Mr. Joe D. Mills, then Executive Assistant Superintendent for Vocational, Technical and Adult Education, in Pinellas County, supervised the development and submission of the project and contributed to final selection of the Director.

The project was funded for 18 months (January 1, 1972 through June 30, 1973). Project staff included a director, 2 supervisors, 2 coordinators, and 2 secretaries:

Mrs. Myrtle Hunt, Director
Mrs. Dorothy Snidow, Supervisor Evaluation & Curriculum
Mr. Donald Rosenberger, Supervisor Elementary
Mr. Clarence Givens, Coordinator Guidance Services
Mr. Thomas Noble, Coordinator Placement Services
Mrs. Ruth Dikman, Executive Secretary
Mrs. Bonnie Ahrens, Clerk-Typist

This staff was later expanded through state and local effort to include the following:

Mrs. Marie Charles, Vocational Consultant, Business Education
Mr. George Cary, Vocational Consultant, Trade & Technical
Mrs. Crystal Coester, Occupational Specialist
Mrs. Marie Camanse, Data Control Coordinator
Mrs. Dorothy Bitterli, Clerk-Typist

Internal evaluation consulting service was provided to the project staff by, Dr. Thomas Justiz, from November, 1972 through June 30, 1973; and external (third-party) evaluation was provided by the Southern Association of Colleges and Schools, Atlanta, Georgia, under the direction of Dr. Robert Childers.

An organizational chart appears in Appendix H.

Each component of the project represented a unique combination of goals, objectives, elements, clusters and resources (both human and materials). Different combinations of these factors were organized to formulate all PCCEP activities into a meaningful whole. Pilot schools attempted to unify the schools' educational program, consisting of academic, vocational and guidance experiences, around an occupational and career development theme--using self-awareness and career awareness as visible vehicles.

Career education concepts and elements were integrated into already existing programs at various grade levels K-14. Activities designed to focus on self-awareness and career awareness were conducted as integral parts of ongoing studies in language arts, math, science, social studies, vocational programs, music, art, and foreign languages.

Career education as a new and different educational focus in nine pilot schools has been the source of tremendous impact on the occupational structure of education for students.

Career education has attracted more attention in recent months than any other area of education. The United States Office of Education and the Florida Department of Education have both labeled career education as a number one priority and have listed failure to include career education concepts in school curricula as a major cause of social and economic ills. Schools cannot be blamed for all the problems that plague society today, nor should schools be solely responsible for advancing solutions. However, education, more than any other institution in society, is responsible to parents and the public for helping students become more useful and productive members of society. In response to this belief the Florida Legislature recently appropriated five million dollars to support the further development of career education in Florida's 67 counties.

Career education in Pinellas County is for all youth and adults, including the college bound; and because true career choice is considered to be developmental, it starts in pre-kindergarten where children first begin to become aware of themselves, the nature of work, and the kinds and requirements of the work to which they may find themselves most suited.

The experientially centered curriculum provides a comprehensive and more personalized program of education focused on careers. It not only provides academic instruction, job information and skill development, but more importantly it helps students develop attitudes regarding the personal, psychological, social, and economic significance of work. The curriculum provides for fusion of cognitive learning and affective development in order that students may keep pace and adjust to rapid social changes.

Extensive guidance activities conducted by both guidance personnel and classroom teachers assist in developing self-understanding, personal values, attitudes, interests and abilities as they relate to others and as they relate to potential career choices. Pilot schools have attempted to unify

the schools' educational program, consisting of academic, vocational and guidance experiences, around an occupational and career development theme using self-awareness and career awareness as the visible vehicles.

Students of all ages have been helped to develop decision-making skills, thus enabling a systematic application of information to rational processes with regard to (1) self-awareness, (2) attitudes and appreciations, (3) career awareness, (4) employability skills, (5) decision-making, (6) economic awareness, (7) educational awareness, and (8) skill awareness and beginning competence.

These elements just described are from the national career education model being developed by the Center at Ohio State University in cooperation with USOE and six cooperating LEAs.

> The SELF-AWARENESS element helps students to gain an understanding of self, learn to understand accept and respect personal uniqueness in terms of past development and future maturation.
>
> The ATTITUDES and APPRECIATIONS element helps students recognize differences in others and develop tolerance and flexibility in interpersonal relationships.
>
> CAREER AWARENESS helps students to understand the variety and complexity of occupations and possible careers associated with the world of work, and helps to zero in on the basic characteristics and qualifications related to preparation for and performance of major tasks associated with various occupational roles.
>
> EMPLOYABILITY SKILLS aid students in developing through educational experiences the basic work habits and attitudes regarded as necessary for entry and performance in a given occupation or career choice.
>
> The DECISION-MAKING element aids students in understanding that the decision-making process includes responsible action in identifying possible alternatives, selecting the alternative most consistent with personal values and goals, and in taking the steps necessary to implement the chosen course of action.
>
> ECONOMIC AWARENESS assists students in understanding the relationship between various occupational roles and related personal and economic life-styles.

EDUCATIONAL AWARENESS emphasizes the significance of education (i.e., the development of language, computational and reasoning skills and mastery of content knowledge) as a primary means of achieving career and life goals.

SKILL AWARENESS and BEGINNING COMPETENCE assists the student in developing the educational and occupational competency regarded as basic and important to moving on to the next step of preparation for and/or entry into the career area chosen.

The above elements have served as the basis for implementing career education in Pinellas County. It should be noted that the elements are not new "add on's" to the school curriculum, but have been a recognizable part of the educational philosophy of the system--although not extensively emphasized. Career education is now focusing on all of these elements and blending them into a meaningful and relevant whole for the benefit of students.

A major question at this point may be "why" and "how" did nine schools change educational processes and activities from the traditional, book contained curriculum to the experiential centered career education model?

One answer can be found in an examination of the processes used by project staff members to help principals, teachers, counselors, and other school staff modify personal values and attitudes regarding educational focus, goals and emphasis. Traditionally, educational processes and activities in the pilot schools has been book contained and highly dependent on the pupils' abstract ability--thus affording the student little "action" and "involvement" in the learning process. The classroom teacher was responsible and held almost solely accountable for the pupils' progress--or lack of such progress--even in overcrowded classrooms and in the face of other conditions which adversely affect the learning environment. Teachers dealt mainly with that which has been called the "visible curriculum" -- those subjects or courses prescribed by the schools which fall in the cognitive domain. The "invisible" or "hidden curriculum" -- those affective components, such as values and attitudes were barely touched.

The first step in implementation began with inservice education for staff members of pilot schools. Workshop participants engaged in a uniform training program designed to facilitate a unified team approach to the implementation of career education concepts. Purposes of the workshop included the exploration of career education concepts, activities and procedures, identification of methods for obtaining and disseminating information on occupations, schools, employment and community resources, and methods of fusing vocational, academic and guidance functions into existing school curriculum.

Guidance and counseling has become the hub around which activities have revolved, because the one common element that ties all career education experiences into a meaningful pattern and purpose is the guidance function. One of the major purposes of the guidance inservice workshops was to develop the role of the counselor as that of catalyst, organizer, and coordinator in helping to plan a systematic and developmental program of activities by working with teachers, curriculum developers, and community groups for the purpose of promoting career education in the pilot schools.

Issues central to career education were identified as being those of students becoming knowledgeable concerning self-concept, relationships with others, relationships between school and the real world, and most importantly, awareness of available opportunities and strategies to adequately plan for the future. Guidance and counseling, therefore, properly assumed a key role in the Pinellas County Career Education Project.

During the teacher workshops, participants engaged in activities designed to improve guidance and counseling skills in the classroom. Such activities included values clarification strategies and individual and group counseling methods.

In the pilot schools the career education "team" consists of a counselor, an occupational specialist, and a classroom teacher. Members of the COST team (Counselor-Occupational Specialist-Teacher) work and plan together to provide career education activities which fuse or blend with the classroom teachers' basic instruction. The unified approach works like this: As a teacher plans or prepares a unit of instruction, the counselor and occupational specialist suggest strategies and methods for including many of the career education elements. The counselor may suggest specific activities dealing with self-awareness, decision-making skills, employability skills, and educational awareness. The occupational specialist then adds suggestions for including activities in career awareness, appreciations and attitudes, skill awareness and economic awareness. Final decision concernings elements and activities to be included still rests with the classroom teachers; but once these decisions have been made, the counselor and the occupational specialist will help the teacher to develop skills and to gather resources needed to assure successful implementation of the activities. Upon request, the counselor and the occupational specialist may work directly with groups of children--or they may work only with the teacher in the preparation phase. In this manner, the entire COST team becomes accountable for the instruction and education of students, not just the teacher alone. (See Appendix K for more information on the COST team approach.)

COST team members in the nine pilot schools have accepted changing roles enthusiastically (pages 198-205). Guidance, with the assistance of the classroom teacher and the occupational specialist, now permeates the entire school environment. It is safe to say that the goals of guidance are sufficiently broad to preclude accomplishment by any single worker, however well qualified. Besides the counselor-student ratio in most schools negates any chance of doing an adequate job.

Therefore, in Pinellas County, the role of the counselor in career education pilot schools is changing from the traditional concept to one that commands more involvement in the total school program. Guidance with the counselor's leadership has become the delivery system for career education in Pinellas County. Counselors are involved with teachers and occupational specialists on a regular basis in planning instruction designed to help pupils develop greater understanding.

Counselors are helping teachers improve guidance skills in the classroom on a continuing basis, and the concept of "shared accountability" has won approval. Guidance personnel are committed to more responsibility for serving both the educational, personal, and social needs of students in a planned system of instruction.

If career education is being implemented successfully in the schools of Pinellas County, it must be said that it would be less successful were it not for counselors, occupational specialists, teachers and administrators accepting a new and constantly changing role for themselves in order that students may be assisted in becoming better, happier and more productive citizens.

The decade of the 70's in Pinellas County will mandate a new educational philosophy dedicated to the concept that every high school graduate shall be assured some entry level skill, no matter how minor that skill may seem. This same philosophy will also mandate that every adult in the community be provided with opportunities to develop to maximum capability through meaningful educational experiences. Reliable research indicates that the average person will be employed in at least four or five different occupations during a normal lifetime; but, in the areas of chronic unemployment, job turn over is certain to be considerably higher. It is no longer necessary to worry about a teenager making a "lifetime" occupational choice; however, educators must be concerned with offering instructional programs which will help students develop skills necessary to become useful, employable and productive, if only on a part-time basis.

Much has been said about the need for a new approach to schooling. There are, of course, many facets to suggested reform. Career education in Pinellas County has already given careful consideration to several factors.

1. Obsolete methods are being extracted and relevant strategies are being developed and implemented.

2. Educational technology is coming into wider use.

3. The irrelevance of subject matter is being countered by extending the classroom into the community.

4. It is acknowledged that children learn in different ways and at different rates; therefore, alternative instructional programs must be available in career education.

5. Renovations in curriculum are underway.

6. New roles for counselors, occupational specialists and teachers are evolving.

7. Administrators involved are accepting these evolving roles and encouraging other innovation.

In the final analysis, however, the value of each of these disparate efforts to improve education will depend upon the quality of teaching that takes place in the classroom. What is crucial, therefore, is anticipation of what lies ahead and the making of necessary preparation. Professional staff now in service seems to be the central factor in this preparation. While, admittedly, much remains to be done in the way of better pre-service training of educators, it is those already in the schools who must serve as the agents of reform. Since practitioners rarely adapt instantly to any innovation, the evolution of teaching strategies must go hand in hand with other new developments in the process of education. Thus, the need for continual professional growth is of primary importance because the fusion of vocational, academic and guidance concepts necessary to assure proper implementation of career education presupposes a commonality of objectives, goals, and techniques among those responsible for teaching and providing other services to students.

PCCEP staff members have been involved in the development of innovative ideas and workable strategies since the beginning of the current career education project, and now funds have been approved to continue and expand operation of the Pinellas County Comprehensive Career Education Model K-14 developed during FY 1972-73. Continuation of state and federal funding will serve to insure the previous investment and permit further revision and refinement of the model COST/CAB Instructional System.

Conclusions

The schools in Pinellas County are part of a dynamic society which has consistently created demand for new insights into learning processes, new ways of teaching and workable strategies for relating the traditional academic focus of the classroom situation to the real world outside the school.

Students, parents, educators, business and professional people, and civic organizations are calling for more effective and efficient resolution of educational and societal problems. Education is the responsible link between social needs and social improvements; therefore, new and better relationships in education must be provided to help students find satisfactory places in society.

Large numbers of Pinellas County youth fail to see any relationship between school experiences and identifiable steps beyond school. This view is especially common to the large percentage of students not planning to attend college. The relationship between education and the individual's life work should be readily apparent to all students.

Career education is needed for all students, K-14, adult and continuing. Adults are faced with many difficult problems in adjusting to and preparing for the dual roles of family members and workers. Many must redirect careers a number of times during adult life. Assistance in career planning and personal development should be a continuing service provided by the schools. Consideration must also be given to the more severe problems of disadvantaged and handicapped students--those representing the results of failures in education and other social systems.

If career education is to meet the challenge of change, it must assume major responsibility for creating self-awareness, career awareness, and career consciousness in all students at all levels to help develop necessary competencies, attitudes, and values that will enable the visualization of a career life and the accompanying life-style.

Career education must be designed to meet the diversity of needs which are resulting from an increasingly complex student population in Pinellas County Schools. The goals must range from providing college preparatory courses to the offering of a wide range of technically oriented occupational courses designed to meet manpower and other economic needs pertinent to the area.

The curriculum for career education must be constantly reviewed, evaluated and revised. The complex and rapid changes in today's world demands new answers and new approaches to curriculum design. If education is to keep pace, traditionally slow speeds of curriculum change and other educational strategies must be accelerated. Typical methods of instruction which divide the world of knowledge into artifically created segments fail to provide students with an understanding of the world in which various segments of this same knowledge must be <u>related</u> in a logical, meaningful fashion.

Human relations skills have long been recognized as crucial to occupational success. The ability to get along with others has been proven to be of vast importance in the realm of industry. Personnel managers in the Pinellas-Tampa Bay Metropolitan Area are asking educators for emotionally stable people who can adjust easily, get along with fellow workers and possess a pool of transferable skills. Educators must find a way to direct curriculum and organize educational resources to meet these needs.

In the quest for relevancy in education, nothing is more important than providing every youth and adult in Pinellas County with the capabilities necessary to make intelligent career decisions and the opportunity to prepare for entry and progress in such careers. As part of a dynamic social order, the Pinellas County School system must provide people with the ability to project themselves into future career roles, analyze those roles, and related projected roles to a meaningful, happy and productive life. Such are the purposes of career education.

GOALS AND OBJECTIVES

Project goals were designed to provide:

1. a broad occupational orientation at elementary and secondary school levels to increase student awareness of the range of options open to them in the world of work.

2. work experiences, cooperative education and similar on-the-job training programs, in addition to those currently available, making possible a wide variety of offerings in many occupational areas.

3. specific training in job entry skills for students just prior to the time they leave school (some of these programs may be intensive and of short duration).

4. intensive occupational guidance and counseling (K-14) and initial placement of all students at the completion of their schooling. (Placement may be in a job, in post-secondary occupational programs, or in a four year college program.)

5. continuing follow-up of all dropouts and graduates to provide information for program revision.

6. an inservice orientation program for teachers, administrators and supportive staff to acquaint them with goals, methods and techniques of the career development program.

Specific objectives for students at the elementary level were:

1. to provide positive attitudes about the personal and social significance of work.

2. to develop self-awareness and ability to understand the attitudes, skills, interests, and talents necessary to relate self concept to jobs.

3. to develop and expand occupational awareness by participation in a variety of concrete career development activities so that students understand the interdependency of occupations and the need to relate to and cooperate with others in the world of work.

4. to improve overall performance by participation in a unified, action-centered, career related curriculum.

Specific objectives at the junior high level were:

1. to increase understanding by providing concrete and simulated experiences so that the student will explore broad clusters of occupations, evaluate interests, abilities, values, and needs as they relate to occupational roles.

2. to provide opportunities for more detailed exploration of selected broad occupational clusters and to tentatively select a particular cluster for in-depth study in grade nine.

3. to provide in-depth exploratory and training experiences in one occupational cluster and to develop job entry level skills in one occupational cluster, leaving open the option to move between clusters.

4. to improve overall performance by participation in a unified, action-centered, career-related curriculum.

Specific objectives at the senior high and post-secondary level were:

1. to provide in-depth exploratory and training experiences in at least one occupational cluster and to develop job entry level skills in at least one occupational area, leaving open the option to move between clusters.

2. to improve overall performance by participation in a unified, action-centered, career-related curriculum.

3. to provide training experiences for intensive preparation in a selected occupational cluster(s), or in a specific occupation(s) and to demonstrate job entry skills necessary for placement and ultimate success in an occupation and/or further education.

4. to follow-up all school leavers for the purpose of gathering relevant data for curriculum review and revision.

PROCEDURES

Prior to acceptance of the project, the superintendent's staff reviewed the career education concept and studied USOE guidelines relating to administration and implementation. It was decided that a program of career education would require more administrative coordination and planning than that being done for programs now in operation. The primary reasons being (1) the increased interaction required with the community at large, (2) the need for integration of career education curricula across all subject matter areas, (3) the need for educational professional development of all staff, (4) the need for coordination of program development with other educational agencies, (5) acceptance of responsibility for placement and follow-up of students exiting the system, and (6) the increase in per pupil costs for which new monies must ultimately be sought.

After administrative commitment was ascertained, the project proposal was presented to (1) all county level supervisors and administrators, including VTAE and Pupil Personnel Services, (2) elementary and secondary principals, (3) selected key staff members from proposed pilot schools, and (4) the School Board of Pinellas County.

Responsibility for final selection of pilot schools was delegated by the Superintendent to the Executive Assistant Superintendent of VTAE and other key personnel. Schools were recommended and selected on the basis of staff interest and student need for the program. After tentative selections were made, an orientation workshop was held for representatives of the schools. All personnel attending were charged with responsibility for informing others and getting support for the program in individual schools. Letters of support and acceptance were then solicited from the schools. All schools invited to participate accepted. (See list of schools and letters of acceptance in Appendix G.) One senior high, however, elected to drop out of the program prior to the implementation phase.

Following final approval of the project (February 17, 1972), a director and other staff were selected. (See Appendix H, Job Descriptions.) It was determined that in order to initiate a successful career education program, the Superintendent, Board of Education, Project Director and Staff, and other key personnel supporting the concept, would need to express commitment publicly. This series of events followed:

1. The School Board passed a resolution supporting career education. (Appendix L.)

2. Steering committees composed of representatives of the school and community were appointed. (Appendix I.)

3. The philosophical bases and general emphasis of the career education endeavor were developed.

4. Student and community needs were considered.

5. Priorities were determined on the basis of both student and community needs and the constraints of time and money.

6. Long and short range goals were developed.

7. Product objectives and expected outcomes were established to assure accountability for the program.

8. A third-party evaluator was selected.

9. An inservice staff development program was planned and implemented.

10. Selected processes for implementation of objectives in pilot schools were identified.

11. A master plan for implementation with what was considered to be an appropriate time frame was designed.

12. System-wide constraints (not related to the project) were identified and means of removing them received attention.

13. An organized system for keeping the public informed about the project was developed.

14. A comprehensive internal evaluation scheme to measure expected outcomes for both process and product was developed.

The Pinellas project was implemented in 9 pilot schools: 4 elementary, two junior high, 1 senior high, and 2 post-secondary. Combined enrollment in the schools exceeded 8000. Approximately 400 staff members serve those schools. Project goals were especially designed to bring together already operating components of career education in the county. A concerted effort was made to identify and integrate effective elements of other programs and projects (both academic and vocational) to build a composite, articulated program of career education.

OPERATIONAL GOALS

In-Service

1. Provide in-service preparation for teachers, parents, community representatives, counselors, and occupational specialists, administrators, and other support staff, to acquaint them with goals, objectives, methods, and evaluation criteria of the Career Education Project.

2. Design an on-going renewal program for upgrading skills and updating knowledge of Career Education staff members.

3. Develop summer workshop programs.

4. Identify and appoint in-service staff members to provide staff development experiences related to Career Education and the "COST" (Counselor - Occupational Specialist - Teacher) Instructional System. (COST teams from Career Education Pilot Schools will be expected to play an important role.)

5. Develop key workshop components in Career Education.

6. Solicit support from and work with neighboring colleges, universities, and curriculum laboratories in developing and teaching Career Education courses.

7. Develop and secure slide-tape and other media presentations for workshops and renewal programs.

Guidance

8. Develop the role of counselor and occupational specialist as members of the COST Instructional Team, with shared accountability for student performance.

9. Develop the role of the teacher as a member of the COST Instructional System, working to coordinate the resources of the counselor and the occupational specialist.

10. Identify and solicit resource people who will work with students on either a short-term or long-term basis; and develop the role of the parent as an aide, as well as the roles of other community resource personnel to work with the COST teams.

11. Develop interdisciplinary roles for all staff at all levels, K-14.

12. Develop job specifications, evolving roles, and specific tasks for a new position to be called "COST Team Assistant." This will permit more constructive and efficient use of total team efforts.

13. Further develop the evolving role of the media specialist in the Career Education movement and as a part of the support system for the COST Instructional System.

14. Further develop the evolving role of the principal as a COST Team Administrator.

15. Develop the role of county-level subject area supervisors when working with the Career Education pilot schools.

16. Develop a plan to implement Career Education concepts and the COST Instructional System in non-pilot schools.

Community Information and Involvement

17. Identify and appoint appropriate personnel for committee work on staffing; curriculum; COST team instruction; in-service; scheduling and efficiency management; placement and support systems; legal issues; policy making; and regulations.

18. Establish records of all visitations to Career Education pilot schools by persons other than school district personnel -- e.g., parents, business and industry representatives -- in order to determine the extent of community involvement.

19. Maintain records of all presentations, in order to develop a system for providing information to all school and community groups.

20. Set up a speaker's bureau, composed of members of the community who are committed to the Career Education Project. These persons can be called upon to give the most credible kind of information about the project, as disinterested third parties.

21. Arrange special activities for students; e.g., Youth Flair, Career Fairs, Campus Seminars, Open House, Parent Nights, Back-to-School programs, Special Assemblies, etc.

22. Select and appoint students to work with advisory groups; the student must be recognized as an equal in the development of Career Education activities.

23. Involve students in the collection of follow-up data.

24. Develop a comprehensive plan for public information to keep the public informed concerning the Career Education movement, and to solicit support for its concepts.

25. Develop a program for legislative review and eventual national dissemination, to share concepts unique to Career Education in Pinellas County.

Legal, Policy, and Regulations

26. Determine what Career Education monies are available and what procedures are best for obtaining these funds.

27. Meet with national and state legislators, and with advisory groups, to discuss recommendations for needed changes in laws, policies, and regulations which affect Career Education.

Support Systems and Placement

28. Provide a better information base for the COST team by developing placement and support systems (records for student information).

29. Develop a plan for the utilization of a computerized Career Education Guidance Component with related in-service, in order to better implement the data system mentioned in (28) above. Hire the Support Systems Coordinator to develop the computer-assisted guidance data base.

30. Develop a position of Support Systems Coordinator (i.e., specifications for the job title), to become a part of the Career Education Staff.

31. Insure the eventual placement of all students in an environment compatible with their skills, interests, and attitudes:

    a. to fulfill the school's responsibility to all students leaving the school system, either by graduation or early exit;

b. to serve as a bridge between school and the occupational world;

c. to provide necessary data for program evaluation.

32. Provide follow-up information on all existing students, and to use this information for program revision.

33. Facilitate easy exit and re-entry into the system, as deemed necessary by the student. Serve as a bridge between school and the world of business and industry.

34. The Placement Supervisor will assist counselors and other staff to increase their understanding of program objectives and current job descriptions and availability.

Curriculum

35. Screen, categorize, and develop Career Education teaching materials and resources to fuse, complement, and articulate with present curricula for students K-14.

36. Develop performance objectives for teaching units to cover the eight elements of Career Education; e.g., the performance objectives found in the U. S. Office of Education matrix and the Florida Department of Education Elementary and Secondary Academic and Vocational Standards.

37. Secure or develop teaching units for occupational areas within each of the clusters according to the Dictionary of Occupational Titles and/or other organizational pattern.

38. Consider the Career Activity Book format when developing or modifying units; review and revise the CAB format accordingly. (The purpose of the CAB format is to insure the fusion of the Career Education elements and the academic standard or interdisciplinary relevance within each occupational cluster.

39. Identify beginning competencies and employability skills being delivered by the teaching units, according to:

a. the demand for the skill on some available job;

b. the demand for the skill in local work-experience programs.

40. Develop teaching units which incorporate teaching responsi-

bilities to be shared by counselors, occupational specialists, teachers, and other support staff as part of the COST (Counselor - Occupational Specialist - Teacher) Instructional System -- a team effort to promote teacher effectiveness and to foster the concept of shared accountability.

Costs

41. Consider the expanded school day, week, and year, including double sessions and grade-level restructuring, to facilitate the implementation of Career Education concepts and the COST Instructional System.

42. Consider modular and block-time scheduling.

43. Develop a space-utilization model regarding special facilities, classroom capacity, staff assignments, and student density.

44. Examine transportation logistics.

45. Write monthly and quarterly reports to include new staffing patterns and summaries of all related committee activity workshops.

46. Develop a cost-effectiveness model based on cost-feasibility studies developed both statewide and nationally; e.g., State Department of Education and U. S. Office of Education models.

Scheduling and Efficiency Management

47. Develop a program for assimilating a Career Education student into a non-Career Education school.

48. Develop a plan for making the Career Education program a district-wide innovation, to include an organizational structure which will specify the function of Career Education in a direct staff or line relationship to the Executive Assistant Superintendent of Instruction, as is now done with elementary and secondary education.

49. Develop a broader rationale for the selection of performance objectives within the present course-selection rationale. Consider a broader rationale for selection of time (e.g., in modular scheduling students may change direction of work efforts at time intervals which suit him, whereas in computerized flexible scheduling they must change at regulated

intervals). This is a necessary step toward giving credit for performance objectives completed, to be added to (or eventually substituted for) Carnegie Unit Credit.

50. Develop industry resources through staff visits to industry, and include facilities outside the school district when considering utilization studies. (Business and industry develop their own presentations for schools.)

51. Consider industry and community facilities when scheduling students, in order to provide better utilization of space.

52. Provide cost data as a basis for cost-effective comparisons.

Longitudinal Effects of the Cost-Instructional System

53. Increase the self-awareness of K-14 students, and specifically, use the concepts of work, job, and career to enhance the self-awareness of students.

54. Increase the positive attitudes of K-14 students toward school and the personal, social, and economic significance of work.

55. Increase the career awareness of K-14 students by providing information concerning careers, employment opportunities, and avocational options.

56. Increase the decision-making capabilities of students K-14; i.e., increase the student's understanding of self in terms of knowledge of career options, career choices, and resulting life styles.

57. Provide 7-9th grade students with opportunities for detailed exploration of occupational clusters, with the resulting development of beginning competencies.

58. Provide 9-14th grade students with in-depth preparation in at least one occupational cluster, together with appropriate employability skills, leaving open the option to move between clusters, and the option of:

    a. intensive job preparation;

    b. post-secondary preparation;

    c. adult and continuing education

    d. baccalaureate preparation.

59. Increase the educational awareness of students K-14.

60. Increase the economic awareness of students K-14.

61. Provide intensive guidance and counseling services which will assist students in developing decision-making skills, specifically relating those skills to the selection of occupational specialties.

62. Examine various instructional modes and strategies for Career Education relevance; e.g., role playing, group dynamics, field trips, independent and group decision-making, open concept, modular and flexible scheduling, individualized instruction, and other related classroom management philosophies. Develop a more personalized educational program by unifying the entire school curriculum around a career development theme.

EXPECTED OUTCOMES OF THE COMPREHENSIVE CAREER EDUCATION PROJECT

As compared to students, teachers, administrators, counselors, and other supporting staff in the control schools, significant differences are expected in the Pilot Schools in the following areas:

In-Service

1. More positive attitudes toward Career Education concepts and the district project by parents, given the parent attitude questionnaire.

2. More positive attitudes toward Career Education concepts and the district project by staff and administrators, given the staff and administrator attitude questionnaire.

3. More variety in learning activities, given the recording of learning activities and resources on a process diary of teachers, counselors, occupational specialists, and students; more demonstrable marketable products and services by students.

4. More staff members released to take part in full-time renewal workshop activities.

5. More parents, industry representatives, and students taking part in either renewal or summer workshop programs.

6. More staff members taking part in summer workshop programs.

7. More workshop components for improving the basic skills, improving the ability of staff to operate in "open" facilities, and for developing industry resources for learning activities.

8. More relationships with institutions of higher education for the purpose of developing in-service training for teachers and for developing courses in Career Education.

Guidance

9. More commitment by counselors to change their traditional role to more of a group guidance orientation, and toward becoming facilitators of change by helping teachers improve their guidance skills with students, given a recording of counselor attitudes.

10. More commitment by teachers to change as a result of their working with counselors and occupational specialists and

coordinating their efforts as resource personnel, given a recording of teacher attitudes.

11. More positive attitudes by administrators (principals and district supervisors) toward the new role of the counselor and the occupational specialist, given a recording of administrator attitudes.

12. More parents involved as role models representing career clusters.

13. More visitations by industry representatives who are working with teachers and students.

Community Information and Involvement

14. More committee meetings in the areas of curriculum and differentiated staffing, to include the COST (Counselor - Occupational Specialist - Teacher) Instructional Team concept; cost effectiveness; scheduling and efficiency management; guidance and longitudinal evaluation of students; placement and support systems; and legal, policy, and regulation matters.

Support Systems and Placement

15. More coordinated support systems information for student decision making, to include:

    a. Individual student interests and occupational preferences; attitudes toward work, occupational choice, and employability; aptitudes (GATB 9, 12); temperament (Chronicle View).

    b. Employment availability records, including local, state, regional, and national trends.

    c. Demographic information, to include: referrals, grades, anecdotal records of course work and completed performance objectives, and work experience records (Central Computer File).

16. More exploration of clusters in grades 7-14, and more in-depth preparation and intensive job preparation in grades 9-14 (classload printouts by school and subject, grouped by clusters).

17. More students placed in jobs as a result of their own career

choices, as well as in baccalaureate programs, trade schools, and other satisfying societal offerings (e.g., military, travel, marriage).

18. More returns of student follow-up forms; improved records on repeaters, dropouts, and re-entries (from computer printouts).

19. More student productivity on the job, given employer feedback.

Curriculum

20. More teaching units secured or developed and classified according to:

    a. Occupational cluster;

    b. Grade level range;

    c. Codes for each of the eight Career Education elements embodied within the unit;

    d. Whether or not the unit includes interrelated guidance activities;

    e. Whether or not the unit includes related guidance activities;

    f. Whether or not the unit includes beginning competency skills or employability skills demanded in local jobs or current work experience programs;

    g. Validation of unit for content and operational objectives;

    h. Upward and downward articulation;

    i. Categorization of resources unrelated to any particular unit.

Costs

21. More benefit indicators (e.g., those listed in item 14, on the previous page) which can be viewed as cost-effective, given cost data, to include consideration of:

    a. The expanded school day, week, and year, including double sessions and grade-level restructuring;

b. Modular scheduling and block-time scheduling:

c. Space utilization, with regard for special facilities, classroom capacity, staff assignments, and student density;

d. Transportation logistics;

e. New staffing patterns;

f. Broader rationale for the selection of performance objectives by students, with consideration of credit for the completion of work on performance objectives in addition to Carnegie Unit credit.

g. Industry resources and facilities made available when scheduling students.

Longitudinal Summative (Product) Evaluation of Students

22. More educational awareness by students in Grades K-14, given the Pinellas County Survey of Educational Awareness.

23. More economic awareness by students in grades K-14, given the Pinellas County Survey of Economic Awareness.

24. More career awareness by students in grades K-14, given the Pinellas County Survey of Career Awareness.

25. More occupational self-concept commitments by students in grades 4-14, given the Pinellas County Survey of Occupational Self-Concept.

26. More practice in career planning and more career planning commitments in grades 7-14, given the Pinellas County Career Planning Survey.

27. More positive attitudes toward work and occupational choice in grades 7-14, given the Pinellas County Survey of Attitudes toward Work and Occupational Choice.

28. More employability skills in self-concept dimensions in grades 9-14, given the Pinellas County Survey of Employability Skills.

29. More employment entry skills and interests in grades 9-14, given the Pinellas County Survey of Employment Entry Skills and Interests.

COMPONENT REPORTS

During the first year of operation the program was organized around nine basic components: (1) elementary K-6, (2) junior high (7-9), (3), senior high and post-secondary (10-14), (4) guidance and counseling, (5) inservice staff development, (6) placement and follow-up, (7) public relations and public information, (8) articulation, and (9) evaluation. Components receiving major emphasis during school year 1972-73 included: (1) elementary, (2) guidance and counseling, (3) inservice staff development, and (4) evaluation. All other components will receive increasing emphasis during the second phase of operation (1973-74).

Elementary

The elementary component (K-6) received major emphasis during this first year of operation. In the early months of the project the Director searched the literature and examined demonstration elementary school career education approaches in Florida, Georgia, New Jersey, Texas and Illinois. The purpose of this search was to identify promising methods, techniques, and resources for increasing both self-awareness and career awareness in students K-6. Several valuable approaches were observed and many were later integrated into the Pinellas County Career Education program. Special attention was given to three Florida based projects:

1. FAIS -- Fusion of Applied and Intellectual Skills, University of Florida, Gainesville, Director, Mrs. Midge Smith.

2. Orange County Comprehensive Career Education Project, Orlando, Florida, Director, Mr. Robert Megow.

3. LOOM -- Learner Oriented Occupational Materials, Florida State University, Tallahassee, Director, Mr. John Geil.

In the early months of the Pinellas Project, these project Directors provided invaluable services to the PCCEP staff. Processes and products developed in the other projects became the early operating components of the Pinellas Project. LOOM materials were used in two of the four elementary schools and FAIS was combined with LOOM in one school, and one school used FAIS only.

A Career Education Task Force, made up of master teachers, counselors, and pilot school administrators, was appointed to work with teachers in exploring potential ways to revise existing curricula in order to refocus around the career development theme. The Task Force worked on a part-time basis in the Spring of 1972 to develop, review and field-test a variety of techniques and materials. Those judged best were selected for further consideration by larger groups in summer workshops. The Task Force assisted in workshops held during June and July, 1972, where pilot school

personnel were introduced to career education concepts, theories, and strategies. Units of instruction were developed to fuse academic, vocational and guidance concepts, and many existing units were revised and adapted. Commercial resources were examined in depth and some were ultimately purchased for use in pilot schools. Career related materials were duplicated, purchased and disseminated to pilot schools in early October, 1972.

Additional staff members were appointed to handle responsibility for career education activities in all pilot elementary schools. Counselors were added to those schools not already having those services, and an occupational specialist unit was added to all four elementary schools in the project. In response to requests from principals of the pilot schools, two vocational teacher consultants were assigned to work with the elementary schools. The counselor, occupational specialist, and vocational teacher consultant, working cooperatively with classroom teachers, became the prime movers of career education in PCCEP schools.

Avenues to implementation were many and varied. Each school was encouraged to facilitate development of a career education program evolving around staff strengths and interests. However, broad goals were developed for all schools relating to (1) self-awareness and evolving concepts of self-understanding, (2) attitudes and appreciations, (3) career awareness, (4) employability skills, (5) decision-making, (6) economic awareness, (7) educational awareness, and (8) skill awareness and beginning competence.

Students (K-6) were helped to develop decision-making skills--thus enabling a systematic application of information to rational processes with regard to the eight elements (listed above) identified in the National Comprehensive Career Education Model (CCEM) developed at Ohio State University, and the 15 occupational clusters developed by USOE. These elements and clusters (See Appendix K for complete listing) were used to weave comprehensive career education into a sound basic program in the four elementary schools concerned.

Pilot elementary schools involved during the first phase of operation were:

Campbell Park Elementary, St. Petersburg, Mr. Leonard Summers, Principal

Eisenhower Elementary, Clearwater, Mr. Robert Burke, Principal

Lakeview Elementary, St. Petersburg, Mr. Louis McCoy, Principal

Palmetto Elementary, Clearwater, Mr. Frank Martin, Principal

Principals in pilot schools are to be commended for the dynamic personal leadership given in support of the PCCEP.

CAREER EDUCATION GOAL STATEMENTS
(K-6)

Kindergarten

1. Understand the rights and responsibilities of the individual at home and in school.

2. Understand the importance of each person in the function of the home.

3. Know the jobs of home members, school personnel and important community workers.

4. Understand the need to share and cooperate to complete tasks.

5. Understand cause and effect in making decisions.

6. Identify within the home unit: What is available, needed, wanted or luxury?

7. Become aware of roles in the home and similar roles in the school and community.

8. Identify and relate tools to the different careers.

Grade One

1. Know the importance of "self" as an individual and as a worthy member of groups.

2. Learn to appreciate all individuals in the school setting.

3. Relate home and school jobs to community functions.

4. Acquire the ability to work with others, develop and follow rules, accept direction, and take responsibility.

5. Become aware of the consequences of personal decision-making.

6. Become aware of the exchange of goods and services.

7. Understand similarities and differences between home roles, school roles, and community roles.

8. Understand that school is a job that requires mastery of basic skills for success.

Grade Two

1. Become aware of the capabilities and limitations of individuals.

2. Understand the importance of getting along with other people.

3. Gain a knowledge of jobs necessary to maintain home, school and community, and the interdependency of these jobs.

4. Identify interaction styles that contribute to individual and group goals.

5. Analyze alternatives to problems and be able to express them verbally or in written form.

6. Understand the money exchange system vs. the barter system.

7. Relate basic skill development to life roles in the home, school and community.

8. Understand the use of various communication skills and their effect on life-style and future career choice.

Grade Three

1. Recognize attitudes toward learning tools and their value in achieving individual goals.

2. Understand the various contributions of community work roles.

3. Compare local jobs to jobs in other areas of the nation.

4. Understand how to resolve personal conflict between individual and group goals.

5. Identify components of the decision-making process.

6. Understand how the monetary system works.

7. Understand the similarities and differences between life roles and learned skills.

8. Understand the use of additional tools and possible effect on life-style and future career choice.

Grade Four

1. Relate the mastery of basic educational skills to personal success.

2. Become aware of the wage earner's job and how it affects the home and family unit.

3. Group jobs in clusters according to similarity of job performance.

4. Identify styles of interaction that contribute to individual and group goals.

5. Realize the need for goals in life-style decisions.

6. Understand the process of production and distribution of goods and services.

7. Understand the similarities and differences between life roles and learned skills.

8. Understand the use of various communication tools and their effect on life-style and future career roles.

Grade Five

1. Become aware of the individual's rights and responsibilities as a worker.

2. Analyze work roles and identify advantages and disadvantages.

3. Understand the possible impact of career clusters on life-styles.

4. Understand how to relate the school environment to society at large and the need for structure and order.

5. Apply the decision-making process to school related problems.

6. Become aware of the law of supply and demand.

7. Understand the relationships between the role of the individual, his environment and the roles of selected adults.

8. Participate in and understand the processes of mass production and master several measurement tools.

Grade Six

1. Select career clusters and relate them to individual strengths and weaknesses.

2. Understand the relationship between occupations and possible growth and development.

3. Recognize abilities and skills required for various career clusters.

4. Identify the individual's role in society and its effect on increased personal satisfaction and improved group achievement and morale.

5. Apply the decision-making process to home and socially related problems.

6. Understand that specialization creates an interdependent society.

7. Understand the relationships between people and ultimate effect on the accomplishment of tasks.

8. Understand tools and processes used in research, and that simple machines are combined to produce complex machinery.

These grade-level goals were taken from The National Standard Career Education Model -- Kindergarten through Adult -- Goal Statements. The statements were adapted and prioritized by the PCEEP staff for use during 1972-73. The goals will be revised in accordance with findings reported in the Parent-Staff Attitude section of this report for 1973-74.

Junior High School

The junior high school component focused on the cluster approach to career orientation and exploration. Self-awareness activities similar to those introduced at the elementary level were adapted and used at the junior high level with considerable success. Expansion of in-depth exploration at this level will ultimately provide students with a better background for making realistic and relevant career related choices in high school and also provide early school leavers with some basic employability and job skills.

Both junior high schools selected to participate in the project had extensive pre-vocational programs. Project activities were designed to utilize these strengths and to sequence selected learning experiences to provide a basis for making judgments about the adequacy of stated objectives, effectiveness of experiences, and efficiency of the delivery system for meeting student needs as they relate to career development. Findings will be used to revise approaches to career education implementation at this level during 1973-74 when grades 7-9 will receive major emphasis.

Teachers from both participating junior high schools attended summer workshops to study career education concepts and related theories. They also prepared units of instruction which were later implemented in the classroom by individual teachers, but for the most part, career education concepts and related activities were fused with previously developed curricula to provide relevancy and to motivate students.

The junior high schools already had the services of counselors on existing staff, but an occupational specialist unit was added to each school, and this individual was specifically responsible for career related activities.

One comprehensive junior high school provided many field trips and exposure to hands-on activities for an elementary pilot school located nearby. This happy geographic circumstance proved beneficial to students of both schools.

Broad goals were developed relating to (1) self-awareness, (2) appreciations and attitudes, (3) career awareness, (4) employability skills, (5) decision-making, (6) economic awareness, (7) educational awareness, and (8) skill awareness and beginning competence.

Students (7-9) were helped to develop decision-making skills--thus enabling a systematic application of information to rational processes with regard to the eight elements (listed above) and identified in the National Comprehensive Career Education Model (CCEM) developed by Ohio State University, and the 15 occupational clusters developed by USOE. These elements and clusters (See Appendix for complete listing) were used to weave comprehensive career education into a sound basic program in the two junior high schools in the project.

Pilot junior high schools involved during the first phase of operations were:

Clearwater Comprehensive Junior High School, Clearwater,
Dr. Robert Safransky, Principal

Sixteenth Street Junior High School, St. Petersburg,
Mr. John Hopkins, Principal.

CAREER EDUCATION GOAL STATEMENTS
(7-9)

Grade Seven

1. Choose career clusters as related to interests and abilities.

2. Appreciate all forms of endeavor and work.

3. Understand the relationship between attitudes, values and career clusters.

4. Understand social and personal relationships and their effect on employment.

5. Weigh long and short range effects of different alternatives to specific problems.

6. Develop the concept of management of finances (earning, spending, borrowing, and savings).

7. Identify and understand values as they relate to lifestyles.

8. Master the use of tools and processes used in research in the physical sciences, and understand use of tools in selected career choices and clusters.

Grade Eight

1. Develop self-perception of abilities and interests as related to actual career requirements.

2. Understand the impact of work in one's life and the resulting need to make a meaningful career choice.

3. Understand the relationship between interests, abilities, and career clusters.

4. Relate personal and social interaction skills to career clusters.

5. Apply decision-making processes to study of careers.

6. Understand economic potential as related to career clusters, i.e., relate cost of entering a field to future expected income.

7. Identify present life-style and conditions determining that style.

8. Use basic tools found in career clusters.

Grade Nine

1. Build reality awareness perception (where I am as compared to where I want to be).

2. Relate attitudes and awareness to specific or related job clusters.

3. Based on understanding of interests, values, and abilities, survey career clusters and study specific courses in career clusters.

4. Understand the skills necessary to acquire, maintain, and progress in the world of work.

5. Analyze and refine previous career decisions based on counseling,work experience, and all other available information.

6. Understand the tools of business: Read and interpret tables, graphs, and charts used by consumers.

7. Determine a tentative personal schedule to acquire necessary and desired skills of a special nature.

8. Match necessary skills and processes with selected career clusters.

Secondary and Post-Secondary

The secondary and post-secondary institutions selected to participate in the projects continued highly realistic, career related programs previously developed to prepare youth and adults for successful entry and advancement in occupations for which they were trained or for successful pursuit of higher education. Cooperative work experience programs in the regular vocational areas were emphasized and became more meaningful as greater emphasis was placed upon methodology and techniques suggested through joint school and industry working relationships.

The comprehensive senior high school in the model showed considerable development toward the concepts embodied in career education and several academic teachers demonstrated understanding of the fusion process by revising existing curriculum and revamping course outlines and resource guides. The English department developed a new course specifically to meet the needs of students leaving formal schooling and entering the world of work after completing the 12th grade. The course will deal with basic communication and media and all content will be relevant to students seeking jobs and will assist the student in job performance. The course will be introduced in the 1973-74 school year.

Teachers studied career education concepts and related theories in a summer workshop. They also produced several units of instruction which were implemented in classrooms during the year. Guidance activities were stressed and a career information center was established. One high school added an occupational specialist to an already strong guidance staff, and this individual assumed major responsibility for career related activities in the school.

The two post-secondary schools involved in the project are to be commended for the quality of career related educational courses offered to students in both day and evening programs. Course content is directly related to the development of salable labor market skills.

Guidance and counseling services have been further emphasized and reinforced through the purchase of self-concept and career related information for use by counselors and students; and extensive plans to improve placement and follow-up services have been developed and will be implemented in 1973-74.

Both post-secondary schools have served as resource and field trip centers for elementary and junior high school groups. Pinellas Vocational Technical Institute also sponsored a highly successful workshop for academic teachers, counselors and administrators during the summer of 1972.

Broad goals were developed relating to (1) self-awareness, (2) appreciations and attitudes, (3) career awareness, (4) employability skills, (5) decision-making, (6) economic awareness, (7) educational awareness, and (8) skill awareness and beginning competence.

Students (10-14) were helped to develop decision-making skills--thus enabling a systematic application of information to rational processes with regard to the eight elements (listed above) and identified in the National Comprehensive Career Education Model (CCEM) developed by Ohio State University, and the 15 occupational clusters developed by USOE. These elements and clusters (See Appendix for complete listing) were used to weave comprehensive career education into a sound basic program in the schools involved.

Pilot secondary and post-secondary schools involved during the first phase of operations were:

Dunedin Comprehensive Senior High School, Dunedin,
Mr. Francis Freeman, Principal

City Center for Learning, St. Petersburg,
Mr. Robert Anderson, Director

Pinellas Vocational Technical Institute, Clearwater
Mr. Rex Gaugh, Director

CAREER EDUCATION GOAL STATEMENTS (10-14)

Grade Ten

1. Relate personal values and the influence of other's values on individual career choice(s).

2. Understand the importance of all careers and their contribution to society.

3. Explore the career clusters in-depth based on interests, values and abilities; and gain related work experience.

4. Develop personal and social interaction skills related to the in-depth study of one or more career clusters.

5. Select a career cluster for in-depth analysis.

6. Relate legal and financial consideration to career clusters in general.

7. Acquire special skills needed for predicted or desired life-style.

8. Match individual abilities and interests with skills and processes needed in career clusters.

Grade Eleven

1. Modify and/or accept differences between the individual's personal values and the influence of others on career choices.

2. Make a commitment to the selection of a career based on individual interests, attitudes, values and education.

3. Identify abilities necessary in selected career choice(s).

4. Develop employability skills necessary for the anticipated job, and plan alternatives for job placement.

5. Make a tentative career choice.

6. Understand the relationship of legal and financial considerations to a specific career cluster and personal and family matters.

7. Assess and implement a personal plan to obtain the necessary or required skills to support a specific career choice.

8. Develop skills basic to the chosen career cluster.

Grade Twelve

1. Develop self-confidence in anticipated career choice.

2. Understand the tasks required within chosen job cluster(s) and develop the specific skills needed.

3. Reassess abilities, interests, and attitudes according to selected career and life-style, and determine other requirements.

4. Explore at least three alternatives for job placement through work experience.

5. Become aware that career decisions are flexible at the expense of time, effort and money.

6. Understand the financial and legal instruments that govern and protect the worker, and relate this to various roles assumed in the economy.

7. Plan to acquire the necessary skills remaining to support a chosen life-style.

8. Master the basic skills in chosen career cluster(s) and develop skills related to a specific job.

Grade Thirteen

1. Apply self-awareness experiences to assure success in a realistic career and life-style plan.

2. Analyze career and life-style decisions as they relate to planned goals.

3. Refine and redirect career knowledge of field through counseling and guidance, and survey courses in career clusters.

4. Demonstrate through planned work experiences knowledge of skills needed to become employable.

5. Formulate plan for in-depth study of selected career clusters.

6. Understand and apply knowledge of economic responsibilities to career decisions.

7. Integrate educational experiences with applied experiences in a chosen career.

8. Function at acceptable levels of competency as established by your chosen career.

Grade Fourteen

1. Function within career decisions as a self-sufficient, happy citizen.

2. Integrate the career and life-style of the individual into society.

3. Reassess career goals, and identify and understand life-styles as related to advancement in career choice.

4. Integrate all knowledge and experiences into planned career.

5. Organize and apply resources to chosen career.

6. Be able to project economic implications of career decisions to your chosen future life-style.

7. Formulate future career options and perform within the established requirements.

8. Master proficiency of a chosen career as established by certification, license and/or standards.

These grade-level goals were taken from The National Standard Career Education Model--Kindergarten through Adult--Goal Statements. The statements were adapted and prioritized by the PCEEP staff for use during 1972-73. The goals will be revised in accordance with findings reported in the Parent-Staff Attitude section of this report for 1973-74.

Guidance and Counseling

Guidance and counseling assumed a key role in the early development of the Pinellas County Career Education Project. It is seen as the one element that ties all career related experiences together into a meaningful whole. The developmental concept of work, attitude formation, vocational experiences and career choices necessitates focus on the individual's self characteristics as they relate to job characteristics. Extensive guidance and counseling activities conducted by classroom teachers or guidance counselors assist the student in developing self-awareness and self-understanding regarding attitudes, aptitudes, values, interests, needs and abilities as they relate to potential career choice.

The counselor, acting as catalyst, organizer and coordinator, is helping to plan a systematic and developmental program of activities working with teachers, curriculum groups, and community resources for the purpose of promoting career development. Counselors are involved with teachers in planning instruction designed to help pupils develop greater self-understanding. Counselors also help teachers improve guidance skills for use in the classroom. Counselors work toward improving the student's decision making skills by using developmental group approaches more than remedial crisis approaches.

The classroom teacher is no longer solely responsible for pupil progress --or lack of it--the concept of shared accountability commits the counselor to more responsibility for serving both the educational and the personal-social needs of students in a planned system of instruction. Guidance, under the counselor's leadership, is rapidly becoming one of the most important components of the delivery system for career education in Pinellas County.

In pilot schools the career education team consists of a counselor, an occupational specialist, and a classroom teacher. Members of the COST team (Counselor, Occupational Specialist, and Teacher) work and plan together to provide career education activities which fuse or blend with the classroom teachers' basic instruction. The unified approach works like this: As a teacher plans or prepares a unit of instruction, the counselor and occupational specialist suggest strategies and methods for including many of the career education elements. The counselor may suggest specific activities dealing with self-awareness, decision-making skills, employability skills, and educational awareness. The occupational specialist then adds suggestions for including activities in career awareness, appreciations and attitudes, skill awareness and economic awareness. In this manner, the entire COST team becomes accountable for the instruction and education of students--not just the teacher alone.

COST team members in the nine pilot schools have accepted changing roles with considerable enthusiasm. Guidance, with the help of the classroom teacher and the occupational specialist, now permeates the entire school environment. It is safe to say that the goals of guidance are sufficiently broad to preclude accomplishment by any single worker, however well qualified. Thus, this broader roles for counselors must be encouraged.

Inservice Education

The inservice education component was the first to receive attention. Project staff judged this to be the most vital link in the intricate chain of career education strategy. Summer workshops (1972) provided a basic orientation to career education concepts and theory for 225 teachers, administrators, counselors, and support staff. Philosophy, goals, objectives, methods, techniques, and resources were explored and developed. Workshops (8 in total) were all designed to facilitate a unified approach to implementation of career education in Pinellas County. However, flexibility was stressed, and no attempts were made to force schools to conform to specific plans. Each school was encouraged to develop a program which supported broad goals of the project, but first consideration was given to the needs of students, and to the strengths and weaknesses of staff members.

Workshop activities centered around identification of methods and strategies for obtaining and disseminating information on self-concept, career clusters, educational opportunities, employment possibilities, community resources, and methods for fusing vocational, academic, and guidance activities into existing curricula.

Participants also engaged in experiences planned to improve their guidance and counseling skills in the classroom. These activities included values clarification strategies and individual and group counseling methods. Other workshops provided "hands-on" activities which gave teachers the "feel" of different occupations, and also provided meaningful field trips to local business and industry to learn first-hand about jobs and job requirements.

This composite of workshops helped teachers to modify personal values and attitudes regarding educational focus and traditional emphases. Realistic exposure provided counselors, teachers and administrators with new and different perspectives regarding the traditional roles of educators. Participants came away with a better understanding of the importance of helping students to develop affectively as well as intellectually.

Workshop members produced 125 instructional units in a variety of academic and vocational areas. Approximately 50% of the units also included guidance activities appropriate for use with the unit.

Inservice activities continued through out the year as counselors, occupational specialists, teachers and administrators from pilot schools met with the career education task force and project staff to (1) discuss problems relating to implementation, (2) consider new approaches to curriculum and implementation (COST/CAB), (3) evolve evaluation processes and procedures, (4) share ideas, (5) update process diaries, and (6) make recommendations for future inservice workshops (1973-74).

Placement and Follow-Up

The placement and follow-up staff worked cooperatively with guidance counselors, occupational specialists, cooperative education coordinators, vocational teachers, work-study coordinators, and the employment security agency to facilitate plans for a centralized placement and follow-up office to serve all Pinellas County schools. Philosophy, goals, and operational objectives were developed.

Educational and community advisory committees were appointed and plans made to have this component fully operational (both centralized placement and follow-up) by October, 1974. In the meantime, services will be available to assure that students leaving career education schools will be placed on jobs or in other educational programs. Assistance will also be available to students desiring part-time and summer employment. Lack of adequate facilities has hindered full implementation of this component during 1972-73.

An Employability Skills course has been developed by the staff and the Advisory Committee. This program will be implemented during the 1973-74 school year. Courses will be taught by placement personnel and held at various locations in the County (both day and evening).

Public Relations and Public Information

The public relations and public information component is recognized as being of prime importance to the ultimate success of career education efforts in Pinellas County. The educational community, as well as business and industry, has been extremely interested in project activities and results. Many hours of staff time have been devoted to the development and delivery of presentations to a multitude of different groups.

Early interest was expressed by the Education Committee of the St. Petersburg Area Chamber of Commerce. They were the first community group to request information about the project. Following an initial presentation to the group, a sub-committee for Career Education was appointed by the Chamber. This sub-committee ultimately organized a group of business and industry representatives to provide resources for career education pilot schools. (See Appendix for list of resources) Similar offers have now been received from the Largo, Clearwater, and Dunedin Chambers. Business and industry persons have contributed many hours and much valuable resource material to project schools.

The National Alliance of Businessmen also supported early efforts by including information about the project in a brochure developed for distribution in the community. NAB also provided speakers for project schools.

This component will receive increased emphasis during the 1973-74 school year, and a concentrated effort will be made to involve parents of students in the career education program in an organized fashion.

Articulation

A comprehensive articulation plan was recognized as a vital component of the project, but a meaningful approach was most difficult to evolve. Teachers across a broad spectrum of subject areas and grade levels had to be involved, and these teachers needed experience in career education before they could address themselves to this important task. As the year progressed, the need for planned articulation became self-evident. Teachers at different grade levels in the same school found that they were involving students in the same or highly similar activities. However, following a few such incidents, teachers began to concern themselves with solutions to this complex problem.

Articulation will receive major attention during 1973-74. The Career Activity Book approach is seen as one possible method for providing direction. This new approach, now under development, is a relevancy based curriculum design effort to provide teachers and students with activities which are real-world oriented. The CAB is a collection of useful, practical activities that are student-centered and require active involvement on the part of students. All activities in the books will be related to (1) career education elements, (2) occupational clusters, and (3) State Accreditation Standards for a given subject at a specific grade level. This suggested and still evolving approach has already received favorable attention in Pinellas County and around the State of Florida.

A comprehensive five-year plan to facilitate implementation and articulation of career education concepts in Pinellas County Schools has been submitted for consideration. With increased emphasis on this component during the upcoming year, an approach to articulation is expected to evolve from, and deal specifically with, the (1) eight elements of career education found in CCEM, (2) fifteen USOE career clusters, and (3) COST/CAB Instructional System.

Evaluation

All Part C, Research and Development, Career Education Projects, were required to contract for an independent evaluation. Pinellas County School Board contracted with The Southern Association of Colleges and Schools to provide this service. A contract was granted in July, 1972. Dr. Janie Jones made the initial visits to the project in April and July of 1972. When Dr. Jones left SACS to accept another position, the responsibility was assigned to Dr. A. B. Moore, presently a Specialist with The Center for Vocational and Technical Education (CVTE) at Ohio State University. Dr. Moore had previous experience in evaluation of career education projects through association with The Center for Occupational Education, North Carolina State University, Raleigh, North Carolina.

Dr. Moore and three other Career Education Specialists conducted the balance of the site team visits to Pinellas County career education pilot schools between December, 1972 and June 30, 1973. Other site team members

included, Mrs. Marquita McLean, Guidance and Counseling Director, Board of Public Instruction, Cincinnati, Ohio; Mrs. Maybelle Black, Director, of K-6 Component for 20 Career Education Projects in the state of Ohio; and Dr. Marvin Robertson, Specialist in the evaluation of Secondary and Post-Secondary programs, and Placement and Follow-Up, at the University of Georgia, Athens, Georgia.

In addition to the required third-party evaluation, Pinellas County also contracted with Dr. Thomas Justiz, to provide internal evaluation services for the project. Dr. Justiz was an evaluation specialist with CVTE at Ohio State University during the early months of the Comprehensive Career Education Model, and later became Ohio State Site Team Director at the Pontiac, Michigan, Career Education Site.

The external and internal evaluators met with the career education staff in December, 1972, to develop philosophy and evolve a plan for formal evaluation of the project. The goals of the project were examined and restated (see Pages 23-27) and a set of research questions (hypotheses) were drawn up related to the revised goals (see Page 30). A milestone-type schedule suggested certain instruments and procedures for data collection and analysis (See Appendix B), as well as an interlinking relationship between the external and internal evaluators.

It was recognized by the project staff that not all of the research questions (hypotheses) would be fully evaluated in the first year of the project and several would depend on subsequent funding. Major questions to be answered during the first year were determined to be: (1) To what extent have career education concepts been implemented in the pilot schools? (2) How can we measure student performance (and ultimately student growth) in career education? (3) How can we develop standardized tests to measure student growth in career education?

The external evaluators were primarily responsible for providing answers concerning the extent to which career education concepts had been implemented in pilot schools. However, the internal evaluators provided as much assistance as possible. The external evaluator judged the face validity of instrument developed by internal evaluators and also was in the County to appraise data collection procedures in the schools during the month of May, 1972.

The Career Education Task Force and selected representatives from pilot schools were also heavily involved in the evolution of evaluation forms, instruments and procedures. All instruments used for evaluation purposes in 1972-73 will be revised and field tested to further determine validity and reliability during 1973-74.

SUMMARY OF INSERVICE DATA

The PCCEP staff judged inservice efforts to be successful as indicated by teacher responses to workshop evaluation and the ultimate implementation of project goals and objectives in individual classrooms. Approximately 438 hours of workshop activities were provided for 225 teachers, counselors, administrators, and other support staff in a period of six weeks (June 17, 1972 - July 30, 1972). A total of eight workshops were held with times, locations, and objectives varying to meet the needs and interests of participants.

This synopsis has been prepared as a brief explanation of the statistical data herein reported. Several items are pointed out as being important considerations for the reader. There is a slight discrepancy between the number of individuals enrolled per workshop and the actual number of responses on the evaluation summaries. This difference resulted because of (1) absenteeism on the day of evaluation, (2) participants failing to mark some items, and (3) difficulty encountered in interpreting responses.

Attention is focused on average cost per teacher, with and without planning and implementation costs. Stipend costs averaged $254.00 per teacher, and the cost for planning committees, consultant fees, staff salaries, office expense, and travel averaged $106.00 per teacher. The total average cost per participant was approximately $360.00. Separate lists of participants in each workshop indicates the average stipend cost per workshop. Differences in average costs are due, primarily, to differences in rank and tenure of participants.

One of the most important aspects of the following report is the summary data on workshop evaluation provided by teacher response. Although it is difficult to accurately determine the degree of effectiveness in workshops of this type, some meaningful indicators of success were apparent when the total responses were tabulated and analyzed.

Assuming that the degree of success achieved by participants in the workshops can be measured by having participants mark either A and/or B (helped to a <u>great extent</u> and/or helped to a <u>considerable extent</u>) on the evaluation, positive results are apparent. Approximately 83% of all possible responses fell into these two categories. This appears to be a positive indication that participants felt the workshops to be effective in accomplishing stated objectives. It is also significant to note that forty-eight percent of all participants responding placed responses in category A (indicating the <u>great extent</u> to which the workshop had helped).

Four individual items appeared to have special significance. Item number five (developing an understanding of the importance of a positive attitude, appreciation and respect for <u>all</u> careers) appeared most beneficial in that sixty-two percent of all possible responses fell into the highest category (A). Attention is also invited to items two (developing an understanding

of career education philosophy and concepts), four (developing an understanding of the world of work concept and its relationship to occupational clusters), and six (developing an understanding of the relevance of academic programs to career education). Each of these items (2, 4 & 6) revealed that at least 56% of all responses fell into the highest benefit category (A).

The written statements found in items 12 through 15 of the evaluation have not been edited and appear just as teachers made them. Total number of responses per statement were not tabulated. However, these comments and other informal responses have contributed significantly to improving future career education inservice activities in Pinellas County.

CONSULTANTS

Mrs. Midge Smith, Project Director of FAIS, P. K. Younge Laboratory School, University of Florida, Gainesville, FL.

Mr. C. S. Broward, Media Specialist, FAIS, P. K. Younge Laboratory School, University of Florida, Gainesville, FL.

Dr. Leonard Jackson, Curriculum Consultant, FAIS, P. K. Younge Laboratory School, University of Florida, Gainesville, FL.

Mr. John Geil, Director, Project LOOM, Florida State University, Tallahassee, FL.

Mr. William Ripley, Career Counselor, Orange County Career Development Project, Orlando, FL.

Mr. John W. Daniels, Career Counselor, Orange County Career Development Project, Orlando, FL.

Mrs. Jean Johnson, Consultant, Values Clarification, Human Relations Project, Pinellas County Schools, Clearwater, FL.

Dr. Ronald Shearon, Assistant Professor of Adult Education, North Carolina State University, Raleigh, North Carolina

Dr. Joyce Chick, Head, Department of Counselor Education, Florida State University, Tallahassee, FL.

Miss Mary P. Allen, Associate to the Director for Governmental Relations, American Vocational Association, Washington, D.C.

CAREER EDUCATION WORKSHOP EVALUATIONS

SUMMER WORKSHOPS - 1972*

To what extent has this Career Education workshop helped you to:	Number & Percent of Responses/Category (Response Categories**)							
	A		B		C		D	
	N	%	N	%	N	%	N	%
1. develop methods which will enhance the education of students in your school?	88	46	70	37	32	17	0	0
2. develop an understanding of career education philosophy and concepts?	110	58	64	33	15	9	0	0
3. develop an understanding of career education objectives at national, state, and local levels?	62	33	81	44	42	22	3	1
4. develop an understanding of the world of work concept and its relationship to occupational clusters?	110	58	59	31	19	11	0	0
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	121	63	51	26	19	9	4	2
6. develop an understanding of the relevance of academic programs to career education?	106	58	63	33	17	8	3	1
7. develop an understanding of the guidance function in career education?	73	38	81	44	32	17	2	1
8. develop my awareness of resources available for teaching with career emphasis?	87	47	70	37	27	14	4	2

*190 participants in eight summer workshops.

**Response categories: A - to a great extent; B - to a considerable extent; C - To some extent; D - Not at all

To what extent has this Career Education workshop helped you to:	Number & Percent of Responses/Category Response Categories**							
	A		B		C		D	
	N	%	N	%	N	%	N	%
9. develop a model unit of instruction using career information and career related activities?	80	41	66	35	38	19	10	5
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	80	43	67	35	42	21	3	1

** Response Categories

A to a great extent
B to considerable extent
C to some extent
D none

EVALUATION STATEMENTS: By Mr. Clarence Givens, Workshop Director, for the "Career Education and the Guidance Function" workshop, Summer 1972.

Primary objective of the guidance workshop was correlation of the guidance function to the total career development project. Workshop format was designed to accomplish this objective. Purposes of the workshop were to: (1) orient guidance personnel concerning the basic concepts and philosophy of career education, (2) explore the role of pupil personnel services in the development of a career education model, (3) consider methods for increasing guidance services to students as these services relate to career education, and (4) consider the feasibility of specific services to classroom teachers in order to increase the use of guidance skills in the classroom.

Specific objectives of the workshop were to: (1) inform pupil personnel staff concerning career education concepts and philosophy, (2) determine the objectives of career orientation and guidance in Pinellas County, (3) determine and state the role of pupil personnel services in the full development of career education, (4) identify changes needed in existing services and determine methods of facilitation to assure achievement of objectives, and (5) develop and test a plan designed to increase the counseling skills of classroom teachers.

The following composition of personnel participated in the 60-hour workshop: (K-6)-- 11 teachers, 5 counselors, and 1 librarian, (7-9) 2 teachers and 1 librarian, (10-12) 3 teachers and 1 counselor. The workshop components were designed to prepare participants to function more efficiently in achieving the goals and objectives of career education as they relate to guidance. Five components were identified as essential: (1) philosophy, goals, objectives, and concepts, (2) career development theory, (3) communication skills and interpersonal relationships, (4) school, community, and employment resources, and (5) guidance functions. Each component contributed to the whole and provided for meaningful continuity.

The workshop emphasized <u>process</u> more than product or content. The purpose of materials produced was to give the participant the opportunity to apply learnings and test knowledge of the techniques given. The philosophy, goals, objectives and concepts of career education were readily accepted and served appropriately to unify the thinking of the group. Participants moved quickly from a collection of individuals from different disciplines and schools, into a cohesive group displaying purpose and commitment to career education for youth.

Career development theory, although useful, was received with less enthusiasm than expected. This was attributed to the theoretical nature of the topic which in essence requires more time to develop than was available or practical.

Communication skills were most enthusiastically received. The processes of values clarification, reflective listening, sending-receiving messages and interpersonal relationships formed the basis of this component. Evidence of personal growth, as well as professional skills development was apparent among the participants. (The personal growth factor was an unexpected outcome of this component.) Several participants suggested the value of more exercises of this type.

The school, community, and employment resources unit was intended to be informational. However, topics and resources related to values clarification and work attitudes received attention second only to field trips to industry and "hands-on" experiences. More time should have been allotted in this area. Several field trips to local business and industry had to be cancelled due to a shortage of time.

The guidance function, where participants were expected to develop materials or units of instruction based on learning, gave rise to frustration. The time allotted did not provide opportunity to incorporate all skills and concepts considered in the workshop. Nevertheless, enthusiasm never waned and examples of materials produced indicated a thorough grasp of the fundamentals of career education as applied to guidance.

The workshop was very successful when judged by participant reaction. Each participant gained both professionally and personally, and should be able to function well in promoting career development concepts in Pinellas County Schools.

COUNTY-WIDE CAREER EDUCATION WORKSHOP

CAREER EDUCATION AND THE GUIDANCE FUNCTION

JULY 10 - JULY 21, 1972

(60 Hours/10 Days)

PARTICIPANT	SCHOOL	GRADE-SUBJECT
Ateek, Louis E.	Dixie Hollins High	12 - Social Studies
Bolden, Barbara	Glenoak Elementary	6th grade
Bravos, Nick	Dunedin Sr. High	12 - Business Law
Bushell, Ruth T.	Seminole Jr. High	Librarian
Castner, Stephen	Clearwater Comp. Jr. High	7,8- English
Cheney, Thomas	Lakeview Elementary	5, 6th grade
Cooper, Dorothy S.	Seminole Jr. High	7,8-Social Studies
Crook, Thomas M.	Dunedin Sr. High	10 - Chemistry
Davis, Solomon S.	Dunedin Sr. High	12 - Art
Dennis, Marguerite	Campbell Park Elementary	6th grade
Foster, Sarah	Eisenhower Elementary	1 - 3
Hansell, Joyce	Palmetto Elementary	Kindergarten
McConnell, Miriam	Lakeview Elementary	Counselor
McNeil, Gladys	Eisenhower Elementary	1 - 3
Medus, Frankye	Campbell Park Elementary	Librarian
Noyes, Mary	Campbell Park Elementary	3rd grade
Payne, Carol	Wildwood Elementary	Counselor
Rankin, Deborah	Lakeview Elementary	Counselor
Reed, Susan M.	Tarpon Springs Elementary	Counselor
Reddick, Annie M.	Melrose Elementary	Counselor
Robinson, Oscar	Maximo Elementary	4 - 5
Roberts, Mary	Palmetto Elementary	2nd grade
White, Marlene	74th St. Elementary	2nd grade
Williams, Harold	Campbell Park Elementary	3rd grade

COSTS:

Workshop Payroll	$6,992.31
Average Cost per teacher	291.34

TOTAL TIME:

240 Days
1,440 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
Clarence C. Givens

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

CAREER EDUCATION AND THE GUIDANCE FUNCTION

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	13	6	1	
2. develop an understanding oc career education philosophy and concepts?	11	7	2	
3. develop an understanding of career education objectives at national, state, and local levels?	7	7	5	
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	13	5	6	
5. develop an understanding of the importance of a positive attitude, appreciation and respect for <u>all</u> careers?	14	6		
6. develop an understanding of the relevance of academic programs to career education?	11	5	4	
7. develop an understanding of the guidance function in career education?	14	4	2	
8. develop my awareness of resources available for teaching with career emphasis?	14	5	1	
9. develop a model unit of instruction using career information and career related activities?	6	11	3	
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	8	8	4	

11. The amount of time allowed for this workshop was - (check one):

_____ too much

13 O.K.

9 too little

12. What aspects of this workshop have been of most value to you?

The exposure to the many resources.
Group participation.
Guidance function.
The actual participation in workshop activities rather than the spectator sort of activities.
Guest speakers - Dr. Chick, Dr. Bailey, Mary Allen
Panel of Business and Labor.
Value and Clarification and Technique in helping children develop self-awareness.
Exposure to Career Education work being done at various grade levels.
Personal involvement.
The importance guidance plays in the total school.
Change my values toward the "World of Work."
An understanding of how career education can be fused into the curriculum.
Knowledge of the many materials, films and activities that can be used in career education programs.

13. What aspects of this workshop have been of least value to you?

None
Midge Smith's presentation.
Some of the films.
Exposure to FAIS.
Too little time for discussion and field experiences.
Too much repetition in the film area.
Panel of businessmen.
Everything had some merit.
FAIS presentation was least effective.
Exploratory areas of industry.
The session relating to reflective thinking.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

The technique of communication.
Reflective listening.
Communication skills.
Methods of teaching career awareness.
Value clarification games.
The cluster approach to awareness in education.

Ideas for presenting programs to parents making them aware of Career Education.
Fusing concepts with curriculum and putting career education on/in school curriculum.
Careers in commercial art and other related art courses.

15. What suggestions do you have for the overall improvement of this workshop?

More "Hands--on" experiences.
More time, less spectator and more participation by members of the workshop group.
Do fewer activities but in greater depth.
More relevant materials.
Involvement of more secondary personnel.
A room with fewer interruptions.

EVALUATION STATEMENTS: By Mr. Donald Rosenberger, for specific workshops directed during the Summer of 1972

The following evaluation statements are based on (7) objectives formulated by the Elementary Career Education Advisory Committee. Those objectives are as follows: (1) To develop an understanding of the world of work, (2) To develop an understanding that the world of work is divided into clusters of careers, (3) To develop a positive attitude, appreciation and respect for all careers, (4) To develop an understanding of student's varying experience level, (5) To develop an understanding of the importance of student self-concept, (6) To develop an understanding of methods and techniques of implementation and fusion of career education into existing curriculum, and (7) To develop an understanding of the relevance of academic programs to careers.

CAMPBELL PARK, LAKEVIEW, AND PALMETTO ELEMENTARY SCHOOLS

During this 30-hour workshop, approximately 20 percent of the time was spent orienting teachers to the broad concepts of career education. The Campbell Park and Palmetto staff members used the remaining time to produce instructional units which fused academic and career concepts. The Lakeview staff used the remaining time reviewing and rewriting the school philosophy around a career development theme. Sources of information and materials needed to implement career education were reviewed and the organization of a career activity file was started. Considering the length of the workshop, the seven objectives formulated by the Advisory Committee were attained to a satisfactory degree.

More specifically, the participants completed the workshop with at least an elementary knowledge of the world of work and the cluster concept. Attitudes toward all careers appeared to become more positive as the workshop progressed. Participants gave verbal support to the importance of student self-concept and the importance of differences in individual experiences of students as related to learning.

The objectives concerned with techniques of implementation, fusion of career education into existing curricula, and relevance of academic programs to careers seemed somewhat elusive. Objectives were stated in terms of understanding and if the production of units of study are an indication of understanding, they were attained to a satisfactory degree. Final judgment should, however, be reserved until there is an opportunity to observe teachers implementing units of study in the classroom.

Based on the outcomes of this workshop, it would appear that more time needs to be spent helping teachers become more thoroughly oriented to the world of work, and in developing techniques and activities designed to help children understand themselves. Technical help is also needed in the production of materials for use in the classroom. A thirty-hour workshop is not enough time to accomplish all of the objectives at a practical operational level.

EISENHOWER ELEMENTARY SCHOOL

During this 30-hour workshop approximately 15 percent of the available time was devoted to orienting teachers to the broad concepts of career education, sixty percent to organizing and writing up activities related directly to careers, and 25 percent to the study of values clarification techniques and related strategies.

The seven objectives formulated by the Advisory Committee were attained with varying degrees of success. There was a minimum amount of time spent in orienting the participants to the world of work and to the cluster concept. It became very evident that more time should have been devoted to this aspect of the workshop. There was too much indecision concerning "how to proceed" with career education in an open-concept school. This can probably be attributed to lack of information basic to the concept of career education. An attempt to remedy this situation was made on an individual basis.

A considerable number (approximately 200) activities were written up for an activities file or bank. Each activity was directly keyed to one of the 15 USOE clusters. Specific careers were identified, job descriptions including a list of duties were written, and this was followed by a list of suggested activities.

Participants were also very interested in techniques of values clarification. A program was presented which included a sampling of techniques and activities that teachers could use with children in the classroom.

As stated previously, the workshop should have devoted the full thirty hours to orientation and development of the concept of career education, career information and the fusion process. A similar amount of time should have been spent on theory and techniques related to working with children in the area of self-awareness, self-understanding, and attitudes. Finally, additional time should also have been spent on the development and production of materials.

Considering the number of activities developed and the effectiveness of the values clarification portion of the workshop, one must consider the workshop a success. Final judgement should be reserved until activities developed in the workshop have been implemented in classrooms.

PLANNING AND DEVELOPING RESOURCES TO IMPLEMENT CAREER EDUCATION

The Advisory Committee designed and organized this 90-hour workshop to provide a program of activities which would expose teachers to the wide range of occupations or careers, the cluster concept, the relationship of career education to academic curriculum, and provide an approach to the fusion of career education concepts into existing academic curricula.

Approximately 50 percent of the time was devoted to activities and discussion centered on the above and the remaining 50 percent was devoted to the organization and writing of units, suggested activities, and the development of bulletin board and poster ideas.

Half of the workshop participants were given an opportunity to participate in a workshop conducted by the FAIS (Fusion of Applied and Intellectual Skills) Project which emphasized values clarification theory and techniques.

The seven objectives were attained to a very satisfactory degree, and there was ample time to present materials and information. Participants were able to actually engage in activities which could be adapted for use in the classroom with children. Teachers viewed first-hand a number of careers and clusters through field-trips to business and industry. There was also ample time to view a series of films about the clusters and this helped to familiarize teachers with a wide range of career possibilities within each cluster.

The Advisory Committee is to be commended for the excellent work involved in planning this sequence of effective activities.

GENERAL EVALUATION

As has already been stated, the workshops enjoyed varying degrees of succes for multiple reasons. The 30-hour workshops should have had fewer goals and if the goals were to be concerned with production of materials, the workshop should have been limited to teachers familiar with the concepts of career education and the fusion process. A sequence of workshops, organized in a logical order would be more effective when time permits. Logical sequencing might be as follows: (1) An overview - philosophy, goals, objectives, and concepts of career education--six to twelve hours, (2) Introduction to the cluster concept, relate career information, and take field-trips to business and industry--ten to twenty hours, (3) Developing techniques and activities relating to student self-concept, attitude formation, and communication skills, for the classroom teacher--30 hours, (4) Career education/core curriculum relationship, fusion process--six to twelve hours, (5) Writing behavioral objectives--ten to twelve hours, and (6) Production of materials--thirty hours.

Perhaps not every teacher would elect to participate in all sequences of the workshop, but each participant would be able to select those needed.

CAREER EDUCATION WORKSHOP

CAMPBELL PARK, LAKEVIEW AND PALMETTO ELEMENTARY SCHOOLS

JUNE 17 - JUNE 29, 1972

(30 Hours/5 Days)

PARTICIPANT	SCHOOL	GRADE LEVEL
Biles, Connie	Campbell Park Elementary	4th grade
Bufwack, Joyce	" " "	5th grade
Cason, Jane	" " "	2nd grade
Dennis, Marguerite	" " "	2nd grade
Hughlett, Dorothy	" " "	4th grade
Martin, Loretta	" " "	3rd grade
McCallie, Loretta	" " "	6th grade
Medus, Frankye	" " "	Media Specialist
Noyes, Mary	" " "	3rd grade
Rumrill, Lynda	" " "	6th grade
Singletary, Alma	" " "	Social Worker
Summers, Leonard	" " "	Principal
Williams, Harold	" " "	6th grade
Yates, William	" " "	4th grade
Caudill, Christine	Lakeview Elementary	Media Specialist
Cheney, Thomas	" "	5th and 6th
Currington, James	" "	5th and 6th
Greene, Maggie	" "	4th grade
Howry, Anna M.	" "	2, 3, 4
McGarrah, Mary	" "	2, 3, 4
McConnell, Betty	" "	Guidance
McCoy, Louis	" "	Principal
Sedrick, Mary	" "	1st grade
Turtzo, Sandy	" "	1st grade
Brown, Ruth	Palmetto Elementary	Media Specialist
Ellis, Lottie	" "	6th grade
Martin, Frank	" "	Principal
Oliver, Betty J.	" "	4th grade
Raichle, Shirley	" "	1st grade
Sholund, Margaret	" "	Kindergarten
Williams, Lavon	" "	6th grade
Wilson, Glenda	" "	1st grade

COSTS:

		TOTAL TIME:
Workshop Payroll	$4,443.60	155 Days
Average Cost per teacher	138.63	930 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
Donald E. Rosenberger

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

CAMPBELL PARK, LAKEVIEW AND PALMETTO ELEMENTARY SCHOOLS

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	18	9	2	
2. develop an understanding of career education philosophy and concepts?	20	8	1	
3. develop an understanding of career education objectives at national, state, and local levels?	13	12	4	
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	18	11		
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	20	7	2	
6. develop an understanding of the relevance of academic programs to career education?	15	11	2	1
7. develop an understanding of the guidance function in career education?	13	13	3	
8. develop my awareness of resources available for teaching with career emphasis?	15	9	5	
9. develop a model unit of instruction using career information and career related activities?	15	10	4	
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	15	9	5	

11. The amount of time allowed for this workshop was - (check one):

____ too much

27 O.K.

2 too little

12. What aspects of this workshop have been of most value to you?

Loom presentation.
FAIS presentation.
The guest speakers.
Awareness of variety of careers.
Appreciation of preparing a unit relative to my classroom teaching.
Meeting teachers from other schools.
Working with others and sharing ideas.
An awareness of the available resources.
Developing methods that will enhance the education of my students.
Working with career kits and listening to tapes.
Developing an understanding of career education objectives.
Helping me understand the concepts and philosophy of career education.
Having a better understanding of career "clusters".
Development of activities for fusing career education into regular curriculum.
Being able to work at my own speed.
Discussion groups.
Organizing data and motivating ideas for new units.

13. What aspects of this workshop have been of least value to you?

Presenting materials to be used in career education.
The long speeches on one particular night.
The long distance I had to travel.
LOOM presentation.
Movies.
Speeches by visiting experts.
FAIS presentation.
Trying to work up units for the entire year.
Not enough attention given to the planning of activities or correlation of academic subjects to career education.
Seeing the "Countdown to the 70's" films.
Could have been more tie-in between careers and academics.
This workshop should have been after the county-wide workshops and specifically geared toward preparing units and materials to implement career education into the curriculum.
Working with some instructors that are unenthused or disinterested.
Distraction by excessive, unnecessary noise.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

How to take from our curriculum various clusters that could be integrated into the world of work.
The actual planning, organizing, and research of my unit.
Locating resources available for implementing my unit.
FAIS idea.
Would like to further develop some games on career education.
The idea of job clusters.
Developing activities to accompany the various career clusters.
Teaching "self-awareness".
Learning how to guide students in research on career clusters.
Use of the newspaper in search of careers.
Studying other units from various parts of the country.
That clusters can help students become aware of the world of work.
Informality in workshop.
Idea of adding career education to the curriculum rather than separate block.
Pre-planning units could be done by students with proper guidelines.

15. What suggestions do you have for the overall <u>improvement</u> of this workshop?

Schedule at a time when all teachers could attend.
More child-centered skills could have been presented.
Should include more people from pupil personnel.
Try to extend it so all teachers will eventually be involved.
More activities on developing awareness could have been used.
Leadership and organization.
More time for individual and group projects.
Necessary resource materials were not readily available.
Need more depth into the guidance function.
Many young teachers need to know how to teach occupational skills.
More consultants with a wide range of knowledge of existing career education curriculums.
More previewing of resource materials.
Add the film "The Rugmaker" so other teachers may be familiar with it.
Project work should be done in ones own school because of the materials and resources that are available there.
Better organized meetings with more material available that applies to the project at hand.

CAREER EDUCATION WORKSHOP

*EISENHOWER ELEMENTARY SCHOOL

JUNE 20 - JULY 19, 1972

(30 Hours/5 Days)

PARTICIPANT	GRADE-POSITION
Ammon, Robert Q.	Intermediate
Babb, Virginia C.	Intermediate
Bailey, James L.	Intermediate
Brewer, William E.	Primary
Broxton, Eleanor V.	Intermediate
Burke, Robert	Principal
Eubank, Gary	Primary
Ferdon, Judy	Primary
Foster, Sarah B.	Primary
Green, Shirley M.	Curriculum Coordinator
Hall, Sara E.	Primary
Johansen, Peggy J.	Intermediate
Lash, John G.	Intermediate
McGill, Sandra C.	Primary
McNeil, Gladys B.	Primary
Markert, Frederick J.	Primary
Nicolette, Sandra S.	Intermediate
Parsons, David F.	Intermediate
Robertson, Joan	Kindergarten
Roder, Virginia K.	Primary
Smith, Katherine R.	Primary
Woodard, Susan K.	Curriculum Coordinator

*This is an open-space, team teaching, non-graded school.

COSTS:

Workshop Payroll	$2,828.70
Average Cost per teacher	128.57

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

TOTAL TIME:

110 days
660 hours

Workshop Directed by:
Donald E. Rosenberger

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

EISENHOWER ELEMENTARY SCHOOL

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	5	11	8	
2. develop an understanding of career education philosophy and concepts?	5	11	8	
3. develop an understanding of career education objectives at national, state, and local levels?	6	4	12	
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	8	6	5	1
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	13	6	8	1
6. develop an understanding of the relevance of academic programs to career education?	6	11	5	1
7. develop an understanding of the guidance function in career education?	9	8	4	2
8. develop my awareness of resources available for teaching with career emphasis?	3	11	6	2
9. develop a model unit of instruction using career information and career related activities?	1	1	12	4
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	2	5	14	2

11. The amount of time allowed for this workshop was - (check one):

__2__ too much

__18__ O.K.

__3__ too little

12. What aspects of this workshop have been of most value to you?

Knowledge of materials
Awareness
Sessions on value clarification
Faculty discussion of career education facets.
Being able to stop and make new decisions.
Self-awareness.
Guidance in awareness.
Awareness of the vast potential of career education.
FAIS program.
Knowledge of career education and how to implement it on the elementary level.

13. What aspects of this workshop have been of least value to you?

Working on activities.
Producing the activities with no materials.
Developing Career related activities.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

Awareness and value clarification.
Use of problem solving techniques.
Work clusters
Listening and actualizing what you listen to.
Techniques in how to implement self-awareness in the classroom.

15. What suggestions do you have for the overall improvement of this workshop?

More value clarification; more group inter-group involvement; more action.
Better organization.
Have definite program already set up.
Give concrete suggestions on implementation.
More knowledge of area careers.
More value clarification activities - and understanding of this subject.
More involvement of teacher in producing their own program.
This workshop should have come after daytime workshop.
Leadership.
More work in areas dealing in children's awareness of themselves.

COUNTY-WIDE CAREER EDUCATION WORKSHOP

PLANNING & DEVELOPING RESOURCES TO IMPLEMENT CAREER EDUCATION

JULY 10 - JULY 28, 1972

(90 Hours/15 Days)

PARTICIPANT	SCHOOL	GRADE-SUBJECT
Bauer, John G.	Clearwater Comp. Jr. High	8 - Math
Bayless, Stephen	Gibbs Sr. High	10,11,12 - Music
Biles, Connie C.	Campbell Park Elementary	4 - Reading
Broxton, Eleanor	Eisenhower Elementary	Intermediate
Brown, Ruth S.	Palmetto Elementary	Media Specialist
Bufwack, Joyce E.	Campbell Park Elementary	5th grade
Donovan, Carol S.	16th St. Jr. High	7 - Math
Ellis, Lottie	Palmetto Elementary	6th grade
Greenland, Ann	Eisenhower Elementary	Primary
Hartill, Barbara	Maximo Elementary	4, 5, 6
Hoddinott, Charles	Campbell Park Elementary	5th grade
Howry, Anna M.	Lakeview Elementary	2, 3, 4
Lambert, Frances C.	Clearwater Comp. Jr. High	7, 8
Manheimer, Earl H.	Campbell Park Elementary	5th grade
Odom, Gary L.	Clearwater Comp. Jr. High	7, 8-English
Parsons, David	Eisenhower Elementary	Intermediate
Pickworth, Rebecca	Baypoint Jr. High	9 - Math
Roder, Virginia K.	Eisenhower Elementary	Primary
Rouse, (Wolfe) Geraldine	Campbell Park Elementary	Kindergarten
Rumrill, Lynda	Campbell Park Elementary	6th grade
Sweet, Constance	Gibbs Sr. High	11 - Social Studies
Turtzo, Sandra	Lakeview Elementary	1st grade
Williams, Lavon	Palmetto Elementary	6th grade
Yates Jr., William H.	Campbell Park Elementary	Music

COSTS:

Workshop Payroll*	$9,352.73
Average Cost per teacher	389.69

TOTAL TIME:

360 Days
2,160 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
Donald E. Rosenberger

* This was the only 15 day workshop operated.

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

PLANNING & DEVELOPING RESOURCES TO IMPLEMENT CAREER EDUCATION

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	8	9	1	
2. develop an understanding of career education philosophy and concepts?	8	9		
3. develop an understanding of career education objectives at national, state, and local levels?	4	8	6	1
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	11	6	1	
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	14	4	1	
6. develop an understanding of the relevance of academic programs to career education?	11	6	1	
7. develop an understanding of the guidance function in career education?	4	10	3	
8. develop my awareness of resources available for teaching with career emphasis?	11	4	3	
9. develop a model unit of instruction using career information and career related activities?	9	5	4	
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	10	4	4	

11. The amount of time allowed for this workshop was (check one):

__3__ too much

__18__ O.K.

__2__ too little

12. What aspects of this workshop have been of most value to you?

Cluster awareness.
Materials available.
Visit to career center.
Participant involvement.
The development and exposure to careers.
Writing and fusing unit.
Resource materials introduced.
Opportunity to work individually on project related to own teaching situation.
FAIS workshop.
Activities for world of work.
Writing and understanding models (units).
The time alloted to the understanding of self-concept in a child.
Group discussions on career education and its relation to the academics.

13. What aspects of this workshop have been of least value to you?

Dr. Shearon's visit.
FAIS.
Lectures.
More time should have been devoted to guidance.
Many of the films.
Theories.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

FAIS materials.
The - use newspaper for persons needing particular skill - relating to clusters.
"What's My Line?" Game.
Projects written.
The guidance program and FAIS were important phases of the workshop. These will definitely enhance teaching.
Surveys of attitudes.
Hands-on experiences.
The techniques of value clarification.
Ideas that came from talking to other people in workshop.

15. What suggestions do you have for the overall improvement of this workshop?

Less talk, more work.
A beginning activity (awareness) for people participating in workshop.
Allow more time to small group discussions, less to lecture type discussion.
More "Hands-on" experiences similar to Bayfront Medical, St. Petersburg Times, and PVTI.
More guidance.
Teachers of the same level should be together for the workshop.
Fewer lecture type activities, more "class involved" activities.
More time for individual writing - work in own schools.
Less time spent on theory and on writing and planning implementation.
Less film and more person to person participation.
Have two such separate workshops - one for elementary people - one for secondary.

EVALUATION STATEMENTS: By Dr. James Edmundson for specific workshops directed during the summer of 1972

DUNEDIN SENIOR HIGH SCHOOL

Dunedin staff members attending the Career Education Workshop demonstrated a high degree of interest and enthusiasm in all activities. Having practically every teacher from the English Department participate, will certainly aid in effectively exposing all students to career education concepts. A grasp of career education philosophy and concepts was quite adequately demonstrated in the quality of units produced during the workshop and in subsequent activities.

All participants responded exceptionally well to the many activities scheduled during the workshop. Many participants quickly conceptualized the adaptability of activities to individual classroom situations. Much of the success of this workshop can be directly attributed to the professional attitude, maturity of staff, and dedication to "getting the job done."

Mr. Francis Freeman, Principal, provided invaluable support through constant encouragement of staff and readiness to assist in the implementation of career education. The participation of Mr. Freeman in many of the workshop sessions was very helpful in coordinating the ideas of teachers into a workable plan.

If one could sum up the extent to which Dunedin staff members participated in this workshop with one word, it would have to be superb. The units produced in this workshop also revealed a high degree of professionalism.

GIBBS HIGH SCHOOL

Gibbs' staff members participating in the Career Education Workshop were, for the most part, young and lacked work experience outside of education. This possibly accounts for apparent reluctance to accept the concepts of career education. Many activities used in the workshop were based on the world of work and seemed to lack meaning for younger teachers during the first few workshop sessions. However, later in the workshop, individual comprehension and ability to apply concepts improved.

Many other items of concern seemed to be significant deterents to the success of the Gibbs workshop. There was a total lack of participation in the workshop by members of the school administration. (This was not true in any other school.) Also, the schedule of sessions was split up into evenings and Saturdays over a considerable period of time, thus making continuity of ideas and concepts difficult.

Although the staff was very quick to challenge new ideas and resisted any firm commitment to action until the last few sessions, the total effort was one to be proud of and indicated great potential. Units produced during this workshop were generally quite good and indicated a great deal of effort on the part of many.

SIXTEENTH STREET JUNIOR HIGH SCHOOL

One of the most pleasant surprises of the summer came from working with this staff. At least one representative from each department in the school participated in the Career Education Workshop. This enhanced the process of articulation among other teachers in the school.

Not only were these teachers eager, but they were quite willing and able to skillfully participate in all workshop activities. They very readily saw the adaptability of concepts and activities to classroom settings. In many instances, new ideas and activities were generated by the group during discussions.

Considerable support was given by the school administration in that the Assistant Principal attended all workshop sessions. Mr. Singletary's active participation was helpful and fostered meaningful exchange of ideas with teachers which ultimately resulted in better communication and the elimination of barriers to implementation of an effective career education program.

Units produced in this workshop indicated a great deal of effort and commitment to the philosophy of career education.

CAREER EDUCATION WORKSHOP

DUNEDIN SENIOR HIGH SCHOOL

June 19 - June 30, 1972 (60 Hours/10 Days)

Participants	Grade Level	Subject
Agnew, Elizabeth	12	Vocational Office Ed.
Allen, Prenton	11	World History
Bonoff, Luella	11	Home Economics
Bostrom, Paul	11	Spanish
Boylan, Pat	11	Biology
Bravos, Nick	12	Business Law
Briggs, Flora	10	Algebra I
Brincklow, Martha	12	Humanities
Brown, Lana	12	Journalism
Crossett, Robert	10	Business Education
Dick, Dorwin	10	English
Dinsmore, Linda	10	Latin
Earley, Kenneth	12	Bookkeeping
Emerick, Suzanne	12	English
George, Carl	11	Drafting
Hansen, Paul	10-12	Dean of Boys
James, Ralph	10	Science
Johnson, Dean	10	General Math
Koutsourais, Mary	12	Humanities
*LaFlam, Doris	9	Algebra I
Leonard, Mary	12	English Literature
McLean, Roger	10	Biology
Mitchell, Michael	11	American History
Nickels, Sharon	12	Vocational Office Ed.
Osburne, Alva	11	English
Purude, Connie	11	American Literature
Sapashe, Robert	10-12	Industrial Arts
Shields, Marion	10	Spanish
Steffens, Henry	10	Math
Sutton, Jane	11	American Literature
Tougas, Betty	10	American Composition
Whitehead, Lucinda	12	Literature
Wurzel, Carol	10-12	Media Specialist

COSTS:		TOTAL TIME:
Workshop Payroll	$9,574.43	330 days
Average Cost per Teacher	290.13	1,980 hours

*Teacher from Largo Junior High School

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff. (Workshop was directed by Dr. James Edmundson and Mr. Thomas Noble)

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

DUNEDIN SENIOR HIGH SCHOOL

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	13	16	4	
2. develop an understanding of career education philosophy and concepts?	24	8	1	
3. develop an understanding of career education objectives at national, state, and local levels?	16	17		
4. develop an understanding of the "world of work" concept and its relatiohship to occupational clusters?	22	10	1	
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	24	7		2
6. develop an understanding of the relevance of academic programs to career education?	26	6	1	
7. develop an understanding of the guidance function in career education?	13	18	2	
8. develop my awareness of resources available for teaching with career emphasis?	16	13	3	1
9. develop a model unit of instruction using career information and career related activities?	22	9	1	1
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	20	13		

11. The amount of time allowed for this workshop was - (check one):

__1__ too much

__23__ O. K.

__9__ too little

12. What aspects of this workshop have been of most value to you?

Being paid to develop curriculum.
To realize the significance of Career Education.
The FAIS presentation.
The fusion idea.
Resource materials.
Chance to know our faculty better and learn more of their ideas.
Information on programs at other schools ie. SPJC, PVTI, CCL.
A better understanding of Career Education.
The acceptance by all teachers of Career Education.
Developing a model.
Films and slides.
Understanding the importance of all career fields.
Understanding the "world of work".
How to implement Career Education in our classrooms.
Lectures and discussions.
Reminder of taxonomy and behavioral objectives.
Presentations by our leader.
Revealing practical application to us and how we can relate careers to our subject.
Developed an enthusiasm for fusing academics and practical implications.
Very well organized.
Positive nature of director.
Freedom of expression and indepth reasoning.
The curriculum consultant.
Communication of disciplines.
Focusing attention on an area which can have great meaning to students who are lost in our present system.

13. What aspects of this workshop have been of least value to you?

None.
The time spent on introductory material.
Formulation of objectives.
Formal theory type of presentation.
Slide presentation of guidance.
Consultant on behavioral objectives.
The last few films.
Some of the "guest speakers".
Some teacher discussions.
Textbook.

Preparing the unit.
Pre-test and post-test.
Speaker from Orange County.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

The exercise and slide presentation of printers losing jobs.
The exercise of cutting out classified ads.
Helping students individually.
The cluster idea of occupational classifications.
The career ladder concept.
The involvement of other faculty in solving problems.
Films and resource people.
Hands-on type of education.
Results of workshop will make education at Dunedin High School more relevant.
Learning how to correlate academic experiences with work experiences.
Simulation of careers in class.
Better organization of field trips.
Reviewing the work produced by others.
Get the students involved right away.
Have students do research papers in careers.
Post-secondary educational facilities available in this county.
A real positive attitude about Career Education.
The handling of difficult situations of personality in a group situation.
Use of field trips.

15. What suggestions do you have for the overall <u>improvement</u> of this workshop?

Having information on objectives earlier in session.
Beginning work on actual practical applications sooner.
Use first week for all preliminaries; second week for models.
Use resource persons from professions outside of teaching.
More educational resource consultants.
Entire faculty should have been involved.
Do not allow teachers to abuse break time.
Have more time to develop models.
Involve more administrative personnel.
Should continue next year.
Selected films would be better then having to view all.
More specific directions in preparing models.
Better organized content.
Need three weeks.
Develop more models.
Sell "change" to teachers by "success motivation".
Provide more examples of models to be produced.

CAREER EDUCATION WORKSHOP

GIBBS SENIOR HIGH SCHOOL

JUNE 17 - JULY 11, 1972

(48 Hours/8 Days)

PARTICIPANT	GRADE LEVEL	SUBJECT
Bevis, Andrew	10	Biology
Blackburn, Constance G.	11	English
Branch, Allan	10	Math
Brown, Lena M.	10, 11	Counselor
Brown, William E.	10, 11, 12	Dean of Boys
Burnett, Susan	11	Social Studies
Campbell, Katherine	10, 11, 12	Dean of Girls
Dyles, Freddie L.	10	Physical Education
Farmer, George C.	10, 11, 12	Registrar
Hanak, Karel	11	Art
Hernandez, Bert D.	12	Reading
Johnsen, John L.	11	Distributive Ed
Litchfield, Lincoln R.	11	Social Studies
Masi, Donna T.	10	English
Pilz, Linda S.	11	English
Stamper, Janet A.	12	Special Education
Stelljes, Richard H.	10	Work Experience
Sweet, Constance	11	Social Studies
Walker, Anna P.	11	Home Economics
Wertman, Theodore A.	11	Driver Education

COSTS:

Workshop Payroll	$4,932.07
Average Cost per teacher	246.60

TOTAL TIME:

160 Days
960 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
Dr. James Edmundson Jr.
Thomas R. Noble

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

GIBBS HIGH SCHOOL

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

		A	B	C	D
1.	develop methods which will enhance the education of students in your school?	4	5	10	
2.	develop an understanding of career education philosophy and concepts?	9	8	2	
3.	develop an understanding of career education objectives at national, state, and local levels?	4	7	7	1
4.	develop an understanding of the "world of work" concept and its relationship to occupational clusters?	10	5	4	
5.	develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	8	5	5	1
6.	develop an understanding of the relevance of academic programs to career education?	9	7	2	1
7.	develop an understanding of the guidance function in career education?	4	10	5	
8.	develop my awareness of resources available for teaching with career emphasis?	6	6	6	1
9.	develop a model unit of instruction using career information and career related activities?	8	6	5	
10.	develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	7	8	3	

11. The amount of time allowed for this workshop was - (check one):

3 too much

9 O.K.

6 too little

12. What aspects of this workshop have been of most value to you?

The writing of a career unit to be used in classes this year.
Films and lectures also developing the fusion model.
Awareness of materials and resources.
Exchange of ideas with other faculty members.
Introduction to career education.
Rap sessions.
How to adapt career education to the classroom.
The introduction of career education as an addition to the curriculum.
Some films.
Realizing the vastness of the "work world" and the importance of these people in our society.
The cluster concept of careers and the films to illustrate the same.
Midge's talk on values and career education.
Model for implementation.
The list of resources.

13. What aspects of this workshop have been of least value to you?

The resource persons.
Not long enough.
The session at the elementary school.
The speakers - except for Mr. Givens.
Loom lecture.
Films.
Too much noise.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

The over-all awareness of making the student career conscious.
Exploring occupational clusters.
Better concept of behavior objectives.
Including careers of interest in lesson plans.
Gained some insight into the ways in which students may be motivated by relating careers to the subject matter of the course.
Use of bulletin boards giving career information in classrooms.
Yes, integration of clusters of jobs within curriculum instead of it being a terminal activity.

15. What suggestions do you have for the overall improvement of this workshop?

We could have used another six hours.
More team work.
No break on Friday - continue Monday - Friday - days not nights; you can get more accomplished.
More teachers should be involved, infact principals also.
More time.
More information on careers in the professional field.
More activities.
Too much time devoted to films and working on units.
More resource persons.
Show samples of other workshops early to help correlate concepts of career education.

CAREER EDUCATION WORKSHOP

SIXTEENTH STREET JUNIOR HIGH SCHOOL

JULY 17 - JULY 28, 1972

(60 Hours/10 Days)

PARTICIPANT	GRADE LEVEL	SUBJECT
Biles, Robert M.	9	General Science
Buhrow, Edward L.	9	Civics
Burress, Thomas E.	7	Geography
Chapman, Arletha F.	8, 9	Home Economics
Costello, Patricia M.	8, 9	Typing
Davidson, Miriam J.	7	Reading
Dunn Jr., Ray	8	American History
Ford, Charles J.	9	Drafting
Frazier, Gary E.	7	Life Science
Giacobbe, Anthony L.	9	Biology
Hatton, Thomas J.	8	Math
Jackson, Gilbert	9	English
King, Marielle E.	7	Science
Lingaard, Sandra	8	English
Lorrier, Judith	8	English
Marsh, Norma E.		Librarian
McConihay, Donna	9	Physical Science
Pope, Lawrence L.	7, 8, 9	Music
Radford, David	9	English
Shanks, Linda	8, 9	Home Economics
Singletary, Johnnie		Asst Principal
Stockwell, Sara	8	English
Wahl, Robert A.	9	Earth Science

COSTS:

Workshop Payroll	$6,411.20
Average Cost per teacher	278.74

TOTAL TIME:

230 Days
1,380 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
Dr. James Edmundson Jr.
Thomas R. Noble

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

SIXTEENTH STREET JR. HIGH SCHOOL

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	18	3		
2. develop an understanding of career education philosophy and concepts?	16	5		
3. develop an understanding of career education objectives at national, state, and local levels?	8	10	3	
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	18	3		
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	13	7	1	
6. develop an understanding of the relevance of academic programs to career education?	15	5	1	
7. develop an understanding of the guidance function in career education?	11	7	3	
8. develop my awareness of resources available for teaching with career emphasis?	13	8		
9. develop a model unit of instruction using career information and career related activities?	15	16		
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	12	12	1	

11. The amount of time allowed for this workshop was - (check one):

2 too much

16 O.K.

3 too little

12. What aspects of this workshop have been of most value to you?

Fusing the career aspects in with our regular curriculum.
Being able to revise our outline for immediate use.
The part of the workshop where teachers really had the opportunity to work out a unit using the career concepts.
Writing materials that can actually be used in the classroom.
Emphasis on guidance.
Examples of "hands-on" experience.
Access to other teachers' ideas and methods for implementing career education.
How to relate and integrate career education into all fields.
Developing behavior objectives and incorporating them toward career education.

13. What aspects of this workshop have been of least value to you?

Some of the films were not of value.
Communication exercise.
Guidance functions lectures.
Some parts of section on behavioral objectives.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

The use of the panel - "What's My Line."
The technique of being able to fuse the career education concepts with the regular academic concepts.
Communication exercise.
Awareness sheet (incomplete sentences).
Believing in dignity.
Attitude is essential for success in a career.
The use of want-ads to find jobs for various clusters.
Better ideas and techniques in guidance role of teachers.
Techniques of motivation and self-awareness through games and exercises.
Guidance function games and activities.

15. What suggestions do you have for the overall improvement of this workshop?

All of the resource persons should come in before working on outlines in the future.
More time be given to the guidance function in career education

More field trips.
More people from industry and the professions to give their viewpoint (similar to the "What's My Line" group.
More sensitivity type training.
More time to develop yearly objectives and models.
Getting more teachers involved in the workshops.
More "hands-on" experiences.
Set up a workshop program with the following sequences:
FAIS (theory
PVTI (Hands-on experience)
Teacher-student (Program Development)
A little too much time was spent on writing individual units. Most people finished ahead of time.

EVALUATION STATEMENTS: By Mr. William Mann, Assistant Director Student Affairs, Pinellas Vocational-Technical Institute, Workshop Director for, "The Vocational Component in Career Education: Teacher to Teacher"

It became evident during the workshop that, to a great extent, teachers in this County are largely unaware of the rewards and satisfactions of technical occupations. A technologically oriented society has for some time now been demanding an increase in the output of trained technicians in many areas. However, schools have continued to produce college-bound students and very few technically oriented graduates. The situation becomes even more critical when one hears of college trained engineers performing technicians' jobs, or of engineers who must be retrained when there are no jobs.

Unhappy college students striving for personal fulfillment, find the challenges of the university a hollow mockery. Dissatisfaction with college education in general is reflected in statistics relating to the number of student riots on university campuses. (Compare this with the number of riots at vocational-technical centers.) Valuable time is being wasted and many students are being misled toward lives in which individuals with new and different ideals no longer have strong interests. One answer to this perplexing predicament lies in enlightened career guidance provided by elementary and junior high school teachers and counselors. Educators are closer to developing young people than many parents, and they have direct influence over as many as two hundred students daily. Teachers and counselors need to be informed concerning the multiplicity of careers available in order to meet the needs and interests of students encountered in classrooms.

The reality of orientation to career education can be facilitated by having teachers and counselors participate in career development workshops where they can obtain "hands-on" learning experiences and tour vocational -technical areas of learning--thus enhancing a more positive reaction to <u>all</u> career interests of students.

Due to an extreme lack of specific knowledge concerning the world of work, it was necessary to prepare teachers and counselors for vocational-technical experiences on a daily basis. The technology-related lecture/discussion proved to be an excellent vehicle for introduction to, and exploration of, each new training area. Collecting classified advertisements relating to the day's visitation provided discussion incentives and helped in filling the "Technology Survey Sheets" required as part of the career information portfolio developed. These sheets also provided the uninitiated with pertinent areas of questioning during work-training experiences.

A change of attitude and acquisition of useful knowledge and skills are conditions symptomatic of a successful learning experience. To this end, and as experiences were attitudinally directed, an attitude survey in the form of an "Occupational Educational Questionnaire" was administered as both pre-test and post-test. At the end of the two-week session, each participant was encouraged to submit anonymously, if preferred, to the Director of Career Education, a frank and constructive evaluation. There was also an evaluation check list administered at the end of the workshop.

Following analysis of both evaluation forms, it could be stated without compromise that the participants (including the workshop director) were now able to: (1) relate from first-hand knowledge, concrete work training experiences to the needs of students, (2) report opportunities for vocational-technical training, (3) determine work availability for some vocational-technical graduates, (4) report necessary prerequisites for for entrance into vocational-technical training programs, (5) fuse necessary academic and vocational-technical training, and (6) discuss the rewards derived from vocational-technical training and subsequent employment.

If the prejudice against career education on a status basis is to be destroyed, it must be done before the World is reduced to a technician-poor condition--leaving millions mired in a nightmare world of gadgets that cannot be fixed when they malfunction or fail. The economy cannot shoulder the replacement cost of every disabled machine. Technicians are rapidly becoming respected, well-paid professionals, but students must be guided into these lucrative endeavors by career oriented teachers and counselors. The career orientation of elementary and junior high school academicians is long overdue. It is frightening to find out how uneducated teachers and counselors are concerning matter which deal with the world of work in general terms. Career education and the concepts which are embodied therein must continue to grow in Pinellas County if we are to serve the approximate 80% of all students who will never earn a college degree--or an even greater percentage (when including those needing some type of technical employment for support while working toward a degree.)

COUNTY-WIDE CAREER EDUCATION WORKSHOP

THE VOCATIONAL COMPONENT IN CAREER EDUCATION

JUNE 19 - JUNE 30, 1972

(60 Hours/10 Days)

PARTICIPANT	SCHOOL	GRADE-SUBJECT
Babb, Virginia	Eisenhower Elementary	Intermediate
Biles, Robert	16th St. Jr. High	9 - Science
Buhrow, Edward	16th St. Jr. High	9 - Civics
Burress, Thomas	16th St. Jr. High	7 - Geography
Casey, Mary	Clearwater Comp. Jr. High	Business Education
Castner, Stephen	Clearwater Comp. Jr. High	English
Ellis, Lottie	Palmetto Elementary	6th grade
Francoeur, Howard	Clearwater Comp. Jr. High	Automotive
Frazier, Gary	16th St. Jr. High	7 - Science
Gentry, Elbert	16th St. Jr. High	9 - Civics
Giacobbe, Anthony	16th St. Jr. High	9 - Science
Hatton, Thomas	16th St. Jr. High	8 - Math
Henry, Edward	Clearwater Comp. Jr. High	Dry Cleaning
Howry, Anna	Lakeview Elementary	Primary
Hughlett, Dorothy	Campbell Park Elementary	Intermediate
King, Marielle	16th St. Jr. High	7 - Science
Martin, Frank	Palmetto Elementary	Principal
Mauk, Billie	Campbell Park Elementary	Primary
McCormick, Lowell	16th St. Jr. High	7 - Geography
Medus, Frankye	Campbell Park Elementary	Librarian
Moss, Eugene	Clearwater Comp. Jr. High	Food Services
Reed, Mary	Campbell Park Elementary	Primary
Shanks, Linda	16th St. Jr. High	Home Economics
Sholund, Margaret	Palmetto Elementary	Kindergarten
Summers, Leonard	Campbell Park Elementary	Principal
Turtzo, Sandra	Lakeview Elementary	Primary
Williams, Lavon	Palmetto Elementary	6th grade

COSTS:		TOTAL TIME:
Workshop Payroll	$7,541.81	270 Days
Average Cost per teacher	279.32	1,620 Hours

The above costs do not include salaries, travel and supplies for Consultants and the Career Education Staff.

Workshop Directed by:
William Mann

SCHOOL BOARD OF PINELLAS COUNTY, FLORIDA

THE VOCATIONAL COMPONENT IN CAREER EDUCATION: TEACHER TO TEACHER

SUMMARY OF CAREER EDUCATION WORKSHOP EVALUATION

A. to a great extent
B. to considerable extent
C. to some extent
D. none

To what extent has this Career Education workshop helped you to:

	A	B	C	D
1. develop methods which will enhance the education of students in your school?	9	11	6	
2. develop an understanding of career education philosophy and concepts?	17	8	1	
3. develop an understanding of career education objectives at national, state, and local levels?	4	16	5	1
4. develop an understanding of the "world of work" concept and its relationship to occupational clusters?	10	13	2	1
5. develop an understanding of the importance of a positive attitude, appreciation and respect for all careers?	15	9	2	
6. develop an understanding of the relevance of academic programs to career education?	13	12	1	
7. develop an understanding of the guidance function in career education?	5	11	10	
8. develop my awareness of resources available for teaching with career emphasis?	9	14	3	
9. develop a model unit of instruction using career information and career related activities?	4	8	9	5
10. develop skill in the fusion of academic and vocational concepts in the revision of the regular curriculum?	6	8	11	1

11. The amount of time allowed for this workshop was - (check one):

1 too much

14 O.K.

11 too little

12. What aspects of this workshop have been of most value to you?

Learning about careers with which I've had little or no contact.
Being involved in hands-on experiences.
Learning about various sources of information available.
Learning about various careers and organizations of the tech-center.
Hearing academic teachers' ideas about career education.
The actual exposure to the "institute" teaching.
Meeting the teachers in similar areas and exchanging ideas.
Getting new information.
Updating other vocational area concepts.
Being introduced to the wide diversity of requirements, pay, and skills needed.
Having academic teachers enrolled in this class.
Understanding the philosophy of career education.

13. What aspects of this workshop have been of least value to you?

Did not help me plan for methods of teaching career education.
Class discussion on elementary education problems.
Often, too many facts about a particular area.
Dull presentations by some individuals in various technologies.
Lecture-type situations where material was already in printed form.
Some areas did not give us true insights into their program.
Touring some vocational areas which I had visited before.
The "Countdown to the 70's" movies.

14. Did you experience any technique or idea in this workshop that would be suitable for inclusion in your teaching situation? Please explain.

Background information will be most helpful in teaching.
Providing experiences that are related to the world of work.
Hands-on experiences can be had by elementary children.
The career education survey sheet.
The use of classified ads.
Using catalogs from automotive
Role playing .
The films.
The availability of jobs.
I can now present students with an objective which is attractive.
Some of the work-sheets could be used in our classes.
Idea of having community people as resources.
I liked the booklet of educational games.
Students need to visit PVTI and see what opportunities exist.

15. What suggestions do you have for the overall improvement of this workshop?

Include on how to do it in classroom.
Fill out technology survey sheets after viewing the technology.
All teachers in school system should be aware of work opportunities.
More informal discussion with individual instructors.
More hands-on in certain areas.
Even more information on related fields for all areas.
Field trips to industries in the area.
Bring in industrial consultants for class discussions.
More movies.
A day for participants to "browse" freely throughout PVTI.
More time to enlarge experiences in various vocational areas.
Would like to see some guidance instruments.
Involve more student participation.

OFFICE OF CAREER EDUCATION

SURVEY

for

SUMMER WORKSHOPS

Plans for the 1973 summer workshops in Career Education are now in progress. We are exploring the possibilities for cooperation between our office and the University of South Florida, especially with regard to the possibility of earning graduate credit from the University by participating in the summer workshop for Career Education.

Name_____Position_____

Subject and/or Grade Level_____ School_____

Did you participate in a Career Education workshop during the summer of 1972?

_____Yes

_____No

What area(s) do you feel the Career Education Summer Workshop should emphasize?

_____ Philosophy and Concepts of Career Education

_____ Develop and refine guidance skills for teachers.

_____ Develop an understanding of the world of work.

_____ Develop in teachers a positive attitude, appreciation, and respect for all careers.

_____ Develop understanding of students' varying experience levels and importance of students' self concepts.

_____ Develop an understanding of the relevance of academic program to careers and develop techniques of implementation and fusion of career education into existing curriculum.

_____ The role of guidance and counseling in Career Education.

_____ A variety of Hands-On opportunities.

_____ The role of Occupational Specialists in Career Education.

_____ Field trips to a variety of businesses and industries.

_____ Time to review and select activities, materials, resources, etc.

_____ Time to select, develop, and field test activities or units.

_____ Opportunity to learn more about a specific occupational cluster through in-depth exploration in order that each school will have a number of teachers who could act as resources for the rest of their faculty.

Would you like to participate in the workshops conducted by the Office of Career Education during the summer of 1973? ____Yes ____No

If yes, please complete the second page of this survey.

Would you prefer to earn:

_____ Graduate credit through University of South Florida

_____ Staff Development Component Points

If you prefer to earn graduate credit, in which way would you use your credit?

_____ For recency

_____ As an elective in Masters Program

_____ As a required course in Masters Program

_____ For certification

From which of the following departments would you prefer to earn your credit?

_____ Guidance

_____ Elementary curriculum

_____ Secondary curriculum

_____ Psychological Foundations

_____ Other (Please list) _____

Would you prefer a course that is:

_____ Completely contained within the time limits of the summer workshop

_____ Partially completed during the summer workshop and carried into the school year to be completed in Quarters II or III. (The carry-over might consist of a project to be implemented during the school year and then reported toward the end of the school year.)

PLACEMENT AND FOLLOW-UP

Placement and Follow-Up was considered to be a most vital component of the Career Education Project. The component had three major purposes: (1) to assist school administrators, vocational directors, guidance personnel, occupational specialists, and vocational teacher-coordinators in the organization of job placement and student follow-up efforts, (2) to provide for the establishment of a central office for placement and follow-up, and (3) to provide for the organization of vocational youth groups and vocational teachers for the purpose of collecting pertinent labor market data.

The first phase of operation (1972-73) was devoted primarily to the planning function. An advisory Committee was appointed and met throughout the year to evolve philosophy, goals and objectives. Implementation strategies were also considered and a county-wide placement and follow-up workshop was planned.

The functions of this component deserve foremost attention and support if career education is to be totally accountable. A true test of the quality of career education will be student placement and advancement in careers related to educational endeavors.

Placement and follow-up have been treated as separate, but highly interrelated and complementary procedures. Placement provides meaningful evidence that instruction has been pertinent to the job entry needs of students. Student follow-up, the second faction of accountability, is needed to provide data for the adjustment and improvement of curricula and labor market data is needed to assure the relevance of both. The placement and follow-up component of the Pinellas County Career Education Project was established and functioned to provide the means for coordinating both placement and follow-up in one centralized office. However, placement is considered to be a decentralized operation having major responsibility vested in school staff. Follow-up is considered a centralized responsibility coordinated by staff from the placement and follow-up office.

Vocational coordinators, teachers, guidance personnel, occupational specialists, assistant principals, and other support staff perform the placement function in individual schools. This uncoordinated effort, although valuable to both students and employers, leaves many job openings unfilled. A centralized bank of trained students seeking either full time or part time employment can not be provided, and employers willing to cooperate with the schools, find it difficult to refer personnel requirements to proper officials for action. Many employers, discouraged with what seems to be inaction or lack of interest, look elsewhere to fill employment needs. A specific agency is needed to accept, process, and refer applications for employment and to solicit suitable jobs for students and graduates.

The only formalized system of follow-up is a State Vocational Education Survey. This recently initiated effort, although of great value to both state and local agencies, does not produce adequate feedback to provide for the revision of curriculum in areas involved. Additional local information must be collected and internalized within the system if schools are to become truly accountable for quality educational skills which are salable in today's labor market.

Goals of the placement and follow-up component are:

1. To provide services for the placement of all persons in the next step of career development whether it be employment or further education compatible with individual needs, interests, aptitudes, and skills.

2. To fill the job needs of the community with trained and/or employable personnel.

3. To provide periodic follow-up data to insure suitable placement for all persons.

4. To provide data to curriculum committees in the school system concerning changes and/or additions to educational programs needed to help students meet current requirements for placement and success on the job.

Objectives of the placement and follow-up component are:

1. Plan for an select staff to carry out the goals and objectives of placement and follow-up.

2. Develop a plan for working cooperatively with school administrators, cooperative educational coordinators, guidance counselors, occupational specialists, and teachers, in finding, screening and placing, and following-up students.

3. Establish a central job placement center for the purpose of establishing a systematic approach to locating, recording and filling job vacancies.

4. Organize a public relations and public information program for the purpose of informing the business community, individuals, and schools about career education activities in the area of placement and follow-up.

5. Establish a centralized follow-up service.

6. Survey and compile a list of the business needs of the community relating to information on immediate job openings, and to develop forecasts of business growth in preparation for filling potential jobs.

7. Identify, counsel, and place students, drop-outs, and graduates.

8. Provide placement assistance in schools for those students unable to come to the central office.

9. Establish career information centers in the schools.

10. Match job applicants with appropriate openings and aid in the scheduling of interviews.

11. Provide follow-up of all students placed at three and twelve month intervals to determine degree of success on the job and/or need for change or further training.

12. Inform applicants of current employment techniques through pre-employment clinics and/or career counseling.

13. Develop a computerized system for storage, retrieval, and dissemination of student information to authorized personnel.

14. Utilize follow-up data to adjust and improve curriculum.

All goals and objectives were formulated by staff personnel with the assistance of the Advisory Committee. The Advisory Committee, appointed by the Pinellas County School Board, was composed of both academic and vocational teachers, vocational coordinators, and occupational specialists. Council meetings were scheduled on a weekly basis and sessions lasted approximately three hours. Members were assigned projects to complete prior to each meeting.

The Advisory Committee was responsible for suggesting and helping to implement a survey of the graduating class at Dunedin Senior High School to determine assistance needed by students in making the transition from school to the next step in career development -- be it the world of work or future academic or vocational training. The primary purpose of this survey was to determine if the approved goals and objectives were in any way realistic and meaningful.

In addition to the educational advisory group a business and industry advisory group has been established to provide assistance to the project during the second phase of operation (1973-74 school year).

The Vocational, Technical and Adult Education Follow-Up Survey required by the State of Florida was completed by the placement and follow-up staff. Data compiled in the report will be utilized as a basis for determining effectiveness of current programs and the need for revision of curricula.

During the first year of operation (1972-73) the placement and follow-up component accomplished the following:

1. Identified and established an Advisory Committee to provide assistance in planning and organizing a centralized placement, follow-up, and support services center.

2. Developed placement and follow-up philosophy, goals, and objectives.

3. Developed a unit of instruction relating to employability skills and made plans to implement the unit in 1973-74.

4. Conducted a Senior Survey at Dunedin High School

   a. Tabulated survey results
   b. Distributed results to appropriate personnel
   c. Identified appropriate personnel to follow-up students participating in the survey who requested assistance.

5. Assisted in the follow-up of students leaving the Area Vocational-Technical Schools.

6. Participated in a survey for the purpose of determining the need for an Area Vocational-Technical Center to be located in south St. Petersburg.

7. Participated in a comparison study of Work Experience students in a career education pilot school and a non-career education school.

8. Analyzed results of the Boy Scout Survey in Pinellas County.

9. Coordinated the State of Florida, Department of Education, Vocational-Technical and Adult Education Survey for 1972 and 1973.

10. Coordinated an Employer Follow-Up Survey of those students from the State survey giving permission to contact employers.

11. Attended and participated in various State and local career education and placement and follow-up meetings and workshops.

12. Staff members made an on-site visit and participated in an orientation seminar relating to the Akron-Summit County, Ohio, Public School Systems' Placement Project.

13. Plans have been finalized for a Placement and Follow-Up Workshop to be held during the week of August 13-17. The workshop will be attended by local personnel to be responsible for placement and follow-up activities, local administrators, State Department of Education personnel, and Placement and Follow-Up Supervisors from other Florida school districts. Mr. Raymond Wasil, Director of the Akron-Summit County Placement Project, will serve as workshop Consultant.

14. Tentative plans for a labor-market survey to be conducted in cooperation with business and industry have been formulated by the Executive Assistant Superintendent of VTAE. The survey, under the sponsorship of the St. Petersburg Area Chamber of Commerce, will be completed during the fall of 1973 and result will be available by January, 1974.

Project personnel, working with the assistance of the Advisory Committee, have determined that the placement and follow-up component will be organized to serve as a coordinating agency for the placement function and that follow-up activities will be centralized in this unit. It has also been recommended that the placement function be decentralized. Actual placement of students will be the responsibility of vocational coordinators, teachers, work experience personnel, occupational specialists, and guidance personnel. Overall coordination, assistance and policy development will be the responsibility of the placement and follow-up department of career education.

Reasons for recommending decentralization of the placement function are twofold: (1) the placement and follow-up component is not staffed to perform the operational responsibility for placement, and (2) teachers, coordinators, etc., have personal knowledge of student capabilities needed to perform on the job. Reasons for recommending centralization of the follow-up function are as follows: (1) equipment necessary to perform this function is available to the placement and follow-up staff, (2) centralization will facilitate reporting and accountability requirements of public laws, (3) schools will be somewhat relieved of total responsibility for collection of data and data collection procedures will be more standardized, and (4) centralization will aid in the collection of data needed to recommend both general and specific curriculum revision.

PHILOSOPHY STATEMENTS

I. Assist people in placement

   A. What people
      1. Up to age 19
      2. In school
      3. Drop-Outs
      4. Graduates

   B. Placement - Career Counseling
      1. Jobs (commensurable with skills, aptitudes, interests, and experience)
      2. Technical Training
      3. Degree Program

II. Assist employers in filling jobs

   A. Employment
      1. Summer Jobs
      2. Temporary Jobs
      3. Career Opportunity
      4. Part-time
      5. Full-time

III. Gather data to assist in placement

   A. Job Information

   B. Career Counseling for Up-Grading

IV. Benefit to school

   A. To Follow-Up Students counseled to provide feedback to schools

   B. Gather and interpret follow-up data for curriculum revision

V. Centralization of activities

PHILOSOPHY*

The Career Education Placement Advisory Committee of Pinellas County Schools believes it is the responsibility of ALL-- the individual, the school, and the community -- to assist in the placement and later follow-up of all students enrolled, graduates and nongraduates alike. This shall be accomplished through employment, other training programs, and/or degree programs that are compatible with the individual's abilities, skills, interests, and attitudes. For some students, this may be a fairly direct route; for others many detours may be necessary before goals are obtainable. However, the satisfactory self-fulfillment of desired goals and the employment of students as productive workers in the business world is of prime importance.

*Tentative and subject to revision.

Workshop Opens On Helping Dropouts, Graduates

High School Job Placement Plan Studied

St. Petersburg Independent Monday, August 13, 1973 3-A

SHEILA MULLANE
Staff Writer

High school dropouts and graduates will begin getting help from the school system this year in finding jobs and deciding career goals through a new program.

The "placement (job or educational) and follow-up services" program, now in the planning stages, was mandated by the Legislature during the past session and by law must be in complete operation by September 1974. Partial services will be available in Pinellas County by next October, however.

"For a long time we've been producing a product, delivering it to the loading dock and then forgetting it exists. How long could a business survive operating like this?" said Myrtle Hunt, director of the county's career education program and heading the new placement service.

"It's time for the school system to face the fact that we must deal effectively with our defective products. They will be with us for a lifetime. Educators must accept the responsibility not only for producing but for the marketing, repair and maintenance of our products," she added.

This week local teachers and administrators, as well as educators from other counties and representatives of the State Department of Education, are attending a special workshop at the Pinellas Vocational Technical Center conducted by Raymond Wasil, director of the placement and follow-up service department for the Akron-Summit, Ohio, school system.

The objectives of the week-long workshop, according to Mrs. Hunt, include to develop the structure of the program, to determine the role and responsibilities of the placement specialists, to develop methods of coordinating the program with business, industry and the community, and to set up procedures for conducting market surveys, information surveys on the needs of youth and to establish a workable follow-up procedure.

The school system has provided job placement services for vocational students in the past, but this new program will be for all students. Even in the existing program there has been little effective follow-up work.

"Follow-up with meaningful feedback has been shamefully neglected. We need to get information back to the schools so they can revise their curriculums to better meet the needs of both students and industry," said Mrs. Hunt.

Starting in October, she said, a central placement and follow-up services office will be opened, probably at the City Center for learning. Help will be available to all students "who can't find jobs themselves" or who don't know what kind of a job they want.

A survey taken last year at Dunedin High School showed that more than one-third of the graduating class "had not identified a real career goal," said Mrs. Hunt.

She said the placement office will be prepared to deal with this problem and help steer students either toward further education or toward a job where they could succeed.

In addition to this office, Mrs. Hunt said, her department will also be sponsoring several "pre-employment clinics," the first sometime during the first semester.

The clinics will help students learn how to go about getting a job, how to handle job interviews, how to assess their own abilities and apply for the right jobs and even how to get along with people.

"We also are going to identify employers who are willing to hire the general education students, particularly those who will be on double sessions this year," she added.

"Ultimately," Mrs. Hunt said, placement specialists will appear regularly at each high school and be available to students for counseling and help. She also believes that to be truly successful the program must have a placement specialist permanently assigned to each high school.

COMMUNITY, COMMITTEE, AND UNIVERSITY INVOLVEMENT

Early in the project, the St. Petersburg Area Chamber of Commerce was contacted to discuss the Career Education project in Pinellas County. The Chamber cooperated with the Career Education staff in producing a list of local business and industry resource persons to assist in the orientation of teachers for the 1972-73 Career Education Program. This list appears on pages 112 through 115.

Meetings were held with members of local business and industry, and many firms opened their doors to teachers and students in order to provide learning experiences. When field trips were not possible, business and industry representatives (including several parents of Career Education students) went to the schools to discuss various occupations. These visits are listed on pages 116 through 122. A form for requesting field trips is shown on page 123.

Later in the school year, a survey form was prepared for parents and local firms so that willing and qualified persons could be added to the visitation resource list. A teacher comment sheet and a student reaction sheet were designed to provide feedback and program improvement. These three forms appear on pages 124 through 126.

In November, 1972, the Education Committee of the St. Petersburg Area Chamber of Commerce selected a Career Education Subcommittee to assist the Pinellas County Career Education Project staff in every possible way. This Subcommittee is composed of the following members:

Mr. Fred Cuykendall, President (Chairman)
Oravisual Company, Inc.

Mr. Andrew Padova, Executive Director
Pinellas County Health Care Foundation

Mrs. Ruth Brothers, Secretary to
Mr. Laurence Herman, Vice President Sales and Marketing
Times Publishing Company

Mr. David Walker, Vice President
Union Trust National Bank

Mr. L. E. (Gene) Oliver, Jr., Financial Officer
Magnadyn Financial Corporation

Mr. Lewis Lancaster, Jr., Director of Marketing
Union Trust National Bank

The Career Education staff made presentations before the Largo Chamber of Commerce, whose members volunteered to assist Career Education schools whenever asked to do so.

The National Secretaries Association has provided the project with business office supplies (forms, staplers, staples, memo pads, applications, etc.) to equip a small business office for students in each of the four elementary pilot schools. In addition, members of NSA from Allstate Insurance Company and the St. Petersburg Times and Independent prepared and donated slide-tape presentations showing persons working on the job and talking about their duties and responsibilities. Many students saw these presentations and expressed interest in the careers involved.

The Hotel-Restaurant Association has been active in Career Education. This group hosted teachers in Career Education summer workshops, welcomed students and teachers for field trips, and served in advisory capacities.

The Pinellas County Committee of 100 organized bus tours of area businesses for the occupational specialists of Pinellas County, to acquaint them with the wide variety of occupations in the county.

The Career Education staff held a workshop session for the League of Women Voters to inform them of issues relating to Career Education concepts, legislation, and funding. The group expressed interest in these matters and pledged support.

Hillsborough Aviation Authority, Eastern Airlines, and the American Automobile Association Motor Club have been extremely helpful in the development of the Transportation Cluster in the pilot schools. Field trips, resource persons, audiovisual aids, and "tools of the trade" for hands-on experiences have been contributed by these groups.

Many others have assisted in workshops and related activities; among them are:

U. S. Representative C. W. Bill Young

Mr. Dominick Minotti, Vice President Marketing
First National Bank of Clearwater
(President-Elect, Clearwater Chamber of Commerce)

Mr. Steven C. Doychak, Manager and Executive Vice President
Clearwater Chamber of Commerce

Mr. Thomas Gregory, CPA
Tornwall, Lang and Lee
Chairman, Education Committee
St. Petersburg Area Chamber of Commerce

Gen. Charles J. Kaniss
Sanitation Administrator
City of St. Petersburg

Mr. Dean Young, Cartoonist
Clearwater

Representatives of Reynolds Aluminum Reclamation Plant
Tampa

Local newspapers have provided coverage of Career Education activities in the pilot schools. Some news items appear in Appendix C and on page 107.

The staff has produced slide and slide-tape presentations; these have been shown to many groups in the community and in other Florida counties, as well as to out-of-state groups, to acquaint them with the Pinellas project. On-site visits to Pinellas County's pilot schools have enabled others to see Career Education in operation.

Presentations have been made to members of the Florida State Legislature, as well as the U. S. Office of Education, to inform and update them on the progress of Career Education in Pinellas County.

The Pinellas County Comprehensive Career Education staff accepted responsibility for field testing Career Education survey instruments for the Career Education Curriculum Laboratory at the Florida State University, under the direction of Dr. James Edmundson. The Pinellas Career Education Project Director served as Chairman of the Advisory Council for the Curriculum Laboratory.

The Pinellas County Career Education Project staff and the Career Education Curriculum Laboratory are cooperating in the production of a slide-tape presentation on Career Education for statewide distribution.

Universities and colleges, in Florida and other states, have cooperated with the Pinellas County Career Education staff. Contacts during the 1972-73 year with university and college representatives are listed on pages 127 through 131.

The University of South Florida, across Tampa Bay, has worked closely with the staff. Several meetings were held to develop in-service training programs. These resulted in the preparation of a course outline for a Career Education Workshop. (See pages 132 through 135.) Considerable interest was shown in the workshop when it was scheduled, but because the State Department of Education did not approve the course for curriculum credit, enrollment was not high enough to justify holding the class. Further discussions will be held with university personnel, in the hope that it will be possible to schedule such a course in the near future.

Two members of the University of South Florida staff were most helpful as consultants to the staff in the preparation of evaluation instruments for testing the eight career education elements. Dr. Leon Greabell, Assistant Professor of Education, and Dr. William Wade Burley, Associate Professor (Educational Psychology and Guidance) contributed much useful advice, all of which was considered in finalizing the instruments. Their comments will be studied again when the instruments are revised for 1973-74. Dr. Greabell's comments appear on pages 136-137; Dr. Burley's are on pages 138-140.

Palmetto Elementary School and St. Petersburg Junior College conducted a successful Guidance Aide program which benefited students of both institutions. (See pages 141 through 145 for memorandum and attachments.)

Meetings have been held with many groups, including curriculum committees; parents; "COST" (Counselor - Occupational Specialist - Teacher) Instructional team members, Chamber of Commerce Education Committees; St. Petersburg Chamber of Commerce Subcommittee on Career Education; cost benefit committees; a committee to plan Youth Flair; University and Career Education Inservice Planning Committee; Evaluation Advisory Committee; Placement and Follow-Up Advisory Committee; U. S. Representative C. W. Bill Young; and Florida Senator D. Robert Graham.

A cumulative record of committee meeting participant hours is shown on pages 146 through 149; minutes of some of the meetings appear on pages 150 through 173.

RESOURCE PERSONS FROM BUSINESS AND INDUSTRY TO ASSIST IN ORIENTATION OF TEACHERS FOR 1972-73 CAREER EDUCATION PROGRAM

AGRICULTURE, BUSINESS & NATURAL RESOURCES

Dayton Hughes Personnel & Safety Director	Hood's Milk 5700 - 22nd Street, North St. Petersburg 33714	525-2111
Jack Siebenthaler General Manager	Seminole Nurseries, Inc. Mail: Bank of Seminole PO Box 3367 Seminole 33543	391-9738 391-0151
James Boone	Manatee Seed & Sod 4145 Haines Road, North St. Petersburg 33703	527-5721

BUSINESS & OFFICE

Thomas Gregory Partner	Tornwall, Lang & Lee CPA's PO Box 23 St. Petersburg 33731	862-5131
Don Jones President	Don Jones Insurance PO Box 10070 St. Petersburg 33733	896-6602
Fred Cuykendall President	Oravisual Co., Inc. PO Box 11150 St. Petersburg 33733	862-1144
Howard Schmidt Vice President-Trust Officer	Union Trust National Bank PO Box 11388 St. Petersburg 33733	894-2171
Mrs. Ruth Brothers, CPS Sec'y to Vice President Sales & Marketing	St. Petersburg Times PO Box 1121 St. Petersburg 33731	894-111

COMMUNICATION & MEDIA

Sandy Stiles, Public Service and Promotion Manager	St. Petersburg Times & Evening Independent PO Box 1121 St. Petersburg 33731	894-1111

Sid Perry Director of Public Relations	Rahall Communications WLCY-TV Channel 10 PO Box 14000 St. Petersburg 33733	525-1111
Hugh Brown Manager	WSUN Radio 201 Second Avenue, North St. Petersburg 33701	894-0191
Edwin Harlow Western Division Staff Manager	General Telephone Company PO Box 11328 St. Petersburg 33733	895-2611

CONSTRUCTION

Sanford Goldman Architect	923 First Avenue, North St. Petersburg 33705	896-5300
John Carr Executive Director	Contractors & Builders Ass'n. 800 - 49th Street, North St. Petersburg 33710	345-9153
Conrad Banspach	Conrad Construction Company 1064 - 45th Avenue, NE St. Petersburg 33703	526-1318

CONSUMER & HOMEMAKING EDUCATION

Ruth Spoor, Manager Better Business Department	St. Petersburg Chamber of Commerce PO Box 1371 St. Petersburg 33731	894-7443
William Nagy	The Sweden House 1440 - 34th Street, North St. Petersburg	896-0665
Richard Largel District Manager	Morrison's PO Box 13466 Tampa 33611	

MARKETING & DISTRIBUTION

Lew Roberts Manager	Maas Brothers PO Box 1511 St. Petersburg 33701	898-1131
Wallace Litchfield (In the Fall) Manager	G. C. Murphy Company 950 - 58th Street, North Tyrone Center St. Petersburg 33710	345-6522
Sam Halloway Manager	City Fuel Oil Company PO Box 550 St. Petersburg 33731	896-1196
R. H. Neubert (Difficult to get) President	Gulf Coast Industrial Supply PO Box 10608 St. Petersburg 33712	862-6561

PERSONAL SERVICE

John Johnson Manager	European Health Spa 2866 - 66th Street, North St. Petersburg 33710	347-6147
Mrs. Grace K. Levesque Proprietor (Only Tuesday or Wednesday)	C & J Distinctive Hair Fashions 2922 Fifth Avenue, North St. Petersburg 33713	894-6806
Richard L. Glazier President	Softwater Laundry PO Box 11958 St. Petersburg 33733	862-1134

TRANSPORTATION

J. A. Shipman District Sales Manager	Seaboard Coast Line RR PO Box 490 St. Petersburg 33731	527-6427
William Fletcher	Delta Airlines 431 First Avenue, North St. Petersburg 33701	894-1861
Larry Lander (Tours)	Blocker Storage & Transfer 3035 - 22nd Avenue, North St. Petersburg 33713	894-6881

HEALTH

Dan Meyer Personnel Director (Tours)	Bayfront Medical Center 701 Sixth Street, South St. Petersburg 33701	894-1161
Andrew Padova Executive Director	Pinellas County Health Care Foundation 701 Sixth Street, South St. Petersburg 33701	894-1161

HOSPITALITY & RECREATION

Mike Brennand First Vice President	Bradley, Yeager & Associates 151 Treasure Island Causeway St. Petersburg 33706	360-6991
Ralph Mullin Executive Vice President	St. Petersburg Area Chamber of Commerce PO Box 1371 St. Petersburg 33731	894-7445
Donald Clarke General Manager	Hilton Hotel 333 First Street, South St. Petersburg 33701	896-1111

MANUFACTURING

Frank Pesuth, Manager Employee Development & Motivation	Honeywell, Inc. PO Box 11568 St. Petersburg 33733	531-4611
Pual Jordan Personnel Administrator	Electronic Communications, Inc. PO Box 12248 St. Petersburg 33733	347-1121

MARINE SCIENCE

Nick Diakos	Gulf Coast Seafood 2425 Ninth Street, North St. Petersburg 33704	898-1246

INDUSTRY VISITATION RECORD

PINELLAS COUNTY
CAREER EDUCATION PROJECT
1972-1973 SCHOOL YEAR

Representative	Firm	Occupation
Ranger Valentine	County Rangers	Forest Ranger
Mr. Vance	FBI, Tampa Office	Law
Mrs. Mauer	U-PARC, Retarded Children's Org.	Services to Retarded Children
Dorothy Draves Director	County Extension Home Economist	Home Economics
Charles Rowan	County Agricultural Division	Extension Agent
Mr. Lynvilla	Redland Nursery	Horticulture
Eric Thompson	Hunt Construction	Heavy Duty Equipment
Dr. Carr	Carr Animal Hospital	Veterinarian
Dr. Roger Graham	Graham Optometry	Optometrist
James Parker	Sun Bank, Dunedin	Banking
Mr. Jim Pitts	Florida Power Corp.	Utilities Occupations
Mr. Bob Jones	General Telephone	Utilities Occupations
Mrs. Dewitt	Patricia Stephens Career College & Finishing School	Fashion Merchandising
Bill Fisher	City Center for Learning	Upholstery Trade
Mr. Garrison	General Business Services	Income Tax Accountant
Mr. Alexander	Bell & Howell Schools	Electronics
Sergeant Hayworth	Dunedin	Police Work

Representative	Firm	Occupation
Mr. Gibson, Editor	Clearwater Sun	Journalism
Bruce Shorter	Delta Air Lines	Air Lines Occupations
Mr. Marshall	Beall's Dept. Store	Merchandising
Mrs. Petrillo	St. Petersburg Junior College	Lab Technician
Air Force Marines Army Navy	Several visits from each during the year	Armed Services
Lynn Howard	Clearwater Sun	Communications
Steve Hill	Clearwater Sun	Communications
Fran Zenor	Pinellas School System	Home Economics
Art Ward	Pinellas School System	Agriculture
Officer Demeres		Public Service
Dr. Lester Mandelker		Veterinarian
Robert Henderson	St. Petersburg Times	Communications
Cong. Bill Young	U. S. Congress	Public Service
Bob Marek		Parks & Recreation
Wilson McGill		Parks & Recreation
J. C. Carruthers	Industrial Services	Consumer & Homemaking
Dale S. Beaumarriage	Marine Bio. Lab	Marine Science
Dean Young		Fine Arts
Don Gran	City Planning	Environment

Representative	Firm	Occupation
Mr. Conroy	Holiday Inn	Hosp. Res.
John Roshenberger		Fine Arts/Humanities
Don Williams		Consumer/Homemaking
D. Stanley Rosewater		Health
Bob Burke	Public School System	Principal
Steve Bentley		Ambulance Driver/ Personal Service
Louise Hickson	Candle Cove	Business
Mr. Kenton		Forester
Reed Franz	PVTI	Agri/Horticulture
Mr. Burchfield	Harbor Master Clw. Beach	Marine Science
Mrs. Emerald Standerd		Public Service
Lee Schmall	PVTI	Horticulture
Gen. Kaniss	City Sanitation	Environment
George Wooten		Meterologist
Madam Cushing		Fine Arts/Humanities
Dr. Harry Danielson		Health
Dr. Monnie		Health
Mrs. D. Manning		R.N.
Meekyron Conrad		
John Rinker	Post Office	Public Service
Robert P. Thomson	Gulf Coast Symphony	Ex. Dir.
Bon Giovianni		Actor

Representative	Firm	Occupation
David Ketcher	Post Office	Public Service
Dr. Rhay		Mag. Synthesizor/ Fine Arts
Mrs. Valdes	Florida Power Corp.	Home Economist
Dr. Ronald Willey	Community Hospt.	Health
Sheri Morton		Legal Secretary
Judy Judd		Fine Arts
Ursula Donovan	Tampa Airport	Transportation
Mr. Snowden	WDAE Radio	Fine Arts
Mrs. Martin		Consumer/Homemaking
Officer Monte El Krysker		Public Service
M. M. Pique		Pollution Control
John Selover		Sanitation
Don Pinlez	St. Petersburg Times	Public Service
Dr. Jean Bennett		Health
Mike Elsworth		Fine Arts
Del Kosfield		Consumer/Homemaking
Mrs. Van Overde		LPN/Health
Mrs. Gillham		Missionary/Japan
John Brill, Jr.		Fire Marshal
Judy Jacobs	Marine Science	Porpoise Trainer
Dr. Treloff		Health
Prevatt Funeral Home		Mortician
Bob Hess		Photography

Representative	Firm	Occupation
Marselle Morsino	Cloth World	Consumer/Homemaking
Judd Acess		Chess player
Mr. Purdy		Service Station
Mr. Jordan		Masonry
Mr. Tilliston		Drafting
Mrs. Eliza Thornton		R. N.
Mr. Jimmy Williams		Male Nurse
Mrs. Evelyn Lassiter		Pharmacist
Mrs. Loew		Operatic Singer & Actress
Mrs. S. Cross		Secretary
Mrs. S. Shirley		Production Worker
Mr. L. Lee		Buyer, Supermarket
Mr. L. Rainey		Sanitation truck driver
Mr. Patrick		Mail man
Mr. M. Farr		Plumber
Telephone Plant Man	General Telephone	Installer
Mr. Claude Greene		Business Executive
Mrs. Kennedy		Model
Mr. Day		Soil Conservationist
Mrs. Wall		Retired Principal
Mrs. Fisher		Social Work/Nursery teacher
Mr. Fisher		Accounting

Representative	Firm	Occupation
Bernice Green		Baker
Mary Jordan		Upholstery/Seamstress
Lt. Nordin		Game Commissioner
Ranger Whitstine		Forest Ranger
Firemen	Station #5	Firemen
Officer Mullens		Policeman
Donald McRae, David Sky		Helicopter Pilots
Irene Jacobsen		Home Economist
Clinton Jackson		Disc Jockey
John Nichol		Beautician
Representatives (3)	Pinellas Health Dept.	Nurses
Dr. Pedley	Private Practice	Dentist
Mr. Gustafson	U.S. Post Office	Mail Service
Mr. Vaughn Cox	NCR Manager	Accounting
Representative	Ambulance Firm	Ambulance driver
Mr. Bob Henderson	St. Petersburg Times	Newspaper Occupations
Mr. Burr	County Agri. Center	Agriculture
Mr. Guido	Media Center	Media Specialist
Representative	Olivetti Corp.	Typewriter Repair
Mr. Bob Hesse	City Center for Learning	Photography
Ray Madren	WSUN Radio	Radio Broadcaster

Representative	Firm	Occupation
Ron Wiggins	St. Petersburg Independent	Newspaper Writing
Representative	St. Petersburg Sewage Treatment Plant	Pollution Control
Representative	Eckerd College	Art
MR. Geiger	Florida Power	Utilities Occupations

OFFICE OF CAREER EDUCATION

School Board of Pinellas County, Florida

OFFICIAL FIELD TRIP REQUEST & REPORT

SCHOOL: _____ DATE: _____

GUIDANCE COUNSELOR/OCCUPATIONAL SPECIALIST: _____

TEACHER: _____ GRADE: _____ NO. OF PUPILS: _____

CAREER CLUSTER: _____

PLACE TO BE VISITED: _____

DATE OF VISIT: _____ DEPARTURE TIME: _____ ARRIVAL BACK AT SCHOOL: _____

METHOD OF TRANSPORTATION: _____

OBJECTIVE/PURPOSE: _____

_____

List what you will do/have done to prepare pupils for field trip:

_____

_____

Specific activities at the facility: _____

_____

_____

List follow-up plans: _____

_____

_____

Evaluation: _____

_____

_____

Materials used: _____

_____

(For additional information attach separate sheet)

NOTE: Please return one (1) copy to the Career Education Office

Form No. 2 (rev. 12/14/72)

COST--Effective Data Collection System

CAREER EDUCATION
COMMUNITY RESOURCES INQUIRY

The teachers are attempting to make students of all ages aware of the World of Work. The variety of jobs held by family members and neighbors of Pinellas County School children is wide-ranging. We would like you to share your work experience with our students.

If you can help us, please fill out this form and return it to the school.

NAME _____ HOME PHONE _____

ADDRESS _____ BUSINESS PHONE _____

_____

OCCUPATION/BUSINESS _____

(1) Are you willing to show students how you do your job?

_____

(2) Will you allow a student to interview you about your occupation?

_____

Are you willing to have photographs taken during the interview?

_____

(3) Would you be willing to demonstrate resources which you use on your job?

_____

(4) Would you be able to leave these resources with the school for a period of time?

_____

(5) Are you willing to make a cassette recording about your job, or to have photographs made of you on the job?

_____

(6) When can you come to the school? _____

(7) We would appreciate any comments you wish to make.

_____

_____

TEACHER COMMENTS ON PARENT OR INDUSTRY REPRESENTATIVE VISITATION
(PART OF CAREER EDUCATION COST PROCESS DIARY)

Teacher _____ School _____

Parent or Industry Representative _____ Date of Visit _____

Occupation Represented _____

Comments _____

_____

_____

Student Comments _____

_____

_____

Would the parent or industry representative be willing to visit another school? _____

STUDENT REACTION TO CAREER EDUCATION ACTIVITY

SCHOOL_____ GRADE____ TEACHER_____ DATE_____

1. Description of Activity_____

2. Occupational Cluster:

___Agri-Business & Natural Resources
___Business and Office
___Communication & Media
___Construction
___Consumer & Homemaking
___Environment
___Fine Arts & Humanities
___Health
___Hospitality & Recreation
___Manufacturing
___Marine Science
___Marketing & Distribution
___Personal Services
___Public Service
___Transportation

Discipline:

___Mathematics
___Social Studies
___Science
___Language Arts
___Music
___Art
___Physical Education
___Foreign Languages
___Health
___Vocational Subjects

Career Education Element:

___Educational Awareness
___Career Awareness
___Self Awareness or Occupational Self-Concept
___Attitudes and Appreciations
___Decision-Making Skills
___Employability Skills
___Basic Employment Skills
___Economic Awareness

3. How did you like this activity? (a) Very much___ (b) Some___ (c) Not much___ Not at all___

4. What job did you learn about?_____

5. Do you think you would like to do this kind of work? (a) Yes___ (b) No___ (c) Don't know_____

6. Do you think it would be hard to learn all about how to do this kind of job?
(a) Yes___ (b) No___ (c) Don't know_____

7. How much education or training does this kind of work require?_____

RELATIONSHIPS WITH INSTITUTIONS OF HIGHER EDUCATION FOR DEVELOPING INSERVICE TRAINING OR FOR DEVELOPING COURSES IN CAREER EDUCATION

Institution	Date	Pinellas County Career Education Representatives	University Representatives	Topic
Florida State University	3/17/72	Myrtle E. Hunt	Dr. Wade Burley	Summer Workshops
Florida Southern College	2/14/72	Myrtle E. Hunt	Personnel from Florida universities	Federal programs and agencies
University of Florida	4/28/72	B. Hartill C. Givens	Midge Smith	FAIS
St. Petersburg Junior College	5/10/72	Ruth Dikman Tom Noble	N. Barrett	Practicum in Publicity
University of South Florida Bay Campus	5/25/72	Myrtle E. Hunt	Mr. James Pope	Career Education
University of South Florida	6/1-2/72	Myrtle E. Hunt Tom Noble	Personnel from USF Continuing Ed.	Conference on Continuing Education for Adults
Florida State University	6/8/72	Myrtle E. Hunt B. Hartill	John Geil	LOOM
University of South Florida	6/16/72	Myrtle E. Hunt	Dr. Jaeschke and others from USF	University Proposal for Career Education
University of South Florida	7/12-13	Myrtle E. Hunt	Personnel from Florida Projects	Drive-In Conference on Career Education

Institution	Date	Pinellas County Career Education Representatives	University Representatives	Topic
UF/FSU	7/17-21	Career Education Staff	Midge Smith and John Geil	FAIS/LOOM Workshop
Nova University	7/30 - 8/5/72	Tom Noble	University Personnel from Florida	National Institute, "Education USA - 1972"
USF	8/2/72	Myrtle E. Hunt	USF Class Instructors	Career Education
University of Florida	9/12/72	Don Rosenberger	Midge Smith	FAIS
North Carolina State University	9/10-13	Myrtle E. Hunt	Dr. Robert Morgan Dr. Ronald Shearon	Evaluation Conference on Career Education
University of Florida	9/28/72	Myrtle E. Hunt Don Rosenberger	Midge Smith	FAIS Workshop, Eisenhower
Colorado State University	10/23-27	Myrtle E. Hunt	Institute Members	Institute for Curriculum - Personnel Development
FSU	1/21/73	Myrtle E. Hunt	Dr. James Edmundson	Advisory Committee Meeting on Career Education Curriculum Laboratory
FSU	1/22/73	Career Education Staff	Dr. Ellen Amatea	Site visit
FSU	1/27/73	Don Rosenberger	Mr. John J. Geil	LOOM
USF	2/15/73	Myrtle E. Hunt Dorothy Snidow Clarence Givens	University Personnel	Presentation: Career Academic Affairs

Institution	Date	Pinellas County Career Education Representatives	University Representatives	Topic
USF	2/16/73	Dorothy Snidow	Dr. Don Jaeschke Mr. James Pope	Discussion on In-Service
USF	2/21/73	Myrtle E. Hunt	USF class and Instructor at PVTI	Presentation: Pinellas County Career Education Project
UF	2/23/73	Dorothy Snidow Don Rosenberger	Dr. John Crittenden	Curriculum Unit Model
USF	2/26/73	Myrtle E. Hunt Clarence Givens Don Rosenberger	Dr. Wade Burley Dr. Ed Panther	Summer In-Service Cooperative Workshop Arrangement
USF	2/26/73	Same as above	Mr. Rex Toothman Dr. Marin Dr. Russ Wiley	Same as above
USF	3/1-2/73	Don Rosenberger Marie Charles Clarence Givens Tom Noble	University and Career Education Representatives	Role of the Teacher Educator in Career Education
USF	3/9/73	Myrtle E. Hunt Don Rosenberger Dorothy Snidow	Dr. Russ Wiley Dr. Wade Burley Dr. Donald Jaeschke Mrs. Elizabeth Bolton	Career Education Workshop
USF	3/13/73	Myrtle E. Hunt Don Rosenberger Dorothy Snidow	Mrs. Elizabeth Bolton	Career Education Workshop
FSU	3/5-6/73	Tom Noble	Dr. James Edmundson Mr. Jerry Kidd	Curriculum Laboratory Script and Photography for Slide Presentation

Institution	Date	Pinellas County Career Education Representatives	University Representatives	Topic
USF	3/9/73	Myrtle E. Hunt Dorothy Snidow Don Rosenberger	Dr. Donald Jaeschke Dr. Russ Wiley Mrs. Elizabeth Bolton	Cooperative Arrangements on In-Service Workshops
UF	3/12/73	Dorothy Snidow Marie Charles Don Rosenberger	Dr. John Crittenden	Curriculum Unit Model
USF	3/13/73	Myrtle E. Hunt Clarence Givens Don Rosenberger Louis McCoy May Howry Doris Edwards Bette McConnell	Faculty Members	Presentation for Florida Area III and Area IV Supervisors
St. Petersburg Junior College	3/13/73	Clarence Givens	Class and faculty	Presentation on Career Education
USF	3/13/73	Clarence Givens	Dr. Ed Panther	Presentation on Career Education
FSU	3/21/73	Myrtle E. Hunt	Dr. James Edmundson	Sound/Slide Presentation Preparation
USF	3/27/73	Dorothy Snidow Don Rosenberger	Mrs. Elizabeth Bolton	Career Education Workshop, Pinellas Vocational-Technical Institute
USF	3/28/73	Myrtle E. Hunt	Mr. Rex Toothman	South Florida Planning Council
FSU	4/2-4/73	Career Education Staff	Dr. James Edmundson	Conference on Curriculum Materials, and on slide presentation.
USF	4/16-20	Dorothy Snidow	Dr. Leon Greabell	Evaluation Instrumentation

Institution	Date	Pinellas County Career Education Representatives	University Representatives	Topic
FSU	4/23/73	Career Education Staff	Mr. Jerry Kidd	Curriculum Lab Slide Presentation Conference
USF	4/24/73	Dorothy Snidow	Dr. Wade Burley	Evaluation Instrumentation
USF	4/26/73	Myrtle E. Hunt Dorothy Snidow	Dr. Donald Jaeschke	Career Education Workshop
FSU	4/30/73	Career Education Staff	Mr. Jerry Kidd	Preview of Slide Presentation prepared by FSU Curriculum Lab for Pinellas County Career Education Project

UNIVERSITY OF SOUTH FLORIDA

March 14, 1973

Mr. Ronald W. Scull
Consultant
Teacher Certification
State Department of
Education
Tallahassee, FL 32304

Dear Ron:

Here is the course outline for EDC 681. Notice I have left certification uses blank. We want to use it for fulfilling certification requirements in:

Elementary Curriculum
Secondary Curriculum
Vocational Curriculum

and general updating. Pinellas County doesn't want it if certification requirements aren't clear.

Please help us sell this to whoever has to approve its uses for certification. I will wait to hear from you by phone. Suggest any revisions you think we can live with or fulfill.

Thank you for your cooperation.

Sincerely,

Elizabeth Bolton
Instructor

EB/pa

Enclosures

COURSE OUTLINE

EDC 681, EDUCATION WORKSHOP: CAREER EDUCATION

Quarter III, 1973

Course Description:

This is a workshop designed to provide an orientation to career education concepts, curriculum, and applications at all levels of instruction.

General Statement:

Since this is to be a workshop designed to inform teachers at all levels of instructions, it will be taught by resource people from various departments within the University of South Florida even though it is coordinated by the Department of Vocational and Adult Education.

Certification Uses:

Workshop Objectives:

1. To explore the origins, philosophy, and purpose of the career education concept and its relationship to academic education, vocational education, and guidance.

2. To examine operational programs and resource materials in career education on local, state, and federal levels.

3. To examine curriculum materials and resources that are being used at various career education centers.

4. To provide personal and situational assessment and its relationship to vocationalism.

5. To operationalize career education concepts as options or alternatives to traditional ways of teaching.

Course Content as Related to Objectives:

April 3 Objective 1 Activities:
"Career Education & Vocational Education" -
Rex Toothman

		"Career Education & General Education"- "Career Education & Guidance" - Ed Panther
April 10	Objective 2	Activities: "Career Education & the OEO" "Career Education at the State Level" "Career Education at the Local Level" - speakers to be announced Group presentations and discussion
April 24 May 1	Objective 3	Activities: "Career Education Materials for Gifted Youngsters" - Dr. Dorothy Sisk "Career Education Materials for Special Education" - Dr. George Kuhn Discussion Presentation of resources and curriculum materials currently being used at various career education centers
May 8 " 15	Objective 4	Activities: Students will participate in the following: "Personal & Situational Inventory - Worklife History"- Dr. Don Jaeschke "Attitude Assessment of Student" "Skill & Talent Inventory" "School or Program Inventory" "Meyers Briggs Type Indicator" "Teacher Styles Inventory"
May 22 " 29 June 5	Objective 5	Activities: C. A. B. - Don Rosenberger Individual application by class participants

Suggested References:

Make your own list of no less than 15 references with at least three relating to each objective. A reference report will be submitted as each objective is covered.

Activities:

1. Everyone will be required to read and report orally on five journal articles that are relevant to career education. A sheet will be given to you that explains the format for the report.

   In addition to the oral report, a written report will be submitted after the oral report has been given.

2. This course is based on the concept of self-study and inquiry. Topics or areas that will be of interest to the class as a whole will be handled by group projects.

   The group projects should evolve into a group report with the idea that this is the major contribution of that particular group to the class. Each individual in a group should participate in the group report.

   This oral report should be no less than twenty minutes and no more than one hour. It should be a quality production since 50 per cent of the total grade will be based on this effort.

3. Oral Responses:

   It is hoped that everyone will contribute to class discussion. Time permitting, everyone will have the opportunity to orally report inquiry findings to the group.

   Use a combination of methods, techniques, and devices you believe to be most effective. Give me one week's notice to arrange for any instructional aids you might need.

   If you arrange for a resource person, do not substitute his oral contribution for your oral responsibility. In this case, an adequate summary perhaps is in order before you entertain questions from the group.

   If you arrange a field trip, you assume complete responsibility for your share of the evening.

   If three or more persons are scheduled for the class on the same night, they should assume responsibility for the coordination of the agenda.

4. Written Responses:

   In order that the group will have access to the results of individual studies, everyone should duplicate his findings for each member of the class.

5. Evaluation:

   30% - Group Project Report
   30% - Individual Project Report
   10% - Journal Reactions
   20% - Final Examination
   10% - Class Participation

UNIVERSITY OF SOUTH FLORIDA
TAMPA • ST. PETERSBURG

COLLEGE OF EDUCATION
TAMPA, FLORIDA 33620
813: 974-2100

April 23, 1973

Mrs. Myrtle E. Hunt
Director Career Education
Pinellas County

Re: Career Education Evaluation Instruments

Dear Mrs. Hunt:

Section #17 (Educational Awareness)

The rough copy for grades K-early 1st, 1-3, 4-7, 7-9 and 10-14 are ready to be field tested. It would seem like a good idea to test the directions for the K-6 sections on some children before any extensive field testing is done.

The 7-9 and 10-14 instruments should be able to be completed by the students during one class sitting.

The interview form for the K-early 1st should take no more than 5-8 minutes per child. However, it is recommended that a tape-recorder be used during the interview so as to insure accurate recording of data and eye-to-eye contact between interviewer and student.

Section #18 (Career Awareness)

The instruments for this section appear to be completed. A suggestion to consider when administering the primary instrument would be that the 2nd section (page 2) be given at a second sitting so as to avoid contamination of the data gathered.

Section #19 and #20 (Appreciations and Attitudes, Self-Awareness)

After consulting with members of the Early-Childhood Department, The Guidance Department and the Measurement Department at the University of South Florida as well as screening the commerical and non-commerical tests and scales available it was felt that there was no instrument available that would meet the unique needs of the Career Education Program. Therefore, the following recommendation is made.

Recommendation - That an instrument be developed for grades K-3 which would be experimental in nature and used by the teachers on a semi-annual basis.

As the instrument is field tested it is hoped that the feedback from the professionals in the field will lead to a re-evaluation and if need be, a re-writing of the experimental instrument.

Section #21 (Career Decision Making Skills)

It is evident that many of the Goal Statements for grades K-6 considered in this section overlap other areas, most noticeably sections 19, 20 and 22. Therefore, the recommendation that no specific instrument be developed in this area for grades K-6 is made.

For the section for grades 7-9 it is suggested that a 5 point scale be used to measure the students responces with the value of 1 being very important to the value of 5 being not important instead of the present scoring method.

Section 22 (Employability Skills)

It is recommended that no instrument be developed for grades K-8 for this section. The primary reason being that data for the assesment of these goals will be available from testing procedures done with other sections (Sections 17, 18, 19 and 20).

Section 23 (Basic Employment Skills)

In the grade K-6 Goal statements for this section it appears that the majority of the goals are directly related to cognitive skills as outlined in the curriculum guides of the Pinellas County Schools. It is recommended that no instrument be developed for this area, K-6, but use of the data ordinarly gathered in subject areas such as social studies, mathematics and communication skills be utilized.

Section #24 (Economic Awareness)

Instruments for testing the goals of this section are completed and ready for testing in grades K-14.

Respectfully,

Leon C Greabell

Leon C. Greabell
Assistant Professor of Education
University of South Florida

LCG:er

TO: Pinellas County Career Education Project,
Attention: Don Rosenberg

FROM: Dr. Wm. Wade Burley
University of South Florida

SUBJECT: COMMENTS CONCERNING THE EVALUATION PROCEDURES AND INSTRUMENTS FOR THE CAREER EDUCATION PROJECT

It appears that you have a very large number of test items to which students will have to respond. When you do the pilot survey in May, you may want to consider reducing the number of item responses required of students. You might be able to identify which items provide significantly different information, with minimal overlap (or inter-correlation) with other items or measures. Just from a visual survey of the eight different areas (elements of career education) and the outcomes or changes in these areas, there does seem to be a strong potential for redundancy or possible overlap in the information being sampled in the different areas.

The items measuring information in the "Career Awareness" section, I believe, appear to be much more extensive than those in some of the other sections. The format and the general types of items also seem to be somewhat different. Were these prepared by or adapted from another, or an outside, source?

I heard about the difficulties you had in selecting and developing measurement procedures for the "Self-Awarness" or "Occupational Self-Concept" areas. As I mentioned to Dorothy when I was there on Tuesday morning, the Driscoll Play Kit with open-ended stories to be completed by children, was used by Ann Walsh in a study of self-concept of children and young people; this procedure could probably be adapted for use in pre-school or early grade areas. Also, there is the instrument developed by Ira Gordon, How-I-See-Myself Scale, with forms suitable for elementary and secondary level. (I believe this was the instrument used by Perkins of West Florida for his evaluation model for exemplary programs in the state.) You may be familiar with the Self-Esteem Inventory developed by Stanley Coopersmith; this instrument is worded for children in the eight to ten year-old range. The Bledsoe Self-Concept Scale is an instrument designed for third through eighth grades. Also, there is the Self-Appraisal Scale developed by Davidson and Greenberg with a reading level of about fifth grade. You may have already looked into these instruments for possible use or adaptation for use in the self-awareness section, but I thought that they might be worth considering.

Here are a few other general suggestions I have that may or may not be possible to accomplish at this time:

(1) You may want to include individual items, or groups of items,

from standardized inventories or instruments that have known item characteristics or normative data. Where appropriate, these may be used with items you have already developed. Although we know that removing an item from its context sometimes changes its psychometric characteristics, there may be some usefulness in being able to compare the response characteristics of your sample with those of a broader national sample. Also this might aid interpreting and "validating" the other items you have developed or selected.

(2) Although you probably will be administering the measures you have developed to large numbers of students in the evaluation next year, it might be useful to also try to obtain additional related information from small sub-samples of students, who would be involved in intensive situational and behavioral tests under observation. For example, you might select a few representative students who would be placed in a problem-type situation where they would be asked to choose from among a number of occupational opportunities or jobs in which you might like to work. The situation could be structured so that they could use or choose from some specific available materials or information and/or talk with a fellow student, a counselor, or a teacher. From a classification and rating of their actions and their decision and from questions that would be asked clarifying their reasons for a feeling about the decision, you would be able to possibly obtain elaboration and further clarification of their decision-making skills and the relationship of specific behaviors and factors to their other data or self-report responses on the other evaluation inventories and questionnaires.

If you were to do this, it would mean additional development of some structured and appropriate situational tests providing observation of behaviors and additional information from students that would help in understanding the meaning and possible behavioral consequences of the other evaluation data. You would need to carefully select your small sub-sample. Perhaps you might want it to represent specific characteristics or categories of the larger school population or sample, so that you can appropriately relate high or low evaluation results to specific student outcomes and implications.

(3) One factor that is very often overlooked or not given adequate attention in research projects and in evaluation designs dealing with new, exemplary, or purportedly "different" programs in education is the influence of the initial expectations of students and staff on their later reactions and feelings. Some research designs provide for factors like this to be taken into consideration (for example, the Soloman Four-group Design and modifications of this and other pre-post designs.) In the case of a school program or project, like the Career Education Project in Pinellas County, publicity and information about the nature of the project (what it might be like, what it might do, etc.) are sometimes communicated to students and faculty beforehand in very complimentary terms, which may produce "unrealistically" high expectations. In a number of studies, and

in some research I have conducted personally, it appears that high expectations that are not fulfilled in later experiences may result in producing unusually depressed or difficult to interpret results and self-report responses in the post-data obtained, especially in the affective area. Therefore, it might be useful to at least obtain measures of or information about initial expectations concerning the school, program activities, and their results so that this information may be used in determining relationships and effects regarding post-data in the affective areas and to possibly use expectation factors or data in a co-variant design.

One other comment (that I discussed briefly with Clarence Givens) might be made concerning your appropriately evaluating information related to specific possible objectives of the Career project. If one of your objectives, for example, is "to increase the career awareness of girls in terms of the number and range of occupations that might be appropriate for them and from which they might legitimately choose," one type of question or situation that you might use could be as follows: Students might be asked to check or indicate which of a list of jobs or occupational areas they feel might be possible for them to prepare for or enter. If the female students in your experimental sample chose a greater number and/or greater range of occupations this might provide an operational criterion or indication for achieving the objective in this area.

These are just a few ideas and comments you might want to consider. Although it might not be feasible to make changes or arrangements before your main pilot testing, there might be some possibility of making changes or including additions in your evaluation next year.

Respectfully submitted,

(Signed)

Wm. Wade Burley, Ph. D.
Associate Professor
Educational Psychology & Guidance

WWB/csi

cc: Mrs. Dorothy Snidow

April 3, 1973

TO: Myrtle E. Hunt, Director Career Education

FROM: Betty Smith, Counselor, Palmetto Elementary School

SUBJECT: GAP (Guidance Aide Program) St. Petersburg Junior College

This is in response to your questions concerning the Guidance Aide Program which we are operating at Palmetto in cooperation with St. Petersburg Junior College, Clearwater Campus.

The GAP evolved out of a desire to seek the aid of additional people to "listen" to the students at Palmetto Elementary School. We felt that many students would benefit from having someone with whom they could "rap" — look forward to seeing and mainly someone from whom they could get a little extra attention.

I contacted Mrs. Stoutamire, instructor of three Adolescent Psychology classes at the Clearwater Campus, and found that she likes to actively involve her students with adolescents on a continuing basis as a regular part of her courses. She feels, and I think rightly so, that her students will acquire and retain more knowledge by working directly with children while studying the theory of child development.

When the semester began in January, I attended Mrs. Stoutamire's classes to answer any questions they might have to to clarify the procedures (Attachment #1). Midway in the semester I attended these classes again to obtain feedback from the Junior College students (Attachment 2) to provide further clarification if needed, and to demonstrate some of our materials.

It was felt that the Junior College students' career goals and present jobs would come up in their conversation with out students. This informal exposure to career awareness would be an added "plus" to the planned career program.

I was pleased to find that a reciprocal awareness evolved. The Junior College students became aware of careers which they previously had known nothing about. Some whose goal had been working with children became positively reinforced about their decision, while others felt that their previously set goal was unrealistic.

Some of the Palmetto teachers requested that the Junior College students tutor specific areas. This again provided a reciprocal awareness for the Junior College students; some stated that they more clearly saw the relevance for some of their "unnecessary" courses.

Both Mrs. Stoutamire and I feel that all people involved have gained a tremendous amount from the short time the program has been in effect. I would definitely like to continue this program next school year - enlarging it to include Mrs. Stoutamire's General Psychology students.

Students at Palmetto who had an aide appeared to me to show improvement in self-esteem and self-concept. They seemed to feel that it made them special in a nice way.

I consider the prime ingredient for making a program such as this work to the fullest would be flexible, cooperative teachers. The teachers at Palmetto are just such a group.

Some aspects of this program which I feel cannot be measured at this time would be the change of attitudes of the Junior College students regarding themselves as future parents in their own homes with their own children; empathy for others -- other children and other life styles; and tolerance and understanding of the institution of the school and its educators.

cc: Dr. H. Danielson
Mr. C. Givens
Mr. F. Martin
Mrs. V. Stoutamire

GUIDANCE AIDE PROGRAM - PALMETTO ELEMENTARY SCHOOL
Clearwater, Florida

1. Sign in and out (file on shelf in Guidance Room).
2. Places to work:
   a. Guidance Room and materials are available (depending on scheduled classes).
   b. Small room (to right of library entrance) available Wed., Thurs., and alternate Fri.
   c. Library (if librarian has no classes).
   d. Workroom/Magazine Room (off library). Chairs can be moved in.
   e. Take walk around school grounds.
   f. Tables in lunchroom (before and after lunchtime).
   g. Small room next to office (if not used by pupil services personnel).
   h. Chairs may be placed in hall area.
3. "Ice Breaker" Interview Sheet (under sign-in file on shelf). This can be used or not at your option. You may wish to interview the student and then let him interview you. This helps you to know a little of each other and gives you some possible points of exploration.
4. Photoboards. The kids love to respond to these. You can tape their responses and play back if you like. Tape recorder in Guidance Room (bottom shelf by sink, tape, take-up reel and mike on top shelf in closet).
   For those students who need help in reading (and there are not many who don't) these photoboards can be used to create a story, have them write it up (with your help) and make a book. Things they write they can usually read well and have an interest in reading. Also other students are usually interested in a book created and written by a classmate.

Above all these children need successful experiences. They are frustrated at many failures and have inadequate feelings of self worth. We want them to feel good about themselves and experience many, many successes.

If you feel yourself becoming impatient or are not having a good day yourself (and we all have these days) cut the session short or change activities.

Most of these kids do not have deep rooted problems. They are very normal young people trying to cope and adjust to our society and find where they fit into the whole thing. We want them to feel they are very special and unique people but that we all experience many similar feelings and they are not "different" for having these feelings.

They need individual attention (which is almost an impossibility from a teacher with a regular class load). What is SO great is YOUR age - one to which these kids should have no trouble relating. They will look in awe at you - to think you graduated from high school and are in college. That you drive your own car and have dates. This is something that seems eons away in their lives but still closer than the adults in the school. But then you all remember how it was when you were in elementary school - yes? no?

If you will think of yourself as a "big brother" or "big sister" (not like 1984) - that these kids can just talk to and "yak" with. Don't worry about "doing" anything. The fact that you are HERE is tremendous.

One more thing: Please wear a PINELLAS SCHOOL VOLUNTEER button while you are in our school. This alerts teachers that you are authorized to take children from the classroom. These buttons are on the shelf by the sign-in file.

March 1st and 2nd I attended the Adolescent Psychology classes at Junior College for feedback from the aides on THEIR feelings about this program. Thought you would be interested in their pros and cons.

The students in these classes have several schools from which to choose and really feel we came out way ahead. I believe this is due to the total acceptance they have had from everyone in this school. Also we have the greatest number of aides going to any one school.

PROS

1. Interaction with children
2. Self satisfaction
3. Give them needed attention
4. Better understanding of a child's thinking
5. Freedom to help children out individually
6. May have private conferences with teachers
7. We are able to use any of Mrs. Smith's equipment
8. We are able to see the child progress
9. We have a feeling of accomplishment
10. Works with small group
11. Children look forward to aide
12. Good equipment
13. Teachers competent
14. Mrs. Smith is interested
15. The children really eat it up - someone new and different from teacher
16. It's therapeutic in comparison to the tension of the regular school schedule
17. Teachers cooperate-basically an atmosphere conducive to our purposes of interaction
18. The children give us positive reaction for positive reinforcement
19. Good experience for career choices
20. We get positive feelings as do the children
21. Good experience for having children
22. Experience is practical, not only sitting in our class talking about children
23. We can find that we either really like or dislike children

CONS

1. Have too many grand tours of school by student
2. Wish we had more time to spend with child - at least 45 minutes
3. We encounter problem children which may scare us away from interaction with children
4. Getting tackled by unruly characters
5. Saying good-bye to child
6. Not enough hours in the week to work with the child

RECORD OF COMMITTEE MEETING HOURS

	January 1972		February '72		March 1972		April 1972		May 1972	
CURRICULUM COMMITTEE							3	3	9	12
COST COMMITTEE (STAFFING AND COST-EFFECTIVE PLANNING							3	3	15	18
COMMUNITY INFORMATION AND INVOLVEMENT										
PARENTS										
COMMUNITY GROUPS (PTA, LEAGUE OF WOMEN VOTERS, ETC.)										
STATE AND NATIONAL REPRESENTATIVES							16	16	7	23
STAFF INVOLVEMENT WITH LOCAL, STATE, AND NATIONAL GROUPS	16	16	9	25	•	25	109	134	137	271
STUDENT ACTIVITY INVOLVEMENT (E.G. YOUTH FLAIR)										
SCHEDULING, EFFICIENCY MANAGEMENT, AND COSTS COMMITTEE										
INSERVICE AND RENEWAL PLANNING										
SUPPORT SYSTEMS AND PLACEMENT COMMITTEE										
LEGAL, POLICY, AND REGULATIONS COMMITTEE										
EVALUATION COMMITTEE										

*Hours and cumulative hours indicated in each block.

RECORD OF COMMITTEE MEETING HOURS

	June 1972		July 1972		August '72		Sept. 1972		October 1972	
CURRICULUM COMMITTEE	39	51		51		51		51		51
COST COMMITTEE (STAFFING AND COST-EFFECTIVE PLANNING		18		18		18		18		18
COMMUNITY INFORMATION AND INVOLVEMENT										
PARENTS										
COMMUNITY GROUPS (PTA, LEAGUE OF WOMEN VOTERS, ETC.)	4	4		4		4		4		4
STATE AND NATIONAL REPRESENTATIVES		23		23		23		23		23
STAFF INVOLVEMENT WITH LOCAL, STATE, AND NATIONAL GROUPS	46	317	26	343	98	441	51	492	89	581
STUDENT ACTIVITY INVOLVEMENT (E.G. YOUTH FLAIR)										
SCHEDULING, EFFICIENCY MANAGEMENT, AND COSTS COMMITTEE										
INSERVICE AND RENEWAL PLANNING			12	12		12	12	24		24
SUPPORT SYSTEMS AND PLACEMENT COMMITTEE									4	4
LEGAL, POLICY, AND REGULATIONS COMMITTEE										
EVALUATION COMMITTEE										

Summer workshops
June-July, 1972 11,316

RECORD OF COMMITTEE MEETING HOURS*

	November '72		December '72		January '73		February '73		March '73	
CURRICULUM COMMITTEE		51		51	80	131	168	299	28	327
COST COMMITTEE (STAFFING AND COST-EFFECTIVE PLANNING		18		18	95	113	135	248	96	344
COMMUNITY INFORMATION AND INVOLVEMENT										
PARENTS	20 (est)	20		20		20	38	58	90(est)	148
COMMUNITY GROUPS (PTA, LEAGUE OF WOMEN VOTERS, ETC.)	25	29		29		29		29		29
STATE AND NATIONAL REPRESENTATIVES		23		23		23		23		23
STAFF INVOLVEMENT WITH LOCAL, STATE, AND NATIONAL GROUPS	165	746	125	871	54	925	243	1168	303	1471
STUDENT ACTIVITY INVOLVEMENT (E.G. YOUTH FLAIR)										
SCHEDULING, EFFICIENCY MANAGEMENT, AND COSTS COMMITTEE									9	9
INSERVICE AND RENEWAL PLANNING	6	30		30	3	33	13	46	276	322
SUPPORT SYSTEMS AND PLACEMENT COMMITTEE		4		4		4		4	120	124
LEGAL, POLICY, AND REGULATIONS COMMITTEE										
EVALUATION COMMITTEE			108	108	42	150	147	297	90	387

*Hours and cumulative hours indicated in each block.

RECORD OF COMMITTEE MEETING HOURS

	April '73		May '73				
CURRICULUM COMMITTEE		327		327			
COST COMMITTEE (STAFFING AND COST-EFFECTIVE PLANNING		344		344			
COMMUNITY INFORMATION AND INVOLVEMENT :							
PARENTS		148		148			
COMMUNITY GROUPS (PTA, LEAGUE OF WOMEN VOTERS, ETC.)	33	54	12	66			
STATE AND NATIONAL REPRESENTATIVES	24	47		47			
STAFF INVOLVEMENT WITH LOCAL, STATE, AND NATIONAL GROUPS				1471			
STUDENT ACTIVITY INVOLVEMENT (E.G. YOUTH FLAIR)	150 (est)	150		150			
SCHEDULING, EFFICIENCY MANAGEMENT, AND COSTS COMMITTEE	20	29	5	34			
INSERVICE AND RENEWAL PLANNING	102	424		424			
SUPPORT SYSTEMS AND PLACEMENT COMMITTEE	90	214	72	286			
LEGAL, POLICY, AND REGULATIONS COMMITTEE							
EVALUATION COMMITTEE	42	429	72	501			

*Hours and cumulative hours indicated in each block.

Example of Meeting on Student Activities

MINUTES OF MEETING

Name of Committee Youth Flair

Date of Meeting November 10, 1972 (9:00 - 12:30)

No. of Persons Attending 9 No. of Hours 3 1/2

Names of those attending:

Dr. Fred Stuart (Research and Development), Chairman
Mr. Gus Sakkis, Acting Superintendent of Schools
Mary Jane Davis, Supv. of Business Education
Don Rosenberger, Elementary Supervisor, Career Education
Jeanine Blauvelt, Elementary Coordinator
Sally Benbow, Elementary Supervisor
Martin Rainey, Resource Teacher
Bill DeCroteau, Industrial Arts Supervisor
Fran Zenor, Home Economics Supervisor

Brief Statement of Activities:

The group met to begin planning for use of the Bayfront Auditorium space for YOUTH FLAIR, Which will be held in April.

Example of Meeting: Evaluation Committee

MINUTES OF MEETING

Name of Committee Evaluation Advisory Committee

Date of Meeting January 17, 1973

No. of Persons Attending 20 No. of Hours 2 1/2

Names of those attending:

Myrtle E. Hunt	Rose Irwin
Clarence Givens	Gary Kilroy
Dorothy Snidow	Mable Martin
Claude Brannan	Bette McConnell
Eunice Burgess	Carol Payne
James Castle	Phyllis Roemer
Thomas Crook	Marilyn Sapperstein
Doris Edwards	Betty Smith
Nona Grotecloss	Peggy Upton
Stephen Guyler	Ferris Post

Brief Statement of Activities:

Clarence Givens introduced Dorothy Snidow, who described the need for input from the COST teams for evaluation instruments. It was agreed that several meetings would be held to enable the members to study and work on instruments for the grade levels they were involved in.

Members separated into groups of two or three, selected basic material supplied by the Career Education office, and reviewed existing instruments for measuring the eight Career Education Elements. They commented on old material, suggested items for inclusion in revised instruments, and then exchanged with another group in order to work on a different Career Education element. In this way each Career Education element would be considered by each group, and all input could then be coordinated by the Career Education office and revised instruments submitted to the group for re-consideration.

Example of Meeting: COST Committee (Counselor-Occupational Sepcialist-Teacher)

MINUTES OF MEETING

Name of Committee "COST" (Counselor-Occupational Sepcialist-Teacher) Committee

Date of Meeting January 30, 1973

No. of Persons Attending 11 No. of Hours 2 1/2

Names of those attending:

Myrtle E. Hunt, Director
Clarence Givens
Dorothy Snidow
Leonard Summers
Marie Charles
Don Rosenberger
Crystal Coester
Tom Noble
Connie Biles
Peggy Upton
Eunice Burgess

Brief Statement of Activities:

Mrs. Hunt discussed the request of the State Department for a "COST" team report in Tallahassee on February 1 and 2 in the Superintendent's Conference Room of the Knott Building. She requested that Campbell Park represent the Pinellas COST teams. The group worked with her to outline a presentation showing the philosophy and activities of the COST teams in the schools.

Example of Meeting - Local, State and National Groups

MINUTES OF MEETING

Name of Committee Career Education Conference - U. S. F.

Date of Meeting March 1 - 2, 1973

No. of Persons Attending 69 No. of Hours 10

Names of those attending: From the staff of Career Education as follows:

T. Noble
M. Charles
C. Givens
D. Rosenberger

Note: See attached list for names of participants

Brief Statement of Activities:

1. Career Education and the Implications for Florida Teacher Educators.
2. The status of Career Education in Florida and Florida's strategy for change.
3. The concepts of Career Education.
4. How a Teacher Preparatory Program is being implemented by Michigan State University.

CAREER EDUCATION AND THE IMPLICATIONS FOR FLORIDA TEACHER EDUCATORS

CONFERENCE PARTICIPANTS

ANDERSON, Ruth, Assistant Director, Career Education, Brevard County
ARNOLD, Joseph P., Chairman, Vocational-Technical and Adult Education, Florida International University

BERGER, Earnest G., Industrial Arts, Florida State University
BERT, Virginia, Division of Vocational, Technical, and Adult Education, Department of Education
BIASCO, Frank, Counselor Education, University of West Florida
BLAKLEY, Dorothy, College of Education, Florida Internationl University
BOLTON, Elizabeth, Adult and Vocational Education, University of South Florida
BLEE, Myron, Administrator, Division of Community College, Department of Education
BOONE, Shelley, Deputy Commissioner of Education, State of Florida
BRADY, H. G., Adult and Vocational Education, University of South Florida
BURCK, Harmon, Counselor Education, Florida State University
BURLEY, Wade, Educational Psychology, University of South Florida

CALDWELL, Robert T., Region I Coordinator, Department of Education
CASSIDY, Richard, Division of Vocational, Technical and Adult Education, Department of Education
CHAMBERS, James A., Chairman, Elementary Education, University of South Floria
CHARLES, Marie, Vocational Business and Office Education Consultant, Career Education, Pinellas County
COLLIER, Clarence H., Adult and Vocational Education, University of South Florida
CRENSHAW, Joe, Division of Curriculum and Instruction, Department of Education

DANENBURG, William P., Executive Director, South Florida Educational Planning Council
DAVIS, L. S., Elementary Education, Florida A & M University
DICKINSON, James, Acting Dean, College of Education, University of South Florida
DOUGLASS, George, Superintendent, Highlands County Schools

EADDY, Kenneth M., Division of Vocational, Technical and Adult Education, Department of Education
EDMUNDSON, James, Director, Career Education Curriculum Laboratory, Florida State University

FOWLER, Earl C., Technical Education, Florida Technological University

GIEHLS, Roy, Division of Vocational, Technical, and Adult Education, Department of Education
GIMMESTAD, Michael, Counselor Education, Florida State University
GIVENS, Clarence, Coordinator of Guidance and Counseling Services, Career Education, Pinellas County
GOLDEN, Cecil, Associate Commissioner for Planning, Department of Education
GUICE, Billy M., Elementary Education, Florida State University

HEILMAN, Casmer, (Conference Consultant), Michigan State University
HENSEL, J. W., Chairman, VTAE, University of Florida
HIGH, Sidney, Bureau of Vocational, Technical and Adult Education, U. S. Office of Education

JACKSON, Thomas E., Dean, School of Technology, Florida A & M University
JAESCHKE, Donald, Adult and Vocational Education, University

KIRK, Howard W., Vocational-Technical Education, University of West Florida
KLINDT, Donna, Florida Legislative Staff, House Finance Committee

LATHROP, R. L., Educational Research, Florida State University
LIMA, Judy, Adult and Vocational Education, University of South Florida

MANN, Thomas, College of Education, Florida Atlantic University
MARIN, Gerald, Adult and Vocational Education, University of South Florida
MARKS, Mary V., Bureau of Vocational, Technical and Adult Education, U. S. Office of Education
MARQUESS, A. Perkins, Vice-President of Instruction, Brevard Community College, Cocoa Campus
MEGOW, Robert S., Director, Career Education, Orange County
MILLER, Pam, Occupation Specialist Consultant, Department of Education

NIELSEN, Duane, (Conference Consultant), U. S. Office of Education
NOBLE, Thomas R., Coordinator, Career Education, Pinellas County

PANTHER, Edward E., Guidance Education, University of South Florida
PEAKE, Donald, Vocational-Technical Education, University of West Florida
POPE, James E., Adult and Vocational Education, University of South Florida
PFOST, Phillip, Acting Associate Dean, College of Education, University of South Florida
PURDON, Daniel M., Curriculum and Instruction, University of South Florida

RAEPPLE, Katherine, Division of Community Colleges, Department of Education

REDRERING, David L., Educational Psychology, University of West Florida

ROMIG, Larry, Assistant Director, Continuing Education, University of South Florida

ROSENBERGER, Donald, Elementary Supervisor for Career Education, Pinellas County

RIGGS, Carl, Academic Vice-President, University of South Florida

RUSSELL, Samuel E., Chairman, Industrial Education, University of North Florida

SCHMITT, Carlos, Vocational-Technical Education, Florida International University

SHELTON, Raymond O., Superintendent of Hillsborough County Schools

SMITH, James, Director, Career Education, Broward County

SMITH, Midge, Project Director, FAIS, University of Florida

SPINKS, Dan, Associate Dean, College of Agriculture, University of Florida

SULLIVAN, Zola, School of Education, Florida International University

TOOTHMAN, Rex C., Chairman, Adult and Vocational Education, University of South Florida

VANOVER, George W., Adult and Vocational Education, University of South Florida

WIESER, Billy, Adult and Vocational Education, University of South Florida

WILEY, Russell, Leadership, College of Education, University of South Florida

WRAY, Walter, Division of Vocational, Technical, and Adult Education, Department of Education

Example of Curriculum Committee Meeting

MINUTES OF MEETING

Name of Committee Curriculum (CAB)

Date of Meeting March 7, 1973

No. of Persons Attending 11 No. of Hours 3

Names of those attending:

Don Rosenberger Conducting
Marie Charles
Ruth Brown
Lottie Ellis
Anna M. Howry
John Lash
Norma Marsh
Frank R. Martin
Mary Noyes
Leonard Summers
LaVon Williams
George Cary

Brief Statement of Activities:

Group compiled results of Survey of Cluster/Occupation Activity Needs. Decision was made for the majority of the Committee to pursue the development of the transportation CAB. Other members are developing the Business and Office, Construction, and Manufacturing CABs. The committee divided into groups and began initial work on developing the CABs.

Example of Meeting: Inservice and Renewal Planning

MINUTES OF MEETING

Name of Committee Inservice Planning (USF & Pinellas CE Project)

Date of Meeting March 9, 1973

No. of Persons Attending 7 No. of Hours 2 1/4

Names of those attending:

Myrtle E. Hunt, Director
Don Rosenberger
Dorothy Snidow
Dr. Russ Wiley
Dr. Wade Burley
Dr. Don Jaeschke
Elizabeth Bolton

Brief Statement of Activities:

A proposed workshop was discussed, including the following points:

Course content
Possible dates
Resource persons and USF Instructional personnel
Location of class
Cost of course, types of credit to be given.

Philosophy, objectives, etc., were drafted. Elizabeth Bolton will serve as coordinator, and a follow-up meeting will be held on March 13, 1973.

Example of Meeting - Support Systems
and Placement

MINUTES OF MEETING

Name of Committee Placement Advisory Committee

Date of Meeting March 14, 1973

No. of Persons Attending 10 No. of Hours 35

Names of those attending:

Betty Agnew
Martha Brincklow
Walter Clark
Thomas Cowles
Frank Crook
Robert Crossett
Anna Ethington
Gordon Jackson
Crystal Coester
Thomas Noble

Brief Statement of Activities:

Reviewed placement programs from other projects specifically from Cleveland and Akron, Ohio, Pittsburg, Pa., Atlanta, Ga., and Baltimore, Md.

As per their assignments, each member of the committee turned in a placement philosophy. These were then read and combined into one philosophy for Pinellas County placement.

Reviewed Dade County Unit of Instruction on Placement.

Small group from Dunedin remained to work on unit of instruction for Pinellas County Placement.

Example of Meeting of Community Groups

MINUTES OF MEETING

Name of Committee Career Education Sub-Committee St. Petersburg Area Chamber of Commerce (Education)

Date of Meeting March 29, 1973

No. of Persons Attending 11 No. of Hours 2

Names of those attending:

Fred Cuykendall
Andy Padova
Ruth Brothers
David Walker
Myrtle Hunt
Dorothy Snidow
Tom Noble
Clarence Givens
Don Rosenberger
Marie Charles
Crystal Coester

Brief statement of activities:

The Career Education staff up-dated the Chamber of Commerce Career Education Sub-Committee by means of an overview of Career Education, a slide presentation showing Career Education in the pilot schools, and each staff member gave a brief statement of their particular function in the over all project. The staff answered questions directed to them by members of the sub-committee. The members were shown some of the commercial instruments available on career education.

ST. PETERSBURG
AREA
CHAMBER OF COMMERCE
P O BOX 1371, ST. PETERSBURG, FLORIDA 33731

The area business and industrial community has the opportunity to help make more meaningful and successful a new $280,000 federally-funded pilot program --- Career Education --- to be conducted in 10 Pinellas County public schools during the 1972-73 school year.

Mindful that this Program is primarily aimed at helping to remedy the fact that so many students are not being qualified for actual jobs, we have selected you and some 40 other business and industry representatives to lend a small, but important measure of your time to assist in the orientation this summer of 300 teachers who will be involved in this program.

Briefly, we need you for a single orientation session --- this coming Thurdsay, June 29, at 3:30 p. m. in the Chamber Grant Room --- and for participation in only one or two workshops for the teachers.

On behalf of our Chamber Education Committee and particularly the Vocational and Technical Education Sub-Committee, we want to emphasize that Pinellas is very fortunate to have landed this pilot program, for Florida's entire allocation has been granted to our County.

This is a comprehensive vocational educational program for career development in grades K through 14. Broadly stated, the goals are to (1) increase student self-awareness, (2) increase student awareness of occupational choices, (3) provide orientation to careers, (4) provide exploratory experience, and (5) develop skills necessary for job entry at appropriate levels.

As you can appreciate, it is vital that the teachers have accurate input of information from business and industry. That's why we need you. If you cannot attend the June 29th orientation at the Chamber, please be sure to send a representative from your firm. Many thanks.

Sincerely,

Fred C. Cuykendall, Chairman
Vo-Tech Sub-Committee
Chamber Education Committee

FCC:cc

ST. PETERSBURG AREA CHAMBER OF COMMERCE

ACTION REPORT*

MEETING OF RESOURCE PERSONS FROM BUSINESS AND INDUSTRY TO ASSIST IN NEW CAREER EDUCATION PROGRAM

Chamber Grant Room

DATE: Thursday, June 29, 1972
TIME: 3:30 P.M.

AGENDA

1. OPEN - INTRODUCTIONS ..... Fred C. Cuykendall, President, Oravisual Co. Chairman, Vo-Tech Sub- Committee Chamber Education Committee

2. WHAT IS THIS PROGRAM - CAREER EDUCATION?..... Mrs. Myrtle Hunt, Director

3. THE ORIENTATION OF 300 TEACHERS AND HOW BUSINESS AND INDUSTRY CAN HELP. ..... Clarence Givens, Coordinator of Guidance

4. SCHEDULING OF BUSINESS & INDUSTRY PEOPLE FOR WORKSHOPS.

5. ADJOURN

Example of Meeting - Scheduling, Efficiency Management, & Costs

MINUTES OF MEETING

Name of Committee Cost Benefit Indicators Committee

Date of Meeting May 1, 1973

No. of Persons Attending 6 No. of Hours 1 1/2

Names of those attending:

Myrtle E. Hunt, Chairman
Marie Charles, Coordinator
Ruth Dikman, Secretary
Crystal Coester
Dorothy Snidow
Dr. Tom Justiz

Mrs. Myrtle Hunt, Chairman, opened the meeting by emphasizing the need for a strongly coordinated Cost Benefit Indicators Committee. It was agreed that the following persons would be formally invited to participate as additional members:

Nat Clark, Director of Federal Projects
Wayne Gross, Assistant Purchasing Agent
Louis McCoy, Principal
Clarence Givens, Coordinator of Guidance, Career Education
Don Rosenberger, Supervisor of Elementary Career Education
Doug Tarrant, Accounting
May Howry, Teacher
Doris Edwards, Occupational Specialist

Marie Charles, Coordinator, will contact these new members and arrange a meeting convenient to the majority.

A Cost Benefit Indicators Worksheet form for compiling data, designed by Dr. Tom Justiz, was explained and accepted for use by the members. Each member will be assigned a section on which to compile information, according to individual interests.

Example of Meeting - State and National Representatives

MINUTES OF MEETING

Name of Committee Conference with Senator D. Robert Graham

Date of Meeting November 16, 1973

No. of Persons Attending 12 No. of Hours 3 1/2

Names of those attending:

(See Attached List)

Brief Statement of Activities:

(See Attached)

Conference with Senator D. Robert Graham
11/16/72

Those present at conference:

Mrs. Myrtle E. Hunt, Director
Mr. Jack Shumate, Executive Assistant Superintednent, VTAE
Mr. Thomas Gregory (Chairman, Education Committee, St. Petersburg Area Chamber of Commerce)
Senator Graham
Ray Parker, Manager VTAE
Clarence C. Givens, Coordinator of Guidance
Marie Charles, Vocational Teacher Consultant
Don Rosenberger, Supervisor Elementary Career Education
Thomas Noble, Coordinator of Placement
Crystal Coester, Occupational Specialist
Dorothy Snidow, Supervisor, Curriculum and Instruction
William Mann, Dean of Student Affairs (P. V. T. I.)

Proceedings:

Explanation of the Career Education Project: Mr. Gregory (discussing the Chamber of Commerce's role) and Mrs. Hunt (presenting an overview of the project).

Slide presentation: Clarence Givens. (Guidance at the elementary level)

Placement and Follow-Up: William Mann discussing P. V. T. I. procedures; Ray Parker discussing information system serving area centers, and junior colleges. Also future service to be rendered.

Role of the Occupational Specialists: Mr. Shumate, Mrs. Hurt, Don Rosenberger.

Future needs of the program: (Mrs. Hunt) Funds for retraining of teachers; changes in certification laws (e.g., business education people in elementary schools); need for vocational guidance counselors; the need to tap other than vocational educational funds as has been done in the past.

Career Education

Visitation of Senator D. Robert Graham

November 16, 1972

Personnel: Mrs. Myrtle E. Hunt, Director
Dorothy Snidow, Supervisor Curriculum and Instruction
Marie Charles, Vocational Teacher Consultant
Don Rosenberger, Supervisor Elementary Career Education
Thomas Noble, Coordinator of Placement
Crystal Coester, Occupational Specialist

INTRODUCTION & OVERVIEW: Mrs. Mrytle E. Hunt, Director

GUIDANCE: Clarence C. Givens, Coordinator of Guidance

ELEMENTARY CURRICULUM: Don Rosenberger, Supervisor Elementary Career Education

PLACEMENT: Ray Parker, Manager Vocational-Technical Adult Education
William Mann, Dean of Student Affairs

CAREER EDUCATION ADVISORY COMMITTEE MEMBERS:

George Tornwall - President, St. Petersburg Area Chamber of Commerce
Partner, Tornwall, Lang & Lee CPA's

Thomas Gregory - Chairman, Education Committee St. Petersburg Area Chamber of Commerce
Partner, Tornwall, Lang & Lee

Don Carr - Chairman, Beautification Committee St. Petersburg Area Chamber of Commerce
Vice President, First Federal Savings & Loan Association

Example of Meeting: Local, State or National Groups

CAREER EDUCATION CURRICULUM LABORATORY
ADVISORY COUNCIL MEETING

Date: January 23, 1973

Time: 10:00 a.m.

Place: Barnett Bank Building (4th Floor Conference Room)
315 South Calhoun Street

Present:
Dr. James C. Edmundson, Jr.
Dr. George Aker
Dr. Roger W. Haskell
Dr. Joyce Chick
Dr. Anna Ochoa
Dr. L. V. Rassmussen
Dr. W. Hugh Hinely
Dr. James Wall
Mrs. Myrtle Hunt
Dr. James E. Smith
Mr. Rex Toothman
Mrs. Midge Smith
Mrs. Blanche S. McMullen
Dr. Herman A. Heise
Mrs. Th o Smith
Dr. Thomas Jackson
Dr. Duane M. Nielsen
Mr. Joesph Barkley
Mrs. Elizabeth Hannum

AGENDA

I. The meeting was opened by Dr. Edmundson who welcomed all the Council members, guest, and staff. He then announced the 12:00 noon luncheon at The Inn Below. Round-the-table introductions were then requested and performed. Dr. Edmundson then called upon Dr. Duane Nielsen for a short presentation. Dr. Nielsen pointed out that career education at the current time is a most charismatic and productive assemblage of ideas and that the Laboratory has an opportunity to be effective in changing both ideas and people. He emphasized the following points as being worthy of serious consideration: communication, avoiding duplication and yet gain of important input from other states, and the collecting, classifying, describing, and cataloging of materials.

II. Dr. Edmundson thanked Dr. Nielsen for this presentation and turned the meeting over to Mrs. Myrtle Hunt, Temporary Chairman.

Mrs. Hunt agreed with Dr. Nielsen that it will take the cooperative efforts of the total educational scene in Florida to successfully accomplish the goals set for the Laboratory. She stated that Dr. Edmundson sees the Laboratory as a catalyst for changing the educational scene in Florida.

Mrs. Hunt then briefly defined the broad functions of the Advisory Council:

(1) review Laboratory progress
(2) suggest new directions for the Laboratory
(3) assist in establishing contact with appropriate organizations and individuals
(4) advise the Director on Laboratory policy.

III. Dr. Edmundson presented his view of the Laboratory's role as a change agent:

(1) Building Relationships - Florida State University faculty, other university faculty, governmental agencies, industry, the community, the Florida Department of Education, and the public school systems must be considered as part of a communication network within which the Laboratory will establish and maintain effective relationships. This will be a deliberate involvement.
(2) Diagnosing - Much work needs to be done to assess and determine the status of career education efforts now existing in Florida and determine those resources, both human and material, necessary for its success.
(3) Acquiring Relevant Resources - Total involvement of all groups both within and outside education is needed. Material resources are especially needed to support instructional efforts in career education. Marshaling state-wide human resources into a cooperative and innovative team along with Laboratory staff is a very important role. Resources from outside Florida should be made available to career education programs.

(4) Planning for Action - Comprehensive planning of approaches to career education for the State of Florida is vital. The Laboratory will be assisting and working cooperatively with many state and local groups in formulating a systematic approach to career education planning and implementation for K-Adult learners.

(5) Implementing Plans - Developing strategies for carrying out well laid plans are very important. The Laboratory will, within staff capabilities, assist state and local programs by offering consulting and technical services when needed. The Laboratory staff will also assume an increasingly expanding role in the development of instructional materials to be used in career education programs. In-service workshops may become a very important role.

(6) Maintaining and Expanding Effort - Staff and resources will be sought by the Laboratory to keep abreast of the expansion of career education programs across the state and nationa. Research efforts to determine the feasibility of new approaches to career education materials development. Flexibility is allowed the Laboratory to seek additional affiliations and funding sources in support of new and expanding career education roles.

Dr. Edmundson discussed specific tasks to be accomplished by the Laboratory in Phase I and Phase II.

Phase I

Items Completed:

1. Organizing the Laboratory	
a. Planning Committee Appointment	complete
b. Advisory Council Appointment	complete
4. Development of A Career Education Curriculum Library	
a. Design Plan for Receiving and Disseminating Materials	complete (in trial stage; will have further revision)
b. Provide Space for Material Storage	complete
5. Prototype Instructional Materials Development	
a. Determine Materials Area of Printing (contracts have been let for printing an Employability Skills manual)	complete (special funds from Florida Department of Education - not from Laboratory budget)

IV. Mrs. Hunt stated that she agreed with Dr. Edmundson's philosophy of unification of efforts, systematic approach, and seeking funding from additional sources. She then opened the meeting for general discussion.

V. Discussion

Dr. Edmundson began this discussion by stating that the Laboratory should be viewed as a program of Florida State University which now receives major support from the Florida Department of Education, but which has the capability of seeking other support.

Mr. Toothman raised the question of when the position papers of the Task Force will be available.

Dr. Edmundson replied we are expecting to receive them at any time. He mentioned that the Laboratory has been advised to delay formulation of statewide goals and objectives for career education until these have been made available. Mr. Cecil Golden is the Chairman of the Task Force.

Dr. Rasmussen asked Dr. Edmundson how he viewed the function of the Advisory Council in comparison with the Planning Committee.

Dr. Edmundson responded that the Planning Committee is responsible for the review of the day by day operation of the Laboratory and that the Advisory Council is responsible for providing the Laboratory with very broad directions. Broad policy statements may be one example.

Dr. Edmundson asked for Dr. Wall's reactions.

Dr. Wall posed the question of whether the Career Education Curriculum Laboratory was more of a coordinative than mechanical role. Dr. Edmundson responded that it is a coordinative role. Dr. Wall asked what are the direct relationships between the Laboratory and other existing career education projects as well as the local education associations. Other questions he posed related to this question were: (1) does the Laboratory prepare materials and diffuse them, or is this a joint effort of all concerned; (2) are the decisions on points of emphasis and format made only by the Laboratory or is this a joint decision by all concerned.

Dr. Edmundson responded that the projects are under Dr. Eaddy's juriadiction. He stated that at this point in time the relationships are indirect. There is no direct relationship with a specific corresponding Career Education Curriculum Laboratory role. This point has been under discussion. Dr. Edmundson stated that the way we see our role at present is that if a project needs help in the development of curriculum the Laboratory provides staff and consultants to work with a county team. The project could also call upon the Laboratory to develop the curriculum in-house.

Dr. Chick brought out the fact that we have a tremendous resource in the highly qualified people on campus.

Dr. Wall questioned whether the Laboratory had done any external contractual work. Dr. Edmundson said it had not, although contacts are being made for such work.

Dr. Aker raised the question of the role of the Laboratory - perhaps the mechanical role of production does not belong within the Laboratory.

Mrs. Midge Smith questioned the final results desired of the Laboratory.

Dr. Edmundson replied that there are three:

(1) have a completely designed communication coordination network
(2) have a very up-to-date resource library with a system of delivery of materials into the hands of teachers in the field
(3) have staff capability to develop and disseminate materials to projects.

Dr. James Smith stressed the following needs: LEA people to be involved at all decision-making levels (ideas, prototypes, etc.); formulation of goals and objectives; systems approach and model system approach - open up communication lines; need for in-service help and materials.

Dr. Aker discussed process. He stressed the need for a model for teachers.

Dr. Nielsen stressed the need for helping teachers use the materials already available. He mentioned the project WAC UP in Glendale, Arizona.

Dr. Chick stressed the need for heavy involvement from the field in: formulation of goals and objectives in a sound, logical, progressive manner; assessment of needs in the state; funding under compatible sources; mobile career education unit; in-service training component.

Dr. Hinely stressed the anxiety of workers for material and their unwillingness to wait for validation by field testing. He stressed the need for workshops to help teachers effectively use materials.

Dr. Rassmussen brought out that we will have to wait to find out what the national and state goals are before we decide definitely upon Laboratory goals and objectives.

Dr. Nielsen pointed out that we should be sure we do not develop goals and objectives in conflict with Legislative decisions.

Mrs. Hunt pointed up the need for the Advisory Council members to help think of ways they can aid the Laboratory in establishing contact with appropriate organizations and individuals to gain input from outside of education.

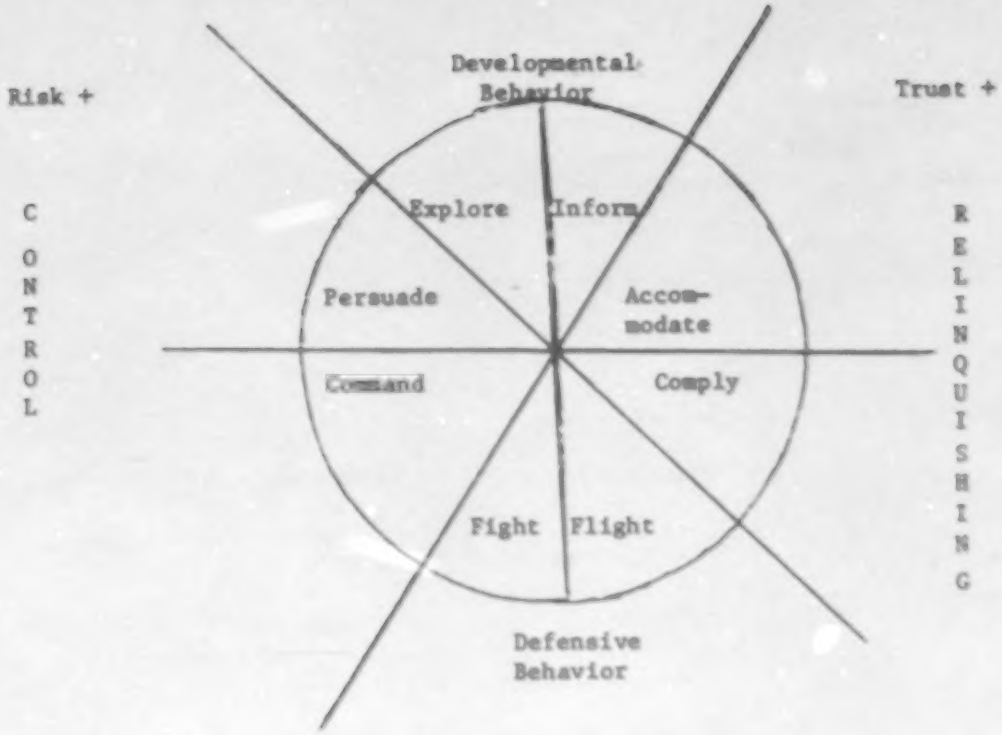
Dr. Chick suggested a retreat for council members in order that they might delve more deeply into their responsibilities as a council. This was received with approval by the majority of members.

It was agreed that Dr. Edmundson will make the decision as to frequency of meetings.

The type of reporting desired by the Council is left to the discretion of Dr. Edmundson.

Dr. Jackson brought out the need for business community representation on the Council. Dr. Edmundson agreed with him. Dr. Edmundson also stated he would like to have community representation on the Council.

At Dr. Chick's request Dr. Nielsen presented the following communication model:



VI. Mrs. Hunt was unanimously asked to serve as permanent Chairman of the Council.

VII. Meeting adjourned at 12:00 noon.

Dr. James C. Edmundson, Jr.
Director

CALENDAR OF CRITICAL INCIDENTS

1972

January:

19-21	Regional Commissioner's Conference, "Career Education and the Environment," Atlanta

February:

7	Meeting with Louis McCoy, Lakeview Elementary Principal (Pilot School)
8	Meeting with Frank Martin, Palmetto Elementary Principal (Pilot School)
10	Meeting with staff of Eisenhower Elementary (Pilot School)
14	Conference: Federal Programs and Federal Agencies, Branscomb Auditorium, Florida Southern College, Lakeland
15-16	Conference, Directors of Exemplary Programs (re School Accreditation, Performance-based Standards for Accrediting Schools, Tallahassee, Florida)
18	Meeting with John Hopkins, 16th Street Junior High School Principal (Pilot School)
28	Meeting, Clearwater Comprehensive Junior High School (Pilot School)

March:

13	Presentation at Career Education Guidance Workshop
17	Meeting with Dr. Wade Burley, University of South Florida, on site
21	Meeting with Dr. Paul Dickson on Summer Workshops for Career Education
30	Presentation (film) at Pinellas Vocational Technical Institute (Pilot School)

1972

April:

3-7	Accreditation Program, Commission on Occupation Education Institutions, Nashville, Tennessee
3	New Career Education Staff Reported In: Orientation, preview of films, guidance discussion, etc.
4	Presentation (film) on Career Education, Campbell Park Elementary, morning: Lakeview Elementary, afternoon
5	Presentation (film) on Career Education, Palmetto Elementary, morning: Eisenhower Elementary, afternoon
6	Presentation (film) on Career Education: 16th Street Junior High School
11	Presentation (film) on Career Education: Dunedin Junior High School
12	Presentation of Career Education Resolution to Pinellas County School Board, Myrtle E. Hunt, Director of Career Education
12-14	Visit to Career Development Project, Lindsay Hopkins, Dade County, Florida
18	Meeting with Dr. Kenneth M. Eaddy, Bureau Chief, Bureau of Vocational Research and Evaluation, in Jacksonville, Florida
19	Meeting between Mrs. Hunt and Mr. Elmo Burns at Pinellas Vocational Technical Institute, regarding Career Education at this Pilot School
21	Dr. Kenneth M. Eaddy on site
24	Career Education Meeting to introduce Career Education to Pinellas County. Career Education staff, principals of pilot schools, school staffs. Selection of Advisory Committees, Largo Junior High School
23-25	PIO, Human Relations Workshop; Dr. Howard Lamb, National Training Laboratories, Washington, D. C. held in Tampa, Florida

1972

April:

24	Elementary Advisory Committee meeting, on site. Guidance Advisory Committee meeting, on site
25	Mrs. Hunt speaking at 16th Street Junior High School Tom Noble speaking at Dunedin Senior High School
26	Dr. John Crittenden, Mr. Fred Jefferson, Jim Edmundson, Shields Moore, on site
27-28	Gregg/McGraw-Hill Career Education Conference, Miami, Florida
28	Trip to FAIS at P. K. Yonge Laboratory, University of Florida, Gainesville

May:

3	Elementary Advisory Committee Meeting, Largo Junior High School Guidance Advisory Committee Meeting, Pinellas Vocational-Technical Institute
5	FAIS visit at P. K. Yonge Laboratory, Gainesville, (University of Florida)
8	Completion of initial visits to all pilot schools
8	Presentation and visit at Palm Harbor Elementary School
9	Meeting with staff at Pinellas Vocational-Technical Institute, morning; Meeting with staff at Gibbs High School, afternoon
10	Conference, St. Petersburg Junior College, St. Petersburg Campus, on Publicity
10	Elementary Advisory Committee Meeting; Guidance Advisory Committee Meeting
11-12	Conference on Career Education by Educational Testing Service of Princeton, New Jersey, in Washington, D. C.
16-18	Meetings with Dr. Kenneth M. Eaddy, Bureau Chief, Bureau of Vocational Research and Evaluation at Jack Tar Harrison Hotel, Clearwater, Florida

1972

May:

16	Speech at Pasadena Community Church to Pinellas Association for Special Learning Disabilities
17	Elementary Advisory Committee Meeting; Guidance Advisory Committee Meeting
18	Meeting with Chamber of Commerce Educational Committee of St. Petersburg, Florida, on Career Education
19	Dr. Janie Jones, Evaluator of Southern Association, on site
23-24	Personal Development Curriculum Meeting, Stanton Career Education Center, Jacksonville, Florida
	Meeting for Local Directors in Vocational/Career Education Panel, Tallahassee, Florida
24	Guidance Advisory Committee Meeting
25	Speech at USF, Bay Campus Class
26	Meeting with Mr. Bob Burke, Principal of Eisenhower Elementary, regarding FAIS
30-31	Meeting, Commissioner's Conference on Career Education, Tallahassee, Florida.
31	Guidance Advisory Committee Meeting

June:

1	Christian Business Committee Breakfast, Fort Harrison Hotel, Clearwater
1-2	University of South Florida Center for Continuing Education on Career Education for Adults, Meeting at International Inn, Tampa
1-31	Guidance Advisory Committee worked at home, 42 hours
7	Elementary Advisory Committee Meeting
8	Mr. John Geil, LOOM Project, on site

June:

16	Brainstorming session, "University Proposal for Career Education", at University of South Florida, Tampa
29	Presentation before St. Petersburg Chamber of Commerce

July:

7	Meeting at St. Petersburg Chamber of Commerce
10	Meeting of Directors of State-Supported Exemplary Projects and Career Education Programs, Hollywood, Florida
10	Mary Allen, of American Vocational Association, Washington, D. C., on site
12	Dr. Joyce Chick, University of South Florida, on site
12-13	Drive-In Conference on Career Education at University of Florida, Gainesville
17	Midge Smith, of FAIS, on site for workshop; John Geil, of LOOM, on site for workshop
18-21	FAIS Workshop, St. Petersburg, Florida
19	John W. Daniels, Orange County Education System, on site
24	Dr. Janie Jones, Evaluator from Southern Association, on site
July 30-August 5	Nova University 1972 National Institute, "Education USA - 72" - Fort Lauderdale, Florida

August:

2	Presentation at University of South Florida Bay Campus
4	Dr. Kenneth M. Eaddy on site
6-11	Florida Vocational Technical and Adult Education Conference, Miami, Florida
22	Meeting with Dr. Eaddy on Evaluation, Tallahassee
31	Meeting with Dr. Eaddy, Tallahassee

1972

September:

7	National Businessmen's Meeting (Mr. Shields Moore) at Holiday Inn, St. Petersburg
12	Conference with Midge Smith, of FAIS, at University of Florida, Gainesville
10-13	Evaluation Conference on Career Education (Dr. Bob Morgan and Dr. Ronald Shearon), North Carolina State University, Raleigh, North Carolina
18-20	Visit to Skyline Center, Dallas, Texas, Independent School District, to study Building Facilities in relation to Career Education at the Secondary and Post-Secondary level
22	Dr.Kenneth M. Eaddy on site; subject: Procedures for Implementation of Project
26	Conference for Personnel Managers - Suncoast Chapter American Society for Public Administration
28	FAIS Workshop, Eisenhower Elementary
29	Speech at Riviera Junior High School; subject, Career Education

October:

3	Conference of Occupational Specialists, on site
4	Meeting at Pinellas Vocational Technical Institute with Mr. Petsch, School of Culinary Arts
8-10	Workshop conducted by Mrs. Myrtle E. Hunt for Monroe County School staff, Key West, Florida
11	Meeting on Career Education, Citrus County, Inverness, Florida
12	Meeting with Ruth Brothers for Executive Secretary's Group, St. Petersburg, Florida
13	Dr. Kenneth M. Eaddy and Dr. Joe Clarey on site
23-27	Institute for Curriculum on Personnel Development, Denver, Colorado

1972

October:

29	Florida Supervisor's Convention, Hollywood, Florida

November:

2	Discussion on Career Education, Seminole Junior High
7	Meeting with Chamber of Commerce, Dunedin, Florida
9-13	Planning Meeting for new City Center Area Center
10	Planning meeting for Youth Flair
13	Speech before Media Specialists, Seminole Junior High
13	Campbell Park Elementary School PTA Meeting
15	Senator Robert Graham on site
16-18	Personnel and Guidance Association Workshop, Tampa
20	Conference with Dr. Betty Simpson, U. S. Office of Education, Washington, D. C.
20-21	Monthly Director's Meeting, Exemplary and Career Education Projects, Tallahassee, Florida
29	Meeting of Women Voter's League, St. Petersburg
Nov. 29-Dec. 6	American Vocational Association Convention, Chicago
28	Visits to Lakeview and Campbell Park Elementary Schools (Dr. Tom Justiz and Don Rosenberger)
28	Meeting of Business and Professional Women's Club, Lois Beachum speaking

December:

10-11	Dr. Bernie Moore, Evaluator of Southern Association, on site with Dr. James Edmundson
12	Dr. Bernie Moore and Dr. Tom Justiz on site

1972

December:

13-14	Dr. Tom Justiz on site with staff of Career Education Project
20	Dr. Tom Justiz on site with staff
20	Group Conference on Career Education, Azalea Junior High
17-20	Coordinating Conference, Directors of Career Education, Airlie House, Warrenton, Virginia.

1973

January:

16	Program for Curriculum Coordinators, Exemplary and Career Education Projects, Cocoa High School, Cocoa, Florida
17	Speech on Career Education, Clearwater High School Evaluation Advisory Committee Meeting Guidance Advisory Committee Meeting
19	Trip to Hillsborough Aviation Authority to gather information for Career Education Project and School Field Trips
21	Meeting of Advisory Committee for the Career Education Curriculum Laboratory of Florida State University
22	Dr. Kenneth M. Eaddy, Dr. Roy Giehls and Dr. Ellen Amatea (FSU) on site
24-25	Evlauation Conference with Dr. Tom Justiz, on site
26	Presentation at Science Center, St. Petersburg
27	John J. Geil, LOOM Project, on site
29-30	Dr. Allen B. Moore, SACS Evaluation, on site
30	Implementation of Career Education associate school programs (14 schools and ESEA) Units from Summer Workshops to printer Submission of Evaluation Guidelines to USOE for Career Education Project

1973

February:

1-3	Meeting of Directors of Exemplary and Career Education Projects, Tallahassee, Florida
6-14	Dr. Tom Justiz, Internal Evaluator, on site
7	Guidance Advisory Committee Meeting
11-14	Conference on Career Education for Exceptional Children and Youth, Council for Exceptional Children and the American Vocational Association, New Orleans, Louisiana
12	Presentation at Lealman Junior High School
15	Luncheon Meeting of Restaurant Association(Mr. Frazier) - Presentation of Career Academic Affairs at University of South Florida
16	Discussion on Inservice Materials, University of South Florida
19-20	Presentation of Pinellas County Career Education Project, for Collier County staff, Naples, Florida
20	Meeting at Largo Chamber of Commerce J. C. Penney Spring Educational Program, Tampa
21	Visit of Mr. Sandifer and Associate from Monroe County Schools, Key West, Florida Speech to University of South Florida class at PVTI
23	Dr. John Crittenden on site for Unit Model discussion
26	Meeting with Dr. Wade Burley and Dr. Ed Panther regarding cooperative arrangements for In-Service Summer Workshops at University of South Florida Visit to Plant City High School to examine plant facilities
27-29	Charrette on new Area Center; held at offices of Florida Power Corporation, St. Petersburg. Resumed at City Center
26-27	Meeting of Local Directors of Vocational Education, Lively Vocational School, Tallahassee
28	Implementation of Career Education Monthly Newsletter

1973

March:

1	Appointment of Advisory Committee for Placement and Follow-up Component Organization of COST (Counselor-Occupational Specialist-Teacher) and CAB (Career Activity Book) Instructional Systems
1-2	Conference, "Role of Teacher Educators in Career Education," University of South Florida
1-3	Spring Conference, American Vocational Association, St. Louis, Missouri
5-6	Dr. James Edmundson on site with photographer from State Curriculum Laboratory, photographing in pilot schools of Pinellas County
7	Conducting of workshop for administrators and supervisors of Pasco County School System, East Zephyrhills, Florida
8	Ms. Sarah Nelms, Eastern Airlines Representative from Miami, Florida, on site to discuss cooperation of her firm with the Career Education Project Staff
9	Meeting with Dr. Jaeschke, Dr. Wiley and Elizabeth Bolton, University of South Florida, to explore possibility of cooperative arrangements with the Inservice Workshops during the summer of 1973 Pauline Brady, of Madison Junior High School, Tampa, on site with Clarence Givens Dr. John Crittenden on site with Dorothy Snidow and Don Rosenberger
12	Visit to All Children's Hospital
13	State Area III and IV Supervisor's meeting Presentation at St. Petersburg Junior College Presentation at Bay Campus of University of South Florida (Dr. Ed Panther)
14	Tour of optical companies with Committee of 100 (Occupational Specialists) Visit to Industrial Mart and Cobb County Career Education Project, Atlanta, Georgia

1973

March:

15	Presentation at Lealman Junior High School
16	Workshop on COST (Counselor-Occupational Specialist-Teacher) Teams, Orlando, Florida (Orange County Schools)
20	Bardmoor Elementary School open house Conference on High School Articulation, St. Petersburg Junior College
21	Guidance Tour for Bryan Gray, U. S. Office of Education, Washington, D. C. - Pinellas County Schools (pilot schools) Placement Advisory Committee Meeting
23	Dr. Tom Justiz, Internal Evaluator, on site
26	Dr. Tom Justiz, Internal Evaluator and Dr. Bernie Moore, SACS Evaluator, on site Placement and Follow-Up Meeting for State Coordinators, Cocoa, Florida
27	Dr. Justiz and Dr. Moore on site Slide Demonstration on Career Education, Palmetto Elementary School Conference on University of South Florida/Career Education Workshop, Pinellas Vocational Technical Institute
28	South Florida Planning Council Meeting with Mr. Rex Toothman, University of South Florida
29	Meeting of Hotel Restaurant Association, Princess Martha Hotel, St. Petersburg

April:

2-4	Conferences with Dr. James Edmundson and Mr. Joe Mills, Tallahassee, Florida
4	Occupational Specialist In-Service Meeting, Florida Power Corporation, St. Petersburg
6	Dunedin High School Senior Survey on Job Needs, Dunedin Florida

1973

April:

6-8	Florida Home Economics Association Annual Conference, Jacksonville
11	LOOM Workshop with Mr. Ken True, City Center for Learning, St. Petersburg Placement Advisory Committee Meeting
12	Dr. Tom Justiz on site Guidance Advisory Committee Meeting Placement and Follow-Up Advisory Committee Meeting Girl Scout Career Program, Palm Lake Christian Church St. Petersburg
13	U. S. Office of Education representatives, Ellen Lyles and Carolyn Wagnon on site with Dr. Eaddy
16	Dr. Leon Greabell, University ofSouth Florida consultant, on site
23	Jerry Kidd, State Curriculum Laboratory, on site
24	Dr. Wade Burley, Consultant, on site from University of South Florida
24-25	Legislative Session, Tallahassee, Florida
24	State Placement Conference, Orlando, Florida In-Service Committee Meeting for Occupational Specialists
25	Placement Advisory Committee Meeting Dr. Tom Justiz, Internal Evaluator, on site
26	Conference on Summer Workshop, University of South Florida, with Dr. Don Jaeschke
27-29	Basic Values Clarification Workshop, Ft. Lauderdale, Fla.
30	State Directors' Meeting, Jacksonville Jerry Kidd, State Curriculum Laboratory, on site

1973

May:

1	Meeting of Career Education Staff on parent and community involvement Cost Benefit Indicators Committee Meeting
4-7	Participation as SACS Team Consultant, Athens Area Vocational Schools
7-8	Pilot Testing of Evaluation Instruments
10	Clearance of Instruments by Central Administration, Pinellas County Schools
14-16	External Evaluation Site Team Visit
15	Mailing of Information and Applications for Summer Workshops (Revised Letter)
17	Staff Meeting, Clearwater High School, on salaries
19	Guidance consulting session for Dr. Ellen Amatea, Florida State University, on site
23-25	Three Career Education staff members, with Pinellas County Executive Assistant Superintendent for VTAE, to investigate Akron's placement and follow-system, Akron, Ohio Presentation at APGA Conference, Atlanta, Georgia
25	Completion of Product Evaluation
29	Presentation to State Area Committees III and Iv, Orlando, Florida
31	Collection of Career Education Equipment from Pilot Schools for Summer Storage

SYNOPSIS OF VISITS TO SITE BY KEY PERSONNEL

Mary Allen
Representative from American Vocational Association, Washington

7/10/72 On site for Guidance Workshop

Dr. Ellen Amatea
Co-Director, Elementary Guidance and Career Education Project, Florida State University, Tallahassee

5/19/73 Guidance Session conducted by Clarence Givens, Coordinator of Guidance, Pinellas Career Education Project.

Pauline Brady
Guidance Department, Madison Junior High School, Tampa, Florida

3/9/73 Discussion with Clarence Givens prior to instituting a Career Education Program at Madison Junior High School

Dr. Wade Burley
Educational Psychology, University of South Florida, Tampa

4/24/73 Acting as consultant on evaluation instruments (elementary level)

Dr. Joyce Chick
Department of Counseling, University of South Florida, Tampa

7/12/72 On site during Guidance Workshop (consultant on Career Development Theory).

Dr. John Crittenden
State Coordinator for Curriculum Development

4/26/72 (With Fred Jefferson, Educational Development Laboratory; and Shields Moore, National Alliance of Businessmen Youth Director), to discuss development of curriculum units for Career Education.

John W. Daniels
Consultant from Orange County School System

7/19/72	On site for Guidance Workshop

Dr. Kenneth M. Eaddy
Bureau Chief, Bureau of Vocational Research and Evaluation Department of Education, Tallahassee

4/21/72	Viewed pilot schools and discussed Pinellas County Career Education Project with Mrs. Myrtle E. Hunt, Director.
8/4/72	Discussed implementation of Career Education Project in Pinellas County
9/22/72	Discussed procedures for implementing project
10/13/72	(With Dr. Joseph Cleary, Bureau of Vocational Research and Evaluation), to discuss Pinellas Project with Mrs. Myrtle E. Hunt, Director
4/13/73	(With U. S. Office of Education representatives, Ellen Lyles and Carolyn Wagnon) to view pilot schools and discuss project with Pinellas County Career Education Staff

James Edmundson
Director, State Career Education Curriculum Laboratory, Florida State University, Tallahassee

3/5-6/73	(With Jerry Kidd, Photographer) to prepare slides of Pinellas Career Education Pilot Schools
4/23	Jerry Kidd, to present curriculum laboratory slides
4/30	Jerry Kidd, to present revised slide presentation

Florida League of Women Voters
St. Petersburg Chapter

11/29/72	On site for sound-on-slide presentation showing pilot school activities, and for discussion of the Pinellas Career Education Project.

John Geil
Project Director of LOOM (Learner-Oriented Occupation Materials), Florida State University, Tallahassee, Florida

6/8/72	To arrange for LOOM Workshop in Pinellas County
7/17/72	To conduct LOOM Workshop
1/27/73	To conduct LOOM Workshop

Senator Robert Graham
Florida Legislator

11/15/72	On site for discussion with Career Education Staff and presentation (sound-on-slide) showing pilot school activities

Dr. Leon Greabell
Assistant Professor of Education, University of Florida

4/16/72	Acting as consultant on evaluation instruments (eight Career Education elements)

Midge Smith
Director, FAIS, (Fusion of Applied and Intellectual Skills) Project, University of Florida, Gainesville

7/17-21/72	Conducting FAIS Workshop for staff of Pinellas County Career Education Pilot Schools

COSTS

Cost breakdowns by major project activity are being prepared. An analysis of component costs will be conducted and reported after the books are closed on the project in the County Office.

A Cost Committee has been formed to consider and revise a list of benefit indicators, based on the 29 expected outcomes of the project, in order to make a detailed cost analysis possible. The tentative cost benefit indicator form is shown on the following pages.

Actual expenditures are being used to figure component costs, but additional criteria are needed in order to get a clear picture of benefits as well as costs. Possible formulas which the Cost Committee might consider include the following:

> Benefit-Cost Ratio: The program's costs divided into its discounted future benefits.
>
> Net Present Value (NPV): The benefits conferred by the program, minus the costs. (If the benefits exceed costs, the program is efficient.)

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
CONTENT				
1. Number of teaching units classified by occupational cluster				
2. Number of teaching units, other than those classified by occupational cluster, which deliver one or more career education element				
3. Number of teaching units which have been validated for content, instructional objectives, and corresponding test items				
4. Number of teaching units which have been checked for downward and upward articulation and related to State Accreditation Standards				
5. Number of resources unrelated to any particular teaching unit, but which are categorized				
STAFFING				
1. Number of counselors who have committed themselves to changing their role toward helping teachers improve their guidance skills				
2. Number of counselors who are working with students in group guidance situations				
3. Number of counselors who are working with teachers in instructional situations				
4. Number of teachers who have committed themselves to using the services of counselors and occupational specialists				
5. Number of Administrators who have committed themselves in supporting the new roles of the counselor and occupational specialist and toward bringing about an active working relationship between teachers, counselors and occupational specialists.				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
6. Parent visitations as role models representing career clusters				
7. Number of visitations by Industry Representatives who are working with teachers and students				
COMMITTEE MEETINGS				
1. Number of committee meetings since the beginning of the project in the area of curriculum				
2. Number of committee meetings since the beginning of the project in the area of Cost-Instructional team work				
3. Number of committee meetings since the beginning of the project in the area of scheduling and efficiency Management				
4. Number of committee meetings since the beginning of the project in the area of Community Involvement				
5. Number of committee meetings since the beginning of the project in the area of Support Systems leading to better student decision making.				
6. Number of committee meetings since the beginning of the project in the area of Placement				
7. Number of committee meetings since the beginning of the project in the area of Legal - Policy - Regulations				
8. Number of committee meetings since the beginning of the project in the area of Funding				
COMMUNITY INVOLVEMENT				
1. Number of meetings with community representatives				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
Community Involvement				
2. Number of meetings with Parent-Community groups				
3. Number of meetings with Industry Representatives				
4. Number of meetings with Career Fairs, etc.				
5. Number of meetings with State or National Agency Personnel, Local, State or National				
6. Number of meetings - Conferences				
SCHEDULING AND EFFICIENCY MANAGEMENT				
1. Number of expanded school days/year in Career Education				
2. Number of expanded school weeks/year in Career Education				
3. Number of expanded school months/year in Career Education				
4. Number of double sessions/year in Career Education				
5. Number of classes structured according to block-time (more than the 40 minute period) in Career Education				
6. Number of classes utilizing some form of modular scheduling (units of time after which student may begin a new project) in Career Education				
7. Number of special career education facilities				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
Scheduling and Efficiency Management				
8. Number of career education staff assignments				
9. Number of student assignments involving a group of 25 students				
10. Number of vehicle assigned regularly for Career Education field trips				
11. Number of New Staff Groups (COST Teams) which have developed from the Career Education program				
12. Number of credits received by students for completion of performance objectives				
13. Number of industry visits				
INSERVICE				
1. Number of parents exhibiting positive attitudes toward the Career Education program				
2. Number of staff members exhibiting positive attitudes toward the Career Education program				
3. Number of Career Education learning activities recorded by teachers on the Process Diary				
4. Number of Career Education learning activities recorded by Occupational Specialists on the process diary				
5. Number of Career Education learning activities recorded by counselors				
6. Number of staff members, released by substitutes, who are taking part in Renewal Workshops				
7. Number of staff members taking part in the summer workshop				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
Inservice				
8. Number of staff members taking part in the summer workshop				
9. Number of parents taking part in workshops				
10. Number of industry representatives taking part in workshops				
11. Number of District-affiliated Career Education courses being taught, in cooperation with University personnel				
12. Number of University personnel involved in In-Service workshops				
13. Number of workshop man-hours dealing with the development skills for working in open facilities				
14. Number of workshop man-hours used in the development of industry resources				
15. Number of workshop man-hours in the development of materials or skills for delivering Career Awareness				
16. Number of workshop man-hours in the development of materials or skills for self awareness				
17. Number of workshop man-hours in the development of materials or skills for attitudes toward work				
18. Number of workshop man-hours in the development of materials or skills for decision-making skills				
19. Number of workshop man-hours in the development of materials or skills for economic awareness				
20. Number of workshop man-hours in the development of materials or skills for educational awareness				
21. Number of workshop man-hours in the development of materials or skills for basic skills to beginning competence				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
Inservice				
22. Number of workshop man-hours in the development of materials or skills for employability skills				
SUPPORT SYSTEMS AND PLACEMENT				
1. Number of students for whom District records are available on student preference				
2. Number of students for whom District records are available on student aptitude				
3. Number of students for whom District records are available on student interest				
4. Number of students for whom District records are available on temperament				
5. Number of Occupations on file in District showing local demand				
6. Number of occupations on file in District showing State demand				
7. Number of occupations on file in District showing National demand				
8. Number of students for whom District records are available on socio-economic status				
9. Number of students for whom District records are available on grades				
10. Number of students for whom District records are available on physical or emotional handicaps				
11. Number of students for whom District records show performance objectives completed				
12. Number of students for whom anecdotal records of progress are kept				
13. Number of students making course selections based on the above data				

BENEFIT INDICATORS - COST DATA

	Number	Number of District Personnel Involved	Number of Estimated Man Hours	Total Cost or Additional Value to Program
Support Systems and Placement				
14. Number of students in work experience programs per year				
15. Number of students placed in employment per year				
16. Number of students placed in employment corresponding to career choice				
17. Number of students placed in trade schools				
18. Number of students placed in Higher Education				
19. Number of students returning follow-up forms				
20. Number of students for whom data is available on job productivity				
PRODUCT EVALUATION				
1. Number of students tested for Career Awareness per year				

(etc.)

ATTITUDES TOWARD THE NEW ROLES OF COUNSELOR AND OCCUPATIONAL SPECIALIST

Survey Form H-2/3/4 was distributed to counselors, teachers, and administrators in the Pilot Schools. Returns were as follows:

School	Number Distributed	Number Returned: Administrators	Number Returned: Teachers and Specialists	Number Returned: Counselors	Number Returned: Total	% Returned
Campbell Park Elementary	28	1	21	-	22	79
Lakeview Elementary	20	1	16	1	18	90
Eisenhower Elementary	47	1	30	1	32	68
Palmetto Elementary	20	-	12	1	13	65
16th Street Junior High	77	-	11	2	13	17
Clearwater Comprehensive Junior High	36	1	24	-	25	69
Dunedin Senior High	98	1	41	1	43	44
City Center for Learning	30	2	18	2	22	73
Pinellas Vocational-Technical Institute	92	2	66	3	71	77
Totals	448	9	239	11	259	58%

A copy of the survey form appears on pages 206 through 210. Results are presented on pages 202 through 205.

Analysis of the responses to the eight questions in this instrument begins with those eliciting the least disagreement and ends with those eliciting the most disagreement. Responses from the staff at Pinellas Vocational-Technical Institute were distinctly exceptional; they are consequently being omitted from this analysis in order to avoid distorting the overall picture as all the other Pilot Schools reflect it.

QUESTION 2

HOW DO YOU FEEL ABOUT COUNSELORS' ATTEMPTING TO IMPROVE THE STUDENTS' DECISION-MAKING SKILLS BY USING THE DEVELOPMENTAL GROUP APPROACH TO COUNSELING, RATHER THAN THE TRADITIONAL REMEDIAL-CRISIS APPROACH WITH INDIVIDUALS?

Only seven respondents disagreed, in comparison to 170 who favored the developmental group approach.

Positive comments indicated that the developmental group approach was

beneficial to the students, and that it would help them in decision-making, provided the teacher cooperated.

Negative comments indicated that some felt the group approach would not be good for the individual student.

QUESTION 6

HOW DO YOU FEEL ABOUT THE OCCUPATIONAL SPECIALIST SERVING AS AN EDUCATIONAL RESOURCE PERSON TO A COLLEGE-TRAINED CLASSROOM TEACHER IN A CAREER EDUCATION PILOT SCHOOL?

Nine persons felt that the occupational specialist should not function in this role; 166 agreed that the occupational specialist would be helpful as a resource person.

Positive comments indicated that the occupational specialist helps students, and that the average teacher benefits from the work experience of the occupational specialist.

Negative comments included statements that the occupational specialist needs a degree, or should be a vocational teacher, or is not needed in the classroom.

QUESTION 4

HOW DO YOU FEEL ABOUT THE "SHARED ACCOUNTABILITY" CONCEPT WHICH COMMITS THE COUNSELOR TO MORE RESPONSIBILITY FOR SERVING BOTH THE EDUCATIONAL AND THE PERSONAL/SOCIAL NEEDS OF INDIVIDUALS IN A PLANNED SYSTEM OF INSTRUCTION?

Only 10 registered disagreement, versus 153 who accepted the "shared accountability" concept.

Positive comments indicated that the counselor should have a major share of the responsibility, to make the concept of accountability more meaningful.

Negative comments included the following: the counselor would be involved in more clerical work: the concept is not practical: and some "unreal" problems would be involved.

QUESTION 3

HOW DO YOU FEEL ABOUT COUNSELORS HELPING TO IMPROVE TEACHERS' GUIDANCE SKILLS FOR USE IN THE CLASSROOM?

Only 13 were against this practice, versus 160 approved of having the counselor help teachers improve their guidance skills.

Positive comments indicated that the teacher can use the help of the counselor, although the teacher cannot replace the counselor; the student is helped; the teacher becomes more effective by implementing these skills.

Negative comments included these: The teacher would respond better to someone other than the counselor; the practice would involve too many directions; the idea is unnecessary.

QUESTION 1

HOW DO YOU FEEL ABOUT COUNSELORS BEING INVOLVED WITH TEACHERS IN PLANNING INSTRUCTION DESIGNED TO HELP PUPILS DEVELOP GREATER SELF-UNDERSTANDING?

Only 16 disagreed, versus 167 who favored having the counselor help the teacher in planning instruction.

Postive comments indicated that this counselor-teacher cooperation will help students, pointing out that the teacher must pinpoint the guidance responsibilities and that planning and organization will be necessary.

Negative comments implied that the counselor would not be qualified or have time to help the teacher plan, or that the cooperative activity would be too difficult to carry out.

QUESTION 7

HOW DO YOU FEEL ABOUT THE PROCEDURES, METHODS, AND ACTIVITIES EMPLOYED BY THE OCCUPATIONAL SPECIALIST IN PERFORMING HIS ROLE IN THE CAREER EDUCATION PROGRAM AT YOUR SCHOOL?

Only 16 negative responses were made, versus 141 which indicated appreciation of the procedures, methods, and activities of the occupational specialist.

Positive comments indicated the need for a unified program and for expansion of this service to schools; a suggestion that further training would be helpful; comments on increased teacher effectiveness as a result of the occupational specialist's help, and on benefits to the student.

Negative comments were: the idea is a waste of time; the occupational specialist does not have the necessary understanding; the regular counselor can do this work.

QUESTION 5

HOW DO YOU FEEL ABOUT THE BASIC PHILOSOPHY, AS IMPLIED BY THE LEGISLATIVE ACT, REGARDING THE NEED FOR OCCUPATIONAL SPECIALISTS IN THE PUBLIC SCHOOLS?

Only 17 disagreed that there was a need for occupational specialists, whereas 158 felt that the need does exist.

Positive comments included benefit to the student; ability of the teacher to do a better job with the help of the occupational specialist; value of the occupational specialist especially in junior and senior high; the need for the occupational specialist to be responsible to the counselor, and not to replace the counselor; the value of the occupational specialist in counteracting the idea that college is the only place to go after high school.

Negative comments included: The counselor can do it; it is a put-down for the teacher.

QUESTION 8

HOW DO YOU FEEL ABOUT THE OCCUPATIONAL SPECIALIST COUNSELING INDIVIDUAL PUPILS OR GROUPS OF PUPILS?

Only 21 disagreed, as compared with 153 who agreed, with this concept.

Positive comments were: Fine assuming proper training; good with groups only; on the subject of careers only.

Negative comments were: Occupational Specialist would not be capable; needs educational background; not good at the junior high level.

DATA REDUCTION

QUESTION 1

HOW DO YOU FEEL ABOUT COUNSELORS' BEING INVOLVED WITH TEACHERS IN PLANNING INSTRUCTION DESIGNED TO HELP PUPILS DEVELOP GREATER SELF-UNDERSTANDING?

	FOR Counselor Involvement	AGAINST Counselor Involvement
Campbell Park Elementary	19	3
Lakeview Elementary	17	1
Eisenhower Elementary	30	1
Palmetto Elementary	13	-
16th Street Junior High	9	4
Clearwater Comprehensive Junior High	22	3
Dunedin Senior High	39	2
City Center for Learning	18	2
	167	16
Pinellas Vocational-Technical Institute	30	38
	197	54

QUESTION 2

HOW DO YOU FEEL ABOUT COUNSELORS' ATTEMPTING TO IMPROVE THE STUDENTS' DECISION-MAKING SKILLS BY USING THE DEVELOPMENTAL GROUP APPROACH TO COUNSELING, RATHER THAN THE TRADITIONAL REMEDIAL-CRISIS APPROACH WITH INDIVIDUALS?

	FOR Developmental Group Approach	AGAINST Developmental Group Approach
Campbell Park Elementary	22	-
Lakeview Elementary	16	2
Eisenhower Elementary	31	1
Palmetto Elementary	13	-
16th Street Junior High	9	1
Clearwater Comprehensive Junior High	23	1
Dunedin Senior High	38	1
City Center for Learning	18	1
	170	7
Pinellas Vocational-Technical Institute	31	23
	201	30

QUESTION 3

HOW DO YOU FEEL ABOUT COUNSELORS' HELPING TO IMPROVE THE TEACHERS' GUIDANCE SKILLS FOR USE IN THE CLASSROOM?

	AGREE With the Need For	DISAGREE With the Need For
Campbell Park Elementary	21	1
Lakeview Elementary	16	1
Eisenhower Elementary	32	-
Palmetto Elementary	12	-
16th Street Junior High	7	4
Clearwater Comprehensive Junior High	19	5
Dunedin Senior High	36	1
City Center for Learning	17	1
	160	13
Pinellas Vocational-Technical Institute	29	33
	189	46

QUESTION 4

HOW DO YOU FEEL ABOUT THE "SHARED ACCOUNTABILITY" CONCEPT WHICH COMMITS THE COUNSELOR TO MORE RESPONSIBILITY FOR SERVING BOTH THE EDUCATIONAL AND THE PERSONAL/SOCIAL NEEDS OF INDIVIDUALS IN A PLANNED SYSTEM OF INSTRUCTION?

	AGREE	DISAGREE
Campbell Park Elementary	18	3
Lakeview Elementary	18	-
Eisenhower Elementary	28	1
Palmetto Elementary	12	-
16th Street Junior High	10	1
Clearwater Comprehensive Junior High	19	2
Dunedin Senior High	35	1
City Center for Learning	13	2
	153	10
Pinellas Vocational-Technical Institute	24	31
	177	41

QUESTION 5

HOW DO YOU FEEL ABOUT THE BASIC PHILOSOPHY, AS IMPLIED BY THE LEGISLATIVE ACT, REGARDING THE NEED FOR OCCUPATIONAL SPECIALISTS IN THE PUBLIC SCHOOLS?

	AGREE	DISAGREE
Campbell Park Elementary	20	1
Lakeview Elementary	18	-
Eisenhower Elementary	25	4
Palmetto Elementary	12	-
16th Street Junior High	8	4
Clearwater Comprehensive Junior High	19	2
Dunedin Senior High	36	4
City Center for Learning	20	2
	158	17
Pinellas Vocational-Technical Institute	59	8
	217	25

QUESTION 6

HOW DO YOU FEEL ABOUT THE OCCUPATIONAL SPECIALIST SERVING AS AN EDUCATIONAL RESOURCE PERSON TO A COLLEGE-TRAINED CLASSROOM TEACHER IN A CAREER EDUCATION PILOT SCHOOL?

	FOR	AGAINST
Campbell Park Elementary	21	-
Lakeview Elementary	16	-
Eisenhower Elementary	30	-
Palmetto Elementary	13	-
16th Street Junior High	9	2
Clearwater Comprehensive Junior High	23	1
Dunedin Senior High	36	3
City Center for Learning	18	3
	166	9
Pinellas Vocational-Technical Institute	35	19
	201	28

QUESTION 7

HOW DO YOU FEEL ABOUT THE PROCEDURES, METHODS, AND ACTIVITIES EMPLOYED BY THE OCCUPATIONAL SPECIALIST IN PERFORMING HIS ROLE IN THE CAREER EDUCATION PROGRAM AT YOUR SCHOOL?

	FOR	AGAINST
Campbell Park Elementary	22	-
Lakeview Elementary	17	-
Eisenhower Elementary	28	1
Palmetto Elementary	13	-
16th Street Junior High	9	3
Clearwater Comprehensive Junior High	13	5
Dunedin Senior High	30	5
City Center for Learning	9	2
	141	16
Pinellas Vocational-Technical Institute	31	15
	172	31

QUESTION 8

HOW DO YOU FEEL ABOUT THE OCCUPATIONAL SPECIALIST'S COUNSELING INDIVIDUAL PUPILS OR GROUPS OF PUPILS?

	FOR	AGAINST
Campbell Park Elementary	19	2
Lakeview Elementary	18	-
Eisenhower Elementary	26	6
Palmetto Elementary	12	-
16th Street Junior High	5	5
Clearwater Comprehensive Junior High	18	5
Dunedin Senior High	38	1
City Center for Learning	17	2
	153	21
Pinellas Vocational-Technical Institute	47	21
	200	42

Survey Form H-2/3/4

THE NEW ROLE OF GUIDANCE IN CAREER EDUCATION

Name of your School

Your Position: Teacher Counselor Administrator

(Please read the explanatory material below, *then answer the questions on the following pages.)

Career Guidance: Program Content and Staff Responsibility

Traditionally, the word "guidance" has been defined and operationalized as a collection of related services provided to individuals prior to training, before the selection of an occupation, or before entrance to work. Guidance programs operating from this perspective rely heavily on the individual interview, on testing, and on occupational information. The focus tends to be on diagnosis and prescription at a point in time.

To meet the challenges of today and tomorrow, however, the single-educational/occupational-choice-at-a-point-in-time focus of traditional career guidance must give way to a broader, more comprehensive view of the individual and his career development over his life span. This new focus clearly indicates that developmental guidance programs and activities must be derived from the needs and goals of the individuals and institutions to be served, rather than from a tradition-based collection of related services. This means that the nature and content of guidance programs--as well as the guidance roles of school counselors, teachers, and others--will be determined partly by the populations and situations of the settings in which they find themselves. Their approach cannot be to rely only on a group of tradition-based related services to meet the needs of the populations and situations of their settings; rather, they must be able to assess individual and institutional needs, determine goals, state performance objectives, decide on appropriate activities, and devise appropriate evaluation procedures.

The needs-assessment, goal-setting approach to guidance program development and implementation is appropriate, particularly for school counselors. Instead of being only process oriented and reactive, as the traditional services model tends to make them, the counselors' base of operation, their choice of activities and techniques, and their sense of mission must be expanded; they must be actively involved in the educational mainstream at all educational levels. This new approach to guidance program planning and management can make this possible.

---

*Excerpt from an article by Norman C. Gysbers and Earl J. Moore

QUESTIONS

1. How do you feel about counselors' being involved with teachers in planning instruction designed to help pupils develop greater self-understanding?

2. How do you feel about counselors' attempting to improve the students' decision-making skills by using the developmental group approach to counseling rather than the traditional remedial crisis approach with individuals?

3. How do you feel about counselors' helping to improve teachers' guidance skills for use in the classroom?

4. How do you feel about the "shared accountability" concept which commits the counselor to more responsibility for serving both the educational and the personal/social needs of individuals in a planned system of instruction?

THE ROLE OF THE OCCUPATIONAL SPECIALIST IN CAREER EDUCATION

An act relating to Occupational Specialists (House Bill 3893) became law on July 1, 1970. Excerpts from this act follow: ". . . WHEREAS, recent figures indicate an acute shortage of counselors. . . counseling courses of study is offered only at the graduate level. . .There is a built-in academic bias in the counselor education system, and the typical graduate has little, if any, exposure to or experience with the world of work. . . .THEREFORE, Occupational Specialists may be used in place of counselors . . .such persons may be used, under supervision by a certified counselor to handle various specialized assignments either individually or as part of a counseling team. . . (and) may include identification and intensive counseling of potential or actual dropouts. . .as well as counseling students, teachers, and administrators concerning available job and career opportunities. . ."

Most Occupational Specialists do not have college degrees but have at least four years work experience in industry. In Career Education Pilot Schools, the Occupational Specialist performs his role primarily by providing career information and activities related to the world of work to pupils and teachers.

5. How do you feel about the basic philosophy, as inferred by the Legislative Act, regarding the <u>need</u> for Occupational Specialists in the public schools?

6. How do you feel about the Occupational Specialist's serving as educational resource person to a college-trained classroom teacher in a Career Education Pilot School?

7. How do you feel about the procedures, methods, and activities employed by the Occupational Specialist in performing his role in the Career Education program at your school.

8. How do you feel about the Occupational Specialist's counseling individual pupils or groups of pupils?

PROCESS DIARY

Counselors and occupational specialists served as catalysts, coordinators and organizers of career education activities, and conducted extensive guidance activities with groups of students in the areas of self-awareness and career awareness. In addition to helping students, they also worked with teachers in planning instruction and in helping to improve the teacher's guidance skills for use in the classroom. This special assistance, provided by an additional member of the instructional team, made possible a wider variety of career education learning experiences in Pinellas County classrooms.

Counselors and occupational specialists reported on Process Diary Forms, activities used with students in the career education pilot schools. The process diary requests a description of each essential career education activity with other supporting data necessary for the conduct of that activity. (Some, but not all teachers reported activities on the same form--that information, however, is not reported because not all teachers from all schools were represented. Teachers will be further encouraged to keep the same or similar records during the upcoming year 1973-74.)

In order to facilitate analysis of the various methods, approaches and strategies employed by guidance teams at each school, and to test the hypotheses relating to the guidance function, -- the school summaries which follow were compiled from Process Diaries submitted by the counselors and occupational specialists. (Percentage charts are rounded off to the nearest whole number.)

PROCESS DIARY TERMS DEFINED

1. Career Education Activity -- Any organized learning experience conducted for students or teachers within the bounds of the project's hypotheses and/or operational goals.

2. Goal Oriented Activity -- Any organized learning experience which has as its purpose the specific achievement of goals and objectives relating to one or more of the career education elements.

3. Times Activity Conducted -- Total number of times a specific or separate organized career education activity was conducted.

4. Student Contacts -- Total number of exposures or contacts pupils have with an organized career education activity. (Not to be confused with actual number of students).

5. Minimum Number of Contacts Desired -- The minimum "necessary and sufficient" number of student contacts recommended for successful

implementation of a basic program is arrived at in the following manner: It is recommended that at least 50% of the Counselor and occupational specialist's time be spent with groups of students in guidance activities for career education. A minimum of three hours or three class periods per day by each is recommended for this purpose. If the schools's teacher-pupil ratio (or average class size) is multiplied by the combined figure of six, a figure representing the number of recommended pupil contacts per day is determined for the counselor and occupational specialist.

EXAMPLE:

No. class periods	x	Average class size	=	Recommended daily student contacts
6	x	28.9	=	173.40

7. Grade Level Served -- Grade level at which the career education activity was conducted.

8. Community Resource Person -- Parents and others from business, industry, and other agencies outside the public school system coming into the school to serve as consultants to both teachers and pupils.

9. Kits and Media -- Audio-visuals, texts, media, etc., which are commercial or teacher made for the specific purpose of aiding in the achievement of career education goals.

10. Field Trips -- Trips by students to establishments representative of one or more of the 15 USOE occupational clusters.

SUMMARY OF ACTIVITIES BY SCHOOLS

Many career education activities were conducted at each of the pilot schools. Counselors and occupational specialists served as catalysts, coordinators, and organizers of activities; and teachers were responsible for conducting the greater protion of activities directly related to instruction in the classrooms. Analysis of the various approaches used by guidance teams at each school to facilitate testing of the hypotheses relating to the guidance function necessitated summarization of the data that follows from reports of counselors and occupational specialists. Summarization does not include activities conducted by teachers in the classroom -- with or without the aid of the counselor or occupational specialist.

PROCESS DIARY OF CAREER EDUCATION ACTIVITIES

Name_____ Month_____19___ School_____ Position_____

Please complete the information requested below for each Career Education activity.

Element(s)	Career Education Activity	Media, Kits, Special Aide
Cluster(s)		Resource Person(s)
Grade Level : No. of Times : No. of Pupils		
: :		
: :		
: :		
: :		
Total : ____ ____		

CAMPBELL PARK ELEMENTARY

The counselor and occupational specialist initiated and conducted a total of 105 goal-oriented activities by Career Education Elements. Of the eight elements, those with most activities were Career Awareness 44 (42%), Self Awareness 36 (35%) and Educational Awareness 16 (15%).

Thirty-three goal-oriented activities were conducted by Occupational Clusters. Of the 15 clusters those with most activity were Agri-Business and Natural Resources 14 (42%), Communications and Media and Health with five (15%) each.

Actual student contacts totalled 11,428 or 37% of the minimum 31,212 recommended for the school year.

Grade level activity totalled 181. Most activities were at sixth with 42 (23%) and K-1 with 40 (22%). Others were fourth - 29 (16%), second - 25 (14%), third - 25 (14%) and fifth - 20 (11%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Campbell Park Elementary School — Mrs. Eunice Burgess, Counselor — Mrs. Peggy Upton, Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

		ELEMENT NO.*								
		1	2	3	4	5	6	7	8	Total
Goal-oriented Activities		36	44	2	2	1	0	4	16	105
Times Activities Conducted		228	138	16	4	5	0	22	37	450
Student Contacts		5367	4735	83	75	75	0	362	731	11428
Times Grade level served	K - 1	25	8	0	0	1	0	2	4	40
	Second	13	8	0	0	1	0	1	2	25
	Third	11	9	0	1	1	0	1	2	25
	Fourth	11	12	1	1	0	0	1	3	29
	Fifth	10	6	1	0	0	0	1	2	20
	Sixth	10	20	2	2	0	0	3	5	42
Community/resource persons		1	20	0	2	0	0	1	2	26
Kits and other media		46	27	2	2	1	0	2	17	97

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Campbell Park Elementary (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	14	1	5	5	0	0	1	5	0	1	0	0	0	0	1	33
Field Trips to Business/Industry	24	1	9	2	6	5	0	3	2	0	0	0	0	7	11	70

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 578 Number of Teachers 20 Teacher-Pupil-Ratio 28.9

EISENHOWER ELEMENTARY

The counselor and occupational specialist initiated and conducted a total of 389 goal-oriented activities by Career Education Elements. One of the eight elements, those with most activities were Self Awareness 136 (35%), Career Awareness 119 (31%) and Educational Awareness 49 (13%).

One hundred forty-four goal-oriented activities were conducted by Occupational Clusters. Of the 15 clusters those with most activities were Health 22 (15%), Public Services 22 (15%) and Agri-Business and Natural Resources 15 (10%).

Actual student contacts totalled 14,381 or 48% of the minimum 30,021 recommended for the school year.

Grade level activity totalled 212 with the following distributions: Intermediate 106 (50%), Primary 95 (45%) and Kindergarten 10 (5%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Eisenhower Elementary School

Stephen Guyler
Counselor

Mrs. Marilyn Sapperstein
Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	136	119	41	20	4	11	9	49	389
Times Activities Conducted	844	228	95	58	6	18	10	44	1303
Student Contacts	5380	4868	1707	1688	45	63	112	518	14381
Times Grade level served Kindergtn	4	5	1	0	0	0	0	0	10
Primary	36	39	5	2	0	6	0	8	96
Intermediate	17	66	4	4	2	3	0	10	106
Community/resource persons	3	88	1	7	0	3	0	0	102
Kits and other media	71	21	6	0	1	6	0	4	109

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Eisenhower Elementary (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	15	10	7	7	15	4	9	22	9	5	6	6	3	22	4	144
Field Trips to Business/Industry	15	2	3	1	0	0	0	2	1	1	3	1	0	2	3	34

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 1059 Number of Teachers 38 Teacher-Pupil-Ratio 27.9

LAKEVIEW ELEMENTARY

The counselor and occupational specialist initiated and conducted a total of 61 goal-oriented activities by Career Education Elements. Of the eight elements those with most activities were Self Awareness 19 (31%), Career Awareness 16 (26%), Appreciations and Attitudes and Decision-Making Skills both at eight (13%).

Fifty-eight goal-oriented activities were conducted by Occupational Clusters. Of the 15 clusters those with most activity were Environment nine (16%), Agri-Business and Natural Resources, and Communications and Media both at six (10%).

Actual student contacts totalled 8,227 or 29% of the minumum 28,404 recommended for the school year.

Grade level activity totalled 72 with the following distribution: K-1-22 (30.5%), sixth - 12 (17%), fifth - 11 (15%), second - 9 (12.5%), third - 9 (12.5%), and fourth - 9 (12.5%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Lakeview Elementary School | Ms. Betty McConnell, Counselor | Mrs. Doris Edwards, Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

		ELEMENT NO.*								
		1	2	3	4	5	6	7	8	Total
Goal-oriented Activities		19	16	8	1	8	4	3	2	61
Times Activities Conducted		72	109	62	56	38	17	87	93	534
Student Contacts		1511	2245	1257	627	467	143	971	1006	8227
Times Grade level served	K - 1	9	10	2	0	0	0	0	1	22
	Second	3	3	2	0	0	0	0	1	9
	Third	2	5	1	0	0	0	0	1	9
	Fourth	2	6	0	0	0	0	0	1	9
	Fifth	2	7	1	1	0	0	0	0	11
	Sixth	5	6	0	1	0	0	0	0	12
Community/resource persons		0	14	4	3	0	0	0	1	22
Kits and other media		10	24	23	8	0	0	0	3	68

*No.
1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Lakeview Elementary (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	6	5	6	3	3	9	2	4	2	2	2	2	2	5	5	58
Field Trips to Business/Industry	4	0	3	2	1	0	0	1	0	0	0	0	1	5	2	19

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 355 Number of Teachers 13 Teacher-Pupil-Ratio 26.3

PALMETTO ELEMENTARY

The counselor and occupational specialist initiated and conducted a total of 252 goal-oriented activities by Career Education Elements. Of the eight elements those with most activities were Self-Awareness 88 (35%), Career Awareness 69 (27%) and Decision-Making Skills 30 (12%).

One hundred seventeen goal-oriented activities were conducted by Occupational Clusters. Of the 15 clusters, those with most activity were Transportation 18 (13%), Agri-Business and Natural Resources 19 (16%), Hospitality and Recreation 11 (9%).

Actual student contacts totalled 26,811 or 95% of the minimum 28,188 recommended for the school year.

Grade level activities totalled 426 with the following distribution: K-1 - 105 (25.1%), fifth - 75 (17.6%), sixth - 63 (14.8%), fifth - 63 (14.8%), third - 60 (14.1%), and second - 58 (13.6%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Palmetto Elementary School | Mrs. Betty Smith, Counselor | Claude Brannon, Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

		ELEMENT NO.*								
		1	2	3	4	5	6	7	8	Total
Goal-oriented Activities		88	69	6	11	30	8	19	21	252
Times Activities Conducted		203	247	28	30	63	24	54	53	702
Student Contacts		9340	9394	658	819	2631	651	1754	1564	26811
Times Grade level served	K - 1	68	37	1	0	0	0	1	0	107
	Second	36	19	1	0	1	0	1	0	58
	Third	39	19	1	0	0	0	1	0	60
	Fourth	36	27	0	0	0	0	0	0	63
	Fifth	40	35	0	1	1	0	1	0	75
	Sixth	33	28	1	0	0	0	1	0	63
Community/resource persons		2	23	1	0	0	0	2	2	30
Kits and other media		75	110	2	0	0	0	0	4	191

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Palmetto Elementary (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	19	7	9	6	2	3	2	6	11	6	7	9	5	7	18	117
Field Trips to Business/Industry	12	2	31	31	32	0	3	0	0	52	3	1	24	19	5	215

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 339 Number of Teachers 13 Teacher-Pupil-Ratio 28.

CLEARWATER COMPREHENSIVE

The counselor and occupational specialist initiated and conducted a total of 12 goal-oriented activities by Career Education Elements. Of the eight elements those with most activities were Career Awareness 4 (33%) and Educational Awareness 4 (33%).

Fifty-one goal-oriented activities were conducted by Occupational Clusters. Of the 15 clusters those with most activity were Agri-Business and Natural Resources, Consumer and Homemaking, Health, and Transportation - all with five or 10% each.

Actual student contacts totalled 2,760 or 19% of the minimum 14,256 recommended for the school year.

Grade level activity totalled 18 with the following distribution: seventh - 12 (67%), eighth - 4 (22%), ninth - 2 (11%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL
AS REPORTED IN PROCESS DIARIES

Clearwater Comprehensive Junior High School

Gary Kilroy, Counselor

James Castle, Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	3	4	0	1	0	0	0	4	12
Times Activities Conducted	18	35	0	4	0	0	0	33	90
Student Contacts	75	1335	0	15	0	0	0	1335	2760
Times Grade level served Seventh	0	6	0	0	0	0	0	6	12
Eighth	3	0	0	1	0	0	0	0	4
Ninth	0	1	0	0	0	0	0	1	2
Community/resource persons	0	4	0	0	0	0	0	4	8
Kits and other media	3	4	0	1	0	0	0	4	12

*No.
1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Clearwater Comprehensive Junior High (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	5	5	4	2	5	2	3	5	2	2	2	5	2	2	5	51
Field Trips to Business/Industry	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 482 Number of Teachers 36.5 Teacher-Pupil-Ratio 13.2

16TH STREET JUNIOR HIGH

The counselor and occupational specialist initiated and conducted a total of 111 goal-oriented activities by Career Education Elements. Of the eight elements those with most activity were Career Awareness 41 (37%), Self Awareness 20 (18%) and Educational Awareness 19 (17%).

One hundred ninety-seven goal-oriented activities were conducted by Occupational Clusters. Activities were about evenly distributed throughout all 15 clusters.

Actual student contacts totalled 6,844 or 29% of the minimum 23,328 recommended contacts for the school year.

Grade level activity totalled 128 with the following distribution: eighty - 62 (48.4%), ninth - 49 (38.3), seventh - 17 (13.3%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

16th Street Junior High School — Mrs. Mable Martin, Counselor — Mrs. Rose Irwin, Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	20	41	2	2	15	0	12	19	111
Times Activities Conducted	86	80	4	2	64	0	15	21	272
Student Contacts	2018	2833	10	21	1081	0	423	458	6844
Times Grade level served Seventh	5	8	0	0	4	0	0	0	17
Eighth	10	23	0	2	6	0	8	13	62
Ninth	6	17	1	1	6	0	6	12	49
Community/resource persons	1	7	0	0	0	0	3	6	17
Kits and other media	19	35	1	0	14	0	9	13	91

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

16th Street Junior High (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	14	17	19	13	14	11	11	14	13	12	12	13	12	14	10	197
Field Trips to Business/Industry	0	2	1	0	3	0	3	1	2	1	0	1	1	1	0	16

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 1265 Number of Teachers 58.5 Teacher-Pupil-Ratio 21.6

DUNEDIN SENIOR HIGH

The counselor and occupational specialist initiated and conducted a total of 184 goal-oriented activities by Career Education Elements. Of the eight elements those with most activity were Career Awareness 60 (33%), Educational Awareness 47 (26%), and Employability Skills 44 (24%).

A total of 246 goal-oriented activities were conducted by Occupational Clusters. Activities were distributed about evenly throughout all 15 clusters.

Actual student contacts totalled 1,499 or 6% of the minimum recommended contacts for the school year.

Grade level activity totalled 247, with the following distribution: 12th - 115 (47%), 10th - 78 (31%), 11th - 54 (22%).

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Dunedin Senior High School

Tom Crook
Counselor

Mrs. Phyllis Roemer
Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	19	60	0	2	12	0	44	47	184
Times Activities Conducted	34	89	0	2	26	0	45	64	260
Student Contacts	165	603	0	11	134	0	198	388	1499
Times Grade level served Tenth	7	27	0	2	5	0	19	18	78
Eleventh	6	20	0	0	4	0	10	14	54
Twelfth	10	37	0	3	8	0	26	31	115
Community/resource persons	0	30	0	0	0	0	0	0	30
Kits and other media	13	47	0	2	11	0	27	38	138

*No.
1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Dunedin Senior High (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	15	14	18	19	20	14	12	20	15	13	12	15	19	22	18	246
Field Trips to Business/Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 1914 Number of Teachers 82 Teacher-Pupil-Ratio 23.3

PINELLAS VO-TECH INSTITUTE AND CITY CENTER FOR LEARNING

These are post-secondary institutions, and because of the nature and structure of school operation, analysis as applied to the elementary and secondary schools is not appropriate. However, a comparison of respective career education activities is shown in the totals chart.

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

Pinellas Vocational Technical Institute School	Mrs. Ruth Roche Counselor	Ted McCann Mrs. Jean Forr Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	12	18	0	2	8	1	17	18	76
Times Activities Conducted	81	100	0	14	60	0	79	100	434
Student Contacts	820	753	0	93	309	0	717	760	3452
Times Grade level served — Junior High	0	6	0	0	0	0	6	6	18
Senior High	2	4	0	0	2	0	2	4	14
Post Secondary	7	0	0	1	5	0	0	0	13
Community/resource persons	9	10	0	1	8	1	7	9	45
Kits and other media	7	1	0	1	5	0	0	1	15

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

Pinellas Vocational Technical Institute (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	5	7	7	7	7	7	7	7	0	0	0	0	0	0	0	54
Field Trips to Business/Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 1090

CAREER EDUCATION ACTIVITIES INITIATED, CONDUCTED OR SUPPORTED BY GUIDANCE PERSONNEL
AS REPORTED IN PROCESS DIARIES

City Center for Learning School	Mrs. Nona Grotecloss Counselor	Robert Hesse Occupational Specialist

NUMBER OF ACTIVITIES BY CAREER EDUCATION ELEMENT

	ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Goal-oriented Activities	9	30	1	2	6	0	22	22	92
Times Activities Conducted	3	58	0	0	3	0	56	57	177
Student Contacts	34	2198	0	0	13	0	2142	2152	6539
Times Grade level served Elem	0	1	0	0	0	0	0	0	1
Jr. High	0	11	0	0	0	0	10	11	32
Sr. High	0	1	0	0	0	0	0	1	2
Post Secondary	1	4	0	0	1	0	5	4	15
Community/resource persons	9	13	1	2	5	0	7	7	44
Kits and other media	8	21	1	2	3	0	13	13	61

*No.

1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

City Center for Learning (continued)

NUMBER OF ACTIVITIES BY OCCUPATIONAL CLUSTER

	CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Goal-oriented Activity	1	3	2	1	3	0	0	2	1	1	1	1	1	1	1	19
Field Trips to Business/Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

School Enrollment 1710

COMPARISON OF TOTAL CAREER EDUCATION ACTIVITIES FOR ELEMENTARY
INITIATED AND CONDUCTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

School	School Enrollment		Total Activities by Career Education Elements: Goal-Oriented Activities		Times Activities Conducted		Student Contacts		Grade Level Served		Community Resource Persons		Kits, Other Media		Total Activities by Occupational Cluster: Goal-Oriented Activity		Field Trips to Business, Industry	
		%		%		%		%				%		%		%		%
Campbell Park Elementary	599	25	105	13	450	15	11,428	19	K-1 40 2nd 25 3rd 25	4th 29 5th 20 6th 42	26	14	97	21	33	09	70	21
Eisenhower Elementary	1,119	46	389	48	1,303	44	14,381	24	Kindergarten 10 Primary 96 Intermediate 106		102	57	109	23	144	41	34	10
Lakeview Elementary	355	15	61	8	534	18	8,227	13	K-1 22 2nd 9 3rd 9	4th 9 5th 11 6th 12	22	12	68	15	58	17	19	6
Palmetto Elementary	339	14	252	31	702	23	26,811	44	K-1 107 2nd 58 3rd 60	4th 63 5th 75 6th 63	30	17	191	41	117	33	215	63
TOTAL	2,412		807		2,989		60,847				180		465		352		338	

Eisenhower Elementary School reported the highest number of activities by element with 389 (48%); community resource person, 102 or (57%).

Palmetto Elementary School reported the highest percentage of student contacts with 26,811 (44%) of the total, and use of Kits and Media 191 or (41%) of the total, and Field Trips with 215 or (63%) of the total.

COMPARISON OF TOTAL CAREER EDUCATION ACTIVITIES FOR SECONDARY INITIATED AND CONDUCTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

School	School Enrollment		Total Activities by Career Education Elements										Total Activities by Occupational Cluster			
			Goal-Oriented Activities		Times Activities Conducted		Student Contacts		Grade Level Served		Community Resource Persons		Kits, Other Media		Goal-Oriented Activity		Field Trips to Business, Industry	
		%		%		%		%				%		%		%		%
Clearwater Comprehensive Junior High	482	13	12	4	90	14	2,760	25	7th 12 8th 4 9th 2		8	12	51	5	51	10	1	1
16th Street Junior High	1,265	35	111	36	272	44	6,844	62	7th 17 8th 62 9th 49		17	25	91	38	197	40	16	99
Dunedin Senior High	1,914	52	184	60	260	42	1,499	6	10th 78 11th 54 12th 115		42	63	138	57	246	50	--	0
TOTAL	3,661		307		622		11,103				67		241		494		17	

In grades 7-12, Dunedin Senior High School reported the highest percentage of activities by element with 184 or (60%) of the total. Dunedin also used more community resources with 42 or (63%) of the total, and more Kits and Media with 138 or (57%) of the total. Clusters represented totaled 246 or (50%) at Dunedin.

Sixteenth Street Junior High reported the highest percentage of student contacts with 6,844 (62%) of the total; clusters numbered 197 (40%) and Field Trips 16 or (99%) of the total.

COMPARISON OF TOTAL CAREER EDUCATION ACTIVITIES FOR POST-SECONDARY INITIATED AND CONDUCTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

School	School Enrollment		Total Activities by Career Education Elements												Total Activities by Occupational Cluster			
			Goal-Oriented Activities		Times Activities Conducted		Student Contacts		Grade Level Served		Community Resource Persons		Kits, Other Media		Goal-Oriented Activity		Field Trips to Business, Industry	
		%		%		%		%				%		%		%		
City Center for Learning	1,710 *	61	92	55	177	29	6,539	65	Elementary Jr. High Sr. High Post-Secondary	2 26 8 15	44	49	61	80	19	26	---	--
Pinellas Vo-Tech Institute	1,090 *	39	76	45	434	71	3,452	35	Jr. High Sr. High Post Sec	18 14 13	45	51	15	20	54	74	---	--
TOTAL	2,800		168		611		9,991				89		76		73			

*Daytime enrollment

In grades 13-14, City Center for Learning reported the highest percentage of activities by career education element with 92 or (55%) of the total; Student contacts numbered 6,539 or (65%) of the total; and the use of Kits and Media totaled 61 or (80%).

Pinellas Vocational-Technical Institute was highest in Community Resource Persons with 45 or (51%) of the total and 54 or (74%) of the Clusters.

COMPARISON OF TOTAL CAREER EDUCATION ACTIVITIES FOR ALL SCHOOLS*
INITIATED AND CONDUCTED BY GUIDANCE PERSONNEL AS REPORTED IN PROCESS DIARIES

School	School Enrollment		Total Activities by Career Education Elements: Goal-Oriented Activities		Times Activities Conducted		Student Contacts		Grade Level Served		Community Resource Persons		Kits, Other Media		Total Activities by Occupational Cluster: Goal-Oriented Activity		Field Trips to Business Industry	
		%		%		%		%				%		%		%		%
Campbell Park Elementary	599	10	105	9	450	13	11,428	16	K-1 40 2nd 25 3rd 25	4th 29 5th 20 6th 42	26	11	97	14	33	4	70	20
Eisenhower Elementary	1,119	18	389	35	1,303	36	14,381	20	Kindergarten 10 Primary 96 Intermediate 106		102	41	109	15	144	17	34	10
Lakeview Elementary	355	6	61	6	534	15	8,227	11	K-1 22 2nd 9 3rd 9	4th 9 5th 11 6th 12	22	9	68	10	58	7	19	5
Palmetto Elementary	399	6	252	23	702	19	26,811	37	K-1 107 2nd 58 3rd 60	4th 63 5th 75 6th 63	30	12	191	27	117	14	215	61
Clearwater Comprehensive Junior High	482	8	12	1	90	2	2,760	4	7th 12 8th 62 9th 49		8	3	12	2	51	6	1	1
16th Street Junior High	1,265	21	111	10	272	8	6,844	10	7th 17 8th 62 9th 49		17	7	91	13	197	23	16	3
Dunedin Senior High	1,914	31	184	16	260	7	1,499	6	10th 78 11th 54 12th 115		42	17	138	19	246	29	---	--
TOTAL	6,073		1,114		3,611		71,950				247		706		846		355	

When total school activities are compared, Eisenhower Elementary ranked highest in elements with 389 or (35%) of the total, and also in Community Resource Persons with 102 or (41%) of the total reported. Palmetto Elementary reported the highest percentage of student contacts with 26,811 or (37%); Use of Kits and Media with 191 or (27%); and Field Trips with 215 or (61%) of the total reported. Sixteenth Street Junior High reported the highest percentage of cluster activity with 197 or (23%) of the total reported.

City Center for Learning and Pinellas Vocational-Technical Institute, both post-secondary institutions, are reported separately due to the nature and structure of school operations.

TOTAL CAREER EDUCATION ACTIVITIES BY
OCCUPATIONAL CLUSTER - ALL SCHOOLS

	OCCUPATIONAL CLUSTER NO.*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Campbell Park	14	1	5	5	0	0	1	5	0	1	0	0	0	0	1	33
Eisenhower	15	10	7	7	15	4	9	22	9	5	6	6	3	22	4	144
Lakeview	6	5	6	3	3	9	2	4	2	2	2	2	2	5	5	58
Palmetto	19	7	9	6	2	3	2	6	11	6	7	9	5	7	18	117
Clearwater Comp.	5	5	4	2	5	2	3	5	2	2	2	5	2	2	5	51
16th St. Jr.	14	17	19	13	14	11	11	14	13	12	12	13	12	14	10	199
Dunedin	15	14	18	19	20	14	12	20	15	13	12	15	19	22	18	246
City Center for Learn.	1	3	2	1	3	0	0	2	1	1	1	1	1	1	1	19
Pinellas Vo-Tech Inst.	5	7	7	7	7	7	7	7	0	0	0	0	0	0	0	54
Total	94	69	77	63	69	50	47	85	53	42	42	51	44	73	62	921
%	10.2	7.5	8.4	7.0	7.5	5.4	5.0	9.2	5.8	4.5	4.5	5.6	4.7	8.0	6.7	100.0

*No.

1. Agri-Business/Natural Resources
2. Business and Office
3. Communication and Media
4. Construction
5. Consumer/Homemaking Education
6. Environment
7. Fine Arts and Humanities
8. Health
9. Hospitality and Recreation
10. Manufacturing
11. Marine Science
12. Marketing and Distribution
13. Personal Services
14. Public Services
15. Transportation

An analysis of the chart above indicates that on the whole about equal attention was given to all clusters by counselors and occupational specialists. The results tend to support the career education concept of broad orientation to all types of employment opportunities for all students rather than in-depth concentration on only a few.

TOTAL CAREER EDUCATION ACTIVITIES BY
ELEMENT - ALL SCHOOLS

	CAREER EDUCATION ELEMENT NO.*								
	1	2	3	4	5	6	7	8	Total
Campbell Park Elementary	36	44	2	2	1	0	4	16	105
Eisenhower Elementary	136	119	41	20	4	11	9	49	389
Lakeview Elementary	19	16	8	1	8	4	3	2	61
Palmetto Elementary	88	69	6	11	30	8	19	21	252
Clearwater Comprehensive Junior High	3	4	0	1	0	0	0	4	12
16th Street Junior High	20	41	2	2	15	0	12	19	111
Dunedin Senior High	19	60	0	2	12	0	44	47	184
City Center for Learning	9	30	1	2	6	0	22	22	92
Pinellas Vo-Tech Institute	12	18	0	2	8	1	17	18	76
Total	342	401	60	43	84	24	130	198	1282
%	27	31	5	3	7	2	10	15	100%

*No.
1. Self Awareness
2. Career Awareness
3. Appreciations, Attitudes
4. Economic Awareness
5. Decision-Making Skills
6. Skill Awareness
7. Employability Skills
8. Educational Awareness

An analysis of the chart above indicates that activities by counselors and occupational specialists focused on Career Awareness with 401 (31%) and Self Awareness with 342 (27%) Educational Awareness with 198 (15%) and Employability Skills with 130, or 10%, receiving slightly less emphasis. However, without doubt, the central focus was on self awareness and career awareness. Emphases provided through academic, vocational and guidance experiences will ultimately bring the remaining six elements into an apparent, meaningful, and articulated pattern of instruction.

PARENT AND STAFF ATTITUDES TOWARD CAREER EDUCATION

Forms H-9a (Parent Attitude Survey) and H-10a (Staff and Administrator Attitude Survey) were distributed to both Pilot and Control Schools. Principals were asked to distribute parent forms on a random basis, generally to 15 students in each grade level. The selected students took the forms home with an envelope in which the completed form was to be sealed and returned to the school for delivery to the Career Education Office. The Staff and Administrator form was distributed to all teachers, counselors, administrators, and other staff. Distribution and return figures were as follows:

	Parent Forms			Staff and Administrator Forms		
School	No. Distributed	No. Ret'd	% Ret'd	No. Distributed	No. Ret'd	% Ret'd
Bauder Elementary*	90	72	80%	40	35	88%
Campbell Park Elementary	105	67	63%	28	26	93%
City Center for Learning	-	-	-	30	21	70%
Clearwater Comp. Jr.High	150	87	58%	45	26	58%
Curtis Elementary	105	67	63%	16	11	69%
Dunedin High School	90	38	42%	95	53	56%
Eisenhower Elementary	105	61	58%	46	36	78%
Lakeview Elementary	105	78	74%	20	18	90%
Madeira Beach Elementary	105	63	60%	25	19	76%
Palmetto Elementary	105	70	67%	18	15	83%
Pinellas Vocational-Technical Institute	-	-	-	92	70	76%
Northeast High School**	80	-	0%	100	58	58%
North Shore Elementary	105	56	53%	22	11	50%
16th Street Junior High	90	21	23%	73	27	37%
South Side Junior High	90	22	24%	43	13	30%
	1325	702	53%	700	439	63%

Total Distributed to Parents and Staff	2025
Total Returned from Parents and Staff	1141
% of Total Returned	56%

*No kindergarten.

**Late distribution caused lack of returns.

The Parent (H-9a) and the Staff and Administrator (H-10a) survey forms were identical except for the accompanying cover letters. These forms appear on Pages 268 through 275.

Page 1 of the forms (directly following the cover letters) was inadvertently omitted from a large percentage of the survey forms. It seemed futile to compile data from those copies which were complete, since the defective copies were distributed in such varying numbers throughout both control and pilot schools. The page contained blanks for indicating the following:

> Name of School: This information was otherwise available, since each school's returns were recapped as a group.
>
> Status of Respondent: I.e., Junior High Teacher, Elementary Teacher, Counselor, Occupational Specialist, Principal, etc.
>
> Grades (or grades) involved with.
>
> Information to show whether respondent was involved in a Career Education workshop during the previous summer.
>
> Rank ordering of teaching activities (e.g., teaching for college entrance exams, teaching basic skills, teaching content, etc.), according to the importance attached to the activities by each respondent.

Only Items 1 through 48 are covered in this report. The remaining data (from Questions 49-66) could not be reduced or analyzed because of the lack of sufficient staff and funds during this fiscal year.

Items 1 through 40 required STRONGLY AGREE, AGREE, DISAGREE, or STRONGLY DISAGREE answers. The tabulations on Pages 255 through 264 provide the following data: (a) Percent of parents and staff giving each of the four responses to each item; and (b) Total numbers of parents and staff (as well as percentages) agreeing and disagreeing on each item. The analysis below is based on the latter tabulation.

In their responses, parents and staff demonstrated highly positive attitudes toward Career Education. They believe that schools should provide opportunities to investigate various occupations. Both groups definitely favor the involvement of industry groups in Career Education programs, and they do not regard Career Education as "just another fad that will soon be forgotten."

Staff and administrators expressed even more positive views about Career Education than parents did, on 36 out of the 40 items. The following items elicited the most agreement from staff and administrators:

Item No.	Statement	% Agreeing
8	An understanding and acceptance of self is important throughout life.	100
15	Schools should provide opportunities to investigate various occupations.	99
39	Career Education will be of long-term value to girls as well as boys.	99
13	Education and work are interrelated.	98
7	You don't need a college degree to be a success.	98
38	Industry representatives should become involved in Career Education programs.	98
3	Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.	97
5	Students need more information about the world of work.	97
10	Both environment and individual potential influence career development.	97

At the other end of the scale, fewer staff and administrators agreed with this statement than with any of the others:

40	Career Education is just another fad that will soon be forgotten.	20

Rejection of Statement No. 40 represented a positive attitude toward Career Education.

All in all, the staff and administrators demonstrated their conviction that career education has great value, and accepted many of its key concepts. This acceptance is evidence of a positive professional climate for Career Education in Pinellas County.

Parents in Pinellas County strongly feel that an understanding and acceptance of self is important throughout life. They believe that the skill training offered to a student should be related to interests, aptitudes, values, and abilities.

More parents agreed with these statements than with any other items:

Item No.	Statement	Percent Agreeing
8	An understanding and acceptance of self is important throughout life.	98
16	The skill training offered to a student should be related to interests, aptitudes, values, and abilities.	98
9	Persons need recognition as having dignity and worth.	96
10	Both environment and individual potential influence career development.	96
11	Job characteristics and individuals must be flexible in a changing society.	96
15	Schools should provide opportunities to investigate various occupations.	96
38	Industry representatives should become involved in Career Education programs.	96
39	Career Education will be of long-term value to girls as well as boys.	96

The conclusion that parents favor Career Education is reinforced by the fact that the majority disagreed with only one statement:

40	Career Education is just another fad that will soon be forgotten	9

These results reflect an overwhelmingly positive attitude toward Career Education among parents of Pinellas County school children.

Looking at combined parent and staff totals for the 40 items, the following elicited the greatest contrasts in response:

ITEM NO.	STATEMENT	COMBINED PARENT & STAFF RESPONSES NO. AGREEING	NO. DISAGREEING
38	Industry representatives should become involved in Career Education programs.	852	29
39	Career Education will be of long-term value to girls as well as boys.	861	29
15	Schools should provide opportunities to investigate various occupations.	895	23
16	The skill training offered to a student should be related to interests, aptitudes, values, and abilities.	864	15
8	An understanding and acceptance of self is important throughout life.	862	13

The highest number of DISAGREE responses for the combined parent-staff groups came in these items:

40	Career Education is just another fad that will soon be forgotten.	747*
37	There are few areas in the school program more important than career education that need our time, money, and effort.	314
27	Students should receive credit toward graduation for any supervised job.	243
23	Students should be permitted to miss regular classes in order to go on a field trip with another class.	236
34	Our local community should pay for career education if the state and federal governments cannot.	218

*Indicating a positive attitude toward Career Education.

Item No.	Statement	No. Disagreeing
24	As part of the high school program, students should be permitted to leave school during the day to go to work.	198
30	Most high school graduates are not prepared to enter the working world.	193

Interestingly, in four of these seven items, parents and staff appeared to have some misgivings about involving the student in work or field trips to the detriment of other school work.

It should be noted that on all of these items a great majority expressed agreement with Career Education concepts. It seems clear from the survey, however, that two priorities are essential in order to resolve misunderstandings about Career Education concepts: more in-service training, and more community information and involvement. The project and the community will benefit from the resulting interchange of ideas and agreement on direction and programs for the school children of the county.

Items #41-48 required the ranking of the eight Career Education elements in order of importance as determined by how respondents felt these elements should be considered in the school curriculum.

41. Career Awareness: developing occupational awareness for all children from grades K-14.

42. Self-Awareness: knowledge of one's own capabilities and relationships with others.

43. Favorable Attitudes: toward school and careers.

44. Decision-Making Skills: ability to make meaningful choices.

45. Basic Skills (e.g. reading, writing, and math) Leading to Beginning Competence Skills Required for Placement and Employment.

46. Employability Skills: job-seeking and job-keeping skills.

47. Educational Awareness: a lifelong relationship between education and work leading to different interests and life styles.

48. Economic Awareness: recognizing a demand for one's own services and products.

Staff and parent rankings (by percent of total) are shown on Page 265. The tabulation following those separate rankings (Page 266) reports the combined number of respondents, with percentages, ranking the elements in each position--1 through 8.

Top importance was given to Self Awareness, Item 42, by 40% of the respondents. The eight elements accumulated the following #1 choices:

42.	Self Awareness	40%
45.	Basic Skills Leading to Beginning Competence Skills required for Placement and Employment	36%
43.	Favorable Attitudes	11%
41.	Career Awareness	5%
47.	Educational Awareness	4%
44.	Decision-Making Skills	2%
48.	Economic Awareness	1%
46.	Employability Skills	1%

In the combined group, Self Awareness and Basic Skills leading to Beginning Competence Skills were the definite leaders for the No. 1 spot. This is also true if the total is separated into two groups; but the relative importance of the two elements then changes somewhat:

	Staff	Parents
Self Awareness	51%	35%
Basic Skills Leading to Beginning Competence Skills Required for Placement and Employment	22%	43%

From either viewpoint, these two elements were voted #1 or #2 by approximately three-fourths of the respondents.

The elements ranked lowest in importance, combining parent and staff totals, were #46, Employability Skills (ranked #8 by 35% of the group; #7 by 30%); and Economic Awareness (ranked #7 by 29%; #8, also by 29%). Separating staff and parent figures did not change the rankings significantly.

If the eight elements are divided into two groups--those ranked by most respondents at the top half of the scale, and those ranked predominantly in the lower half--combined parent-staff rankings are as follows:

		% Ranking Element at Top of Group	% Ranking Element at Bottom of Group
42.	Self Awareness	86%	
45.	Basic Skills Leading to Beginning Competence Skills Required for Placement and Employment	79%	
43.	Favorable Attitudes	76%	
44.	Decision-Making Skills	61%	
46.	Employability Skills		88%
48.	Economic Awareness		86%
41.	Career Awareness		68%
47.	Educational Awareness		58%

It is interesting to note the pattern of the combined parent-staff rankings of these elements:

	#1	#2	#3	#4	#5	#6	#7	#8
Self Awareness	40%	22%	14%	10%	5%	4%	3%	2%
Basic Skills Leading to Beginning Competence Skills Required for Placement and Employment	36%	15%	14%	14%	10%	6%	3%	2%
Employability Skills	1%	3%	3%	5%	8%	15%	30%	35%
Economic Awareness	1%	2%	5%	6%	11%	17%	29%	29%

Self Awareness received the most #1 rankings, then received rankings from #2 to #8 in descending order. Basic skills rankings followed the same orderly pattern.

Employability skills reversed this pattern: Only one percent ranked this element #1; three percent ranked it #2; three percent ranked it #3, and on up, progressively, to 35% ranking Employability Skills at #8. Economic Awareness repeated this pattern.

These patterns apparently indicate strong feeling as to the importance

or lack of importance or lack of importance of these four elements.

The rankings for Educational Awareness and Decision-Making skills peaked in the middle area. In the case of Educational Awareness, the definition of the item may have resulted in varied interpretations.

The fact that four elements (Self Awareness, Basic Skills, Employability Skills, and Economic Awareness) received their ratings in perfect ascending or descending quantities along the #1 to #8 scale appears to indicate that the community has some strong feelings on the emphasis (or lack of emphasis) that should be devoted to these elements in the schools of Pinellas County.

H-9a, H-10a

PARENT AND STAFF ATTITUDE SURVEY

PINELLAS COUNTY CAREER EDUCATION SURVEY

PERCENTAGES OF PARENTS AND STAFF RESPONDING STRONGLY AGREE, AGREE, DISAGREE, STRONGLY DISAGREE FOR EACH ITEM, NO. 1 THROUGH NO. 40

Directions: Please read each statement carefully. There are no right or wrong answers. Just check the line under STRONGLY AGREE, AGREE, DISAGREE, or STRONGLY DISAGREE, whichever best describes how you feel about each statement.

	STRONGLY AGREE (%)		AGREE (%)		DISAGREE (%)		STRONGLY DISAGREE (%)	
	Parent	Staff	Parent	Staff	Parent	Staff	Parent	Staff
1. Elementary school is not too early for a student to start thinking about career possibilities.	14	33	61	48	19	16	6	3
2. Career education should be available to students from kindergarten through adult life.	17	39	57	50	22	9	4	2
3. Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.	38	51	53	46	8	3	1	-
4. An effective program of career education would lower the school dropout rate.	31	33	55	63	13	4	1	-
5. Students need more information about the world of work.	30	38	62	59	7	3	1	-
6. Most people finish high school not knowing what kind of career they prefer.	40	36	48	59	11	5	1	-
7. You don't need a college degree to be a success.	41	61	47	37	10	2	2	-
8. An understanding and acceptance of self is important throughout life.	69	78	29	22	1	-	1	-

	STRONGLY AGREE (%)		AGREE (%)		DISAGREE (%)		STRONGLY DISAGREE (%)	
	Parent	Staff	Parent	Staff	Parent	Staff	Parent	Staff
9. Persons need recognition as having dignity and worth.	59	61	37	33	3	-	1	-
10. Both environment and individual potential influence career development.	43	48	53	49	3	3	1	-
11. Job characteristics and individuals must be flexible in a changing society.	29	41	67	55	4	4	-	-
12. Most individuals can learn to perform adequately in a variety of occupations.	15	26	66	64	17	10	2	-
13. Education and work are interrelated.	28	39	65	59	6	1	1	1
14. A career education program should stress all jobs as important.	35	47	58	48	6	5	1	-
15. Schools should provide opportunities to investigate various occupations.	27	37	69	62	3	1	1	-
16. The skill training offered to a student should be related to interests, aptitudes, values, and abilities.	37	46	61	53	2	1	-	-
17. The Career Education program will help students make realistic career choices.	21	24	73	72	5	4	1	-
18. Students should make their own career choices.	30	30	64	66	6	4	-	-
19. Foreign language teachers should show students how foreign languages are used in careers	18	29	76	67	5	4	1	-

	STRONGLY AGREE (%)		AGREE (%)		DISAGREE (%)		STRONGLY DISAGREE (%)	
	Parent	Staff	Parent	Staff	Parent	Staff	Parent	Staff
20. The ways mathematics can be used in jobs can be taught in math courses.	25	30	69	64	5	6	1	-
21. Students of history should be told about jobs in this field.	16	27	78	69	5	4	1	-
22. Courses such as art and music should include information about job possibilities in those fields.	18	29	75	66	6	4	1	1
23. Students should be permitted to miss regular classes in order to go on a field trip with another class.	11	23	54	66	29	11	6	0
24. As part of the high school program, students should be allowed to leave school during the day to go to work.	13	23	56	70	24	6	7	1
25. Students should experience various kinds of work before leaving high school.	15	22	62	67	21	10	2	1
26. Students need at least one paying job before leaving high school.	18	22	59	60	20	17	3	1
27. Students should receive credit toward graduation for any supervised job.	15	23	54	56	28	20	3	1
28. College-bound students should make tentative career choices while in high school.	19	19	68	66	11	14	2	1

	STRONGLY AGREE (%)		AGREE (%)		DISAGREE (%)		STRONGLY DISAGREE (%)	
	Parent	Staff	Parent	Staff	Parent	Staff	Parent	Staff
29. If schools were career-oriented, they would be useful to more students.	26	31	62	61	11	8	1	-
30. Most high school graduates are not prepared to enter the working world.	25	27	52	54	21	18	2	1
31. Parents are needed in career education programs.	14	24	67	68	18	7	1	1
32. Elementary students would benefit from having people come to school to talk about their jobs.	15	30	63	60	20	9	2	1
33. Visits from industrial chemists would create more interest in a chemistry class.	21	28	72	66	7	6	-	-
34. Our local community should pay for career education if the state and federal governments cannot.	14	21	56	62	24	15	6	2
35. Career education will cost money, but it will benefit society because of an increase in satisfactory employment.	20	27	68	69	9	4	3	-
36. The quality of education would be improved by an emphasis on work and occupations.	15	21	60	65	22	13	3	1
37. There are few areas in the school program more important than career education that need our time, money, and effort.	12	15	49	54	33	27	6	4

	STRONGLY AGREE (%)		AGREE (%)		DISAGREE (%)		STRONGLY DISAGREE (%)	
	Parent	Staff	Parent	Staff	Parent	Staff	Parent	Staff
38. Industry representatives should become involved in Career Education programs.	23	30	73	68	3	2	1	-
39. Career Education will be of long-term value to girls as well as boys.	26	33	70	66	-	1	-	-
40. Career Education is just another fad that will soon be forgotten.	3	7	6	13	60	47	31	33

PINELLAS COUNTY CAREER EDUCATION SURVEY
PARENT AND STAFF ATTITUDES

AGREE VS. DISAGREE: PARENT AND STAFF COMBINED

No.		AGREE					DISAGREE				
		Total Parent	%	Total Staff	%	Total Agree	Total Parent	%	Total Staff	%	Total Disagree
1.	Elementary school is not too early for a student to start thinking about career possibilities.	369	75	209	81	578	122	25	48	19	170
2.	Career education should be available to students from kindergarten through adult life.	436	74	241	89	677	151	26	30	11	181
3.	Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.	543	91	262	97	805	53	9	8	3	61
4.	An effective program of career education would lower the school dropout rate.	513	86	257	96	770	80	14	13	4	93
5.	Students need more information about the world of work.	531	92	263	97	794	43	8	8	3	51
6.	Most people finish high school not knowing what kind of career they prefer.	451	88	255	95	706	60	12	16	5	76
7.	You don't need a college degree to be a success.	545	88	268	98	813	72	12	4	2	76
8.	An understanding and acceptance of self is important throughout life.	586	98	276	100	862	13	2	---	--	13
9.	Persons need recognition as having dignity and worth.	572	96	271	94	843	22	4	1	--	23

PINELLAS COUNTY CAREER EDUCATION SURVEY
PARENT AND STAFF ATTITUDES

AGREE VS. DISAGREE: PARENT AND STAFF COMBINED

No.		AGREE					DISAGREE				
		Total Parent	%	Total Staff	%	Total Agree	Total Parent	%	Total Staff	%	Total Disagree
10.	Both environment and individual potential influence career development.	572	96	272	97	844	23	4	10	3	33
11.	Job characteristics and individuals must be flexible in a changing society.	567	96	259	96	826	24	4	11	4	35
12.	Most individuals can learn to perform adequately in a variety of occupations.	486	81	245	90	731	110	19	29	10	139
13.	Education and work are interrelated.	543	93	266	98	809	38	7	6	2	44
14.	A career education program should stress all jobs as important.	551	93	247	95	798	40	7	14	5	54
15.	Schools should provide opportunities to investigate various occupations.	570	96	325	99	895	21	4	2	1	23
16.	The skill training offered to a student should be related to interests, aptitudes, values, and abilities.	549	98	315	96	864	13	2	2	1	15
17.	The Career Education program will help students make realistic career choices.	516	94	296	96	812	35	6	14	4	49
18.	Students should make their own career choices.	514	94	303	96	817	32	6	13	4	45
19.	Foreign language teachers should show students how foreign languages are used in careers.	553	94	304	96	857	33	6	14	4	47

PINELLAS COUNTY CAREER EDUCATION SURVEY
PARENT AND STAFF ATTITUDES

AGREE VS. DISAGREE: PARENT AND STAFF COMBINED

No.		AGREE					DISAGREE				
		Total Parent	%	Total Staff	%	Total Agree	Total Parent	%	Total Staff	%	Total Disagree
20.	The ways mathematics can be used in jobs can be taught in mathematics courses.	554	94	302	94	856	34	6	19	6	53
21.	Students of history should be told about jobs in this field.	538	94	310	96	848	33	6	13	4	46
22.	Courses such as art and music should include information about job possibilities in those fields.	562	93	305	95	867	38	7	15	5	53
23.	Students should be permitted to miss regular classes in order to go on a field trip with another class.	370	65	276	89	646	202	35	34	11	236
24.	As part of the high school program, students should be allowed to leave school during the day to go to work.	401	69	292	93	693	178	31	20	7	198
25.	Students should experience various kinds of work before leaving high school.	444	77	281	89	725	128	23	34	11	162
26.	Students need at least one paying job before leaving high school.	444	77	242	82	162	134	23	54	18	188
27.	Students should receive credit toward graduation for any supervised job.	399	69	244	79	686	177	31	66	21	243

PINELLAS COUNTY CAREER EDUCATION SURVEY
PARENT AND STAFF ATTITUDES

AGREE VS. DISAGREE: PARENT AND STAFF COMBINED

No.		AGREE					DISAGREE				
		Total Parent	%	Total Staff	%	Total Agree	Total Parent	%	Total Staff	%	Total Disagree
28.	College bound students should make tentative career choices while in high school.	510	87	244	85	754	76	13	48	15	124
29.	If schools were career-oriented, they would be useful to more students.	505	88	293	92	798	72	12	24	8	96
30.	Most high school graduates are not prepared to enter the working world.	442	77	254	81	696	133	23	60	19	193
31.	Parents are needed in career education programs.	457	81	289	92	746	103	19	26	8	129
32.	Elementary students would benefit from people coming to school to talk about their jobs.	459	78	277	90	736	130	22	30	10	160
33.	Visits from industrial chemists would create more interest in a chemistry class.	538	93	288	94	826	38	7	18	6	56
34.	Our local community should pay for career education if the state and federal government cannot.	380	70	256	83	636	166	30	52	17	218
35.	Career education will cost money but will be a benefit for society because of an increase in satisfactory employment.	489	88	300	96	789	64	12	14	4	78

PINELLAS COUNTY CAREER EDUCATION SURVEY
PARENT AND STAFF ATTITUDES

AGREE VS. DISAGREE: PARENT AND STAFF COMBINED

No.		AGREE					DISAGREE				
		Total Parent	%	Total Staff	%	Total Agree	Total Parent	%	Total Staff	%	Total Disagree
36.	The quality of education would be improved by an emphasis on work and occupations.	424	75	261	86	685	137	25	42	14	179
37.	There are few areas in the school program more important than career education that need our time, money, and effort.	340	61	211	69	551	217	39	97	31	314
38.	Industry representatives should become involved in career education programs.	544	96	308	98	852	23	4	6	2	29
39.	Career education will be of long-term value to girls as well as boys.	550	96	311	99	861	25	4	4	1	29
40.	Career education is just another fad that will soon be forgotten.	50	9	58	20	108	513	91	234	80	747

RANKING OF THE EIGHT CAREER EDUCATION ELEMENTS
BY PARENTS AND SCHOOL STAFFS

Elements	Staff Rankings (%)								Parent Rankings (%)							
	#1	#2	#3	#4	#5	#6	#7	#8	#1	#2	#3	#4	#5	#6	#7	#8
41. CAREER AWARENESS	7%	7%	12%	15%	16%	20%	11%	12%	4%	4%	8%	10%	16%	24%	14%	20%
42. SELF AWARENESS	51%	20%	8%	8%	4%	4%	3%	2%	35%	23%	17%	11%	5%	4%	2%	3%
43. FAVORABLE ATTITUDES	11%	27%	22%	21%	9%	5%	3%	2%	10%	28%	21%	15%	11%	7%	5%	3%
44. DECISION-MAKING SKILLS	3%	15%	24%	21%	13%	15%	5%	4%	2%	14%	22%	22%	19%	10%	8%	3%
45. BASIC SKILLS LEADING TO BEGINNING COMPETENCE SKILLS	22%	18%	15%	16%	14%	8%	4%	3%	43%	14%	13%	12%	8%	5%	3%	2%
46. EMPLOYABILITY SKILLS	1%	4%	3%	3%	10%	15%	30%	34%	1%	3%	3%	6%	7%	15%	30%	35%
47. EDUCATIONAL AWARENESS	3%	8%	12%	12%	24%	20%	14%	7%	4%	12%	10%	18%	21%	17%	9%	9%
48. ECONOMIC AWARENESS	1%	2%	4%	6%	10%	15%	28%	34%	1%	2%	5%	6%	11%	19%	29%	27%

RANKING OF THE EIGHT CAREER EDUCATION ELEMENTS
(Combined Figures - Staff & Parents)

Ranked:	#1		#2		#3		#4		#5		#6		#7		#8	
Element	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
CAREER AWARENESS	46	5%	47	5%	90	10%	109	12%	147	16%	213	23%	118	12%	164	17%
SELF AWARENESS	375	40%	202	22%	134	14%	95	10%	46	5%	35	4%	24	3%	21	2%
FAVORABLE ATTITUDES	100	11%	257	27%	196	21%	157	17%	95	10%	60	6%	43	5%	26	3%
DECISION-MAKING SKILLS	21	2%	134	14%	214	23%	200	22%	162	17%	110	12%	65	7%	27	3%
BASIC SKILLS LEADING TO BEGINNING COMPETENCE SKILLS	336	36%	140	15%	130	14%	126	14%	94	10%	56	6%	30	3%	19	2%
EMPLOYABILITY SKILLS	8	1%	32	3%	27	3%	48	5%	78	8%	137	15%	280	30%	322	35%
EDUCATIONAL AWARENESS	37	4%	103	11%	99	11%	148	16%	205	22%	163	17%	100	11%	76	8%
ECONOMIC AWARENESS	12	1%	21	2%	41	5%	55	6%	103	11%	162	17%	267	29%	272	29%

Pinellas County
Career Education Survey

H-9a
Parent Form
5/1/73

Dear Parent:

The purpose of this survey is to obtain your feelings about Career Education.

We will very much appreciate it if one parent will complete this form. Even if you do not complete it, will you please return it to the school within the next day or two? If more than one child brings a form home, simply return the extra ones to the school.

Please seal your survey in the envelope we have provided. Your envelope will not be opened until it reaches the Career Education Office, and your answers will be held in strict confidence.

We appreciate your effort in this survey. With your help, we will be able to develop a Career Education program to better serve the children of Pinellas County and the State of Florida.

Sincerely,

Myrtle E. Hunt, Director
Pinellas County Career Education Project
850 - 34th Street South
St. Petersburg, Florida 33711

Before starting, please check one of the categories below:

This survey is being completed by:
Mother _____ Father _____

Information about the head of the household:
Present Occupation _____

(Check all that apply)

Graduated from: High School _____ Trade School _____

Technical School _____ Business School _____

Junior College _____ 4 yr College or University _____

Other _____ Specify _____

_____

H-10a
4/2/73
Staff & Adm. Survey

CAREER EDUCATION SURVEY

The purpose of this survey is to obtain your feelings about Career Education.

We appreciate your help in completing this survey. Through your efforts we will be able to develop a Career Education program that will ultimately better serve the children of Pinellas County and the State of Florida.

Sincerely,

Myrtle E. Hunt, Director
Pinellas County
Career Education Project

4/2/73 Date _____

DIRECTIONS: Please check the appropriate spaces:

A. This survey came to me from _____
Name of School

B. I am a:

__Student	__Post-Secondary Teacher	__Teacher
__Parent	__Teacher Aide	__Vice Principal
__K-6 Teacher	__Guidance Counselor	__Dean of boys or girls
__Junior-High Teacher	__Occupational Specialist	
__Senior-High Teacher	__Media Specialist	__Other Staff

C. I am (or my children are) involved with grade(s): (CIRCLE appropriate levels)

K 1 2 3 4 5 6 7 8 9 10 11 12 13 14 Adult Education

D. Did you participate in a workshop conducted by the Career Education Staff from June 16 to July 28, 1972? __ Yes __ No

DIRECTIONS: Arrange the statement in their order of importance as YOU think they should be considered by schools. Write 1. in the space beside the statement you feel is most important, 2. in the space next most important — and so on, through your 10th choice.

____Teaching for college entrance exams.

____Helping students know more about themselves.

____Helping students find lifelong interests from education, so that they may pursue different life styles.

____Teaching content such as facts or information about persons, places and things.

____Understanding the economic rewards of work; i.e. finding a demand for one's own services or products.

____Teaching basic skills such as reading, writing, and mathematics, as well as other skills needed for employment.

____Developing favorable attitudes toward schooling and careers.

____Developing the occupational awareness of all students from kindergarten through grades 14.

____ Practice in decision making.

____Developing job seeking and job keeping skills.

DIRECTIONS: Please read each statement carefully. There are no right or wrong answers. Just check the line under STRONGLY AGREE, AGREE, DISAGREE, OR STRONGLY DISAGREE, whichever best describes how you feel about each statement.

STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	
____	____	____	____	1. Elementary school is not too early for a student to start thinking about career possibilities.
____	____	____	____	2. Career education should be available to students from kindergarten through adult life.
____	____	____	____	3. Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.
____	____	____	____	4. An effective program of career education would lower the school dropout rate.
____	____	____	____	5. Students need more information about the world of work.
____	____	____	____	6. Most people finish high school not knowing what kind of career they prefer.
____	____	____	____	7. You don't need a college degree to be a success.
____	____	____	____	8. An understanding and acceptance of self is important throughout life.
____	____	____	____	9. Persons need recognition as having dignity and worth.
____	____	____	____	10. Both environment and individual potential influence career development.
____	____	____	____	11. Job characteristics and individuals must be flexible in a changing society.

STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	
____	____	____	____	12. Most individuals can learn to perform adequately in a variety of occupations.
____	____	____	____	13. Education and work are interrelated.
____	____	____	____	14. A career education program should stress all jobs as important.
____	____	____	____	15. Schools should provide opportunities to investigate various occupations.
____	____	____	____	16. The skill training offered to a student should be related to interests, aptitudes, values, and abilities.
____	____	____	____	17. The Career Education program will help students make realistic career choices.
____	____	____	____	18. Students should make their own career choices.
____	____	____	____	19. Foreign language teachers should show students how foreign languages are used in careers.
____	____	____	____	20. The ways mathematics can be used in jobs can be taught in mathematics courses.
____	____	____	____	21. Students of history should be told about jobs in this field.
____	____	____	____	22. Courses such as art and music should include information about job possibilities in those fields.

STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	
_____	_____	_____	_____	23. Students should be permitted to miss regular classes in order to go on a field trip with another class.
_____	_____	_____	_____	24. As part of the high school program, students should be allowed to leave school during the day to go to work.
_____	_____	_____	_____	25. Students should experience various kinds of work before leaving high school.
_____	_____	_____	_____	26. Students need at least one paying job before leaving high school.
_____	_____	_____	_____	27. Students should receive credit toward graduation for any supervised job.
_____	_____	_____	_____	28. College bound students should make tentative career choices while in high school.
_____	_____	_____	_____	29. If schools were career-oriented, they would be useful to more students.
_____	_____	_____	_____	30. Most high school graduates are not prepared to enter the working world.
_____	_____	_____	_____	31. Parents are needed in career education programs.
_____	_____	_____	_____	32. Elementary students would benefit from people coming to school to talk about their jobs.

STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	
_____	_____	_____	_____	33. Visits from industrial chemists would create more interest in a chemistry class.
_____	_____	_____	_____	34. Our local community should pay for career education if the state and federal governments cannot.
_____	_____	_____	_____	35. Career education will cost money but will be a benefit for society because of an increase in satisfactory employment.
_____	_____	_____	_____	36. The quality of education would be improved by an emphasis on work and occupations.
_____	_____	_____	_____	37. There are few areas in the school program more important than career education that need our time, money, and effort.
_____	_____	_____	_____	38. Industry representatives should become involved in Career Education programs.
_____	_____	_____	_____	39. Career Education will be of long-term value to girls as well as boys.
_____	_____	_____	_____	40. Career Education is just another fad that will soon be forgotten.

DIRECTIONS: Rate the 8 elements of Career Education, from 1 through 8 according to their importance as you think they should be considered by schools.

_____ 41. Career Awareness: developing occupational awareness for all children from grades K-14.

_____ 42. Self-Awareness: knowledge of one's own capabilities and relationships with others.

_____ 43. Favorable Attitudes: toward school and careers.

_____ 44. Decision-Making Skills: ability to make meaningful choices.

_____ 45. Basic Skills (e.g. reading, writing, and math) Leading to Beginning Competence Skills Required for Placement and Employment.

_____ 46. Employability Skills: job-seeking and job-keeping skills.

_____ 47. Educational Awareness: a lifelong relationship between education and work leading to different interests and life styles.

_____ 48. Economic Awareness: recognizing a demand for one's own services and products.

DIRECTIONS: Indicate the grade levels at which we should begin to see some results.

K-3	4-6	7-9	10-12	13-14	
___	___	___	___	___	49. Career Awareness
___	___	___	___	___	50. Self-Awareness
___	___	___	___	___	51. Favorable Attitudes
___	___	___	___	___	52. Decision-Making Skills
___	___	___	___	___	53. Basic Skills Leading to Beginning Competence Skills
___	___	___	___	___	54. Employability Skills
___	___	___	___	___	55. Economic Awareness
___	___	___	___	___	56. Educational Awareness

DIRECTIONS: Indicate the grade levels at which we should begin to see how careers might relate to the following studies:

K-3	4-6	7-9	10-12	13-14	
___	___	___	___	___	57. Language Arts
___	___	___	___	___	58. Mathematics
___	___	___	___	___	59. Social Studies
___	___	___	___	___	60. Science
___	___	___	___	___	61. Foreign Language
___	___	___	___	___	62. Art
___	___	___	___	___	63. Music
___	___	___	___	___	64. Health
___	___	___	___	___	65. Physical Education
___	___	___	___	___	66. Vocational Subjects

Your comments: _____

SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS

795 Peachtree Street • Atlanta, Georgia 30308

Phone 875-8011 Area Code 404

July 11, 1973

Mrs. Myrtle Hunt
Director, Career Education Project
City Center for Learning
850 - 34 Street, South
St. Petersburg, Florida 33711

Re: Team Visit Report; Pinellas County
Career Education Project

Dear Myrtle:

Attached is the final report of the team review from May 14, 15, 16, 1973. You will note a number of suggestions that have been made by the team. I hope these will be helpful in your future planning and development.

If we may be of further help to you please let us know.

Sincerely,

B. E. Childers

B. E. Childers, Executive Secretary
Commission on Occupational Education
Institutions

BEC/bjh

cc: Ken Eaddy
Bernie Moore

PINELLAS COUNTY CAREER EDUCATION
PROJECT

EVALUATION REPORT

COMMISSION ON OCCUPATIONAL EDUCATION INSTITUTIONS

SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS

Evaluators

Mrs. Mabelle Black
Mrs. Marquita McLean
Dr. Allen B. Moore
Dr. Marvin Robertson

Southern Association of
Colleges and Schools
Site Team Evaluation Report

Pinellas County Career Education Project

Site Team Members and Responsibilities

The site team visited the Pinellas County Career Education Project (PCCEP) on May 14, 15, and 16, 1973. Site team members were:

Dr. Allen B. Moore, Site Team Director

Mrs. Mabelle Black, Director for K-6 Component for 20 Projects, State of Ohio, Columbus, Ohio

Mrs. Marquita McLean, Guidance and Counseling, Cincinnati Public Schools Cincinnati, Ohio

Dr. Marvin Robertson, Evaluation of Career and Vocational Education Projects, State of Georgia University of Georgia, Athens

Team members were responsible for reviewing, observing and evaluating various components of the PCCEP:

Dr. Moore, Career Education at the junior, senior, and post secondary levels

Mrs. Black, Career Education K-6

Mrs. McLean, Guidance and counseling objectives and K-junior high

Dr. Robertson, Placement and follow-up; linkage between junior, senior, and post secondary; and project evaluation

Agenda for Site Visit

Team members, PCCEP staff, principals and COST teams from each project school and various county school district staff including the Acting Superintendent met at breakfast on Monday, May 14, 1973, to highlight

the Pinellas County Career Education Project. The agenda for the site team breakfast is appended to this report.

Each project school COST (Counselor, Occupational Specialist, and Teacher) Team was introduced by the school principal. The COST Team presented sound-on-slide highlights of career education in their school during the past year. Site Team members spent the afternoon of May 14 discussing the project with the PCCEP staff.

On May 15 and 16, 1973 site team members visited the nine (9) project schools:

Site Team Member	Schools Visited
Mrs. Black (Elementary)	Campbell Park Elementary Eisenhower Elementary Palmetto Elementary Lakeview Elementary
Mrs. McLean (Guidance & Counseling)	16th Street Junior High Eisenhower Elementary Lakeview Elementary
Dr. Robertson and Dr. Moore	Clearwater Comprehensive Junior High School Pinellas County Vocational Technical Institute Dunedin High School City Center for Learning

The Site Team reviewed their experiences, observations and suggesswith the PCCEP staff on May 16, 1973. Project strengths and suggestions for improvement complete this section.

Project Summary

Strengths

1. Career education activities are being implemented in each of the 9 project schools.
2. Teams of people in and out of the school are being utilized to implement the career education concept.
   a. COST Teams
   b. Project staff
   c. Advisory groups
3. Occupational specialists are working and supporting career education in all of the project schools.
4. The career education concept utilizes the guidance emphasis as well as skill development.
5. Workshops (summer 1972) were conducted for teachers and counselors in all of the project schools.
6. The State Department of Education in Florida and local projects recognize the PCCEP as exemplary.

Suggestions

1. Parent involvement in the PCCEP needs to be developed. Parents are a viable resource that should be utilized to assess effectiveness of the project, and to provide resources in and out of the classroom.
2. Teachers, counselors and occupational specialist need more information, experiences and training on implementing the career education concept.
3. A coordinated and sequenced curriculum should be examined for delivering the career education concept.

4. For the first year (1972-73) PCCEP emphasis was placed on the elementary level. The career education concept appears to be most implemented at the elementary level. There is less implementation at the junior high and senior high levels.

5. The Comprehensive Junior High School is strongly vocational and does not embrace the concept of career education. More work is needed to provide exploratory activities in occupational and professional areas.

6. Managers and supervisors in other disciplines (e.g., Language Arts, Social Studies) need to be involved in the career education effort.

7. Evaluation of the career education concept and the assessment of changes in student achievement and attitudes will be difficult as a result of:

   a. Yearly shifting of students in all county schools including the 9 project schools.

   b. Lack of a common curriculum in all 9 project schools.

8. The PCCEP is understaffed. More staff are needed to work closely with principals, teachers, occupational specialists and counselors in the schools.

9. The PCCEP staff needs to shift part of the project information sharing efforts to school principals and COST Teams.

10. Support by the county school administration and local school board needs development if the career education concept is to become implemented in Pinellas County.

K-6 Elementary

Four elementary schools are involved in the Career Education Program initiated in Pinellas County during the past year. The Elementary Component of the program, which received major consideration during FY 72-73, has identified these major objectives:

1. To increase student awareness of the world of work in terms of the broad range of career options which are available.
2. To develop attitudes and values about the personal, social and economic significance of work.
3. To provide hands-on exploratory types of experience when possible.

Occupational Specialists, persons from outside the field of education with a vast background of varied work experience and other special attributes to contribute to career education, have been employed by each school to work as a team member with the counselor and the teacher in implementing career education into the curriculum. They are referred to as the COST team.

Identified areas of responsibility for each of the three COST members are:

Counselor - self-awareness
decision-making
employability skills
educational awareness

Occupational Specialist - career awareness
appreciations, attitudes
skill awareness
economic awareness

Teacher - basic knowledge and skills

There has been a conscious effort since initiation of this project to changing the role of the counselor, making him a more integral part of the instructional process.

Vocational teachers serve as consultants to demonstrate how career related activities can be incorporated within the curriculum.

Workshops were held for teachers during the summer (1972) to orient them to Career Education. Units were developed in Career Education at this time by the teachers. There has been a movement, during the year, away from use of these units to the "Career Activity Book," a series of activities planned for specific Career Clusters.

Strengths

Enthusiasm and interest on the part of the staff has contributed to the success of the career education program. The PCCEP staff has worked hard. In addition to their week-day activities, they have given up weekends and holidays to the project for such activities as inservice training, presentations about the project to other school districts and meetings with the third party evaluator on weekends and holidays.

Project school principals appear to support PCCEP. Principals in all project schools have been informed of project activities and involved in planning the activities. Principals were involved in inservice training, have discussed the COST Team approach with their teachers, have provided administrative support to the PCCEP in the individual schools.

Occupational Specialists are involved in and contribute to the PCCEP.

An Occupational Specialist is assigned to each of the four elementary schools. This person works with the school counselor and teacher (COST Team) to deliver career education. However, Occupational Specialists are not supported by PCCEP funds. They are funded separately by the State of Florida for all local school districts.

Business and industry representatives support PCCEP and they have contributed their time, facilities and resources to the project.

Incorporation of numerous activities (e.g., field trips, resource persons, hands-on activities) within the curriculum: Preparation for and follow-up of field trips is evident as a means to coordinate the curriculum. The team approach (Guidance Counselor, Occupational Specialist and Teacher) provides a unified delivery effort. Counselors, Occupational Specialist and Teachers (COST Team) work closely to integrate activities with the Curriculum both in and out of the class. Vocational teacher consultants (PCCEP staff) visit the schools to assist in planning and conducting class activities.

Involvement of students teaching students (Intermediate student helping Primary, and Jr. College students and High School students working with Elementary) provide valuable learning experiences for learner and teacher: The location of some of the project schools provides the opportunity for elementary students to visit junior high schools (e.g., and observe greenhouse operations), Advanced (Junior, Senior and College) students have worked as "Teacher aides", without pay in some of the project schools.

Focus on the development of a positive self-concept, awareness of

individual interests and abilities and efforts toward values clarification provide a valuable dimension to the Career Education Program. School counselors have utilized teachers and occupational specialist to reinforce and support their efforts in working with students.

There are opportunities for Elementary students at two schools (Eisenhower and Campbell Park) to apply for and to perform a job in the school. This provides a valuable learning experience and insight into the requirements for getting a job. The qualities of punctuality, dependability and thoroughness in performing a task are visible. Students at these schools make application for "jobs" with the permission of their parents and teachers. Working students are supervised by teachers, counselors and custodians in keeping their school clean and in good working order.

Project efforts to cooperate with other funded programs in the district are commendable. PCCEP staff, school principals and COST Teams coordinate with other district projects to deliver a total educational program to students.

Suggestions

Some parent involvement was apparent, but it was pointed out that there has been no specific plan for informing parents about the program or for requesting their cooperation and participation. The career education program can provide a means of developing good rapport with and support from the parents and they can provide a logical source of resource persons. Letters from the teachers to the parents, informing them about the program and asking them for their participation can be an effective first approach. Advisory committees should include parents in their

membership.

In-service education for teachers should not be limited to an initial orientation workshop. It takes repeated exposure to Career Education concepts to provide the depth of understanding needed by teachers to incorporate Career Education within their entire curriculum.

Teachers should be encouraged to generate their own ideas for implementing Career Education and to share their successful experiences with other teachers. Frequent meetings of teachers of the same grade level to share experiences can be beneficial. Sharing ideas between schools can also add to their "repertoire." A progression of learning experiences from one grade to another has not been planned at the present time. In order to avoid duplication of learning experiences, such a progression should be planned for the entire curriculum, within the framework of the eight major areas of career development.

Guidance and Counseling

Over half (23) of the PCCEP objectives have a direct relationship to guidance and counseling functions. The PCCEP "model" for delivering career education is a guidance and counseling model.

Strengths

There is strong Counselor, Occupational Specialist, Teacher (COST) involvement at the K-6 level. The COST approach is a creative teacher involvement mechanism. Counselors and other school staff members work together to plan and coordinate career education activities. The COST Team approach provides time for teachers to bring resources into the class, gives the class a variety of leaders or instructors and facilitates planning and coordination for the curriculum.

There is general understanding of career awareness at the K-6 level. Counselors, occupational specialists, and teachers have a general understanding of the career awareness element. Presentations by and discussion with the COST Teams demonstrated career awareness was being stressed at the elementary level.

Evaluation activities are heavy in the career awareness area. Process and product evaluation activities are being implemented at all levels (K-14) for the PCCEP. Emphasis is being given to awareness at the elementary level, exploration and orientation at the junior high level and preparation, placement and follow-up at the secondary and post-secondary levels.

School staff appear to understand the COST delivery system. Discussion with counselors, occupational specialists, teachers, and

principals demonstrate the grasp and understanding of the COST approach. Most of the staff see the COST approach as a coordinated mechanism for delivering career education to the youth in the PCCEP.

Suggestions

There is the need for stronger project (career model) implementation at the secondary levels (7-9 and 10-12). Project schools at the junior and senior high levels have the potential to improve their implementation of career education by recognizing that vocational education is only a part of career education. Exploration and orientation activities in leisure, family, community and professional (e.g., life roles) areas are a part of a comprehensive career education emphasis.

The career education concept needs to be clearly identified and communicated: Mid-management and interdisciplinary resources staff (language arts and social studies curriculum supervisors) need to be involved in workshops and implementing the project. Teachers need additional workshop experiences and assessment to improve efforts. They need additional time to internalize the career education concept. The COST approach needs to be further developed to strengthen the project.

The school building principals' commitments to the project should include released time for school staff. Teachers, counselors and occupational specialists need time as total group (or as small groups) away from the classroom to prepare long-range plans for implementing the career education concept. The released time should be in addition to "workshop days" and may be in the form of half (½) days of 2-3 hour blocks of time

without the distraction of class activities.

The COST Team approach appears to be especially strong at the elementary level. It weakens as it moves up to the junior high, senior high and post secondary instructional levels.

More support in terms of PCCEP staff time and resources need to be provided at the junior and senior high levels. Additional staff training and in-the-school support by the PCCEP staff will be needed in the coming project year to implement the career education concept.

Placement & Follow-up & Articulation

Strengths

The foundation for a placement and follow-up system has been worked out with rationale, goals and objectives. An excellent advisory group was utilized in this planning.

Few students were actually placed on jobs during the first operational period of the project but the plans for placing and following students who exit the PCCEP have been made and will be operational by 1973-1974. A business and industry advisory committee has worked closely with the PCCEP Placement Coordinator and Occupational Specialist to plan the next years' activities.

A senior placement survey was conducted at Dunedin High School (1972-1973). Plans have been worked out at the District Office to coordinate all followups in the county in the future (1973-1974).

Placement surveys are considered one mechanism for assessing student abilities and occupational interest and matching these with positions

available in the local area (e.g., St. Petersburg, Clearwater, and Tampa). A coordinated county plan for gathering placement and follow-up information has been developed with the assistance of the PCCEP staff. In addition, the state of Florida has mandated that all school districts have a mechanism for placing and following-up youth who exit the schools. Additional funds for these activities may be available from the State for PCCEP and the School District.

Cooperation with the data processing services in the county school system has been established and utilized to summarize project data. County data processing services receive data from new and existing projects in the school district in addition to gathering data required for the administration of Pinellas County Schools. Processing services will be utilized to assist in summarizing PCCEP Project placement and follow-up data.

Public support of the business community has been obtained through existing contacts within vocational education. Support and advisory committee involvement has been gained through the existing vocational education program in Pinellas County. Members of the Placement Advisory Committee have also supported the programs and services of Pinellas County Vocational and Technical Institute (PVTI).

Communication and cooperation efforts (articulation) between project schools is evident. Cooperation with Pinellas County Vocational-Technical Institute has provided laboratories for K-6 in career awareness and established community contacts with over 35,000 people who have visited PVTI this school year (1972-1973). Clearwater Comprehensive Junior High provides hands-on experiences in horticulture for the Palmetto Elementary School youngsters.

Suggestions

The placement and follow-up advisory committee could include someone from secondary administration and guidance to insure compatibility and implementation of the career education concept. Committee membership should include individuals who can facilitate communication and coordination of career education activities.

Competition between PCCEP schools may be inhibiting the sharing of ideas and contributing to the lack of a common understanding of career education. The administration and staff groups in the schools may need to get together and "talk through" the career education concept and discover common ground. Competition in developing products and processes is not bad but a concerted effort should be undertaken to gather and share ideas between project schools. School administrators and staff need additional information inputs and training to implement the career education concept. Workshops that include key administrators and guidance personnel in "general" education might help all participants to understand the rationale of and need for a placement system.

Communication and coordination (articulation) needs attention at the 7-12 level. Junior and senior high schools can provide laboratories, staff and students who can assist in delivering career education to students at other levels.

A career education placement strategy should be developed and discussed by all project personnel e.g., project staff, COST Teams, principals, central county staff, school board and advisory committee members. The awareness of and a strategy for placement in the district (including PCCEP

students) should be developed, communicated and evaluated by all those people expected to play a role in its implementation.

Evaluation

Process and product evaluation activities have been planned, developed and implemented by the PCCEP staff and project school staff. Third party evaluation by SACS has been active and supportive of the local evaluation efforts.

Strengths

PCCEP evaluation staff (internal evaluators) and the third party evaluators (external evaluators) have communicated and coordinated in the evaluation activities. Internal and external evaluation efforts have focused on process and product evaluation.

The idea that as many project and school staff became involved in the evaluation process has been implemented. Adjustments in direction, scope and content of the project have resulted from the evaluation efforts of the project staff, school staffs, internal and external evaluators.

Periodic reviews of the PCCEP have been held. Internal evaluators have developed monthly monitoring mechanisms to keep activities coordinated and on schedule. Visits by external evaluators at 4-6 week intervals for progress and planning reviews were implemented.

Suggestions

Examine PCCEP evaluative data for answering three (3) basic questions:

a. Is the career education concept being implemented in the pilot schools?

b. Can the career education project be identified?

c. What difference has evaluation made in the project?

Allocate more time to actively involving teachers in the career education project. Counselors, occupational specialists, and teachers need more time (re: Principals' support!) to plan and develop in and out of class activities to deliver the career education concept.

Support of the Pinellas County School Board is needed if the career education concept is to be implemented in Pinellas County. The active support of the Pinellas County School Board should be solicited if the career education concept is to be fully implemented and remain in place after completion of initial funding support.

Is there a plan or design for utilizing all of the evaluation data that is being collected? Will the evaluation plan gather data that can be utilized by teachers to provide career development experience for youth attending Pinellas County schools? A large amount of information is being gathered by the PCCEP and mechanisms should be designed to use the information for reshaping and strengthening the implementation of the career education concept.

AGENDA
FOR THE EXTERNAL EVALUATION OF
THE PINELLAS COUNTY CAREER EDUCATION PROJECT

Visiting Site Team Members:

Dr. Allen B. Moore, Site Team Director
Mrs. Maybelle Black, Director K-6 Component for 20 Projects, State of Ohio
Mrs. Marquita McLean, Guidance and Counseling, Cincinnati School District
Dr. Marvin Robertson, University of Georgia. Evaluation of Placement and Follow-Up, State of Georgia (Secondary and Post-Secondary).

Representing Pinellas County Career Education Project:

Gus Sakkis, Acting Superintendent
Jack B. Shumate, Executive Asst. Superintendent of Vocational, Technical and Adult Education
Joe C. Eidson, Executive Asst. Superintendent of General Education
John A. Blank, Assistant Superintendent of Elementary Education
Dr. Harry A. Danielson, Supervisor of Guidance
Ferris Post, Supervisor Adult and Vocational Guidance
Myrtle E. Hunt, Director of Career Education Project
Dorothy Snidow, Supervisor of Evaluation
Don Rosenberger, Elementary Supervisor
Clarence Givens, Guidance Coordinator
Tom Noble, Placement Coordinator
Marie Charles, Vocational Teacher Consultant (Business Education)
George Cary, Vocational Teacher Consultant (Industrial Education)
Crystal Coester, Occupational Specialist
Ruth Dikman, Executive Secretary

Leonard Summers, Principal, Campbell Park Elementary
Eunice Burgess Peggy Upton Connie Biles

Robert Burke, Principal, Eisenhower Elementary
Steven Guyler Marilyn Sapperstein John Lash

Louis McCoy, Principal, Lakeview Elementary
Bette McConnell Doris Edwards May Howry

Frank Martin, Principal, Palmetto Elementary
Betty Smith Claude Brannan Lottie Ellis

Rex Gaugh, Director, Pinellas Vocational Technical Institute
Ruth Roche Ted McCann

Dr. Robert Safransky, Director, Clearwater Comprehensive Junior High
Gary Kilroy James Castle Roland Douglass

John Hopkins, Principal, 16th Street Junior High
Mable Martin Rose Irwin Norma Marsh

Francis Freeman, Principal, Dunedin Senior High
Thomas Crook Phyllis Roemer

Robert Anderson, Director, City Center for Learning
Nona Grotecloss Bob Hesse Frank Gallinas

Dr. Tom Justiz, Internal Evaluator

Monday May 14	8:00 - 8:45	Breakfast at Sheraton Bel-Air (Sun Room) Hand Out Agenda Welcome - Myrtle E. Hunt
	8:45 -11:45	18-minute Presentations by each of the nine Project Schools. (As each presentation is concluded, the school staff is free to return to their school.)
	12:00 - 1:30	Luncheon Meeting with Community Advisory Committee Members, Sheraton Bel-Air (Sea Room)
	1:45 - 4:45	Meeting in Conference Room on Curriculum Materials, Media, Program Concepts, Evaluation Concepts
	4:45 - 5:00	Schedule Visits to Pilot Schools for Tuesday, May 15
Tuesday May 15	8:00 - 2:30	Visits to Pilot Schools, All Day (Lunch in Pilot School Cafeterias)
	2:30 - 3:00	Site Team Phones in Requests for Pilot School Persons to Attend Conference Room Wrap-Up on Wednesday, May 16
Wednesday May 16	8:00 -11:00	Conference Room Report and Critique by Site Team (Persons requested by Site Team will attend to share comments.)
	11:00 -11:45	Unfinished Business
	12:00	Site Visit Concluded - Leave for Airport.

Visitation Report March 28, 1973

TO: Mrs. Myrtle Hunt, Director
Pinellas County Career Education Project
Pinellas County Florida
850 34th Street South
St. Petersburg, Florida 33711

FROM: A. B. Moore, Consultant, SACS
Third Party Evaluation
Pinellas County Career Education Project (PCCEP)

COPY TO: Dr. B. E. Childers, Executive Secretary
Commission on Occupational Education Institutions
Southern Association of Colleges and Schools
795 Peachtree Street, N. E., 5th Floor
Atlanta, Georgia 30308

Dates: March 26, 27, 1973

Subject: Visit to PCCEP, Projects Schools and Project Staff.

The purpose of this meeting was to review:

1. Evaluation instrument selection, development and pilot testing.
2. Factors related to the proposed evaluation design.
3. Instrument clearance procedures.
4. Sampling procedures.
5. Data gathering and reduction dates.
6. Agenda for SACS Team visit May 14, 15, 16, 1973.
7. Visit PCCEP Schools.

On Monday, March 26, 1973, the Project Staff reviewed the accomplishments and plans for instrument selection, development, pilot testing and implementation. Basically the procedure has been to select or develop instruments related to PCCEP goals and hypotheses, have a panel of teachers, counselors, occupational specialist, and project staff review and revise the instruments e.g., purpose, clarity, grade level (word difficulty, fatigue factor). It was suggested that community leaders (Chamber of Commerce, Advisory Councils) be involved in the instrument selection, development and revision. Project staff have a meeting scheduled (March 29, 1973) with community leaders to discuss project accomplishment, plans and leader involvement.

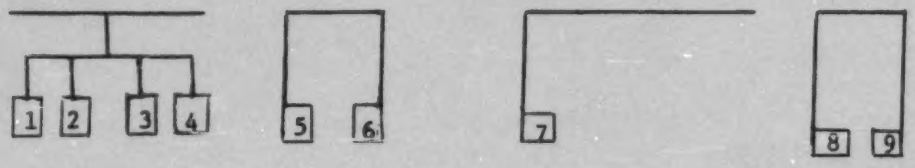
The Project Staff reviewed factors related to the proposed evaluation design. For example, occupational specialists are utilized in all junior and senior high schools in Pinellas County. Occupational specialist positions are state funded and coordinated. The individuals periodically meet as a group to discuss their activities, accomplishments and problems. At the junior and senior high school levels occupational specialists are working in both project and "control" schools. At the elementary school level occupational specialists are working in PCCEP schools only. Comparisons between project schools and "control" schools at the elementary level can be made; at the junior and senior high level differences between project and "control" groups will be confounded.

The PCCEP Director reviewed instrument clearance procedures for the school district. The time involved in getting instruments cleared emphasizes the need to complete the selection, development, and review process as soon as possible in order to meet the data collection dates the first and second weeks of May.

Sampling procedures were discussed and decisions were made to draw a sample of 20 students from more than one class at each grade level from each school. The details of this procedure are presented in Figure 1.

Pinellas County Career Education Project Schools

(K-14)



Sampling Procedure

20 students from more than one class at each grade level from each school.

Sample/Grade Level

Elementary:	7 levels x 20 x 4 =	560	students
Junior High:	3 levels x 20 x 2 =	120	"
Senior High:	3 levels x 20 x 1 =	60	"
Post Secondary:	2 levels x 20 x 2 =	80	"
Total		820	

*one school has dropped out of the project

Figure 1

The agenda for the Sacs Team visit follows:

May 13, 1973

6:00 p.m.	Site Team members arrive in St. Petersburg, Florida a. St. Petersburg Sheraton Bel Air Motel b. Review team responsibilities and agenda for May 14-16

May 14, 1973

8:00 a.m.	Breakfast with PCCEP Staff and other individuals
10:00	Travel to PCCEP Offices
10:30	Overview of PCCEP
12:00 Noon	Lunch
1:00 p.m.	Overview and discussion of PCCEP
4:00	Site Team Meeting

May 15, 1973

8:30 a.m.	Slide presentations and discussions by C/OS/T Teams in PCCEP schools
12:00 Noon	Lunch
1:30 p.m.	Review of career education materials developed and used in PCCEP schools
	Select PCCEP schools for visit
4:00	Site Team Meeting

May 16, 1973

8:30 a.m.	Travel to and visit selected PCCEP schools
11:30	Return to PCCEP office
12:00 Noon	Site Team lunch (at PCCEP office)
1:00 p.m.	Oral presentation of Site Team Report to PCCEP staff
3:00	Team members leave for return transportation

Visits were made to three of the PCCEP schools: City Center for Learning (13-14); Clearwater Comprehensive Junior High School (7, 8, 9); and Palmetto Elementary School (K-6).

City Center for Learning (13-14)

1. Met with the guidance counselor (Ms. Nona L. Grotecloss) and discussed initial career education efforts:

   a. 16-18 year old inner city youth (majority females, approximately 20 youth)
   b. Academic and reading difficulties
   c. Traditional in class media/information approaches not helpful
   d. Utilized field trips to job sites
   e. Competing activities (drugs, law enforcement)
   f. Some success e.g., one person passed GED and employed; two working on GED

Clearwater Comprehensive Junior High (7, 8, 9)

1. Met with the principal (Dr. Robert J. Safransky) and toured the school with Mr. Don Rosenberger PCCEP staff member.

2. Youngsters have 12 pre-vocational options of 3 weeks duration at the 7th grade level. Four options of 9 weeks duration are selected at the 8th grade and a single option is selected for the 9th grade.

3. Pre-vocational options

a.	Typing and business	g.	Drafting
b.	Vocational Home Economics	h.	Graphics
c.	Dry Cleaning	i.	Power Mechanics
d.	Tailoring	j.	Horticulture
e.	Construction	k.	Electronics
f.	Metal Shop	l.	Food services

Palmetto Elementary (K-6)

1. Visited the school with Mr. Don Rosenberger, PCCEP staff.

2. Discussed career education activities with the Occupational Specialist (Mr. Claude Brannon) and observed one of the Vocational Teacher Consultants (Ms. Charles, PCCEP staff) working with third and fourth graders.

3. Hands-on activities evident in the school included displays of tools, wood projects (wooden birds), electricity projects (telegraph "keys", magnets) and horticulture projects (planting flowers and shrubs in cooperation with Clearwater Comprehensive Junior High).

4. A parent, teacher and student meeting was planned for the evening of March 27, to give parents an overview of career education in the school youth projects and Why? Career Education at Palmetto Elementary.

Recommendations

Four recommendations are made to the PCCEP Director

1. Data Collection should be completed by mid May 1973. Data collections after mid May would be disruptive and given little attention by the students at the end of the school year.

2. Utilize teacher, counselor, community leader teams to assist in data reduction. Involvement of school and community personnel will give the PCCEP staff much needed assistance, provide linkages with the community and support teacher efforts in gathering project information.

3. Provide summarized evaluation information to teachers for use in the class and revision of career education activities during summer workshops and planning for next year's (Sept. 1973) program.

4. Provide community leaders, especially those who donated time and materials, information about the PCCEP. Complete the information feedback loop between the community and PCCEP by providing information on how time and materials assisted in delivering career education to Pinellas County youth. Next year's program and needs could also be highlighted.

Introductory Section

The Locale

Pinellas County is located on the West Coast of Florida. Over 600,000 people reside in and near the resort beaches of the county.

> "A majority of the labor force is engaged in trade and service occupations; although manufacturing, government, construction, and transportation are also important to the county's economy." [1]

The Pinellas County School system includes 76 elementary (including kindergarten) schools, 20 junior high schools, 11 senior high schools, 6 exceptional child centers, and 4 vocational and adult centers with a total enrollment of over 104,000 people. [2]

The Pinellas County Career Education Project (PCCEP) involves four elementary schools, two junior high schools, two senior high schools and two post-secondary schools with the following number of students, teachers, and counselors at each level:

---

[1] Abstracts of Research and Development Projects in Career Education. U. S. Department of Health, Education and Welfare. Washington, D. C. June 1972, pp. 33 (VT 016 111).

[2] 1972-73 FACTS. Pinellas County Schools, Pinellas County School Board, Clearwater, Florida.

Table 1

Pinellas County Career Education Project
School Enrollment and Staffs[3]

Level	Students	Teachers	Counselors
Elementary	2008	81	4
Junior High	1649	99	6
Senior High	2239	109	5
Post-Secondary	1450	95	7
Totals	7346	294	22

A roster of the career education schools, including the counselor and occupational specialist teams, is attached to this report.

Career Education Project

I. PCCEP Pilot Schools

The Pinellas County Career Education Project involves 10 pilot schools in the upper and lower regions of the 35 mile long county. Five schools are located "up county" with the remaining schools "down county".

II. Staff

The PCCEP staff includes the Director, Coordinator of Guidance, Coordinator of Placement Services, Supervisor of Elementary Education, Supervisor for Evaluation of Curriculum and Instruction, two teacher consultants (one each for business education and industrial arts education) and an Occupational Specialist.

---

[3] U. S. Department of Health, Education, and Welfare. op. cit.

III. Project Goals

Specific project goals have been identified for each component to deliver career education in the 10 pilot schools. The project goals (list attached to the report) are compatible with the career education model developed for the Pinellas County Schools (see attached model).

Hypotheses related to the 16 project goals have been developed and these are attached to the report. The hypotheses will be restated in proper format after all of the instruments for gathering data have been identified or developed.

IV. Project Components

1. Inservice Component

The inservice training activities were developed, organized and carried out during the summer of 1972. These activities involved the elementary, junior high, secondary and post-secondary, guidance, and placement components of the project. The specific workshops are identified in the Third Quarterly Report for PCCEP.

2. Elementary, Junior High, Secondary School Components

a. Project schools have been identified.
b. Occupational specialists are working with counselors as a team in each of the selected schools.
c. Curriculum units and guides have been developed, reproduced, made available and used in the PCCEP schools.
d. FAIS (Fusion of Applied and Intellectual Skills) is considered to be part of the career education program in the Eisenhower Elementary School.
e. PCCEP staff makes periodic (solicited and nonsolicited) contacts at each pilot school to assist school staffs in career education activities.
f. Each school teacher will be asked to describe in class/out of class career education activities for the project year.
g. Specific project goals are related to the elementary, junior high and secondary levels.

3. Post-Secondary Component

a. The post-secondary schools are a resource for the PCCEP to draw upon for information, facilities, training and skill development.
b. Articulation of programs between secondary and post-secondary schools is encouraged and facilitated by linking the occupational cluster groups to training and skill development available in Pinellas County.
c. Inservice workshops were held for teachers at the Pinellas Vocational-Technical Institute during the summer of 1972

June 19-30	The Vocational Component in Career Education: Teacher to Teacher
July 10-21	Career Education and the Guidance Function

d. Specific project goals are related to the post-secondary level.

4. Guidance and Counseling Component

a. The guidance and counseling component provides training, information and assistance for all of the guidance counselors in the 10 project schools.
b. Counselors coordinate the work of occupational specialists to facilitate and implement the career education component in the school.
c. The PCCEP coordinator of guidance has identified the role and function that guidance counselors will perform in the project.
d. Specific project goals are related to the role and function of guidance counselors.

5. Placement Component

a. The activities of the placement component are found mainly at the upper junior high, secondary, and post-secondary levels.
b. Employer surveys are being made, existing placement and follow-up records are being renewed, and new record forms are being designed to gather necessary data to assist in the placement of graduates from the project schools.
c. Specific project goals are related to the placement component activities.

6. Evaluation

a. Internal evaluation efforts are being coordinated by the Supervisor for Evaluating Curriculum and Instruction.
b. External evaluation efforts are being conducted by the Third Party Evaluator (Southern Association of Colleges and Schools, Atlanta, Georgia).
c. The external evaluation works closely with the Project Director and Internal Evaluation to monitor data and information collection activities about PCCEP.
d. The external evaluator submits periodic visit reports and interim reports. A summative team visit report will be prepared and submitted in June 1973.

V. A 5 Year Plan for Career Education in Pinellas County

A 5 year plan has been developed and submitted to the Pinellas County School Board on February 12, 1973. Items of interest in the 5 year plan are:

content; staffing; community information and involvement; scheduling and efficiency management; inservice training; longitudinal evaluation of project elements; support services and placement; and legal policy and regulations.

Current Activities Related to the Project and the 5 Year Plan

A. Content

1. All solicited and nonsolicited career education information, units, and guides are being examined and classified for the PCCEP staff, teachers, counselors, and occupational specialists.

B. Staffing

1. The PCCEP has asked for a coordinator of support systems in the continuation funding proposal.

C. Community Information and Involvement

1. Community committees are being formed to provide assistance and input for various phases of PCCEP.
2. A record of the man hours contributed by the community is being kept.

D. Scheduling and Efficiency Management

1. Inputs (e.g., suggestions, recommendations) from all PCCEP working committees are being identified in meeting minutes, categorized and given to persons responsible for PCCEP activities.
2. Cost data is being recorded and categorized by PCCEP components.

E. Inservice Training

1. Attitude surveys for parents, staff and administration have been pilot tested and they are being revised.
2. Process training of counselors, occupational specialists, and teachers are being reviewed and revised.
3. A mechanism for ongoing renewal planning is being developed for implementation.
4. Procedures have been established for linking university training and facilities to the inservice training of PCCEP staff, counselors, teachers, and occupational specialists.

F. Longitudinal Evaluation of Project Elements

1. Evaluation instruments have been identified and validated (face validity) for self awareness, student attitudes, and career awareness.
2. Instruments for educational awareness and economic awareness are being developed.
3. Planning and instrumentation need to be developed for decision making, beginning competency and employability skills.

G. Support Systems and Placement

1. Need coordinator for support systems.
2. Placement is involved in information gathering activities.

H. Legal Policy and Regulations

1. Policies and regulations at the local, state, and federal levels are being identified.
2. The PCCEP will present the career education program to the Florida State Legislature and other interested educators during 1973.

VI. Problems of the PCCEP

A. No pretest data is available. The project will utilize:

1. workshop evaluations
2. teacher records and logs of activities

B. Mosiac of career education (FAIS, LOOM, VIEW, etc). These activities will be considered part of the PCCEP.

C. Lack of common curricula at the various school levels

1. Curriculum units and guides are available for use and adaptation at all grade levels.
2. There are units and guides common to the grade levels (e.g., elementary, junior high, etc)

D. Identification of Control or Comparison Schools for Project Schools

1. Will match in physical characterisitics

VII. Interim Report Recommendations

A. Record past and current classroom (all levels) instruction and activity emphasis for comparison.
B. Continue to develop and revise curriculum units and guides for all school levels.
C. Record class evaluations of curriculum units and guides: teacher and student evaluations.
D. Continue inservice training program for teacher and staff during project year to provide additional information and assistance.
E. Identify placement activities that can be implemented during project year and after project termination date.
F. Provide training and placement assistance for students existing schools marketable skills.
G. Develop accountability mechanism for the PCCEP.

Visitation Report 2/14/73

To: Dr. B. E. Childers, Executive Secretary
Commission on Occupational Education Institutions
Southern Association of Colleges and Schools
795 Peachtree Street, N. E., 5th Floor
Atlanta, Georgia 30308

From: A. B. Moore, Consultant, SACS
Third Party Evaluation
Pinellas County Career Education Project (PCCEP)
Clearwater, Florida

Subject: Meeting with PCCEP Director and Staff and visits to 6 of the 10 Project Schools and Meeting with State Education Personnel in Tallahassee, Florida

Dates: January 28-30, 1973

The purpose of this meeting was to:

1. Review evaluation instrument selection
2. Review sampling procedures
3. Review plans and instruments to measure attitudes toward career education of students, teachers, parents, and community representatives
4. Visit PCCEP schools
5. Review SACS team selection with PCCEP Director

On Monday, January 29, 1973, the goals, hypotheses and evaluation instruments were reviewed the the PCCEP Supervisor of Curriculum and Instruction Evaluation. Each instrument was examined for purpose, word difficulty, face validity, time for administration, person responsible for administration, and utility of information to be collected.

The afternoon of January 29, 1973, visits (Mr. Donald Rosenberger and A. B. Moore) were made to Lakeview Elementary, 16th Street Junior High and Campbell Park Elementary.

Lakeview Elementary (K-6)

1. Met with the principal, occupational specialist, and guidance personnel (Mr. Louis McCoy, Mrs. Doris Edwards, and Ms. Betty McConnell).

2. Observed the "Magic Circle" in grades 1, 2, 3, the Kindergarten and the Media Center.

16th Street Junior High (7, 8, 9)

1. Met with the principal, media specialist, and English teacher (Mr. John Hopkins, Mrs. Norma March, and Mrs. Judy Lorrier).
2. Mrs. Marsh is coordinating the Career Education Project at 16th Street.
3. Observed the occupational specialist (Mrs. Rose Irwin) in one of the values clarification activities.
4. Visited Mrs. Lorrier's English class. She uses unique "motivational" (games, puzzles, self-study) techniques to gain awareness and exploration of career information.

Campbell Park Elementary (K-6)

1. Met with the principal, guidance specialist, and occupational specialist (Mr. Leonard Summers, Mrs. Eunice Burgess, and Mrs. Peggy Upton).
2. Discussed PCCEP activities in the school and the roles of the guidance and occupational specialist.

Tuesday morning, January 30, 1973, additional evaluation instruments were reviewed, project management was discussed, and project plans for February were outlined. The materials prepared for the PCCEP presentation in Tallahassee on February 2, 1973 were reviewed.

Three additional PCCEP schools were visited (Mrs. Myrtle Hunt, PCCEP Director and A. B. Moore) on Tuesday: Eisenhower Elementary, Pinellas Vocational-Technical Institute and Dunedin Senior High School.

Eisenhower Elementary (K-6 Open School Concept)

1. Met with the guidance counselor (Mr. Steve Guyler) and toured the facility.
2. Observed mixed grade groups in language arts and social studies groups. Teachers were "teamed", self-guided, small group and individual instruction techniques were being used.

Pinellas Vocational-Technical Institute (Post-Secondary Level)

1. Met with Director (Mr. Rex Gaugh) and staff.
2. Discussed PCCEP and PVTI philosophy of articulating secondary with post-secondary experiences and instruction.
3. PVTI facility was used for summer teacher inservice training on career education.

Dunedin Senior High School

1. Met with the principal (Mr. Francis Freman).
2. 30 of the 90 teachers at Dunedin High School attended a summer workshop on career education conducted by PCCEP staff.
3. Visited with a home economics and English teacher. Both teachers "infusing" career education activities into the classroom and curriculum. The English teacher requested materials in the communications and media clusters.

Topics Discussed with the PCCEP Director

1. The number of evaluation instruments being used in the project.
   a. Purpose of instruments
   b. Person responsible for collecting information
2. Multiple variables of the Project
   a. No pre-test information
   b. Post-test evaluation
   c. Separation of career education and other activities
   d. Common curriculum in the PCCEP schools
   e. Matching control schools
3. Placement and follow-up activities
4. Guidance component
   a. Career activity books (CAB)
   b. Counselor/occupational specialist/teachers cost accountability process
5. SACS team members and visit to PCCEP

Recommendations

1. Develop system for keeping records of activities of instrument selection, instrument review, administration and tabulation.
2. Determine the information that can be collected this year in placement and follow-up.
3. Identify project information that can be collected this funding period, and at later dates.

4. Specify the dates for collecting information in the schools.
5. Identify control schools that can be matched with project schools on grade levels, size of enrollment, location, and racial balance.
6. Collect information from project school teachers that describes (and documents where possible) the difference in classroom activities and curriculum between last year 1971-72 (before PCCEP) and this year 1972-73 (with PCCEP).

Additional Comments

Items on this January agenda (see revised agenda: Third Party Evaluation Report, January 15, 1973) that were not reviewed include sampling procedure for collecting evaluation information. This topic will be reviwed with the PCCEP Director by phone during February and during the March visit.

The PCCEP staff will be reviewing activities and progress with the SACS consultant during February by telephone. The next scheduled visit to PCCEP by the SACS consultant will be March 26 and 27, 1973.

Visit with State Level Personnel, Tallahassee, Florida

On Wednesday, January 31, 1973, meeting were held with Dr. James Edmundson, Director of the Career Education Curriculum Laboratory and Mr. Joe Mills, Director, Adult Vocational Division, State Department of Education. Also Dr. Kenneth Eaddy, Administrator for Vocational Research and Evaluation was contacted by telephone regarding the PCCEP.

1. Dr. Edmundson reviewed statewide career education curriculum development.
2. At a luncheon meeting with Dr. Edmundson and Mr. Mills, the evaluation activities of PCCEP were discussed.
3. The conversation with Dr. Eaddy indicated the need for SACS contact with his office to clarify third party evaluation plans. Dr. Eaddy pointed out that third party evaluation/visitation reports had not reached his office to date.

January 15, 1973

Third Party Evaluation of the Pinellas County,
Florida Career Education Project (PCCEP)

The Pinellas County Career Education Project has four major components: elementary education; placement and follow-up; guidance; and internal evaluation. The over all coordination is being assumed by the Project Director. A staff member is assigned for each major component:

Mrs. Myrtle Hunt	Project Director
Mr. Donald E. Rosenberger	Supervisor of Elementary Career Education
Mr. Thomas R. Noble	Coordinator of Placement and Follow-Up
Mr. Clarence C. Givens	Coordinator of Guidance and Counseling
Mrs. Dorothy Snidow	Supervisor, Evaluation of Curriculum and Instruction

Project Assessment

The Assessment Coordinator (Dr. A. B. Moore) has agreed to perform the work designated in the SACS Personal Services Contract. Site visit reports will be prepared by Dr. Moore for the January, March, and April visits. An interim report will be prepared after the January 1973 visit. A team of consultants will be utilized to assist in the evaluation of PCCEP during May 1973. The final evaluation report for PCCEP will be prepared in June 1973.

Time frames and emphasis for site visits are presented in the following schedule revised from the site visit report of December 10-11, 1972 to SACS:

Dates	Activities
January 29 and 30	1. Review evaluation instrument selection 2. Review sampling procedure 3. Review plans and instruments to measure attitudes toward career education of students, teachers, parents and community 4. Visit PCCEP schools 5. Review SACS team selection with PCCEP director
March 26 and 27	1. Review pilot testing of instruments 2. Review PCCEP school activities 3. Visit PCCEP schools 4. Review plans for data collection

April 2 days during April 16 - May 4	1. Observe data collection 2. Begin data reduction 3. Begin data analysis
May 14-16 or 21-23 (3 days) date to be determined	1. Complete data reduction 2. Proceed with data analysis 3. Begin describing findings 4. Site team visit to project
June dates to be determined	1. Present report for review 2. Complete contract

Project Schools

Elementary, senior high and post secondary schools have been selected for participation in PCCEP. Guidance personnel and specialists have been identified and assigned to each school.

Control schools will be selected by the project staff that match the project schools on variables such as: size, racial mixture, location (suburban, urban, etc.) and other variables that are considered important by the internal and external evaluators.

Evaluation Design

A post test only control group design (PTOCGD) will be used to access the differences between students participating in the career program and those not participating. This design is described by Campbell and Stanley (1963, p. 25-26).

Campbell, D. T. and J. C. Stanley, 1963. Experimental and Quari-Experimental Designs for Research, Rand McNally & Co., Chicago.

Duties of the Assessment Coordinator and Site Team

1. Visit PCCEP periodically and monitor project activities in four major component areas;
2. Review progress of evaluation with internal evaluator;
3. Visit PCCEP project schools;
4. Contact appropriate people in the Florida State Department of Education with interest in PCCEP;
5. Submit site visit reports, interim report, coordinate site team report (and see that the report is prepared and sent to SACS and PCCEP) and develop the final evaluation report;
6. Coordinate the site team visit of consultants to review PCCEP in May 1973.

Duties of the Site Visit Team

1. Assess project activities of four major component areas:

    a. Meet with PCCEP staff and discuss organization and implementation of career education;
    b. Visit PCCEP schools to observe activities, talk with principals, teachers, specialists, and other school personnel;
    c. Meet with representatives of the school district community;
    d. Review project materials and documents;
    e. Summarize findings in a report for the Assessment Coordinator.

Visitation Report

To: Dr. B. E. Childers, Executive Secretary
Commission on Occupational Education Institutions
Southern Association of Colleges and Schools
795 Peachtree Street, N. E., 5th Floor
Atlanta, Georgia 30308

From: A. B. Moore, Consultant, SACS
Third Party Evaluation
Pinellas County Career Education Program (PCCEP)
Clearwater, Florida

Subject: Meeting with PCCEP Director and Staff

Dates: 12/10/72 and 12/11/72

The purpose of this meeting was to become acquainted with the PCCEP Director and staff, review project activities and discuss the internal evaluation of the project. On Sunday, December 10, 1972 the consultant met with the Project Director, Mrs. Myrtle Hunt and the following staff: Mrs. Marie Charles, Mrs. Crystal Coester, Mr. Clarence Givens, Mr. Thomas Noble, Mr. Donald Rosenberger, Mrs. Dorothy Snidow, and Dr. James Edmundson, previously employed by the PCCEP now with Florida State University, Tallahassee, Florida.

The staff presented reports on project activities related to inservice education for school staffs, guidance and counseling, the role of occupational specialists, elementary junior high, senior high and post secondary career education efforts, placement and follow-up procedures in the PCCEP schools. The presentations were designed to give the consultant an overview of past and current project activities. A sound-on-slide display completed the presentation.

On Monday, December 11, 1972 the PCCEP Director and staff met with Dr. Tom Justiz and the Third Party consultant to review internal evaluation plans. At this time Mrs. Dorothy Snidow was designated the coordinator of internal evaluation activities for PCCEP. Thirteen (13) operational statements were reviewed, revised and expanded to 15 statements. Corresponding expectations of "significant changes" for the goal statements were reviewed and revised. Related hypotheses for the "significant changes" and goals were examined. Instruments to measure the "significant changes" as expressed by the related hypotheses were examined. Discussion of the materials (goals, significant changes, related hypotheses and in-

struments for data collection) presented by Dr. Justiz provided information and highlighted the urgency for implementing the PCCEP internal evaluation plan. The materials will be prepared for a presentation by the PCCEP Director to Dr. Sidney High, BAVTE, USOE in the next 10 days. A copy of the prepared materials with Dr. High's revisions will be provided the consultant.

Tentative plans are being made for the consultant to visit the PCCEP on a month to 6 weeks basis beginning January 1973. Dates and activities identified for visits to the PCCEP are:

Dates	Activities
January 28, 29, 30, 1973	1. Review discussion about instruments with Dr. High 2. Review sampling procedure 3. Review plans and instruments to measure attitudes toward career education of students, teachers, parents, community 4. Visit PCCEP schools
February 25, 26, 27	1. Review pilot testing of instruments 2. Review PCCEP activities 3. Review SACS Team selection with PCCEP Director
March 25, 26, 27	1. Review collection of qualitative data 2. Visit PCCEP schools 3. Review plans for data collection
April 3 days during Apr 16 - May 4	1. Observe data collection 2. Begin data reduction 3. Begin initial data analysis
May Dates to be determined	1. Complete data reduction 2. Proceed with data analysis 3. Begin describing findings 4. SACS Team visit to project
June Dates to be determined	1. Present report for review 2. Complete contract

Nomination of consultants to serve on the SACS visiting team:

Elementary Education	Mrs. Mabell Black Coordinator of K-6 Programs State Department of Ohio Columbus, Ohio
Placement & Followup	Miss Lillian Buckingham Director of Placement Baltimore, Maryland
Guidance	
Internal Evaluation	Dr. James Edmundson Florida State University Tallahassee, Florida

AGENDA

Meeting with Dr. Bernie Moore, Consultant on Evaluation
Southern Association of Schools and Colleges
December 10, 1972

1. Introduction of Staff and Overview of Project - Myrtle Hunt.

2. Report on In-Service Component - James Edmundson, Clarence Givens, and Donald Rosenberger.

3. Report on Guidance and Counseling Component - Clarence Givens.

4. The Role of the Occupational Specialist - Clarence Givens and Crystal Coester.

5. The Role of the Vocational-Teacher Consultant (Career Specialist) - Marie Charles and Donald Rosenberger.

6. Report on the Elementary and Junior High Component - Donald Rosenberger. Sound-on-Slide Presentation - Clarence Givens.

7. Report on the Senior High and Post-Secondary Component - Myrtle Hunt.

8. Report on the Placement and Follow-Up Component - Tom Noble.

THE CAREER EDUCATION PROJECT of Pinellas County EVALUATION GUIDELINES

Operational Goals of the Project

1) To Provide inservice preparation for teachers, counselors, occupational specialist, administrators, and supportive staff - to acquaint them with goals, objectives, methods, and evaluation techniques of the Career Education Program.
2) To provide Career Education curriculum units, activities, and other resources which will fuse, complement, and articulate with present curricula for students K-14.
3) To increase the self awareness of K-14 students, and specifically to use the concepts of work, job, and career to enhance the self awareness of students.
4) To increase the positive attitudes of K-14 students toward school and the personal, social, and economic significance of work.
5) To increase the career awareness of K-14 students, by providing information concerning careers, employment opportunities, and avocational options.
6) To increase the student's understanding of self in terms of knowledge of career options, career choices, and resulting life styles.
7) To provide 7-9th grade students with opportunities for detailed exploration of occupational clusters, with the resulting development of beginning competencies.
8) To provide students 9-14th grades with in-depth preparation in at least one occupational cluster, together with appropriate employability skills; leaving open the options to move between clusters, and the options of: a) Intensive Job Preparation, b) Post-Secondary Preparation, c) Adult and Continuing Education, d) Baccalaureate Preparation.
9) To provide intensive guidance and counseling services which will assist students in developing decision-making skills and specifically relating those skills to the selection of occupational specialities.
10) To insure the eventual placement of all students in an environment compatible with their skills, interests, and attitudes.
11) To provide follow-up information on all exiting students and to use this information for program revision.
12) To facilitate easy exit and re-entry into the system as deemed necessary by the student.
13) To increase the educational awarenesss of students K-14.
14) To increase the economic awareness of students K-14.
15) To identify appropriate personnel responsible for: staffing, curriculum, differentiated instruction, scheduling and facilities management, inservice, support systems (record keeping and access), information and involvement of community groups--business, industry--and labor, evaluation, cost-effectiveness, legal-policy-and regulations - in order to form committees which will make the Career Education Project a District-Wide Innovation.

These goals will be pursued during the first year of operation. All goals will be subject to interim and longitudinal evaluation.

It is expected that the evaluation will produce conclusive findings on many of the goals in the first year of the project, and that findings on all of the goals will be realized during the years of subsequent funding.

Effect on Youth! 3, 4, 5

Expectations of Significant Change to be Reported as a direct result of implementing the Operational Goals

1) Number of teachers, counselors, occupational specialists, administrators, and those in supporting roles who have completed formal inservice preparation on Career Education. (hours of inservice, number of continual evaluations, post-test scores, etc.).
2) Number of Career Education Units and other Resources selected or developed, and implemented (whether validated, screened for articulation, tied in with work-experience or co-op programs, etc.)
3) A significant increase in self awareness of K-14 students.
4) A significant increase in positive attitudes of K-14 students.
5) A significant increase in career awareness of K-14 students.
6&7) Number of Clusters (units and resources) implemented in grades 7-14. (The corresponding development of beginning competencies, the corresponding development of employability skills, the number of parents involved as role models, the number of industry representatives involved as role models, the number of visitations wherein the visitor works with teachers and students on career education tasks, the number of students committed to in-depth preparation in at least one occupational cluster, the number of students moving between clusters, the number of students intending to enter intensive job preparation, number of students intending to enter baccalaureate preparation, number of students intending to enter post-secondary preparation).
8) A significant increase in the commitment of counselors to change their traditional role to more of a group guidance orientation, and toward becoming facilitators of change by working with teachers, thereby enhancing the development of student decision making skills for selecting occupational specialties; the corresponding significant increase in the positive attitudes of administrators toward the new role of the counselor and occupational specialist (the number of counselors and occupational specialists involved directly in the career education program).
9) Number of students placed (percentage of students placed).
10) Number of students returning follow-up data (number of students demonstrating greater productivity on the job, number of students showing greater productivity on the job because of career education).
11) A significant increase in the educational awareness of students K-14.

Effect on Youth! 3, 4, 5

12) A significant increase in the economic awareness of students K-14.

13) Number of meeting by committees designated with the responsibility for: staffing, curriculum, differentiated instruction, scheduling and facilities management, inservice, support systems, information and involvement, evaluation, cost-effectiveness, legal-policy and regulations (attitudes of committee members, etc.).

Difference = Increase

Related Hypotheses - As Compared to Students, Teachers, Occupational Specialist, Administrators, Counselors, and Other Supportive Staff in the Control Schools:

1) Experimental teachers will exhibit more positive attitudes toward careers.
   a) Experimental teachers will use a greater variety of career related learning activities.
   b) Experimental teachers will use a greater variety of evaluation techniques.
   c) Experimental parents will exhibit more positive attitudes toward the careed education program.
   d) Experimental administrators will exhibit more positive attitudes toward the career education program.
2) Experimental teachers and counselors, etc. will select or develop and implement curriculum units and resources with greater options for students.
3) Experimental students will demonstrate a significant increase in self awareness.
   a) Experimental students will demonstrate more improved academic performance overall.
   b) Experimental students will be better able to evaluate self characteristics.
4) Experimental students will demonstrate a significant increase in positive attitudes.
5) Experimental students will demonstrate a significant increase in career awareness.
6&7) Experimental schools will implement a significantly greater amount of cluster units and resources.
   a) Experimental students will demonstrate greater development of beginning competencies.
   b) Experimental students will demonstrate greater development of employability skills.
   c) Experimental parents will be more involved as role models and in bringing resources to the learning environment.
   d) Experimental parents will represent all of the Career Clusters.
   e) Industry representatives to the experimental schools will represent all of the Career Clusters.
   f) Experimental schools will exhibit more visitations where the visitor works with teachers and students on career tasks.
   g) Experimental students will demonstrate a greater commitment to in-depth preparation in at least one occupational cluster.
   h) Experimental students will intend to enter intensive job preparation more often, and will demonstrate more marketable products.
   i) Experimental students will be as well equipped to enter baccalaureate preparation.
   j) Experimental students will intend to enter post-secondary preparation more often.
   k) Experimental students will move more between clusters.

Difference = Increase

8) Experimental counselors will demonstrate greater commitment to change their traditional role to more of a group guidance orientation, and toward becoming facilitators of change by working with teachers and their students.
   a) More experimental students will exhibit decision-making skills for selecting occupational specialties.
   b) Experimental administrators will demonstrate a positive attitude toward the new role of the counselor and occupational specialist.
   c) Teachers working with counselors or occupational specialists will demonstrate a greater commitment to change.
9) Experimental students will be placed more often - and will be placed in more career choices.
10) Experimental students will show a greater percent return of follow-up data.
   a) Experimental students will show a greater amount of productivity on the job.
   b) Experimental students will show greater productivity on the job due to work-experience programs.
11) Experimental students will demonstrate a significant increase in educational awareness.
12) Experimental students will demonstrate a significant increase in economic awareness.
13) Experimental schools will have more committees meeting on a regular basis in the areas of staffing, curriculum, differentiated instruction, scheduling and facilities management, inservice, support systems, information and involvement, evaluation, cost-effectiveness, legal-policy and regulations.

Instruments and Data Collection Methods

1)	IED	Form 1:01 Workshop Evaluations		
1a)	OTS			
1b)	OTS			
1c)	IED	Pinellas Survey Form		
1d)	IED	Form 1:01		
2)	OTS			
3)	FAIS	Myers-Briggs		
3a)	OTS			
3b)	FAIS	Myers-Briggs		
4)	IED	4-12 Grades		
5)	PECE	FAIS	OVIS	Occupational Interest Survey
				Occupational Knowledge Survey
	Elementary Occupations Test			
6 & 7)	OTS			
6a)	OTS			
6b)	OTS			
6c)	Eisenhower			
6d)	Good Bet - VIP Register			
6e)	" " " "			
6f)	OTS			
6g)	OTS			
6h)	OTS			
6i)	OTS			
6j)	OTS			
6k)	OTS			
8)	OTS			
8a)	OTS			
8b)	OTS			
8c)	OTS			
9)	OTS			
10)	OTS	OSU		
10a)	OTS			
10b)	OTS			
11)	Pinellas Forms			
12)	OTS			
13)	Broward Forms			

OTS

Open to Suggestion

PRODUCT EVALUATION OF THE EIGHT CAREER EDUCATION ELEMENTS IN GRADES K THROUGH 14

Appendix E of this report provides an exploratory look at new types of instruments for Career Education evaluation to expand the present limited methods of product (student) evaluation. Few reliable instruments for testing Career Education concepts are available. Some commercial manufacturers are beginning to test instruments in selected districts across the country, but many of these seem to have been hastily prepared for an early market, without sufficient thought as to what the instruments are really measuring.

Using the Ohio State Comprehensive Career Education Matrix as content criteria (that which should be tested), it appears that most tests contain a variety of items which in some way refer to Career Education concepts. A typical test may elicit student responses in several of the Career Education elements (e.g., Self Awareness, Career Awareness, Career Planning, Employability Skills, and Decision Making) without really differentiating between elements in test item design. There is a clear need for a set of standards for Career Education tests which attempt to interpret the Ohio State Matrix. The standards should provide better definitions of the eight elements from an assessment point of view, so that a test item, or set of items, may be clearly interpreted as a means for assessing student performance in any given Career Education element. When discrete standards evolve, there will be considerable overlap, and many test item groups will continue to assess more than one of the eight elements. However, it may be possible to set out examples of test items which, when contrasted to other sets, can be said to measure one element more predominantly than any of the others. This was the major objective of the Pinellas County Product Evaluation design.

The primary goal was to develop instruments and procedures which will ultimately assess reliable differences in student growth, along the dimensions of all eight elements of the Ohio State Matrix, in appropriate grades K through 14. This is an extraordinary task for a single school district to undertake, but first steps have now generated 26 instruments in an attempt to better define the eight elements of the Career Education Model from an assessment point of view.

Given 26 instruments which in some way measure the eight elements in appropriate grades K-14, the post-test only design was used to validate each instrument. Whenever that instrument was sufficiently sensitive to detect differences between children who had been involved in the Pinellas County Pilot Career Education Program and children who had not yet been exposed to the program, the instrument was reported as being valid for that grade level.

The post-test only design seems to be one good way to develop a large battery of instruments with smaller numbers of students, in less time and at less cost, than would be required by a pre-post statistical design. Instruments demonstrating both content and face validity during pilot testing, and being sufficiently sensitive to produce valid differences between experimental and control groups, can be earmarked for test-retest reliability (using other groups of students) over time. This will replicate the discriminating part of the experiment and carry the instruments one step further toward the reliability index ultimately required.

When an instrument has passed these three milestones (content and face validity, sensitivity sufficient to produce differences, and an index which shows that the differences are not only significant but reliable, given different groups of students tested over time), than the instrument can be said to be ready for assessing student growth, given other controls.

At this point, the reliable (dependent variable) instruments can also be used for experimental designs which attempt to assess preferred treatments or treatment variables; e.g., whether Curriculum Unit A or B, with or without Treatment Variables C or D, generates greater student performance or growth in any given element of the matrix.

Progress of the Career Education Staff in Pinellas County toward these ends is described on the following pages.

Instrument Design

There are approximately 45 new forms and instruments in this report. These instruments were designed by the Internal Evaluator, the Pinellas County Career Education Staff, and an advisory committee made up of teachers, counselors, and occupational specialists.

The instruments were designed between January and April, 1973, and were checked for content and face validity by the External Evaluator, Dr. Allen B. Moore, in accordance with the interlinking relationship between Internal and External Evaluation set out in Appendix B. Most instruments were pilot tested in early May, and all instruments received clearance from the Pinellas County Administration Office on May 7, 1973. Instruments were administered between May 15 and May 25.

Twenty-six new product evaluation instruments underwent four phases of development:

> In Phase I, test items were collected. Many items were generated for the first time. The test items were categorized according to an interpretation of the eight elements of the Ohio State University Comprehensive Career Education Matrix. Dr. William Wade Burley, Associate Professor, Educational Psychology and Guidance, and Dr. Leon C. Greabell, Assistant Professor of Education, both at the University of South Florida, reviewed the items. (Pages 136-140.)

In Phase II, the test items (now in eight categories) were organized into rough instrument form and further categorized for appeal to K-14 students.

In Phase III, these rough instruments were pilot tested in grades K, 2, 4, 7, and 9 for lower-end sensitivity, using control group type students who would not appear in the final testing. Data from pilot tests suggested items which should be omitted from instruments, such as items on which control group students scored very high, leaving no margin for improvement by experimental (pilot school) students. Students were enthusiastic about the tests during pilot testing and volunteered many favorable comments.

In Phase IV, instruments were revised for each of the eight elements. Instruments were examined again for discreteness, and it was determined that each instrument was indeed testing one of the eight elements more predominantly than any of the others. In order to design discrete instruments, it was necessary to extend the terminology used in describing the eight elements of the CCEM, as follows:

CCEM Matrix Element	PCCEP Evaluation Forms
Educational Awareness	Educational Awareness
Economic Awareness	Economic Awareness
Career Awareness	Career Awareness
Self Awareness	Occupational Self Concept
Decision Making	Career Planning
Attitudes and Appreciations	Attitudes toward Career Planning Attitudes toward Work Attitudes toward Occupational Choice
Employability Skills	Employability Skills (Self Concepts)
Basic Competency Skills	Employment Entry Skills

Phase IV ended with a time trial of all instruments under actual test conditions. A few minor revisions were made in some instruments after this phase, but the pressures of time did not permit major changes.

Populations and Samples

The School Principal's Questionnaire, the instrument used to obtain the baseline data for matching experimental and control schools, is shown in Appendix D.

Pilot School	Control School	Grade Levels
Eisenhower Elementary	Bauder Elementary	(K-6)
Palmetto Elementary	Curtis Elementary	(K-6)
Lakeview Elementary	Madeira Beach Elementary	(K-6)
Campbell Park Elementary	North Shore Elementary	(K-6)
16th Street Jr. High	Southside Jr. High	(7-9)
Dunedin High	Northeast High	(10-12)

Considerable diffifulty was encountered in attempting to pair pilot and control schools. This was due, primarily, to extensive cross-busing of students for the purpose of achieving racial balance in all County schools.

Pairing of elementary schools was based on (1) recommendations of the Assistant Superintendent and Director of Elementary Education, (2) socioeconomic factors, and (3) geographic location of the school plant. An attempt was made to select control schools located in the same or closely related geographic area. When this was not possible, second consideration was given to selecting a control school serving children living in similar socioeconomic areas, but not in the same geographic area. Charts on the following pages show comparative enrollment figures, percentages of parents in different occupations, family income, and racial balance.

Junior high schools were paired on the same or similar characteristics. All junior high schools (both pilot and control) are located in very similar socioeconomic areas, although not in the same geographic areas. There was really no basis for selection of a true control school for Clearwater Comprehensive Junior High School, since it is the only comprehensive junior high school in the County. Sixteenth Street Junior High School was paired with Southside Junior High School on the basis of geographic location of school plant, family income, and black-white ratio.

Dunedin Senior High was paired with Northeast High on the basis of school enrollment, family income, and black-white ratio.

Pinellas Vocational-Technical Institute and City Center for Learning are the only designated post-secondary institutions in the County; therefore, could not be paired with control schools.

ELEMENTARY ENROLLMENTS

	K	1	2	3	4	5	6	Total 1-6	Total K-6
Pilot	265	326	356	397	389	380	377	2225	2490
Control	128	326	353	373	379	370	412	2213	2341

TYPES OF ELEMENTARY PARENTS' WORK*

	Professional	Sales	Factory, Skilled	Farm	No. Regular Employment	On Welfare
Pilot	39%	40%	15%	0%	3%	4%
Control	30%	31%	30%	0%	4%	2%

ELEMENTARY FAMILY INCOME

	Under $5,000	$5,000-$9,000	$ 9,000-$20,000	Over $20,000
Pilot	14%	30%	51%	6%
Control	7%	32%	51%	10%

ELEMENTARY RATIO OF BLACK/WHITE/OTHER

	Black	White	Other
Pilot	19%	80%	0.75%
Control	20%	80%	0%

JUNIOR HIGH - FAMILY INCOME

	$5,000	$5,000-$9,000	$9,000-$15,000	Over $15,000
Pilot	20%	50%	25%	2%
Control	40%	40%	20%	0%

JUNIOR HIGH - BLACK/WHITE

	Black	White
Pilot	30%	70%
Control	33%	67%

SENIOR HIGH ENROLLMENT AND FAMILY INCOME PERCENTAGES

	Enrollment				Family Income			
	10	11	12	Total	Under $5,000	$5,000-9,000	$9,000-15,000	$15,000 & above
Pilot	750	550	550	1850	8%	32%	50%	10%
Control	746	660	617	2023	13%	30%	48%	9%

*Totals will not always add up to 100%, due to rounding off of percentages.

Twenty students were selected at each grade level in each school, for a total of 1,320 students. All students were selected randomly (e.g., every sixth or seventh student from a roster on the day of the test). An additional 180 students were tested at Clearwater Comprehensive Junior High School, Pinellas Vocational Technical Institute, and City Center for Learning. Students were not eliminated from the test population because of special needs or exceptionally high achievement.

Data Collection Procedures

The procedure to be followed in administering each test appears on a cover sheet with the instrument. Although each cover sheet is entitled, "Directions for the Teacher," a Career Education Staff member administered each test for better control in the testing environment. All students were tested in groups, except as noted below, in school cafeterias.

Each school was tested by a team from the Career Education Staff during the dates of May 15, 16, 17, 18, 21, 22, 23, 24, and 25. At each elementary school, 20 second graders and 20 third graders were tested simultaneously in different areas of the cafeteria. Following this session, fourth, fifth, and sixth graders were tested at the same time in different areas of the cafeteria. Meanwhile, kindergarten and first graders were tested in another section of the school.

At the four elementary pilot schools, kindergarten and first grade instruments were administered on an individual-interview basis, with either a counselor or an occupational specialist doing the interviewing (aided by members of the Career Education staff). Five minutes was allowed for each interview. Students at the four elementary control schools were interviewed by teachers or members of the Career Education Staff. (Standardized interviewing techniques were used in all interviews.)

As shown on the following page, each participating second grade student received Instrument #13 (Career Awareness), then #9 (also Career Awareness); each third grader received Instrument #6 (Economic Awareness), then #9, for a total of 40 minutes maximum testing time per student. Because of time constraints, each fourth, firth, and sixth-grade student received tests #2 and #7, #10 and #14, or #17, depending on the random stratification of tests at those grade levels. For example, at Campbell Park and North Shore, the fourth graders received the test #17 (40 minutes maximum); the fifth graders received the tests #10 and #14 (30 minutes maximum); and the sixth graders received tests #2 and #7 (30 minutes maximum).

At the junior high level, seventh graders received tests #11, #17, #15, and #20, in that order (80 minutes maximum); eighth graders received tests #11, #17, #22, and #21, in that order (85 minutes maximum); and ninth graders received tests #11, #17, #18, and #8, in that order (90 minutes maximum).

TESTS ADMINISTERED IN PILOT AND CONTROL SCHOOLS

Instrument	Element*	Level	Time (Min.)	No. of Students and Grade Level: Campbell Park and North Shore	Eisenhower and Bauder	Lakeview and Madeira Beach	Palmetto and Curtis
#1	EA	K-1	5	40 - K	40 - 1	40 - K	40 - 1
#2	EA	4-6	10	40 - 6	40 - 4	40 - 5	40 - 5
#5	EC	K-1	5	40 - 1	40 - K	40 - 1	40 - K
#6	EC	2-3	15	40 - 3	40 - 3	40 - 3	40 - 3
#7	EC	4-6	20	40 - 6	40 - 4	40 - 4	40 - 5
#9	CA	2-3	25	80 - 2/3	80 - 2/3	80 - 2/3	80 - 2/3
#10	CA	4-6	20	40 - 5	40 - 6	40 - 5	40 - 4
#13	CA	2-3	15	40 - 2	40 - 2	40 - 2	40 - 2
#14	CA	4-6	10	40 - 5	40 - 6	40 - 4	40 - 4
#17	OSC	4-6	40	40 - 4	40 - 5	40 - 6	40 - 6

Instrument	Element*	Level	Time (Min.)	16th St. and Southside No. of Students: 7th Grade	8th Grade	9th Grade
#3	EA	-	-	-	-	-
#8	EC	7-9	10	40	40	40
#11	CA	7-9	20	40	40	40
#15	CA	7-9	10	40	40	40
#17	OSC	7-9	40	40	40	40
#18	CP	7-9	15	40	40	40
#20	ATCP	7-9	10	40	40	40
#21	ATW	7-9	10	40	40	40
#22	ATOC	7-9	15	40	40	40

Instrument	Element*	Level	Time (Min.)	Dunedin and Northeast: 10th Grade	11th Grade	12th Grade
#4	EA	10-14	5	40	40	40
#8	EC	10-14	10	40	40	40
#12	CA	10-14	20	40	40	40
#16	CA	10-14	20	40	40	40
#17	OSC	10-14	40	40	40	40
#19	CP	10-14	25	40	40	40
#22	ATOC	10-14	15	40	40	40
#23	ES	10-14	5	40	40	40
#24	ES	10-14	25	40	40	40
#25	EES	11-14	15	-	40	40
#26	EES	11-14	5	-	40	40

*See explanation of element codes, page 334.

At the senior high level, tenth graders received tests #12, #17, #4, #8, and #22, in that order (90 minutes maximum); eleventh graders received tests #12, #17, #19, and #23, in that order (90 minutes maximum); and twelfth graders received tests #12, #17, #19, and #25, in that order (100 minutes maximum).

Post-secondary students (at Pinellas Vocational Technical Institute and City Center for Learning) received tests #16 and #17 (Group 1); #4, #8, #22, and #19 (Group 2); #4, #24, #23, #25, and #26 (Group 3). Approximately 60 minutes was used for each student group.

The product evaluation of the eight elements will be reported in the following order: Educational Awareness (EA), Economic Awareness (EC), Career Awareness (CA), Occupational Self Concept (OSC), Career Planning (CP), Attitudes and Appreciations (AA), Employability Skills (ES), and Employment Entry Skills (EES). Schools are identified by code letters; e.g., CP (Campbell Park).

After pilot testing, it was found that only the Educational Awareness and Economic Awareness instruments had content and format suitable for Kindergarten children. Similarly, Career Awareness instruments were capable of eliciting data only from second through fourteenth graders.

The Occupational Self Concept instrument was questionable at the fourth grade level, but worked well at grades five through fourteen. Instruments on Attitudes toward Career Planning, Work, and Occupational Choice were well received in Grades 7 through 14. The Employability Skills instrument is suited for grades 10 through 14 (but was resisted by some students at the upper grade levels). Employment Entry Skills and Interests were suited for Grades 11 through 14: tenth graders and some in lower grades were apologetic for demonstrating knowledge of only a few of the skills in the inventory.

The following analysis was performed on the assumption that there would be considerable differences in favor of the experimental (pilot) students over the control school students, given the Career Education Project. If enough instruments demonstrated differences, the project would have its evidence, and a new battery of instruments would be available for future testing of career education projects.

DATA ANALYSIS

All 26 Product Evaluation Instruments appear in Appendix E. Appendix F contains Scoring Keys for all instruments.

Educational Awareness - #1

Instrument #1 is a four-question, open-ended, interview-type instrument for kindergarten and first grade students (testing time 5 minutes).

INSTRUMENT #1

DATA REDUCTION

	Kindergarten				1st Grade			
	CP	NS	LK	MB	EI	BA	PL	CI
	4	4	4	4	4	3	4	3
	4	4	4	4	4	3	3	2
	3	3	4	4	4	3	3	2
	3	3	3	4	4	1	3	2
	3	3	3	3	4	1	3	2
	3	3	3	2	4	1	3	2
	3	3	3	2	4	1	2	1
	3	2	3	3	4	1	2	1
	3	2	2	1	4	1	2	1
	3	2	2	1	4	1	2	1
	2	2	2	1	4	1	1	1
	2	2	2	1	3	1	1	1
	2	2	2	0	3	0	1	1
	2	2	1	0	3	0	1	1
	2	2	1	-	3	0	1	1
	2	1	1	-	2	0	1	1
	1	1	1	-	2	0	1	0
	1	1	1	-	2	0	1	0
	-	1	0	1	1	0	0	0
	-	1	0	-	1	0	0	0
Total Count	46	44	42	29	64	18	35	23
Total Students	18	20	20	14	20	20	20	20
Avg/Student (x 25)	2.55	2.2	2.1	2.0	3.2	0.9	1.75	1.15
Class Mean Avg.	63.7	55.0	52.5	50.0	80.0	22.5	43.7	28.7

The following are Class Mean Averages of the Experimental (Pilot) and Control Schools at the kindergarten and first grade levels. (See data reduction on the previous page.

	Pilot Schools		Control Schools	
Kindergarten	CP	63.7	NS	55.0
	LK	52.5	MB	50.0
First Grade	EI	80.0	BA	22.5
	PL	43.7	CT	28.7

The combined Class Mean Averages are: 60.0 (for 78 students) and 39.5 (for 74 students), or a combined group ratio of 60.0/39.5. The pilot school mean averages were found to be significantly greater than those of the control schools at the 0.01 level. (See data on the following page.)

It is recommended that Instrument #1 be subjected to a test/re-test situation over time, with similar student populations, to establish a stronger validity-reliability index. The instrument might also be tested with second and third graders; special tests of this instrument were given to Eisenhower Elementary's second and third graders, and neither group demonstrated proficiency.

Educational Awareness - #2

Instrument #2 is a 20-question, agree-disagree type instrument for students in the fourth to sixth grades. (Testing time, 10 minutes.)

Test items which elicited greatest agree-disagree differences between pilot and control school students are listed below. Following this list are items which elicited nonsignificant differences. (See data reduction on the following page.)

Item No.	Response	Pilot School			Control School			Pilot School Students Agreed More Often With the Following Statements:
13	Agree	15	15	14	12	9	9	School is teaching me how I can earn money on a job.
	Disagree	5	5	3	8	8	9	
11	Agree	17	18		13	14		We should have more people come to school and talk about their jobs.
	Disagree	1	2		6	6		
17	Agree	18	14		11	10		I should be taught more about work while I am in school.
	Disagree	2	6		9	7		
10	Agree	17	18		14	15		Learning about jobs is as important as learning about other things.
	Disagree	1	2		5	2		

INSTRUMENT #2

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CP	LK	PL	EI	NS	MB	CT	BA	CP	LK	PL	EI	NS	MB	CT	BA
1. I am learning to listen more carefully in school.	18	18	17	18	19	20	20	14	2	-	3	2	-	-	1	3
2. I am learning about all the different workers we need to make our food, clothes, and homes.	18	14	17	14	13	15	14	15	2	4	3	6	6	5	6	2
3. School is teaching me to do things with my hands.	11	3	15	12	13	10	19	14	9	5	5	8	6	10	1	3
4. When I like the teacher, I do my work better.	16	11	15	16	11	15	11	12	4	7	5	4	8	5	9	5
5. I believe most people enjoy their work.	8	9	8	9	9	12	7	8	12	8	12	11	6	8	13	9
6. The best way to learn about a job is to help someone work.	6	12	11	13	13	15	13	13	14	6	9	7	6	5	7	4
7. Most girls can work just as well as boys.	16	16	16	17	5	19	18	15	4	2	4	3	4	1	2	2
8. When I like my work, I do it better.	17	16	19	19	14	18	19	16	3	1	1	1	1	1	1	1
9. I like to see films about how things are sold.	13	9	13	14	9	12	13	9	7	9	7	6	9	8	7	8
10. Learning about jobs is as important as learning about other things.	18	17	18	16	14	15	18	15	2	1	2	4	5	5	2	2

INSTRUMENT #2 (CONTD.)

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CP	LK	PL	EI	NS	MB	CT	BA	CP	LK	PL	EI	NS	MB	CT	BA
11. We should have more people come to school and talk about their jobs.	16	17	18	16	13	14	16	15	4	1	2	4	6	6	4	2
12. I am learning how workers use whatever they learned in school.	15	9	13	12	14	16	11	14	5	8	7	8	4	4	9	3
13. School is teaching me how I can earn money on a job.	15	14	15	6	9	7	12	9	5	3	5	14	9	13	8	8
14. My parents can teach me everything I need to know about jobs.	5	7	4	11	7	12	3	10	15	10	16	9	11	7	17	7
15. When I learn math, social studies, science, and language, I learn about jobs, too.	16	17	18	14	14	14	29	11	4	0	2	6	5	6	1	6
16. Students who are going to college should think about working before they get to college.	15	13	15	14	16	17	22	16	5	4	5	6	3	3	8	1
17. I should be taught more about work while I am in school.	18	11	17	14	12	17	11	10	2	6	3	6	6	3	9	7
18. School is helping me to decide what kind of work I will do when I am finished with school.	18	15	10	16	13	16	16	12	2	2	10	4	6	4	4	3
19. In school I am learning to make things which I can sell.	6	3	9	10	7	10	7	7	14	14	11	10	12	10	13	10
20. School is a place that I will come back to after I graduate.	7	10	11	6	10	10	9	10	13	7	9	14	8	10	11	7

Educational Awareness - #2 (continued)

Item No.	Response	Pilot School		Control School		Pilot School Students Agreed More Often with the Following Statements:
4	Agree	16	16	11	12	When I like my teacher, I do my work better.
	Disagree	4	4	9	5	
15	Agree	17		11		When I learn math, social studies, science, and language, I learn about jobs, too.
	Disagree	0		0		
9	Agree	14		9		I like to see films about how things are sold.
	Disagree	6		8		
2	Agree	18		13		I am learning about all the different workers we need to make our food, clothes, and homes.
	Disagree	2		6		

Responses to the eight items above provided the strongest evidence that children in the pilot schools are developing a growing awareness of work-related concepts. The next two items reinforce this finding:

Item No.	Response	Pilot Schools		Control Schools		Statements
14	Agree	5		10		My parents can teach me everything I need to know about jobs. (Possibly indicating that there are sources of information outside the home, such as teachers at the pilot schools.)
	Disagree	15		7		
6	Agree	6	11	15	13	The best way to learn about a job is to help someone work. (Possibly indicating that there are ways to learn at the pilot schools.)
	Disagree	14	9	5	4	

The following items elicited nonsignificant differences between pilot and control student attitudes:

1. I am learning to listen more carefully in school.
7. Most girls can work just as well as boys.
8. When I like my work, I do it better.
18. School is helping me decide what kind of work I will do when I am finished with school.
19. In school, I am learning to make things I can sell.

It is somewhat indicative of the validity of the educational awareness instrument that the five foregoing items are not specifically learned concepts about work. Item 18 relates to school guidance at higher grade levels. Item 19 may also belong in Economic Awareness at a higher grade level. The remaining items appealed more to control group students than to pilot school students:

Item No.	Response	Schools		Schools		Statements
12	Agree	13	12	16	14	I am learning how workers use whatever they learned in school.
	Disagree	7	8	4	3	
16	Agree	15	13	16	16	Students who are going to college should think about working before they get to college.
	Disagree	5	4	3	1	
20	Agree	7	6	10	9	School is a place that I will come back to after I graduate.
	Disagree	13	14	8	11	
3	Agree	12		19		School is teaching me to do things with my hands.
	Disagree	8		1		
5	Agree	8		12		I believe most people enjoy their work.
	Disagree	12		8		

With the exception of item 12, the items seem to be of a controversial nature. It is possible that all five can be reworded as educational awareness indicators.

Half the items in this instrument may be valid indicators of educational awareness. It is recommended that these items (13, 11, 17, 10, 4, 15, 9, 2, 14, and 6) be subjected to test/retest over time, given similar groups of students, in order to establish a reliability index for this instrument. It is also recommended that these items be tested in grades 7, 8, and 9.

Educational Awareness Instrument #3 (used in grades 7, 8, and 9) elicited nonsignificant differences during pilot testing; it was not used for further testing.

Educational Awareness - #3

This instrument produced nonsignificant differences during pilot testing; it was dropped from the battery at that time.

Educational Awareness - #4

Instrument #4 is a 10-question (strongly agree/agree/disagree/strongly disagree) instrument for students in grades 10 through 14. (Testing time, 5 minutes.)

It appears that a number of students from Dunedin's 10th grade may have answered the questions with a "negative mind-set." (See data reduction on the following page.) Pinellas Vocational-Technical Institute and City Center for Learning scores will be used to determine test item validity. Test items are listed below according to the fewest total number of disagree or strongly disagree responses. Northeast and Dunedin are also included in this list.

Test Item	Total Disagree and Strongly Disagree PVTI and CCL	NE	DU	Statements
5	3	6	14	I have learned many things in school that I can apply in my work.
7	7	2	17	I will enjoy using my skills and abilities on a full-time job.
6	9	6	19	I have set some goals, and I know what I want to do in life.
9	13	4	7	I will need to go back to school at different times during my life.
1	15	5	13	From what I have learned at school, I can plan my own career preparation and goals.

The remainder of questions received a similar number of "disagree" and "strongly disagree" responses:

2	20	7	11	The amount of education that I get will determine the amount of enjoyment I will receive.
3	20	6	11	Education helps me in the use of my leisure time.
4	20	9	10	Most of my courses relate to the "real world" outside of school.
8	20	3	13	I have learned that most employers have company-paid courses for employees who want to develop their skills more rapidly.

DATA REDUCTION

INSTRUMENT #4

School	STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	Statement
DU	4	4	11	2	1. From what I have learned at school, I can plan my own career preparation and goals.
NE	4	10	5	-	
PVTI	3	24	5	3	
CCL	4	10	5	1	
CCL	9	9	1	-	
DU	2	5	8	3	2. The amount of education that I get will determine the amount of enjoyment I will receive.
NE	5	7	6	1	
PVTI	6	17	10	2	
CCL	7	6	4	2	
CCL	8	10	2	-	
DU	4	6	7	4	3. Education helps me in the use of my leisure time.
NE	1	11	6	-	
PVTI	4	18	10	2	
CCL	5	9	4	2	
CCL	10	7	2	-	
DU	4	5	9	1	4. Most of my courses relate to the "real world" outside of school.
NE	2	8	9	-	
PVTI	6	19	8	1	
CCL	2	8	5	3	
CCL	12	4	3	-	
DU	2	3	13	1	5. I have learned many things in school that I can apply in my work.
NE	6	7	5	1	
PVTI	18	17	-	-	
CCL	10	7	3	-	
CCL	13	7	-	-	
DU	1	2	10	9	6. I have set some goals, and I know what I want to do in life.
NE	8	7	5	1	
PVTI	12	21	1	1	
CCL	10	5	3	1	
CCL	11	6	3	-	
DU	-	2	9	8	7. I will enjoy using my skills and abilities on a full-time job.
NE	7	10	2	-	
PVTI	15	18	2	-	
CCL	10	7	2	1	
CCL	11	6	2	-	

DATA REDUCTION

INSTRUMENT #4 (Continued)

School	STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE	Statement
DU	2	6	10	3	8. I have learned that most employers have company-paid courses for employees who want to develop their skills more rapidly.
NE	1	15	3	-	
PVTI	4	18	9	2	
CCL	4	12	2	1	
CCL	6	7	5	1	
DU	3	7	6	1	9. I will need to go back to school at different times during my life.
NE	7	8	2	2	
PVTI	13	17	3	2	
CCL	4	9	3	1	
CCL	7	8	4	-	
DU	1	5	8	5	10. Many people are proud of their field of work and teach other people about it in classes after working hours.
NE	7	9	3	-	
PVTI	2	19	11	1	
CCL	5	6	7	2	
CCL	5	10	3	1	

Educational Awareness - #4 (continued)

Test Item	Total Disagree and Strongly Disagree PVTI and CCL	NE	DU	Statements
10	25	3	13	Many people are proud of their field of work, and teach other people about it in classes after working hours.

Since there is no correlation between Pinellas Vocational Technical Institute/City Center for Learning combined scores and either Dunedin or Northeast, it is recommended that items 5, 7, 6, 9, and 1 be retained as part of a new instrument, and that the more controversial questions (2, 3, 4, 8, and 10) be rewritten or replaced.

Economic Awareness - #5

Instrument #5 is a four-question, open-ended, interview-type instrument for kindergarten and first grade students. (Testing time, 5 minutes.)

The following are Class Mean Averages for the experimental (pilot) and control schools. (See data reduction on the following page.)

	Pilot Schools		Control Schools	
Kindergarten	PL	56.2	CT	58.7
First Grade	CP	64.5	NS	67.5
	LK	80.0	MB	62.5
(Kindergarten)	EI	65.0	BA (1st)	62.5
(2nd Grade)	EI	87.5		

Bauder Elementary School (BA) does not have kindergarten classes. The "matching" pilot school (Eisenhower) kindergarten score (65.0) might be adjusted, since all the first grade scores are considerably higher than Palmetto and Curtis elementary and kindergarten scores. The 87.5 Eisenhower figure represents a special test given to second graders to test the potential of the instruments for use in the higher grades.

Combined class mean averages are as follows: 66.7 (for 79 students) and 63.5 (for 80 students), or a combined group ratio of 66.7/63.5 (unadjusted for Eisenhower kindergarten versus Bauder first grade scores).

It is recommended that an item analysis be performed on Instrument #5, to determine which items discriminate best between the four paired schools. The test should be revised and given to similar populations in a test/retest over time situation.

DATA REDUCTION

INSTRUMENT #5

	2nd Grade	1st Grade						Kinder-garten	
	EI	EI	BA	CP	NS	LK	MB	PL	CT
	4	4	4	4	4	4	4	4	3
	4	4	4	4	4	4	4	3	3
	4	4	3	3	4	4	4	3	3
	4	4	3	3	4	4	4	3	3
	3	3	3	3	4	4	4	3	3
	3	3	3	3	3	4	3	3	3
	3	3	3	3	3	4	3	3	3
	3	3	3	3	3	4	3	3	3
		3	3	3	3	3	3	3	3
		3	2	3	3	3	2	2	3
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	2	2
		2	2	2	2	3	2	1	2
		2	2	2	2	2	2	1	2
		2	2	1	2	2	1	1	1
		0	2	-	1	2	0	0	0
Count	28	52	51	49	54	65	51	45	47
Students	8	20	20	19	20	20	20	20	20
Avg./Student (x 25)	3.5	2.6	2.55	2.58	2.7	3.2	2.5	2.25	2.35
Class Mean Average	87.5	65.0	62.5	64.5	67.5	80.0	62.5	56.2	58.75

Economic Awareness - #6

Instrument #6 is a 10-question, two-option, fill-in type instrument for third grade students. (Testing time, 10 minutes)

The following are Class Mean Averages for the Experimental (Pilot) and Control Schools. (See data reduction on the next page.)

	Pilot Schools		Control Schools	
3rd Grade	CP	78.0	NS	79.5
	LK	83.0	MB	86.5
	EI	78.0	BA	81.0
	PL	82.0	CT	72.5

The combined Class Mean Averages are: 80.3/79.8 (for 80 students).

It is recommended that the open-ended format of Instrument #5 be used from K through the 3rd Grade. After an item analysis of both #5 and #6, #5 can be redesigned, using a combination of all items.

Economic Awareness - #7

Instrument #7 is a 20-question, agree/disagree type instrument for fourth to sixth grade students. (Testing time, 20 minutes)

The following are Class Mean Averages for the Experimental (Pilot) and Control Schools. (See data reduction on page 348.)

	Pilot Schools		Control Schools	
4th Grade	EI	65.5	BA	55.8
	LK	66.3	MB	67.6
5th Grade	PL	74.0	CT	64.5
6th Grade	CP	58.5	NS	66.5

The combined Class Mean Averages are as follows: 66.0 (for 79 students) and 63.8 (for 74 students), or a combined group ratio of 66.0/63.8. The scoring key was based on predisposed attitudes, and is subject to an item analysis as follows:

DATA REDUCTION

INSTRUMENT #6

Third Grade

	CP	NS	LK	MB	EI	BA	PL	CT
	10	9	10	10	10	10	10	10
	10	9	10	10	10	10	10	10
	10	9	10	10	10	10	10	9
	10	9	9	10	10	10	9	9
	9	9	9	9	10	10	9	9
	9	9	9	9	9	9	9	8
	9	8	9	9	9	9	9	8
	8	8	9	9	9	9	9	8
	8	8	9	9	9	9	8	8
	8	8	9	9	8	8	8	8
	8	8	9	9	8	8	8	8
	8	8	8	9	8	8	8	7
	8	8	8	9	7	8	8	7
	7	8	8	8	7	7	8	6
	7	7	8	8	7	7	8	6
	7	7	8	[illegible]	6	7	8	5
	6	7	7	8	5	6	7	5
	6	7	7	7	5	6	7	5
	5	7	6	7	5	6	6	5
	3	6	4	6	4	5	5	4
Total Count	156	159	166	173	156	162	164	145
Total Students	20	20	20	20	20	20	20	20
Avg./Student (x10)	7.8	7.95	8.3	8.65	7.8	8.1	8.2	7.25
Class Mean Avg.	7.8	79.5	83	86.5	78	81	82	72.5

DATA REDUCTION

INSTRUMENT #7

	6TH		5TH		4TH			
	CP	NS	PL	CT	LK	MB	EI	BA
	9	10	9	9	9	9	9	8
	8	9	9	9	9	9	9	6
	7	9	9	9	9	9	8	6
	7	8	9	8	8	8	8	7
	7	8	9	8	8	8	8	7
	7	7	9	8	8	8	8	7
	6	7	9	7	8	7	8	7
	6	7	9	7	8	7	7	7
	6	6	8	7	6	7	7	4
	6	6	8	7	6	6	7	4
	6	6	7	6	6	6	7	4
	6	6	7	6	6	6	6	4
	6	6	7	6	6	6	6	4
	5	6	7	6	6	6	6	5
	5	6	6	5	6	5	6	5
	5	6	6	5	5	4	6	5
	4	6	6	4	4	4	4	5
	4	5	6	4	4	-	2	-
	4	5	4	4	4	-	2	-
	3	4	4	4	-	-	2	-
Total Count	117	133	148	129	126	115	131	95
Total Students	20	20	20	20	19	17	20	17
Avg./Student (x10)	5.85	6.65	7.40	6.45	6.63	6.76	6.55	5.58
Class Mean Avg.	58.5	66.5	74.0	64.5	66.3	67.6	65.5	55.8

INSTRUMENT # 7

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CP	PL	LK	EI	NS	CT	MB	BA	CP	PL	LK	EI	NS	CT	MB	BA
1. Most people have everything that they want.	4	1	2	1	3	-	4	6	16	19	17	19	17	20	13	11
2. Something nice to have, like a fur coat, is called a luxury.	13	18	17	18	17	14	13	16	7	2	2	2	3	6	4	1
3. A highly skilled job usually pays a higher salary or hourly rate than an unskilled job.	15	16	13	16	17	18	10	14	5	4	6	4	3	2	7	3
4. Some people work at jobs they don't like because the job allows them to earn a very good salary.	13	12	8	12	14	13	10	14	7	8	11	8	6	7	7	3
5. Because of the specialization of jobs in the United States, each of us depends upon many people for the goods and services that we need each day.	15	20	18	19	16	19	15	17	5	-	1	1	4	1	2	-
6. We are all producers and consumers	13	12	8	9	13	9	7	11	7	8	11	11	7	11	10	6
7. People in one community may depend upon the work of people in other communities to produce goods or ship them the goods they need.	15	19	16	20	15	15	11	15	5	1	3	-	5	5	6	1
8. An example of the division of labor is when your mother washed the dishes and your sister dries them and puts them away.	13	12	9	15	10	12	7	15	7	8	10	5	10	8	10	2

INSTRUMENT # 7 (CONTD.)

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CP	PL	LK	EI	NS	CT	MB	BA	CP	PL	LK	EI	NS	CT	MB	BA
9. When a large corporation goes out of business, there is little effect on the community in which it is located.	11	12	8	6	11	10	5	10	9	8	11	14	9	10	12	7
10. We all pay for public services by paying taxes.	17	19	18	19	17	19	16	16	3	1	1	1	3	1	1	1
11. A person can acquire money only by working for a salary.	15	5	10	11	10	13	6	9	5	15	9	9	10	7	11	8
12. People all over the U.S. who work at the same job make the same amount of money.	4	1	-	6	2	1	3	3	16	19	19	14	18	19	14	14
13. Buying on credit usually increases the cost of goods and services that we need each day.	14	15	11	12	11	10	10	11	6	5	8	8	9	10	7	6
14. When you save enough money, there is the possibility of retiring from work.	12	18	13	11	13	14	10	11	8	2	6	9	7	6	7	6
15. The division of labor and the specialization of jobs makes goods and services cost more than when one person made the entire product.	14	12	8	13	9	12	11	15	6	8	11	7	11	8	6	2
16. No one person can produce everything he needs.	15	18	16	16	14	18	13	11	5	2	3	4	6	2	4	6

INSTRUMENT # 7 (CONTD.)

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CP	PL	LK	EI	NS	CT	MB	BA	CP	PL	LK	EI	NS	CT	MB	BA
17. Products that are not made nearby usually cost more because of transportation and storage costs.	13	17	17	14	15	16	11	11	7	3	2	6	5	4	6	4
18. It was easier to get what you needed to live in the early days of our country than it is today.	13	5	9	9	9	5	7	7	8	15	10	11	11	15	10	9
19. The price you pay for goods and services depends primarily upon supply and demand.	16	14	11	14	17	13	12	12	4	6	8	6	3	7	5	4
20. Most people go into business to take a loss.	3	4	4	5	4	5	4	6	17	16	15	15	16	15	13	10

359

Economic Awareness - #7 (continued)

Expected Test Item Response Appearing on Scoring Key: Agree Item #	Expected Test Item Response Appearing on Scoring Key: Disagree Item #	Responses Showing Stronger Agreement with Scoring Key Response in Pilot Schools than Control Schools: Pilot	Pilot	Control	Control	Potentially Valid Item?
	1	1 19	4 16	4 13	6 11	YES: 2 pilot schools showed stronger disposition toward <u>disagreement</u> response expected by scoring key.
	9	None				NO
	11	None				NO
13		15 5	14 6	10 7	10 10	YES: 2 pilot schools showed stronger disposition toward <u>agreement</u> response expected by scoring key.
14		18 2		14 6		YES: 1 pilot school showed stronger disposition toward <u>agreement</u>.
15		None				NO
16		18 2	16 4	13 4	11 6	YES: 2 pilot schools showed stronger disposition toward <u>agreement</u>.
	18	13 8		7 10		NO: 1 pilot school showed stronger disposition toward agreement.
19		11 8		12 4		NO: 1 pilot school showed stronger disposition toward <u>disagreement</u>.
	20	3 17		6 10		YES: 1 pilot school showed stronger disposition toward <u>disagreement</u>.

Economic Awareness - #7 (continued)

It appears that only five of the ten items designated by predisposed attitudes on the scoring key have potential validity. The following items also express some potential validity:

Agree-Item #	Pilot Schools		Control Schools		Potentially Valid Item?
7	19	20	15	11	Yes - 2 Pilot Schools showed stronger disposition toward agreement.
	1	0	5	6	
17	17	13	11	11	Yes - 2 Pilot Schools showed slightly stronger disposition toward agreement.
	2	7	4	6	

Since the test in its present form does not contain enough items which distinguish between Pilot and Control Schools, it is recommended that items 1, 7, 13, 14, 16, 17, 20 be used as a basis for a new instrument.

Economic Awareness - #8

Instrument #8 is a 15-question, agree-disagree type instrument for ninth and fourteenth grade students. (Testing time, 10 minutes.)

The following are Class Mean Averages for the Experimental (Pilot) and Control Schools. (See data reduction on the next page.)

	Pilot Schools		Control Schools	
9th Grade	16th	53.0	SS	46.0
10th Grade	DU	61.0	NE	59.0
Post-Secondary	PVTI	73.0	CCL	69.0

The combined Class Mean Averages are as follows: 62 (for 56 students) and 59.4 (for 53 students), or a combined group ratio of 62.0/59.4. It appears that all three Pilot Schools have higher scores than the Control Schools, and that the instrument may be valid.

The scoring key was based on predisposed attitudes, and is subject to an item analysis as follows:

DATA REDUCTION

INSTRUMENT #8

	7th	8th	9th		10th		13-15	
	CL	CL	16th	SS	DU	NE	CCL	PVTI
	9	9	8	8	8	9	9	9
	8	9	8	7	8	8	9	9
	8	9	7	7	8	8	8	9
	7	8	7	6	8	7	8	9
	7	7	7	6	7	7	8	8
	7	7	7	6	7	7	8	8
	7	7	6	6	7	6	8	8
	6	6	6	5	7	6	8	8
	6	6	6	5	7	6	7	8
	6	6	5	4	7	6	7	8
	6	6	5	4	7	6	7	7
	6	6	5	4	6	6	7	7
	6	6	5	4	6	5	7	7
	6	5	5	3	6	5	6	5
	5	5	5	-	6	5	6	5
	5	5	4	-	6	4	6	2
	5	4	4	-	5	4	6	-
	4	4	4	-	3	4	5	-
	4	4	3	-	2	3	5	-
	3	4	2	-	1	-	3	-
	3	3	-	-	-	-	-	-
Total Count	124	120	106	65	122	112	138	117
Total Students	21	21	20	14	20	19	20	16
Avg./Student (x 10)	5.9	5.7	5.3	4.6	6.1	5.9	6.9	7.3
Class Mean Avg.	59.0	57.0	53.0	46.0	61.0	59.0	69.0	73.0

INSTRUMENT #8

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CL	CL	16th	SS	DU	NE	CCL	PVTI	CL	CL	16th	SS	DU	NE	CCL	PVTI
1. A person can bring in money only by working for a salary or an hourly rate.	6	6	2	6	2	6	6	2	16	13	17	8	16	13	13	14
2. Buying on credit increases the cost of whatever you buy.	10	11	7	6	10	12	12	11	12	8	12	8	9	7	7	5
3. When enough money is saved, you have the option of retiring from work.	14	11	11	8	11	10	14	9	8	8	8	5	8	9	5	7
4. Stock market investments can produce greater fortunes in a shorter amount of time than real estate investment.	10	13	8	8	7	6	8	7	12	6	10	5	9	13	11	9
5. The division of labor and specialization makes goods and services cost more than when one person made the entire product.	12	9	8	7	9	8	7	5	10	10	11	7	8	11	11	11
6. "Gross Pay" is the amount of money you take home.	11	11	11	8	7	7	4	1	11	8	8	6	12	12	15	15
7. Hospitalization is cheapest when subscribed through a group plan	12	8	13	7	11	14	18	15	10	11	6	5	6	5	1	1
8. No states have the right to tax your income; this is the job of the Federal Government.	13	7	15	8	6	9	7	3	9	12	4	6	13	10	12	13

INSTRUMENT #8 (CONTD.)

DATA REDUCTION

	AGREE								DISAGREE							
	Pilot				Control				Pilot				Control			
	CL	CL	16th	SS	DU	NE	CCL	PVTI	CL	CL	16th	SS	DU	NE	CCL	PVTI
9. Automobile insurance is cheaper for the person who is under 26 years of age.	4	5	3	3	3	4	2	1	18	14	16	11	17	15	17	15
10. Name brand products are usually more economical and of better quality than off-brand products.	17	15	8	6	8	10	8	6	5	4	10	8	11	9	11	10
11. The greater the salary received for performing a job the greater the personal satisfaction associated with the job.	14	13	16	9	5	7	11	4	8	6	3	5	14	12	8	12
12. White collar jobs usually hve associated with them higher status level than blue collar jobs.	11	10	8	5	12	12	12	11	11	9	9	9	6	6	7	5
13. Buying on credit is easier than buying with cash, until you have to pay for it.	16	12	14	11	14	16	15	11	6	7	4	3	1	3	4	5
14. You have to go to college to get a good paying job.	10	7	3	4	5	1	2	0	12	12	15	10	15	18	17	16
15. Most people can get a scholarship or loan to continue their education.	17	12	15	8	13	15	15	11	5	6	3	6	6	4	4	5

Economic Awareness - #8 (continued)

Expected Test Item Response Appearing on Scoring Key: Agree Item #	Expected Test Item Response Appearing on Scoring Key: Disagree Item #	Responses Showing Stronger Agreement with Scoring Key Response in Pilot Schools than Control Schools: Pilot			Control			Potentially Valid Item?
	1	2	2	2	6	6	6	Yes - All three Pilot Schools showed significantly stronger disposition toward the expected disagreement response.
		17	16	14	8	13	13	
2		11	10	7	12	12	6	No - Pilot Schools showed less "Agree" disposition than Control Schools.
		5	9	12	7	7	8	
3		11	11	9	14	8	10	No - Non-Significant differences.
		8	8	7	5	5	9	
4		8	7	8	8	8	6	No - Non-Significant differences.
		10	9	11	5	11	13	
	5	5	8	9	7	8	7	No - Non-Significant differences.
		11	11	8	11	11	7	
	6	1	7	11	4	7	8	Yes - But only at the Post-Secondary Level. There is also a direct correlation between stronger disagreement and higher grade level.
		15	12	8	15	12	6	
7		15	13	11	18	14	7	Yes - Primarily at the 9th Grade level.
		1	6	6	1	5	5	
	8	3	6	15	7	9	8	Yes - Primarily at the Post-Secondary and 10th Grades.
		13	13	4	12	10	6	
	9	1	3	3	2	4	3	Yes - All three Pilot Schools showed slightly stronger tendencies to disagree.
		15	17	16	17	15	11	
10		8	8	6	10	8	6	No - Non-significant differences.
		10	11	11	9	11	8	

Economic Awareness - #8 (continued)

The instrument seems to be marginally balanced, with five valid items producing expected contrast between pilot and control schools. It is recommended that items 2, 3, 4, 5, and 10 be rewritten or replaced to increase the validity of the instrument before test/re-test over time.

Items 11 through 15 were not included in the scoring key, since they were expected to elicit 'controversial' or non-significant responses, based on pilot test data. In view of present data, it appears that these items should be dropped from the instrument.

Career Awareness - #9

Instrument #9 is an open-listing type instrument for second and third graders. (Testing time, 30 minutes.)

The following are Class Mean Averages for the Pilot and Control Schools:

	Pilot Schools		Control Schools	
2nd Grade	CP	15.5	NS	7.8
	LK	11.0	MB	12.2
	EI	10.2	BA	9.1
	PL	12.3	CT	14.2

The combined Class Mean Averages are as follows:

$$\left(\frac{981}{80 \text{ Students}} = 12.3\right) \Big/ \left(\frac{860}{79 \text{ Students}} = 10.9\right), \quad \text{or a}$$

combined group ratio of 12.3/10.9.

Further efforts to standardize data collection procedures, controls, and scoring should be implemented to see if this ratio can be increased, given other similar student groups.

	Pilot Schools		Control Schools	
3rd Grade	CP	28.7	NS	12.3
	LK	26.6	MB	25.8
	EI	16.8	BA	15.0
	PL	21.8	CT	14.2

DATA REDUCTION

INSTRUMENT #9

2nd Grade

	CP	NS	LK	MB	EI	BA	PL	CT
	28	18	32	21	34	20	26	37
	26	17	23	20	18	18	21	34
	21	15	17	20	18	15	17	24
	21	15	16	20	17	12	15	24
	20	11	16	19	16	11	15	23
	20	9	14	19	16	10	14	18
	20	8	13	18	14	9	13	18
	19	8	12	17	8	9	12	17
	18	7	9	16	8	8	12	13
	18	5	8	16	8	8	12	12
	16	5	7	14	7	8	12	9
	14	5	7	14	7	8	11	7
	12	5	7	12	6	8	11	7
	12	4	7	10	6	7	10	7
	10	4	6	9	5	7	9	7
	10	4	6	8	4	7	8	7
	8	3	5	7	4	6	8	6
	8	3	5	7	4	5	7	6
	5	2	5	5	2	3	7	5
	5	-	5	5	2	3	6	4
Total Count	311	148	220	277	204	182	246	285
Total Students	20	19	20	20	20	20	20	20
Avg./Student	15.6	7.8	11	12.3	10.2	9.1	12.3	14.2
Class Mean Avg.	15.6	7.8	11	12.3	10.2	9.1	12.3	14.2

DATA REDUCTION

INSTRUMENT #9

3rd Grade

	CP	NS	LK	MB	EI	BA	PL	CT
	64	24	47	51	32	32	39	37
	51	20	47	43	30	29	35	36
	45	19	41	34	28	26	31	27
	44	19	39	31	27	23	31	21
	39	18	38	29	26	21	31	19
	35	18	35	28	20	19	31	17
	34	16	32	28	20	18	29	17
	32	15	29	28	19	16	28	15
	30	12	28	25	16	15	27	12
	28	11	28	25	16	14	26	11
	26	11	25	23	16	13	25	10
	26	10	22	23	15	12	22	10
	26	9	20	22	14	16	21	9
	22	9	20	21	13	7	16	8
	18	9	19	20	12	5	15	8
	18	8	16	19	10	5	12	8
	17	7	15	18	9	5	12	8
	9	7	12	17	8	5	4	6
	8	3	11	16	3	5	2	5
	3	2	9	15	3	13	2	1
Total Count	575	247	533	516	337	299	437	285
Total Students	20	20	20	20	20	20	20	20
Avg./Student	28.7	12.3	26.6	25.8	16.8	15	21.8	14.2
Class Mean Avg.	28.7	12.3	26.6	25.8	16.8	15	21.8	14.2

Career Awareness - #9 (continued)

The combined Class Mean Averages are as follows:

$$\left(\frac{1882}{80 \text{ Students}} = 23.5\right) \Big/ \left(\frac{1347}{80 \text{ Students}} = 16.8\right), \quad \text{or a}$$

combined group ratio of 23.5/16.8.

All four pilot school class mean averages are greater than their Control Schools, indicating that the instrument is valid at the third grade level. The instrument should be subjected to test/re-test over time, with similar experimental/control group populations.

Career Awareness - #10

Instrument #10 is a three-category, open-listing type instrument for fourth to sixth graders. (Testing time, 20 minutes.)

The Class Mean Averages are as follows:

	Pilot Schools		Control Schools	
4th Grade	PL	20.1	CT	26.0
5th Grade	CP	22.0	NS	22.9
	LK	22.1	MB	18.4
6th Grade	EI	36.3	BA	22.8

The combined Class Mean Averages are as follows:

$$\left(\frac{1944}{77 \text{ Students}} = 25.2\right) \Big/ \left(\frac{1732}{77 \text{ Students}} = 22.5\right), \text{ or a}$$

combined group ratio of 25.2/22.5, indicating that the instrument has potential validity at the fourth through sixth grade levels. Further efforts to standardize data collection procedures, controls, and scoring should be implemented to see if this ratio can be increased, given other similar student groups.

A second scoring key was used with this instrument, giving arbitrary 1/2 point totals to students for every check of an appropriate entry vehicle for the occupation listed, then adding the 1/2 points to the full points given for each occupation listed. A second data reduction page is included for the 1/2 point totals, to see any error factor results from adding 1/2 points to this instrument.

INSTRUMENT #10

DATA REDUCTION

	4th Grade		5th Grade				6th Grade	
	PL	CT	CP	NS	LK	MB	EI	BA
	36	42	31	39	37	35	49	38
	33	35	30	35	35	31	48	33
	29	35	29	33	34	25	47	33
	28	32	29	31	32	22	44	31
	26	28	28	31	25	22	43	31
	26	28	28	30	25	20	42	28
	24	27	28	28	24	20	40	28
	24	26	27	28	23	20	38	26
	20	26	24	26	22	18	38	24
	19	24	22	26	21	17	37	24
	19	24	22	22	18	17	35	23
	19	24	21	20	18	16	35	21
	19	24	16	19	17	16	34	20
	18	23	15	18	17	16	32	20
	17	22	15	17	16	14	31	16
	13	21	14	4	14	13	29	15
	11	20	13	4	11	12	28	14
	8	19	13	1	9	12	27	11
	8	15	12	-	-	12	27	11
	5	-	-	-	-	10	23	10
Total Count	402	495	417	412	398	368	727	457
Total Students	20	19	19	18	18	20	20	20
Avg./Student	20.1	26.0	22.0	22.9	22.1	18.4	36.3	22.8
Class Mean Avg.	20.1	26.0	22.0	22.9	22.1	18.4	36.3	22.8

DATA REDUCTION

INSTRUMENT #10

	4th Grade		5th Grade				6th Grade	
	PL	CT	CP	NS	LK	MB	EL	BA
	50	60	44	57	48	35	69	53
	41	50	44	49	46	32	68	48
	40	49	43	47	45	31	62	46
	40	45	42	45	53	25	59	43
	35	41	40	41	34	25	54	42
	33	39	39	40	33	23	54	41
	32	37	38	40	32	22	53	37
	31	37	38	40	31	20	52	36
	27	37	34	37	30	20	50	33
	27	37	32	36	29	20	47	33
	26	35	30	32	27	20	46	33
	26	33	29	28	24	18	46	31
	26	33	26	27	23	17	46	28
	24	31	20	24	22	17	41	25
	23	29	19	23	22	16	38	22
	18	29	18	6	19	16	34	21
	15	28	17	6	15	15	34	19
	10	27	17	2	12	14	34	16
	10	22	14	-	-	12	33	14
	6	-	-	-	-	10	32	13
Total Count	540	699	584	580	535	408	952	634
Total Students	20	19	19	18	18	20	20	20
Avg./Student	27.0	36.8	30.7	32.2	29.7	20.4	47.6	31.7
Class Mean Avg.	27.0	36.8	30.7	32.2	29.7	20.4	47.6	31.7

Career Awareness - #10 (continued)

	Pilot Schools		Control Schools	
4th Grade	PL	27.0	CT	36.8
5th Grade	CP	30.7	NS	32.2
	LK	29.7	MB	20.4
6th Grade	EI	47.6	BA	31.7

The combined Class Mean Averages are as follows:

$$\left(\frac{2611}{77 \text{ Students}} = 34.0\right) \Big/ \left(\frac{2321}{77 \text{ Students}} = 30.1\right), \text{ or a}$$

combined group ratio of 34.0/30.1. This indicates similar validity with the addition of the half-point scoring key.

Career Awareness - #11

Instrument #11 is the same instrument as #10, except that it is for seventh to ninth grade students.

Class Mean Averages are as follows:

	Pilot Schools		Control Schools	
7th Grade	16th	40.4	SS	41.3
8th Grade		36.4		24.7
9th Grade		33.6		21.0

The combined Class Mean Averages are as follows:

$$\left(\frac{2296}{62 \text{ Students}} = 36.8\right) \Big/ \left(\frac{1669}{57 \text{ Students}} = 29.1\right), \text{ or a}$$

combined group ratio of 36.8/29.1. This indicates that the instrument is valid at the seventh through ninth grade levels. It should be used in a test/re-test situation with similar groups.

A second data-reduction page contains the 1/2 point additions to the scoring key.

DATA REDUCTION

INSTRUMENT #11

	7th Grade			8th Grade			9th Grade		
	16th	SS	CL	16th	SS	CL	16th	SS	CL
	62	63	42	62	35	29	53	28	55
	52	54	39	54	28	28	53	27	53
	50	53	31	53	28	27	48	27	49
	48	52	27	50	27	26	48	27	32
	48	52	27	40	27	26	46	27	31
	47	51	27	40	27	25	43	26	27
	47	51	26	39	27	24	42	25	26
	46	47	26	38	27	24	40	25	26
	43	45	26	37	26	23	40	25	25
	43	41	25	36	26	23	37	22	25
	40	40	24	35	26	23	28	21	24
	39	40	24	35	25	22	28	20	24
	39	38	23	34	24	22	28	20	23
	37	37	23	33	23	21	27	19	22
	36	36	23	31	20	20	27	18	21
	34	32	22	28	20	19	26	15	21
	30	27	22	28	18	15	26	14	21
	28	27	21	22	10	14	24	13	21
	23	20	19	21		9	23	0	20
	21	20	19	13		7	19		15
			17				17		13
			9				16		10
			8						9
			7						8
Total Count	808	826	557	729	444	427	739	399	601
Total Students	20	20	24	20	18	20	22	19	24
Avg./Student	40.4	41.3	23.2	36.4	24.7	21.3	33.6	21.0	25.0
Class Mean Avg	40.4	41.3	23.2	36.4	24.7	21.3	33.6	21.0	25.0

INSTRUMENT #11

DATA REDUCTION

	7th Grade			8th Grade			9th Grade		
	16th	SS	CL	16th	SS	CL	16th	SS	CL
	82	89	61	87	51	41	81	41	74
	76	77	53	77	42	40	75	40	71
	70	76	46	76	41	40	68	40	68
	70	75	42	74	41	39	64	40	54
	69	75	39	59	41	38	62	37	46
	69	73	39	59	40	37	61	37	42
	68	72	38	57	40	37	58	36	41
	65	66	38	56	39	36	57	36	40
	61	64	37	54	39	34	55	36	40
	59	59	35	54	38	34	52	34	39
	57	58	35	53	38	33	41	31	38
	55	55	34	51	35	33	40	31	36
	49	54	32	49	34	31	39	30	36
	47	51	31	46	33	28	38	29	35
	47	50	31	45	30	28	38	25	32
	42	46	28	42	30	22	37	23	31
	40	39	26	40	27	21	36	21	31
	36	39	26	31	15	14	34	19	30
	33	29	26	30	-	13	32	0	30
	23	28	26	19	-	10	25	-	23
	-	-	17	-	-	-	23	-	20
	-	-	12	-	-	-	20	-	14
	-	-	10	-	-	-	-	-	14
	-	-	9	-	-	-	-	-	13
Total Count	1118	1175	771	1059	654	609	1036	586	898
Total Students	20	20	24	20	18	20	22	19	24
Avg./Student	55.9	58.7	32.1	53.0	36.3	30.5	47.1	31.0	37.4
Class Mean Avg.	55.9	58.7	32.1	53.0	36.3	30.5	47.1	31.0	37.4

Career Awareness - #11 (continued)

	Pilot Schools		Control Schools	
7th Grade	16th	55.9	SS	58.7
8th Grade		53.0		36.3
9th Grade		47.1		31.0

The combined Class Mean Averages are as follows:

$$\left(\frac{3213}{62 \text{ Students}} = 52.0\right) \Big/ \left(\frac{2415}{57 \text{ Students}} = 42.4\right), \text{ or a}$$

combined group ratio of 52.0/42.4. This indicates that there is similar validity with the addition of the half point scoring key.

The instrument is ready for a test/re-test situation, using similar student populations.

In that instruments #10 and #11 are identical, validity is concurrent from the fourth through the ninth grades.

Career Awareness - #12

Instrument #12 is a seven-column, open-listing type instrument for tenth through twelfth graders. (Testing time, 20 minutes.)

Class Mean Averages are as follows:

	Pilot Schools		Control Schools	
10th Grade	DU	30.0	NE	33.0
11th Grade		30.1		29.0
12th Grade		45.4		27.2

The combined Class Mean Averages are as follows:

$$\left(\frac{2112}{60 \text{ Students}} = 35.2\right) \Big/ \left(\frac{1725}{58 \text{ Students}} = 29.7\right), \text{ or a}$$

combined group ratio of 35.2/29.7. This indicates that the instrument is valid at the 10th, 11th, and 12th grade levels. The instrument should be used in a test/re-test situation with similar student groups.

A second data reduction page contains the 1/2 point additions to the scoring key.

DATA REDUCTION

INSTRUMENT #12

	12th Grade		11th Grade		10th Grade		10-12
	DU	NE	DU	NE	DU	NE	CCL
	74	45	37	39	36	51	54
	73	30	36	36	36	43	49
	65	33	36	34	33	38	48
	53	33	33	34	32	37	45
	51	33	32	33	32	35	44
	49	32	32	32	32	35	36
	49	31	32	31	32	34	30
	48	31	32	30	32	34	30
	47	30	32	30	32	33	28
	46	29	32	29	31	32	28
	46	27	31	29	31	32	27
	42	26	31	29	31	32	27
	42	25	31	28	31	31	25
	40	24	30	26	30	30	22
	36	23	29	26	28	29	22
	32	19	26	25	28	29	19
	32	18	25	25	27	29	16
	32	15	25	24	26	23	14
	26	13	22	22	21	20	
	26		18	15	20		
Total Count	909	517	602	581	601	627	564
Total Students	20	19	20	20	20	19	18
Avg./Student	45.4	27.2	30.1	29.0	30.0	33.0	31.3
Class Mean Avg.	45.4	27.2	30.1	29.0	30.0	33.0	31.3

DATA REDUCTION

INSTRUMENT #12

	12th Grade		11th Grade		10th Grade		10-12
	DU	NE	DU	NE	DU	NE	CCL
	120	64	57	52	52	71	80
	99	50	57	52	48	60	68
	95	49	55	49	46	59	67
	84	48	55	47	46	54	66
	75	45	52	47	46	53	58
	74	45	51	46	45	49	50
	71	42	51	46	45	48	44
	68	41	49	44	45	46	44
	67	40	49	44	45	46	42
	66	39	48	42	44	45	40
	65	38	48	42	44	45	38
	62	37	47	37	44	44	38
	61	36	45	35	44	43	34
	60	34	44	35	42	42	32
	55	33	44	34	41	42	30
	52	32	44	34	40	42	26
	49	29	43	33	38	40	26
	46	21	38	33	37	33	18
	38	16	34	27	30	33	
	36		30	21	28		
Total Count	1343	739	941	800	850	895	801
Total Students	20	19	20	20	20	19	18
Avg./Student	67.1	38.9	47.0	40.0	42.5	47.1	44.5
Class Mean Average	67.1	38.9	47.0	40.0	42.5	57.1	45.5

Career Awareness - #12 (continued)

	Pilot Schools		Control Schools	
10th Grade	DU	42.5	NE	
11th Grade		47.0		40.0
12th Grade		67.1		38.9

The combined Class Mean Averages are as follows:

$$\left(\frac{1343}{60 \text{ Students}} = 52.2\right) / \left(\frac{2434}{58 \text{ Students}} = 42.0\right), \text{ or a}$$

combined group ratio of 52.2/42.0. This indicates there is similar validity with the addition of the half point scoring key.

The instrument is ready for a test/re-test situation, using similar student populations.

Career Awareness - #13

Instrument #13 is a 10-question, two-option type instrument for second grade students. (Testing time, 15 minutes.)

The following are Class Mean Averages for the Pilot and Control Schools:

	Pilot Schools		Control Schools	
2nd Grade	CP	90.0	NS	80.5
	LK	86.0	MB	83.0
	EI	92.0	BA	84.5
	PL	93.5	CT	81.5

The combined Class Mean Averages are as follows:

$$\left(\frac{686}{76 \text{ Students}} = 90.3\right) / \left(\frac{651}{79 \text{ Students}} = 82.4\right), \text{ or a}$$

combined group ratio of 90.3/82.4.

In that all four Pilot Schools scored higher than their Control Schools, there is considerable validity in the instrument at the second grade. It is recommended that it be tried at the first and third grade levels. It should also be used in a test/re-test situation with similar experimental control groups.

DATA REDUCTION

INSTRUMENT #13

	2nd Grade							
	CP	NS	LK	MB	EI	BA	PL	CT
	10	10	10	10	10	10	10	10
	10	10	10	10	10	10	10	10
	10	10	10	10	10	9	10	10
	10	10	10	10	10	9	10	10
	10	10	10	10	10	9	10	10
	10	10	9	9	10	9	10	9
	10	9	9	9	10	9	10	9
	10	9	9	9	10	9	10	9
	10	9	9	9	10	9	10	9
	9	8	8	9	9	9	10	9
	9	8	8	9	9	9	9	9
	9	8	8	8	9	9	9	8
	9	8	8	8	9	9	9	8
	9	8	8	7	8	8	9	8
	9	8	8	7	7	8	9	8
	9	7	8	7	6	8	9	7
	8	7	8	7	-	8	9	7
	8	3	8	7	-	7	8	6
	7	1	7	7	-	6	8	6
	4	-	7	4	-	5	8	1
Total Count	180	153	172	166	147	169	187	163
Total Students	20	19	20	20	16	20	20	20
Avg./Student (x 10)	9.0	8.05	8.6	8.3	9.2	8.45	9.35	8.15
Class Mean Avg.	90.0	80.5	86.0	83.0	92.0	84.5	93.5	81.5

Career Awareness - #14

Instrument #14 is a forced-choice type instrument with 14 items for fourth to sixth grade students. (Testing time, 10 minutes.) This instrument was an experiment, combining value clarification and career awareness concepts.

The following are Class Mean Averages for the Pilot and Control Schools:

	Pilot Schools		Control Schools	
4th Grade	PL	72.0	CT	71.0
	LK	51.6	MB	68.8
5th Grade	CP	55.2	NS	62.2
6th Grade	EI	67.0	BA	65.5

It is recommended that the instrument be redesigned on the basis of an item analysis.

Career Awareness - #15

Instrument #15 is a 20-question, multiple-choice type instrument for seventh to ninth grade students. (Testing time, 10 minutes.)

The following are Class Mean Averages for the Pilot and Control Schools for the seventh Grade Level:

	Pilot Schools		Control Schools	
7th Grade	16th	64.0	SS	71.5

It is suggested that an item analysis be performed on Instrument #15, to find out which items show differences in favor of the pilot school. If there are enough of these items, a new instrument should be constructed.

Career Awareness - #16

Instrument #16 is a 25-question, multiple-choice type instrument for tenth to fourteenth graders. (Testing time, 20 minutes.)

Class mean averages are listed below:

PVTI (14th Grade)	CCL (10th-12th Grade)
74.8	57.6

DATA REDUCTION

INSTRUMENT #14

	4th Grade				5th		6th	
	PL	CT	LK	MB	CP	NS	EI	BA
	9	9	5	8	8	10	9	9
	8	9	8	8	7	9	8	8
	8	8	7	8	7	9	8	8
	8	8	7	8	7	8	8	8
	8	8	6	8	7	8	8	8
	8	8	6	7	6	7	8	7
	8	8	6	7	6	7	8	7
	8	8	5	7	6	6	8	7
	8	8	5	7	6	6	8	7
	8	7	5	7	6	6	7	7
	7	7	5	7	6	6	7	7
	7	7	5	6	5	6	7	6
	7	7	5	6	5	5	7	6
	7	7	5	6	5	5	6	6
	7	6	4	6	5	4	6	6
	6	6	4	6	4	4	6	6
	6	5	2	5	4	3	6	5
	6	5	2	-	3	3	5	5
	5	4	2	-	2	-	3	4
	5	-	-	-	-	-	1	4
Total Count	144	135	98	117	105	112	134	131
Total Students	20	19	19	17	19	18	20	20
Avg./Student (x10)	7.2	7.1	5.16	6.88	5.52	6.22	6.7	6.55
Class Mean Avg.	72	71	51.6	68.8	55.2	62.2	67	65.5

INSTRUMENT #15

DATA REDUCTION

	7th Grade	
	16th Street	Southside
	17	17
	17	17
	15	16
	15	16
	15	16
	14	16
	14	16
	14	15
	14	15
	14	14
	14	14
	13	14
	13	14
	13	14
	13	13
	13	13
	12	13
	10	12
	9	11
	5	10
	5	-
Total Count	269	286
Total Students	21	20
Avg./Student (x5)	12.8	14.3
Class Mean Avg.	64	71.5

DATA REDUCTION

INSTRUMENT #16

	14th Grade PVTI	10-12th Grade CCL
	23	18
	21	18
	21	18
	20	18
	20	17
	20	17
	20	16
	19	16
	19	16
	19	15
	18	14
	17	14
	16	13
	16	12
	15	12
	15	11
		10
		9
		7
		6
Total Count	299	288
Total Students	16	20
Avg./Student	18.7	14.4
(x 4)		
Class Mean Avg.	74.8	57.6

Career Awareness - #16 (continued)

It is suggested that the instrument be tested using 9th through 14th graders, given experimental/control group populations. (For efficiency, item analysis could first eliminate any items which show the City Center for Learning students having an advantage over the Pinellas Vocational Technical Institute students.)

Occupational Self Concept - #17

Instrument #17 is a seven-column, free-choice type instrument with over 200 items, for the fourth through the fourteenth grades.

An extract of the Fantasy Dimension from data reduction appears on the following page.

In the construction of the instrument, we were advised by a member of the Ohio State staff to develop a dimension within the Fantasy Dimension. "Strong Interest" to "I would like to work in this field" was chosen. Although the amounts of each are unpredictable from grade level to grade level, the differences do show a greater increase along the dimension in the pilot schools (overall ratio 1004/736). The average difference ratio is 91.3/66.9. The greatest differences are shown at the elementary level, and may be attributed to the strong self-concept program implemented by these pilot elementary schools.

It is recommended that this part of the test be subjected to a test/retest situation over time, using similar experimental/control groups.

It was also recommended in the design that an Ability and Reality Dimension be included to determine whether there was 'a gradual decrease' from Fantasy to Ability to Reality. ("I already have a job in this field" is now dimensional-factual, and was included in the test as a distractor.)

An extract of the Fantasy - Ability - Reality Dimension (FAR) from the data reduction is shown on the following page.

The sloping decrease from Fantasy to Ability to Reality is quite apparent at all but one pilot school (CP fourth Grade 804, 806, 360) and one control school (BA fifth Grade 454, 485, 192). The average rate of decrease is indicated by the average differences. The pilot school grade levels show a faster average rate of decrease than the control schools, from Fantasy to Ability (67.2/45.1), and from Ability to Reality (167.8/120.5). The more rapid decrease from Fantasy to Ability may be explained again by the strong self-concept program at the elementary levels (as most of the greater decreases seem to lie at that level). It is

INSTRUMENT #17

Pilot Schools							Control Schools			
Grade	School	No. Stud.	"Strong Interest" to "I would like to work in this field"				"Strong Interest" to "I would like to work in this field"		No. Stud.	School
4th	CP	20	808	799	-9	+57	163	220	19	NS
5th	EI	20	349	502	+153	+14	446	460	20	BA
6th	LK	20	305	552	+147	+66	231	297	19	MB
	FL	15	156	338	+182	-11	149	138	18	CT
7th	16th	20	228	311	+83	+309	234	543	20	SS
8th	16th	17	124	276	+152	+ 1	221	222	20	SS
9th	16th	19	209	311	+102	+ 7	280	287	17	SS
10th	DU	20	161	197	+36	+45	125	170	19	NE
11th	DU	20	179	149	-30	+169	169	238	20	NE
12th	DU	20	142	330	+188	+79	141	220	19	NE
Total Students 191							Total Students 191			
		Total Differences			+1004	+736				
		Average Differences			91.3	66.9	(per grade level)			

INSTRUMENT #17

		Pilot Schools							Control Schools			
Grade	Sch.	FD Avg.	AD (Strong Ability)	RD "..Going to work.."	F-A	A-R	F-A	A-R	FD Avg.	AD (Strong Ability)	RD "..Going to work.."	School
4th	CP	804	806	360	-2	446	21	133	192	171	38	NS
5th	EI	475	336	88	139	248	-31	293	454	485	192	BA
6th	LK	429	299	105	130	194	76	131	264	188	57	MB
	PL	297	212	50	85	162	28	71	144	116	45	CT
7th	16	270	227	35	43	192	131	105	389	258	153	SS
8th	16	200	108	15	92	93	69	108	222	153	45	SS
9th	16	260	174	26	86	148	68	185	284	216	31	SS
10th	DU	179	146	15	33	131	9	118	148	139	21	NE
11th	DU	164	127	20	37	107	54	91	204	150	59	NE
12th	DU	236	140	15	96	125	71	91	171	100	9	NE
		Total Differences			739	1846	496	1326				
		Average Differences			67.2	167.8	45.1	120.5	(per grade level)			

INSTRUMENT #17

DATA REDUCTION

School & Grade		Strong Interest	Strong Ability	I Would Like to Work In This Field	I am Going to Work In This Field	I Already Have a Job In This Field
CP	4	808	806	799	360	72
NS	4	163	171	220	38	0
EI	5	349	336	502	88	6
BA	5	446	485	460	192	3
LK	6	305	299	552	105	5
MB	6	231	188	297	57	13
PL	6	156	212	338	50	8
CT	6	149	116	138	45	6
16th	7	228	227	311	35	7
SS	7	234	258	543	153	5
CL	7	209	210	180	30	3
16th	8	124	108	276	15	16
SS	8	221	153	222	45	9
CL	8	149	82	168	14	2
16th	9	209	174	311	26	1
SS	9	280	216	287	31	48
CL	9	378	183	433	74	9
CCL	10-12	206	229	298	40	5
DU	10	161	146	197	15	4
NE	10	125	139	170	21	4
DU	11	179	127	149	20	11
NE	11	169	150	238	59	15
DU	12	142	140	330	15	18
NE	12	141	100	220	9	9
PVTI	14	110	87	85	12	12

possible that the stronger decrease from Ability to Reality at the pilot schools may be due to a more realistic narrowing down of work options at the Reality Dimension. Until the experiment is replicated, the faster decreases in the pilot schools may be attributed to effects of the Career Education Program. The new instrument may be considered a valid measure of occupational self-concept.

It is recommended that different experimental/control groups be set up, and that the instrument be given in a test/re-test over time situation. The faster decreases from Ability to Reality as compared to the decreases from Fantasy to Ability are quite apparent in both the Pilot and Control Schools. (167.8 and 120.5 = 144.2 average) / (67.2 and 45.1 = 56.2 average). This combined ratio of 144.2/56.2 indicates that there may be a wider gap between the Ability and Reality dimension than between the Fantasy and Ability dimension.

Career Planning - #18

Instrument #18 is a 14-question survey-type instrument for seventh to ninth grade students. (Testing time, 15 minutes.)

Considering the disproportionate number of students who were present for this test at Southside Junior High (15) versus 16th Street Junior High (20), there were still greater differences in the way the 16th Street polot students answered the following questions:

16th St. (20) Pilot School	Southside (15) Control School	Test Item	Questions
18	11	1a.	I plan to complete high school.
11	6	1g.	I plan to go on to college or a university.
9	4	4.	Are you presently enrolled in courses which relate to your future plans?
4	1	6.	Have you read any of the college or vocational catalogs?
16	8	7.	Do you already have a career in mind?
40	11	14.	How many times did you talk with your parents about your future plans?

INSTRUMENT #18

DATA REDUCTION

		CL 9	CL 8	CL 7	SS	16th St
1. Circle the letters at the left of the items which you consider part of your present plans.						
a. Complete high school.		19	17	19	11	18
b. Get a job before leaving high school.		17	13	14	10	15
c. Get a job after leaving high school		9	9	10	6	8
d. Keep the job you have now.		3	3	4	5	5
e. Become an apprentice in an industrial program.		3	3	4	3	-
f. Go on to a trade or technical school.		7	6	6	4	7
g. Go on to college or a university		11	12	16	6	11
h. Continue your education on a part-time basis.		5	4	6	4	3
i. Travel before getting a job.		3	2	1	4	3
j. Be a housewife.		5	2	2	1	2
k. Join the Military.		1	4	8	5	2
l. Other		-	4	4	-	1
m. No plans at the present time.		4	3	2	4	3
Please circle YES or NO in answer to the following questions:						
3. If you are not working, do you have a job lined up?	Yes	9	9	9	5	7
	No	12	7	11	7	9
4. Are you presently enrolled in courses which relate to your future plans?	Yes	10	3	6	4	9
	No	11	14	15	8	11

INSTRUMENT #18 (CONTD.)

DATA REDUCTION

		CL 9	CL 8	CL 7	SS	16th St
5. Are you satisfied with the way in which the courses most important to you are being taught?	Yes	10	17	20	13	18
	No	2	2	-	2	-
6. Have you read any of the college or vocational school catalogs?	Yes	5	4	-	1	4
	No	14	15	21	14	16
7. Do you already have a career in mind?	Yes	11	12	13	8	16
	No	7	6	8	7	4
8. How many people from the community visited your classroom during this school year to tell you about their kind of work?		13	20	5	32	41
9. How many school assemblies of large group meetings did you attend during the school year where people talked about their jobs?		6	20	29	12	8
10. How many class trips did you take during the school year to observe work being performed?		21	21	22	13	13
11. How many class trips did you take to other places during the school year (e.g., museum, planetarium, civic center, etc.)?		17	14	8	12	3
12. How many times did you talk with your teachers during this school year about the kind of work you could do while in school or after graduation?		15	11	4	11	18
13. How many conversations have you had with a guidance or vocational counselor during the school year?		17	11	21	11	17
14. How many times did you talk with your parents about your future plans?		12	17	55	11	40

Career Planning - #18 (continued)

It would appear from the data that more students at 16th Street pilot school plan to complete high school and go on to college; that several Project students already have a career in mind; that their course work relates more to their future plans than that of the Control students, and that they are in frequent touch with resources related to future plans; e.g., parents and vocational catalogs.

It is suggested that the test be given to a much larger sample and tested for significance.

The instrument seems to be measuring valid differences. A test/re-test situation should be set up with similar experimental/control groups, using a smaller number of test items which now indicate differences.

Career Planning - #19

Instrument #19 is a 32-question, survey-type instrument for tenth to fourteenth grade students. (Testing time, 25 minutes.)

A similar number of 11th and 12th grade students answered the questionnaire at Northeast High (38) and Dunedin High (39). More Project students at Dunedin High were positive with respect to the following items:

Dunedin 11th and 12th	Northeast 11th and 12th	Test Item
30	21	4. Are you now enrolled in courses which relate to your future plans?
25	19	5. Do you think new course offerings should be added to the school curriculum?
15	8	6. Do you think there are courses which could be dropped from the course of study?
39	34	9. Do you already have a career in mind?
23	19	11. Have you read any of the college or vocational school catalogs?

INSTRUMENT # 19 **DATA REDUCTION**

		NE 11	NE 12	DU 11	DU 12	CCL	PVTI
1. Please circle the letters which you consider part of your present plans:							
a. Complete high school.		20	18	21	18	2	1
b. Get a job before leaving high school.		8	8	9	6	-	-
c. Get a job after leaving high school.		6	8	6	6	7	1
d. Keep the job you have now.		-	7	3	9	1	3
e. Become an apprentice in an Industrial Program.		-	2	-	2	1	1
f. Go on to a trade or technical school.		9	5	3	1	5	3
g. Go to college or a university.		10	9	10	8	2	1
h. Continue your education on a part-time basis.		2	3	2	3	12	6
i. Travel before getting a job.		4	3	4	2	-	-
j. Be a housewife.		3	4	2	4	4	-
k. Join the Military.		1	-	4	-	-	-
l. Other (describe)		5	-	1	4	1	3
m. No plans at the present time.		2	1	2	-	2	2
3. If you are not now working, do you have a job lined up?	Yes	4	8	9	2	9	3
	No	4	4	8	6	9	10
4. Are you now enrolled in courses which relate to your future plans?	Yes	13	8	15	15	18	14
	No	7	9	4	5	1	2
5. Do you think new course offerings should be added to the school curriculum?	Yes	10	9	13	12	7	7
	No	5	8	2	5	9	7

INSTRUMENT # 19 (CONTD.)

DATA REDUCTION

		NE 11	NE 12	DU 11	DU 12	CCL	PVTI
6. Do you think there are courses which could be dropped from the course of study?	Yes	2	6	9	6	2	8
	No	14	12	11	11	15	5
7. Are you satisfied with the way in which the courses most important to you are being taught?	Yes	13	15	10	15	20	8
	No	4	3	10	3	-	6
8. Have you used your school guidance services in developing your future plans?	Yes	8	11	13	8	14	3
	No	12	9	7	12	5	12
9. Do you already have a career in mind?	Yes	16	13	16	18	14	13
	No	1	5	4	1	5	2
10. Have you filled out an application form for entrance into college or vocational school next fall?	Yes	2	8	1	7	1	4
	No	17	11	20	13	19	9
11. Have you read any of the college or vocational school catalogs?	Yes	7	12	11	12	10	10
	No	12	7	10	8	10	6
12. Is there training available for the career you are seeking?	Yes	18	17	15	15	19	15
	No	1	3	4	4	-	-
13. Have you been accepted by an institution of higher learning?	Yes	1	4	1	6	1	4
	No	13	15	20	13	16	11
14. Will you become involved in a family firm or profession?	Yes	5	1	8	6	2	3
	No	10	18	8	10	14	11
15. Do you plan to look for a job outside of your community?	Yes	4	8	13	9	5	4
	No	8	10	5	8	14	11

INSTRUMENT # 19
(CONTD.)

DATA REDUCTION

		NE 11	NE 12	DU 11	DU 12	CCL	PVTI
16. Do you want to do Graduate Work?	Yes	9	6	6	5	7	4
	No	5	19	9	12	7	10
17. Do you believe you will be successful in your chosen job or career:	Yes	19	19	17	18	15	14
	No	-	-	-	-	-	1
18. Do you want to graduate from a:							
a. Four-year college or university	Yes	5	3	6	6	1	-
b. Two-year college	Yes	3	9	2	4	1	1
c. Technical or Business School	Yes	7	5	3	5	12	14
d. Other	Yes	3	2	7	3	2	1
20. In the job of your choice, you would most like to be:							
a. Owner		1	3	2	1	1	2
b. Director		1	-	-	1	1	-
c. Manager or Supervisor		5	1	1	5	2	3
d. Skilled Employee		5	10	5	8	7	6
e. Unskilled Employee		-	-	-	-	-	-
f. Professional		5	6	8	7	6	4
g. Other		2	1	-	-	-	-
31. Who helped you the most in making plans for your future?							
a. Parents		10	-	9	10	3	1
b. Friends		3	-	1	6	2	3
c. Teacher		4	-	5	5	4	2
d. School Counselors		5	-	2	2	6	3
e. School Administrators		-	-	-	-	1	1
f. Others		6	-	6	5	-	3

Career Planning - #19 (continued)

Dunedin 11th and 12th	Northeast 11th and 12th	Test Item
14	6	14. Will you become involved in a family firm or profession?
24	12	15. Do you plan to look for a job outside of your community?
15	11	20. In the job of your choice, you would most like to be a professional?
31	18	26. During the previous year, how many conversations have you had with a guidance or vocational counselor?

It would appear from the data that the students at the Dunedin Project School are more often considering a family firm or profession, professional status, a job outside of their community, and that they are more often enrolled in courses related to their future plans. They have had more conversations with the school counselors, and have reviewed more college or vocational catalogs, and more often had a career in mind.

Dunedin students more often suggested additions to the school curriculum; e.g., forestry, travel business, nurse aide, Bible history, computer programming and data processing, working with the public, A/C refrigeration, telephone usage, medical technology, modeling, plumbing, shorthand, zoology, conservation, military, musical programs, law, dancing, and child care.

Dunedin students more often suggested deletions from the school curriculum; e.g., world geography American literature, reading II, some English classes, home family relations, and American history.

Attitudes Toward Career Planning - #20

Instrument #20 is a 25-item, strongly agree/agree/ disagree/strongly disagree - type form for seventh to ninth grade students. (Testing time, 10 minutes.)

This form generated few differences between seventh graders at 16th Street and Southside Junior High. Since many of the questions tend to overlap

with the Career Planning Surveys, it is recommended that this instrument be incorporated with Instruments #18 and 19.

School*	Strongly Agree	Agree	Dis-Agree	Strongly Disagree		Statement
16th	2	5	10	3	5.	Luck or chance will play a small part in my choice of a career.
SS	2	10	6	2		
CC	4	7	4	4		
16th	1	7	9	3	10.	My parents are a good source of information about which career to follow.
SS	1	3	9	7		
CC	5	5	8	2		
16th	1	4	12	3	12.	My home life and parents' income and education will have only a minor effect on my career education.
SS	3	10	6	1		
CC	3	4	8	4		
16th	-	2	12	7	13.	I will probably decide what my occupation will be, only after I leave college.
SS	1	2	7	10		
CC	1	1	9	8		
16th	2	6	6	6	20.	I will retire when I am still young enough to enjoy it. regardless of my work.
SS	3	-	11	6		
CC	-	7	3	10		
16th	1	12	7	1	23.	Workers who visit school provide valuable experiences when learning about careers.
SS	2	15	3	-		
CC	4	10	3	2		

*16th Street Junior High	21 Students	7th Grade
Southside Junior High	20 Students	7th Grade
Clearwater Comprehensive Junior High	19 Students	8th Grade

Attitudes Toward Work - #21

Instrument #21 is a 20-question, strongly agree/agree/disagree/strongly disagree - type instrument for seventh to ninth grade students. (Testing time, 10 minutes.)

This instrument produced negligible differences between eighth grade students at 16th Street and Southside. The instrument tends to overlap with Instrument #22, and should be incorporated within that instrument.

Attitudes Toward Work - #21 (continued)

School*	Strongly Agree	Agree	Dis-Agree	Strongly Disagree	Statement
16th St.	0	9	10	0	8. My work will make the world a more beautiful place.
SS	2	14	5	0	
CC	4	9	6	2	
16th St.	3	6	6	4	10. Many people are in occupations which they consider glamorous.
SS	4	9	4	2	
CC	2	8	9	2	

*16th Street Junior High	21 Students	8th Grade
Southside Junior High	21 Students	8th Grade
Clearwater Comprehensive Junior High	21 Students	9th Grade

Attitudes Toward Occupational Choice - #22

Instrument #22 is a 37-question, free-choice type instrument for seventh to fourteenth grade students. (Testing time, 15 minutes.)

This instrument was completed by eighth grade students at 16th Street Junior High and Southside Junior High, as well as tenth graders at Dunedin and Northeast High Schools. Few differences were achieved.

It is suggested that the format of this instrument be changed to more of a "forced-choice" instrument, e.g., Instrument #23.

Employability Skills - (Employee Self Concept) #23

Instrument #23 is a 30-item, forced-choice type instrument for tenth to fourteenth grade students. (Testing time, 5 minutes.) A predisposed employer attitudes type scoring key was used with this instrument. The basic assumption was that employers would prefer employees who displayed good work-related characteristics over good characteristics in general. The following characteristics were chosen as "work-related":

Item Number	Characteristics
1.	I am loyal to my employer.
2.	I am a good expediter.
4.	I usually find a way to get the job done.
7.	Long hours don't bother me.
9.	I have good discipline and work habits.
14.	I am enthusiastic about work.

INSTRUMENT #22

DATA REDUCTION

I WANT A JOB WHICH WILL:	School and Grade Level								
	CL 7	16th 8	SS 8	CL 9	DU 10	NE 10	CCL 10-12	CCL 13-15	FVTI 14
1. Pay me a better than average income.	* 9	10	7	15	8	7	5	10	9
	**10	3	6	3	10	7	2	1	1
2. Pay me enough money to provide for my family and myself.	20	15	13	16	14	12	14	14	8
	2	-	2	1	2	1	1	2	1
3. Offer me chances for advancement and promotion.	15	10	19	18	14	17	8	15	11
	5	1	-	1	2	1	3	1	1
4. Allow me to work in the community of my choice.	10	10	4	13	11	10	9	5	11
	8	2	8	3	4	4	1	6	1
5. Allow generous fringe benefits and great freedom in choosing when I will take my vacation.	12	9	9	10	6	8	6	7	5
	7	8	6	4	6	6	6	9	4
6. Allow me to work by the project, rather than by the hour or day, so that I can work at my own pace.	11	5	5	11	7	7	6	-	-
	7	9	6	3	6	8	3	12	6
7. Provide me with daily contact with other workers I like.	11	5	8	12	12	5	3	7	4
	8	6	7	3	3	5	4	9	3
8. Allow me to meet the "right" people.	13	6	6	8	3	3	9	-	2
	7	7	10	6	14	6	5	12	9

*Top row of figures: No. of students selecting item as MOST IMPORTANT
**Bottom row of figures: No. of students selecting item as LEAST IMPORTANT

INSTRUMENT #22 (CONTD.)

DATA REDUCTION

	School and Grade Level								
	CL 7	16th 8	SS 8	CL 9	DU 10	NE 10	CCL 10-12	CCL 13-15	PVTI 14
9. Allow me to live the way I want to.	*13	16	11	17	14	11	12	7	8
	** 6	-	5	2	3	2	2	4	-
10. Insure my happiness in my work over the years.	14	11	12	13	15	11	8	9	11
	6	4	4	-	1	2	2	6	-
11. Allow me to be my own boss.	15	2	3	9	7	4	6	4	1
	4	13	14	7	10	8	8	11	5
12. Allow me to supervise work done by others.	7	2	-	6	2	2	4	12	1
	11	11	13	7	9	12	5	11	6
13. Interest me.	14	17	19	16	20	17	16	17	16
	7	1	1	2	-	-	-	1	-
14. Permit me to do my work well.	13	8	13	17	15	13	11	17	11
	5	1	5	-	-	3	2	1	-
15. Give me the feeling of great accomplishment.	14	10	17	16	13	15	11	17	10
	5	4	1	1	3	1	2	-	1
16. Bring people to look at me.	-	3	2	10	4	6	5	1	2
	18	11	15	5	13	8	7	17	6
17. Make the world a more beautiful place.	13	5	5	7	11	7	8	7	4
	7	7	6	4	1	4	2	7	3
18. Pay the most money over the years.	13	4	4	6	5	2	3	6	2
	4	8	12	6	8	11	5	9	2
19. Pay a beginning salary that pleases me.	15	10	14	16	9	9	14	13	4
	5	2	3	1	4	3	-	3	1

INSTRUMENT # 22 (CONTD.)

DATA REDUCTION

	School and Grade Level								
	CL 7	16th 8	SS 8	CL 9	DU 10	NE 10	CCL 10-12	CCL 13-15	PVTI 14
20. Provide security even in hard times, and offer a good future.	*18	15	20	15	15	14	15	16	12
	** 2	1	1	1	2	3	2	-	-
21. Provide free use of an automobile.	7	4	-	7	2	-	5	-	-
	13	12	19	8	18	12	7	18	13
22. Require training or education that I can afford.	13	8	14	10	6	7	11	12	3
	6	3	1	2	1	3	1	2	3
23. Allow me to retire when I am very young.	4	3	1	6	-	-	3	2	1
	16	14	16	9	17	10	8	14	6
24. Provide good working conditions and pleasant surroundings.	13	13	17	15	15	14	15	16	12
	4	2	2	1	1	3	-	-	1
25. Allow me great personal freedom, and permit me to express my personality.	11	9	9	12	13	10	10	4	5
	8	4	4	2	2	4	4	9	5
26. Offer me great variety in my work.	12	5	9	14	11	4	9	11	10
	6	4	2	1	1	5	2	2	1
27. Allow me to invent new things.	7	1	3	11	3	3	6	4	1
	12	11	9	3	5	1	4	9	4
28. Allow me to use my hands in my work.	15	10	15	13	11	5	6	9	5
	5	4	4	1	4	3	3	2	1
29. Allow me to help other people.	17	12	15	16	17	15	14	16	5
	4	3	-	-	-	-	1	-	1

408

INSTRUMENT # 22 (CONTD.)

DATA REDUCTION

	School and Grade Level								
	CL 7	16th 8	SS 8	CL 9	DU 10	NE 10	CCL 10-12	CCL 13-15	PVTI 14
30. Take me to many different parts of the world.	* 8	5	5	12	5	6	7	3	8
	**11	12	10	5	13	7	6	12	2
31. Offer me a continuous challenge.	11	6	14	13	17	9	3	14	9
	8	5	4	1	1	2	3	2	2
32. Be in an very specialized field.	10	3	7	12	6	4	3	4	-
	10	7	6	2	4	6	4	8	4
33. Be difficult to get.	17	-	-	2	3	2	11	-	1
	2	13	18	12	11	11	-	17	10
34. Have a supervisor who is a fair person.	17	10	13	12	10	10	13	12	9
	6	4	2	-	5	2	-	2	2
35. Be a job my school grades indicate that I can handle.	9	10	14	11	7	4	5	11	-
	13	4	2	3	9	6	9	5	4
36. Be a job that my teacher says I would like.	7	3	-	6	-	-	2	3	1
	12	11	17	9	19	12	12	11	9
37. Be a job my school counselor says is "just right for me."	12	5	2	7	-	2	3	3	1
	6	9	15	9	19	8	9	10	8

402

DATA REDUCTION

INSTRUMENT #23

	13-15 PVTI	10-12 CCL	11th Grade DUNEDIN	11th Grade NORTHEAST
	5	5	6	7
		5		
	4	5	5	6
		5		
	4	5	5	6
		4		
	4	4	5	5
		4		
	4	4	5	4
		4		
	4	4	4	4
		4		
	4	4	4	3
		4		
	3	4	4	3
		4		
	3	3	3	3
		3		
	3	3	3	3
		3		
	3	3	3	3
		3		
	3	3	3	3
		3		
	3	2	3	2
		2		
	3	2	3	2
		2		
	3	2	2	1
		2		
	3	0	2	1
		0		
	3	0	2	
	2		2	
	1		2	
	0		1	
Total Count	62	105	67	56
Total Students	20	33	20	16
Avg./Student (x 10)	3.1	3.2	3.35	2.94
Class Mean Average	31.0	32.0	33.5	29.4

INSTRUMENT #23

DATA REDUCTION

	NE 11th	DU 11th	CCL 10-12	CCL 10-12	PVTI
1. I am loyal to my employer.	11	16	13	13	12
	--	--	--	--	2
2. I am a good expediter.	2	1	2	5	5
	1	5	3	1	2
3. I am usually truthful.	9	12	10	11	13
	2	--	1	1	3
4. I usually find a way to get the job done.	11	8	9	6	12
	5	1	1	2	1
5. I am honest.	12	14	13	14	16
	--	--	1	1	--
6. I have good taste.	5	2	6	7	2
	3	5	2	1	3
7. Long hours don't bother me.	8	3	6	2	6
	7	13	9	10	8
8. I am persuasive.	1	2	4	1	1
	4	5	4	7	4
9. I have good discipline and work habits.	8	7	10	10	7
	3	--	3	1	1
10. I am tactful.	4	4	3	8	3
	2	5	1	5	4
11. I make good decisions.	8	3	7	6	3
	--	--	1	1	2
12. I am courteous.	11	14	5	13	13
	2	--	2	1	--
13. I am inquisitive.	2	5	1	8	8
	6	3	3	2	4

INSTRUMENT #23 (CONTD)

	NE 11th	DU 11th	CCL 10-12	CCL 10-12	PVTI
14. I am enthusiastic about work.	6	7	4	6	7
	1	4	3	2	1
15. I believe in my own capabilities.	5	7	6	9	8
	2	2	1	1	4
16. I am reliable.	10	15	9	11	14
	4	1	--	2	--
17. I am a good salesman.	2	2	4	2	3
	3	8	3	7	10
18. I am punctual.	6	8	4	7	8
	2	4	1	5	4
19. I am helathy and energetic.	5	7	10	9	5
	2	2	1	--	1
20. I work fast and hard.	9	8	6	7	2
	2	2	3	3	5
21. I am imaginative.	5	8	4	5	5
	2	4	2	2	5
22. I am orderly and neat.	10	7	12	9	9
	1	3	1	2	2
23. I am good natured.	6	7	5	11	11
	2	2	1	1	--
24. I finish tasks on time.	3	5	5	4	1
	1	3	5	3	2
25. I am patient.	5	3	3	6	5
	4	8	5	1	3
26. I am unselfish.	5	2	4	4	4
	1	--	5	3	1

INSTRUMENT #23 (CONTD)

	NE 11th	DU 11th	CCL 10-12	CCL 10-12	PVTI
27. I am inventive	3	5	2	2	3
	1	2	5	6	6
28. I am well liked.	6	3	7	7	4
	1	--	4	1	2
29. I don't watch the clock.	6	--	--	1	7
	4	11	16	5	6
30. I believe in being "profit" oriented.	2	2	--	5	2
	6	6	7	3	9

Employability Skills - (Employee Self Concept) #23 -(continued)

Item Number	Characteristics
17.	I am a good salesman.
18.	I am punctual.
20.	I work fast and hard.
24.	I finish tasks on time.

The assumption was that the above characteristics would be preferred over good characteristics in general. For example:

Item Number	Characteristics
3.	I am usually truthful.
5.	I am honest.
6.	I have good taste.
8.	I am persuasive.

There was not time to take an actual employee survey prior to testing; this is recommended before future tests.

The instrument did discriminate between the pilot and control school at the 11th grade as follows:

Dunedin	33.5	(for 20 students)
Northeast	29.4	(for 16 students)

In future testing, "Please circle no more than ten statements" should be underlined, and the instruction to "X out five statements which least describe you" should be deleted.

Employability Skills - #24

Instrument #24 is a three-part, 54-item, strongly agree/agree/disagree/strongly disagree-type instrument for 10th to 14th grade students. (Testing time, 25 minutes.)

This instrument was given as an experiment to twenty post-secondary students, and twenty-one 10th to 12th grade students in a post-secondary environment. Enough differences were generated, although some students resisted taking the test on the grounds, "What difference will it make?"

It is recommended that the instrument be rewritten in more positive terms and given to 11th and 12th graders.

INSTRUMENT #24

DATA REDUCTION

PART I - Job Seeking Skills	School*	STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE
1. An employer will pick the applicant with the most education.	PVTI	2	9	8	1
	CCL	8	9	3	1
3. Before showing up for an interview, it is best to learn something about the company and why it is in business.	PVTI	7	13	-	-
	CCL	6	11	4	-
4. It is best to talk salary before too long at the interview.	PVTI	-	11	9	-
	CCL	5	11	4	-
8. It is best to come to the interview with a carefully prepared "resume" of all your past work experience and your education.	PVTI	6	14	-	-
	CCL	7	10	3	1
9. Your "resume" should include your avocational interests, e.g., clubs joined, hobbies, and special awards received.	PVTI	2	14	4	-
	CCL	3	8	5	5

(Continued)

*See footnote, last page of data reduction on this instrument.

INSTRUMENT #24 (CONTD)

PART II - Acceptive Self Concept	School	STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE
3. When I am with a group of people I usually don't say very much for fear of saying the wrong thing.	PVTI	3	2	13	2
	CCL	3	10	7	1
4. It worries me when my friends dislike me.	PVTI	-	9	10	1
	CCL	7	8	6	1
6. My feelings are sometimes easily hurt.	PVTI	5	6	10	4
	CCL	5	8	7	1
9. I am very different from other people.	PVTI	2	6	12	-
	CCL	2	10	7	2
PART III - Influential Self Concept					
2. I am good at helping people who are upset or troubled.	PVTI	2	16	2	-
	CCL	5	3	18	-
4. I am good at debating.	PVTI	1	7	10	2
	CCL	4	11	4	2
6. I work best by myself.	PVTI	4	13	3	-
	CCL	2	10	6	3
10. I take criticism extremely well.	PVTI	1	13	5	1
	CCL	1	8	10	2
11. I can usually influence others.	PVTI	-	16	3	-
	CCL	2	8	9	1
13. I have a tendency to put off solving problems	PVTI	-	4	13	3
	CCL	2	7	10	2

INSTRUMENT #24 (CONTD)

	School*	STRONGLY AGREE	AGREE	DIS-AGREE	STRONGLY DISAGREE
19. I feel I must ignore the feelings of others when I am working on an important project.	PVTI	2	2	13	3
	CCL	1	6	7	5
21. I usually expect very little of other people.	PVTI	1	8	9	2
	CCL	2	11	7	-
22. People usually understand me.	PVTI	1	14	3	1
	CCL	4	7	9	-
24. People usually try to take advantage of me.	PVTI	-	5	13	2
	CCL	1	12	5	2
7. I usually have bad luck.	PVTI	-	-	18	2
	CCL	4	2	12	3

*Pinellas Vocational Technical Institute 20 Students 14th Grade
City Center For Learning 21 Students 10-12th Grade

Employment Entry Skills - #25

Instrument #25 is a 55-item, free-choice type instrument for 11th to 14th grade students. (Testing time, 15 minutes.)

The instrument was administered to 12th grade students at Dunedin and Northeast High Schools. The following differences were considered as possibly significant:

Pilot School	Control School	Test Item
17	13	1. I know how to work with words.
13	8	2. I know how to work with data or numbers.
11	6	7. I know how to keep careful financial records.
12	7	8. I know how to post debits and credits.
18	12	9. I know how to use a typewriter.
18	11	11. I know how to use a duplicating machine.
18	12	13. I know how to use an adding machine or calculator.
7	2	14. I know how to do a lot of paper work in a short amount of time.
16	1	15. I know how to take dictation at _____words per minute.
12	6	26. I know how to design clothing.
-	5	28. I know how to sketch people so that they can be recognized.
9	6	45. I know how to read fast _____ words per minute.
1	6	54. I know how to work in a scientific laboratory.

INSTRUMENT # 25

DATA REDUCTION

	12th		13th-14th	
	NE	DU	CCL	PVTI
I KNOW HOW TO:				
1. Work with words.	*13	17	23	14
	** 2	2	8	3
2. Work with data or numbers.	8	13	11	11
	7	5	21	5
3. Work with children.	15	16	32	9
	3	3	6	4
4. Organize my own business.	7	6	16	9
	8	14	20	8
5. Organize my own club.	8	6	15	7
	7	13	17	8
6. Spend my money wisely.	12	13	29	12
	4	6	14	3
7. Keep careful financial records.	6	11	16	10
	6	8	17	6
8. Post debits and credits.	7	12	11	9
	9	7	21	9
9. Use a typewriter __ words per minute.	12	18	13	9
	4	2	19	7
10. Use a telephone.	15	17	38	19
	-	3	1	-
11. Use a duplicating machine.	11	18	19	13
	5	1	14	7
12. Keep a neat correspondendence file.	10	11	21	10
	3	7	10	7
13. Use an adding machine or calculator.	12	18	22	13
	4	2	12	3

*Top row of figures: No. of students responding "can do better than average."
** Bottom row of figures: No. of students responding "cannot do at all."

INSTRUMENT #25 (CONTD.)

DATA REDUCTION

	12th		13th-14th	
	NE	DU	CCL	PVTI
14. Do a lot of paper work in a short amount of time.	2	7	7	4
	10	12	18	12
15. Take dictation __ words per minute.	1	16	3	2
	14	4	32	17
16. Use a bookkeeping machine.	5	2	1	2
	11	17	33	18
17. Use a keypunch.	3	2	1	2
	14	18	32	18
18. Use data processing equipment, e.g., computer, sorter, collator.	1	1	11	2
	12	18	33	18
19. Solve arithmetic problems and puzzles.	12	13	29	18
	2	5	5	1
20. Use a slide rule.	2	2	14	8
	14	17	14	10
21. Use a saw and hammer to build things.	9	8	24	17
	2	11	13	1
22. Use wood shop power tools.	7	4	13	14
	3	16	22	5
23. Operate metal shop power tools, e.g., drill press or grinder.	5	4	5	14
	6	15	28	5
24. Repair and refinish furniture.	4	4	7	11
	7	15	26	7
25. Design furniture or buildings.	1	2	6	3
	9	16	27	14
26. Design and make clothing.	6	12	13	2
	7	7	28	17
27. Design and make pottery.	6	4	7	2
	7	15	25	16

INSTRUMENT #25 (CONTD.)

DATA REDUCTION

	12th		13th-14th	
	NE	DU	CCL	PVTI
28. Sketch people so that they can be recognized.	5	-	6	2
	10	19	28	16
29. Make portraits or sculptures.	2	-	3	1
	11	17	27	17
30. Make photographs.	10	7	12	12
	4	12	32	7
31. Repair a damaged automobile body.	1	-	6	8
	9	19	31	11
32. Tune up a motorcycle or automobile engine.	1	2	5	13
	9	17	33	5
33. Use a voltmeter.	2	2	5	15
	8	18	30	4
34. Make simple repairs on a TV set.	5	3	7	9
	7	16	28	9
35. Make simple electrical repairs.	5	3	9	15
	8	17	27	3
36. Make simple plumbing repairs.	3	3	6	13
	12	15	28	6
37. Paint a house.	13	15	33	19
	-	4	2	-
38. Drive a truck or tractor.	5	6	10	16
	6	13	26	4
39. Make mechanical drawings.	2	3	3	10
	9	16	33	8
40. Read blueprints.	5	4	7	13
	7	16	26	5
41. Read scientific books or magazines.	5	3	26	13
	2	15	7	4
42. Read special subjects on my own.	13	15	30	15
	1	4	4	2

INSTRUMENT #25
(CONTD.)

DATA REDUCTION

	12th		13th-14th	
	NE	DU	CCL	PVTI
43. Read or write plays.	10	12	23	5
	-	6	10	14
44. Act in plays.	8	6	21	3
	5	11	12	17
45. Read fast ___words per minute	6	9	16	7
	5	9	9	10
46. Write popular fiction.	4	2	11	2
	10	16	33	18
47. Write poetry.	6	5	17	6
	8	14	17	14
48. Perform as a musical soloist or in a band, combo or orchestra.	2	2	6	4
	13	17	25	15
49. Do modern, interpretive, or ballet dancing.	2	2	11	3
	11	17	20	17
50. I have won awards for excellence.	6	6	12	7
	7	12	18	12
51. I have won awards for sports competition.	7	8	10	4
	6	12	20	12
52. Use a microscope.	9	8	23	15
	3	11	11	8
53. Use a chemistry set.	5	2	6	6
	7	17	27	13
54. Work in a scientific laboratory.	6	1	4	2
	8	18	28	15
55. I have participated in scientific experiments.	7	7	21	7
	2	12	15	11

Employment Entry Skills - #25 (continued)

Eleven of the differences were in favor of the pilot schools; two favored the control schools. Nine of the eleven differences at the pilot schools referred to office work.

This instrument may be a valid indicator of the type of curriculum which predominates in a school. It is recommended for large-scale testing at the 11th and 12th grades.

Employment Entry Skills (Interests) - #26

Instrument #26 is a 10-item free-choice type instrument for 11th to 14th grade students. (Testing time, 5 minutes.)

This format appears to be capable of eliciting differences in interests related to employment. (Six of ten items showed considerable contrast.)

It is recommended that a battery of test items be developed for the instruments, and given to students in the 11th and 12th grades.

School	Strong Interest	Least Interest	Test Item
CCL	18	2	1. I like to read magazines and trade journals.
PVTI	15	4	
CCL	10	10	2. I like to collect things.
PVTI	13	5	
CCL	12	8	3. I like taking care of pets.
PVTI	10	8	
CCL	4	14	4. I like to gamble at times.
PVTI	10	9	
CCL	9	9	5. I like to tell stories.
PVTI	5	12	
CCL	15	6	6. I like to belong to social clubs.
PVTI	6	13	
CCL	10	10	7. I like to sing in a choral group.
PVTI	5	15	
CCL	15	5	8. I enjoy watching athletic events.
PVTI	16	3	

Employment Entry Skills (Interests) - #26 (continued)

School*	Strong Interest	Least Interest		Test Item
CCL	16	5	9.	I enjoy recitals, concerts, and musicals.
PVTI	13	6		
CCL	12	8	10.	I enjoy working on school or church social affairs.
PVTI	5	13		

*City Center for Learning	21 Students	10-11-12th Grades
Pinellas Vocational-Technical Institute	20 Students	13-14th Grades

Summary of Instrument Validity

In this section, the 26 product evaluation instruments will be categorized according to their apparent validity; i.e., their apparent readiness for test/re-test reliability testing.

Fourteen instruments have produced valid and some significant differences:

#1	#9	#12	#17	#23
#2	#10	#13	#18	#25
#5	#11	#16	#19	

Eight instruments are recommended for redesign:

#4	#8	#15	#24
#7	#14	#22	#26

Four instruments are to be dropped from the battery:

#3	#20
#6	#21

RESULTS

Of the fourteen instruments which include valid differences on the previous pages, significant differences exist at the .01 level for grades K-1, 2, 3, 7-8-9, 10-11-12, using the following instruments:

Results (continued)

Instrument	Grade Levels	N	Mean	EMS	F-Ratio	Level of Significance
#1	K,1st Exp.	78	2.397	1.433	18.85	.01
	K,1st Control	74	1.551			
#9	3rd Exp.	80	23.512	124.284	14.34	.01
	3rd Control	80	16.837			
#11	7,8,9 Exp.	62	36.126	122.891	21.87	.01
	7,8,9 Control	57	29.280			
#12	10,11,12 Exp.	60	52.233	191.579	15.99	.01
	10,11,12 Control	58	41.948			
#13	2 Exp.	76	90.263	2.139	11.18	.01
	2 Control	79	82.405			

Other detectable differences between experimental and control groups are listed in their probable order of significance, as follows:

Instrument	Grade Levels	N	Mean	EMS	F-Ratio
#10	4,5,6 Exp.	77	34.038	172.909	3.38
	4,5,6 Control	77	30.142		
#5	K,1st Exp.	79	2.670	0.823	0.86
	K,1st Control	80	2.537		
#9	2nd Exp.	80	12.262	48.508	0.77
	2nd Control	79	11.291		
#16	14 Exp.	16	74.8		
	10,11,12 Control	20	57.6	No basis for EMS or F-Ratio due to population mix.	

Differences which require another kind of analysis have been reported in the analysis section, as to the following instruments:

#2	4-6 Experimental/Control
#17	4-12 Experimental/Control
#18	7,8,9 Experimental/Control
#19	10-14 Experimental/Control
#23	10-14 Experimental/Control
#25	11-14 Experimental/Control

Results (continued)

It is interesting to note that there were significant differences at the .01 level at all grade levels except grades 4-5-6. When the 14 instruments are categorized by grade level, these differences appear as follows:

Grade Levels	Instruments	Level of Significance
K-1	#1	.01
	#5	<.05
2	#13	.01
	#9	<.05
3	#9	.01
4-5-6	#10	Requires other analysis
	#2	Requires other analysis
	#17	Requires other analysis
7-8-9	#11	.01
	#18	Requires other analysis
10-11-12	#12	.01
10-14	#16	Requires further analysis
10-14	#19	Requires other analysis
10-14	#23	Requires other analysis
11-14	#25	Requires other analysis

The foregoing indicates that the Career Awareness instruments may be able to measure significant differences at all grade levels with further design at K-1. The educational awareness instrument measures significant differences K-1. The instruments for the other six elements seem to require a different kind of analysis (such as the Agree/Disagree format or the more complicated analysis required by Instrument #17.) Instrument designers should be more aware of these differences when considering the apparent evaluation needs of the eight elements.

When categorized according to element, it is apparent that the greatest differences were measured by Instruments #9, 10, 11, 12 and 13, indicating that the pilot schools showed significantly greater knowledge of occupations from the second through twelfth grades than did the control schools.

Results (continued)

Instrument #16 may be able to extend these differences to the post-secondary level in subsequent testing.

Instruments #1 and #5 showed greater educational and economic awarenesses on the part of the kindergarten and first-grade pilot school students. Instrument #2 showed greater educational awareness of another kind at the fourth, fifth, and sixth grade levels.

Instrument #17 displayed some relatively new dimensions. Pilot students from the fourth through the twelfth grades showed greater degrees of Occupational Self Concept, not only at the fantasy (or interest) dimension, but in the narrowing of work options at the reality dimension.

Both Career Planning Instruments #18 and #19 showed greater awarenesses on the part of the pilot students from grades seven through twelve.

The Employability Skills Instrument #23 showed slightly greater awarenesses on a small population of pilot school students in grade eleven.

The Employment Entry Skills Instrument #25 showed remarkably clear curriculum impact at the 12th grade level.

Continued funding will facilitate testing of lower and upper grade levels, and will make it possible to refine this battery of instruments--not only for measuring differences between experimental and control populations, but for measuring the significant growth of individual students in each of the eight career education elements.

Fourteen of the 26 instruments can be said to have measured considerable differences in knowledge and/or awarenesses on the part of the pilot school students of the project.

Eight instruments measured only minor differences; new test items must be added for greater validity. Four of the 26 instruments measured no valid differences.

Until a reliability index is developed in subsequent testing of these instruments, it may be said that the Pinellas County Career Education Project has some well-founded support in its product evaluation.

In the school year 1971-72, the Pontiac, Michigan, Office of Research, headed by Dr. Merle Smith, produced what was generally known at the time to be the first (and only) product evaluation report of Student Performance using Career Education concepts (OEC-070-5183 Project FO-361-0122). As there are still so few measures of Career Education variables available at this time, the Pinellas County Career Education evaluators have attempted to replicate parts of the Pontiac design in order to produce greater knowledge of the new field.

In Pontiac, only two of the eight elements of the Career Education Matrix were chosen for Product Evaluation reporting:

1. To assess the occupational knowledge of students
2. To assess the occupational self-concept of students.

In Pinellas County, these objectives are measured by instruments #9, #10, #11, #12, and #17.

In the first objective, "the ability to list occupations" was used as an indicator of occupational knowledge. The scoring keys (for instruments #9, #10, #11, and #17) also defined occupations as "income producing jobs capable of being classified into the major occupational fields." The Pinellas County Scoring Key (for instrument #9) attempted to assist lower grade children with the instruction to the scorer: "Sound out each word phonetically to give each misspelled word the benefit of the doubt." (It would have been awkward to score second and third graders without this added instruction.) As in Pontiac, "the ability to list an occupation was taken as an index of some knowledge about the given occupation."

In the second objective, Pontiac used the North-Hatt rankings, where "questions were imbedded in a 12-item scale modeled after the Career Guidance Survey Developed by Leonard (1968)." ("The total test consisting of three sub-tests -- Fantasy - Ability - Reality, FAR.") Pontiac reported "the scale was criticized on the grounds that... the list of occupations was too short, and that there were too few occupations relevant to female students."

The Pinellas County Career Education evaluators attempted to remedy both of these problems by developing an Occupational Self-Concept instrument with occupational listings in all of the 15 USOE occupational clusters. The instrument was designed with from 12 to 20 occupations listed for each of the following 15 clusters: Health, Marine Science, Agri-Natural Resources, Environmental, Construction, Mass Communications and Media, Manufacturing, Business and Office, Marketing and Distribution, Hotel and Recreation, Personal Services, Transportation,

Fine Arts and Humanities, Public Service and Government.

A replication of the Fantasy - Ability - Reality dimensions in the Pinellas County instrument #17 was approached in the following ways: Students were asked, first, to express either a Strong or Average Interest for whichever occupations in the list (of approximately 280 occupations) appealed to them (Fantasy dimension); then they were to go back to each interest expressed and check whether they thought they had a Strong or Average ability for that occupation (Ability dimension); in addition, for each interest checked, they were to check three other columns: "I would like to work in this field" (Fantasy dimension); "I am going to work in this field" (Reality dimension); and "I already have a job in this field" (Factual--no dimension--distractor).

Pontiac reported, "There was no attempt to establish reliability or validity of the measures." In Pinellas County, the only attempts to establish validity was in the screening of a large battery of test items representing all eight elements of the Ohio State Career Education Matrix. (Drs. Graebell and Burley, from the University of South Florida, assisted in the screenings; see Appendix E.) It was considered that the instruments which were chosen more nearly represented the dimensions of Career Awareness and Occupational Self-Concept than any one of a number of other instruments and test items available.

Both instruments were Pilot Tested at the second, fourth, seventh, and ninth grades for face validity.

As to reliability, Pontiac reported, "Any future research using the Occupational Knowledge Test should make provision for this possibility"--referring to the need for a control group. (Pontiac tested only students who had been exposed to Career Education concepts, K through 6).

Pinellas County was fortunate to have received a grant calling for the implementation of career education concepts K through 14. Accordingly, the populations used for testing were as follows: four elementary pilot schools and four elementary control schools; one junior high pilot school and one junior high control school; one senior high pilot school and one senior high control school. Two post-secondary schools and one comprehensive junior high school were also tested, and are included with the raw data, but did not have matching schools (except for the post-secondary schools in Career Awareness at the Grade 14 level).

Given a post-test only design at this time, the two Pinellas County objectives are stated in behavioral terms:

Objective #1

> Experimental (Pilot) students will demonstrate a significantly greater amount of occupational knowledge than Control students, as indicated by a comparison of lists of occupations written by each

'matched' group of students. The objective will be attained if the combined class mean averages of the pilot schools are significantly greater than the combined class mean averages of the control schools, at the .05 level of significance.

Objective #2

Experimental (Pilot) students will demonstrate a significantly greater amount of occupational self-concept than control students, using the fantasy dimension, the ability dimension, and the reality dimension, as indicated by a comparison of occupational lists checked by each 'matched' group of students. (In that this is a completely new instrument, only combined differences across all grade levels 4th through 12th will be reported.)

The combined differences of the pilot and control groups will be measured across the Fantasy Dimension (two indicators), and from the Fantasy Dimension to the Ability Dimension, and from the Ability Dimension to the Reality Dimension.

The objective will be divided into three parts, one for each of the three measures above. The sub-objectives will be achieved if:

a. The pilot schools show significantly greater differences across the Fantasy dimension than the control schools;

b. The pilot schools show significantly greater differences between the Fantasy and Ability dimensions than the control schools;

c. The pilot schools show significantly greater differences between the Ability and the Reality dimensions than the control schools,

at the 0.05 level of significance.

INSTRUMENT DESIGN, POPULATIONS, SAMPLES, AND DATA COLLECTION PROCEDURES

The instrument design, populations, samples, and data collection procedures are described in the preceding section. Certain aspects will be reviewed here as they pertain to Objectives #1 and #2 of the replication design.

After pilot testing, it was decided to limit the Career Awareness test, #9, to second and third graders; to change the format for fourth through ninth graders (#10 and #11); and to change the format again (#12) for tenth through twelfth graders. (See the different formats

in Appendix E.) The Occupational Self-Concept test for Objective #2 was given to fourth through twelfth graders.

As to the order of testing, the test of Career Awareness (Objective #1) was given first. The test of Occupational Self-Concept (Objective #2) was given second, so as not to contaminate the results of the Career Awareness tests. When time for testing became a constraint, the tests were randomly scheduled across different grade levels in different schools. The grade levels involved in each test are as follows:

				Total Number of Students Tested per Grade Level			
Element	Instrument	Grade Level	Test Time	Camp.Pk & North Shore	Eisenhower & Bauder	Lakeview & Mad. Beach	Palmetto & Curtis
CA	#9	2-3	25	80-2/3	80-2/3	80-2/3	80-2/3
CA	#10	4-6	20	40-5	40-6	40-5	40-4
OSC	#17	4-6	40	40-4	40-5	40-6	40-6

				16th St. & Southside		
				7th Grade	8th Grade	9th Grade
CA	#11	7-9	20	40	40	40
OSC	#17	7-9	40	40	40	40

				Dunedin & Northeast		
				10th Grade	11th Grade	12th Grade
CA	#12	10-14	20	40	40	40
OSC	#17	10-14	40	40	40	40

DATA ANALYSIS

Objective #1a: Career Awareness - #9 (second grade) - Class mean averages are restated from the preceding section, as follows:

	Pilot Schools		Control Schools	
2nd Grade:	CP	15.6	NS	7.8
	LK	11.0	MB	12.3
	EI	10.2	BA	9.1
	PL	12.3	CT	14.2

The combined school class mean averages ratio is 12.3/10.9.

Objective 1a will be achieved if 12.3 (for 80 students) is significantly different from 10.9 (for 79 students) at the .05 level of significance. [No significant difference; see page 410.]

Objective #1b: Career Awareness - #9 (third grade) - Class mean averages are restated from the preceding section, as follows:

	Pilot Schools		Control Schools	
3rd Grade:	CP	28.7	NS	12.3
	LK	26.6	MB	25.8
	EI	16.8	BA	15.0
	PL	21.8	CT	14.2

The combined school class mean average ratio is 23.5/16.8.

Objective 1b will be achieved if 23.5 (80 students) is significantly different from 16.8 (for 80 students) at the .05 level of significance. [0.01 level of significance; see page 410.]

Objective #1c: Career Awareness - #10 (fourth, fifth, and sixth grades) Class mean averages are restated from the preceding section, as follows:

	Pilot Schools		Control Schools	
4th Grade:	PL	20.1	CT	26.0
5th Grade:	CP	22.0	NS	22.9
	LK	22.1	MB	18.4
6th Grade:	EI	36.3	BA	22.8

The combined school class mean average ratio is 25.2/22.5, or 34.0/30.1 (using the 1/2 point scoring key).

Objective 1c will be achieved if 25.2 (for 77 students) is significantly different from 22.5 (for 77 students); or if 34.0 (for 77 students) is significantly different from 30.1 (for 77 students), at the .05 level of significance.

Objective #1d: Career Awareness - #11 (seventh, eighth, and ninth grades) - Class mean averages are restated from the preceding section, as follows:

	Pilot Schools		Control Schools	
7th Grade	16th St.	40.4	SS	41.3
8th Grade:	16th St.	36.4	SS	24.7
9th Grade:	16th St.	33.6	SS	21.0

The combined school class mean average ratio is 36.8/29.1, or 52.0/42.4 (using the 1/2 point scoring key).

Objective 1d will be achieved if 36.8 (for 62 students) is significantly different from 29.1 (for 57 students); or if 52.0 (for 62 students) is significantly different from 42.4 (for 57 students), at the 0.5 level of significance. [0.01 level of significance; see page 410 .]

Objective #1e: Career Awareness - #12 (tenth, eleventh, and twelfth grades) - Class mean averages are restated from the preceding section, as follows:

	Pilot Schools		Control Schools	
10th Grade:	DU	30.0	NE	33.0
11th Grade:	DU	30.1	NE	29.0
12th Grade:	DU	45.4	NE	27.2

The combined school class mean average ratio is 35.2/29.7, or 52.2/42.0 (using the 1/2 point scoring key).

Objective 1e will be achieved if 35.2 (for 60 students) is significantly different from 29.7 (for 58 students); or if 52.2 (for 60 students) is significantly different from 42.0 (for 58 students), at the .05 level of significance. [0.01 level of significance; see page 410 .]

Objective 2a: Occupational Self-Concept - #17

The average difference in interest counts per grade level are restated from the preceding section as: 91.3/66.9

Objective 2a (differences in Fantasy Level) will be achieved if 91.3 (for 191 students) is significantly greater than 66.9 (for 191 students), at the .05 level of significance.

Objectives 2b and 2c

The average of all differences between average interest count and ability counts, and the average of all differences between ability counts and reality counts, are restated from the preceding section, respectively, as:

Pilot Schools	Control Schools
67.2 and 167.8	45.1 and 120.5

Objective 2b (differences between Fantasy and Ability Levels) will be achieved if 67.2 is significantly greater than 45.1 (both for 191 students) at the .05 level of significance.

Objective 2c (differences between Ability and Reality Levels) will be achieved if 167.8 is significantly greater than 120.5 (both for 191 students) at the .05 level of significance.

As for the combined ratios of:

$$\frac{167.8 + 120.5}{2} \quad \frac{67.2 + 45.1}{2} = 144.2/56.2$$

(for 382 students), researchers can expect a wider gap between the ability and reality dimension than between the fantasy and ability levels, if 144.2 is significantly greater than 56.2 (for 382 students) at the .05 level of significance. *

FINDINGS AND SUMMARY

Objective 1: Pontiac reported (page 54): "There is a persistent trend for the number of occupational listings to increase with grade level," and (page 56) "There appears to be a positive relationship between age and level of occupational knowledge." "But it is impossible to explore this relationship in the absence of a control group."

The combined school class mean average ratios for the Pinellas County sub-objectives are as follows:

*Objectives 2a, 2b, and 2c: It appears that significant differences exist at the 0.01 level; however, further numerical analysis will be required to determine the reliability of this approach.

Grade	Objective	Pilot Schools	Control Schools
2	1a	12.3	10.9
3	1b	23.5	16.8
4,5,6	1c	25.2	22.5
4,5,6	1c*	34.0	30.1
7,8,9	1d	36.8	29.1
7,8,9	1d*	52.0	42.4
10,11,12	1e	35.2	29.7
10,11,12	1e*	52.2	42.0

*1/2-Point Scoring Key.

In view of the Pinellas County class mean averages reported above (for 720 students), the persistent trend which Pontiac reports seems to continue from the 2nd through the 12th grade for the Career Awareness instruments in question. There may, however, be a tendency for the trend to peak and flatten out considerably after the 9th grade.

The differences are consistently in favor of the pilot schools, and can be attributed to the strength of the career education project, rather than chance. Five of the eight differences are significant at the .01 level.

Objective 2: The following summary statistics are restated for 191 students:

	Pilot Schools	Control Schools
Fantasy Dimension Differences	91.3	66.9
Differences between Fantasy and Ability Levels	67.2	45.1
Differences between Ability and Reality Levels	167.8	120.5

Objective 2a: The pilot schools show greater differences across the Fantasy Dimension than the control schools. This is a strong indication of program contribution at the Fantasy Level; students in the pilot schools have evidently achieved a growing self-concept relationship with occupations.

Objectives 2b, 2c: Pontiac reported (Page 60): "There is a gradual decrease in scores from fantasy choice to ability to reality choice." The Pinellas County study bears this out; however, the decrease between the ability and the reality dimension is far more accelerated than between the fantasy and the ability dimensions.

The Pilot Schools show greater differences between the Fantasy and Ability dimensions than the Control Schools. This may be attributed to the strong self-concept component of the Pinellas County Career Education project.

The Pilot Schools showed greater differences between the Ability and Reality dimensions than the Control Schools. This may be attributed to a more realistic narrowing of the work options in the Pilot Schools, due to the exceptionally strong guidance component in the Pinellas Career Education Project.

One logical continuation of the instrument design is to apply the Ginsberg type rankings to the broader number of occupations inherent in instrument #17.

In summary, it may be stated that the Pinellas County Career Education Project achieved the objective "to increase occupational knowledge." The combined Pilot School averages showed consistently higher scores than their control school counterparts.

There was a consistently greater amount of occupational self-concept evidenced by the Pilot School students in grade levels 4 through 12, as well as a consistently greater amount of narrowing of work options in the reality dimension.

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

FINDINGS

1. In eight of the nine pilot schools there was an overwhelming acceptance of the new roles of counselor and occupational specialist by teachers and administrators in grades K through 12, given eight areas of responsibility. (The smallest margin of difference was 153 to 21, given a 58% return of all instruments.)

   A strong commitment was shown by counselors in the nine pilot schools, in changing their traditional roles toward more group guidance orientation, and toward the sharing of teacher responsibility for student progress.

   There was strong commitment on the part of new occupational specialists toward sharing the responsibility of developing resources for teachers.

2. A number of parents served as role models, and more than 100 persons from business and industry (representing all of the 15 U.S.O.E. occupational clusters) were involved with teachers and students.

3. Eighty-three percent of all counselor and occupational specialist activities recorded in the Pinellas County Career Education Process Diaries were in the elements of Career Awareness, Self Awareness, Educational Awareness, and Employability Skills. Parent and staff attitudes, on the other hand, suggested priority numbers 1, 5, 6, and 8, respectively, for these elements. The remaining 17 percent of the activities (dealing with the elements of Decision Making, Attitudes, Economic Awareness, and Skill Development) received priority numbers 2, 3, 4, and 7 by parents and staff. The Process Diary represents an initial effort to obtain feedback to be used as a basis for curriculum adjustments; however, this system needs to be expanded to include teachers, administrators, students,

and parents, as well as the counselors and occupational specialists involved this past year.

4. Pinellas County parents and staff demonstrated a high degree of commitment to the need for career education, according to an attitude survey, with 53% parent returns and 63% staff returns. (Given 11 questions dealing with the need for Career Education, the lowest expression of agreement was 77%; the highest was 99%.)

5. There was a significant difference (at the .01 level) in the Educational Awareness of experimental versus control students in the Kindergarten and first grades.

6. There were significant differences (at the .01 level) in the Career Awareness of experimental versus control students in 2nd, 3rd, 7th, 8th, 9th, 10th, 11th, and 12th grades. (There were differences approaching the .05 level in the Career Awareness of experimental versus control students in the 4th, 5th, and 6th grades.)

7. There were considerable differences in the Occupational Self-Concept of experimental versus control students in grades 4 through 14, in the Fantasy dimension, the Fantasy-Ability dimension, and the Ability-Reality dimension.

In a continuation of the Pontiac, Michigan research design, Pontiac reported in 1971-72, "There is a gradual decrease in scores from fantasy choice to ability to reality choice." The Pinellas County study bears this out; however, the decrease between the ability and reality dimension was found to be far more accelerated than between the fantasy and the ability dimensions.

CONCLUSIONS AND RECOMMENDATIONS

The schools in Pinellas County are part of a dynamic society which has consistently created demand for new insights into learning processes, new ways of teaching and workable strategies for relating the traditional academic focus of the classroom situation to the real world outside the school.

Students, parents, educators, business and professional people, and civic organizations are calling for more effective and efficient resolution of educational and societal problems. Education is the responsible link between social needs and social improvements; therefore, new and better relationships in education must be provided to help individual students find satisfactory places in society.

Large numbers of Pinellas County youth fail to see any relationship between school experiences and identifiable steps beyond school. This view is especially common to the large percentage of students not planning to attend college. The relationship between education and the individual's life work should be readily apparent to all students.

Career education is needed for all students, K-14, adult and continuing. Adults are faced with many difficult problems in adjusting to and preparing for the dual roles of family members and workers. Many must redirect careers a number of times during adult life. Assistance in career planning and personal development should be a continuing service provided by the schools. Consideration must also be given to the more severe problems of disadvantaged and handicapped students--those representing the results of failures in education and other social systems.

If career education is to meet the challenge of change, it must assume major responsibility for creating self-awareness, career awareness, and career consciousness in all students, at all levels, to help develop necessary competencies, attitudes, and values that will enable the visualization of a career life and the accompanying life-style.

Career education must be designed to meet the diversity of needs which are resulting from an increasingly complex student population in Pinellas County. The goals must range from providing college preparatory courses to the offering of a wide range of technically oriented occupational courses designed to meet manpower and other economic needs pertinent to the area.

The curriculum for career education must be constantly reviewed, evaluated and revised. Implementation strategies must also be exposed to the same processes. The complex and rapid changes in today's world demand new answers and approaches to curriculum design. If education is to keep pace, traditionally slow speeds of curriculum change and other educational procedures must be accelerated. Typical methods of instruction which

divide the world of knowledge into artifically created segments fail to provide students with an understanding of the world in which various segments of this same knowledge must be related in a logical, meaningful fashion.

Human relations skills have long been recognized as crucial to occupational success. The ability to get along with others has been proven to be of vast importance in the realm of industry. Personnel managers in the Pinellas-Hillsborough Metropolitan area are asking educators for emotionally stable people who can adjust easily, get along with fellow workers and possess a pool of transferable skills. Educators must find a way to direct curriculum and organize educational resources to meet these needs.

In the quest for relevancy in education, nothing is more important than providing every youth and adult in Pinellas County with the capabilities necessary to make intelligent career decisions and the opportunity to prepare for entry and progress in such careers. As part of a dynamic social order, the Pinellas County School system must provide people with the ability to project themselves into future career roles, analyze these roles, and relate these projected roles to a meaningful, happy and productive life. Such are the purposes of career education.

The Pinellas County Comprehensive Career Education Project, a functional system for career development, has provided partial solutions to these serious educational problems. A carefully designed system of career education will ultimately prepare students for more successful work lives by (1) improving the basis for occupational choice, (2) facilitating the acquisition of job skills, (3) enhancing educational achievement in all subject areas at all levels, and (4) making education more meaningful and truly relevant to students.

The career education project staff recommends:

1. Continuation and gradual expansion of the career education movement in the county school system. A comprehensive five-year plan has been prepared and submitted for approval.

2. Continuation and further development of the COST/CAB (Counselor, Occupational Specialist, Teacher; Career Activity Book) Instructional System and the comprehensive evaluation model designed to evaluate the system.

3. Continuation of emphasis on an evolving role for guidance and counseling as an integral part of the career education delivery system.

Career Education concepts were implemented, with differing degrees of success in nine pilot schools, using teams of individuals representing both the schools and the community.

Occupational Specialists worked in all pilot schools and were responsible for much of the project's success. Guidance Counselors in the elementary schools were instrumental in creating an atmosphere which facilitated personal growth and development.

In-service workshops were held during (1) the summer of 1972, (2) the 1972-73 school year, and (3) the summer of 1973. Although, in-service efforts were judged successful by participants, this aspect of the project needs continued and intensified attention in order to provide service to all instructional staff and to reinforce those already involved. Procedures to provide for sharing of ideas and mutual reinforcement are generally lacking and should be provided.

Career Education in Pinellas County pilot schools is becoming a strong delivery system for a total educational program. It is a comprehensive program integrated into the curriculum and systematically organized into components for elementary, junior high, senior high,post-secondary, and adult programs.

Recommendations by Components:

Elementary (K-6)

1. Continued use and further revision of FAIS, LOOM, Orange County and PCCEP materials.

2. Continuation of COST/CAB.

3. Development of the Career Activity Book (CAB) in all clusters.

4. Expansion of community and parent involvement.

5. Intensification of inservice activities.

6. Facilitation of an exchange and visitation program.

7. The addition of more vocational teacher consultants K-6.

Secondary (7-12)

1. Addition of a supervisor with direct responsibility for program development at this level.

2. Development of Career Activity Books (CAB) in all clusters.

Secondary (7-12) (continued)

3. Continuation and further revision of the Counselor-Occupational Specialist and Teacher/CAB team approach to instruction.

4. Facilitate closer cooperation between pre-vocational and academic programs.

5. Reinforce work study programs.

6. Strengthen guidance through the COST/CAB instructional system and by providing material resources.

7. Intensify placement and follow-up efforts.

8. Provide special services to dropouts.

9. Provide inservice programs for academic groups (math, science, language arts, etc.).

Post-Secondary and Adult

1. Intensify guidance services through pre-employment clinics, career counseling, and career information.

2. Provide placement and follow-up services when requested.

3. Organize special services for dropouts.

4. Utilize postsecondary and adult facilities as field trip experiences for younger students.

5. Examine the COST/CAB Instructional System and determine feasibility and effectiveness at the postsecondary and adult level.

Guidance and Counseling

1. Continuation of the key role of Guidance in the development of PCCEP.

2. Facilitation of the evolving role for counselors in the COST/CAB Instructional System.

Inservice

1. Intensify inservice through junior college, university and staff development involvement.

2. Individualize inservice for particular interest groups.

Inservice (continued)

3. Involve parents and the community.

4. Revise and further develop the COST/CAB Instructional System.

5. Develop CAB in all clusters.

Placement and Follow-Up:

1. Implement a centralized placement and follow-up service.

2. Accept responsibility for issuing work permits.

3. Conduct pre-employment clinics. (Employability Skills Course)

Public Relations and Public Information:

1. Intensify efforts in the upper Pinellas County area.

2. Involve more civic and community groups.

3. Actively involve parents.

4. Actively involve more business and industry representatives.

Articulation:

1. Develop a task force to study the total articulation problem.

2. Use the COST/CAB instructional system to evolve one method for meaningful and manageable articulation.

Evaluation:

1. Revision, further development, and field testing of all instruments used during the first phase of operation.

2. Determine test-retest reliability of instruments.

3. Develop a plan to share evaluation data with pilot schools, control schools, concerned county personnel, advisory groups, and the School Board.

ACCESSION NUMBER: VT102118

TITLE: CAREER-CENTERED CURRICULUM FOR VOCATIONAL COMPLEXES IN MISSISSIPPI. FINAL REPORT, JULY 1970 - JUNE 1973.

PERSONAL AUTHOR: MCMINN, JAMES H.

DESCRIPTOR: *DEVELOPMENTAL PROGRAMS; *VOCATIONAL EDUCATION; *PROGRAM DESCRIPTIONS; *VOCATIONAL DEVELOPMENT; *CAREER EDUCATION; CURRICULUM DEVELOPMENT; OCCUPATIONAL GUIDANCE; COMPREHENSIVE PROGRAMS; COOPERATIVE EDUCATION; PROGRAM EVALUATION

IDENTIFIER: JONES COUNTY; MISSISSIPPI

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 214P.; SEE RELATED DOCUMENTS VT 101 976, VT 101 977, VT 101 978 AND VT 101 979 IN THIS ISSUE.

ABSTRACT: THE GOAL OF THIS EXEMPLARY PROJECT WAS TO PROVIDE GUIDELINES AND GIVE IMPETUS TO THE DEVELOPMENT OF CAREER-CENTERED CURRICULA FOR VOCATIONAL COMPLEXES IN MISSISSIPPI. CONDUCTED BY THE JONES COUNTY SCHOOL SYSTEM, IT WAS DESIGNED TO DEVELOP AND DEMONSTRATE A COORDINATED AND INTEGRATED PROGRAM OF CAREER DEVELOPMENT FROM THE FIRST GRADE THROUGH POST-SECONDARY VOCATIONAL-TECHNICAL EDUCATION. TO ATTAIN THE GOAL, THE FOLLOWING OBJECTIVES WERE ESTABLISHED: (1) TO RELATE OCCUPATIONAL INSTRUCTION TO ELEMENTARY STUDENTS AND FACULTY MEMBERS; (2) TO ESTABLISH AN INTENSIVE PROGRAM OF OCCUPATIONAL GUIDANCE AND COUNSELING IN THE JUNIOR HIGH AND SECONDARY SCHOOLS; (3) TO PROVIDE COOPERATIVE EDUCATION (WORK-EXPERIENCE) THROUGH LOCAL BUSINESSES AND INDUSTRIES; (4) TO PROVIDE A WIDE VARIETY OF OCCUPATIONAL TRAINING PROGRAMS; (5) TO ESTABLISH A CAREER-CENTERED CURRICULUM AS AN INTEGRAL PART OF THE REGULAR CURRICULUM; (6) TO DEVELOP CURRICULUM GUIDES AND INSTRUCTIONAL MATERIALS; AND (7) TO STIMULATE CAREER-CENTERED CURRICULUM DEVELOPMENT IN OTHER SCHOOL SYSTEMS. COVERING THE TIME PERIOD OF JULY, 1970 THROUGH JUNE, 1973 THIS REPORT DESCRIBES THE PROCEDURES, RESULTS, AND ACCOMPLISHMENTS OF THE PROJECT. A THIRD PARTY EVALUATION OF EACH YEAR'S PROGRESS IS ALSO INCLUDED. (NJ)

CONTRACT NUMBER: OEC-0-70-5177(361)

INSTITUTION NAME: MISSISSIPPI STATE BOARD FOR VOCATIONAL EDUCATION, JACKSON.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102118

FINAL REPORT

July 1970 - June 1973

Project No. 0-361-0067
Contract No. OEC-0-70-5177 (361)

THE CAREER-CENTERED CURRICULUM FOR THE VOCATIONAL COMPLEXES IN MISSISSIPPI

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

James H. McMinn
Mississippi State Board for Vocational Education
P. O. Box 771
Jackson, Mississippi 39205

June 1973

VT 001 118

FINAL REPORT

July 1970--June 1973

Project No. 0-361-0067
Grant or Contract No. OEC-0-70-5177 (361)

THE CAREER-CENTERED CURRICULUM FOR THE VOCATIONAL COMPLEXES IN MISSISSIPPI

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

James H. McMinn
Mississippi State Board for Vocational Education
P. O. Box 771
Jackson, Mississippi 39205

June 1973

TABLE OF CONTENTS

		Page
	Summary	1
I.	Problem	11
II.	Goals and Objectives	13
III.	Description of the Project	16
IV.	Results and Accomplishments	20
V-A.	Third Party Evaluation (1970-71)	51e
	I. Introductory Section	55e
	II. The Exemplary Program	66e
	III. Evaluation Analysis	92e
	IV. Recommendations	102e
	V. Summary	103e
V-B.	Third Party Evaluation (1971-72)	105e
	I. Introductory Section	109e
	II. The Exemplary Program	115e
	III. Evaluation Analysis	134e
	IV. Recommendations	149e
	V. Summary	150e
V-C.	Third Party Evaluation (1972-73)	152e
	I. Introductory Section	156e
	II. The Exemplary Program	162e
	III. Evaluation Analysis	175e
	IV. Conclusions	205e
	V. Summary	209e
VI.	Conclusions and Recommendations	217

LIST OF TABLES

Table		Page
(Third Party Evaluation Tables)		
Ie	Area Employment by Occupational Categorization during 1970-71 Exemplary Program Operation	59e
IIe	Number of Jones County Families Receiving Welfare Assistance by Category during 1970-71 Operation of the Exemplary Program	60e
IIIe	Jones County School System Enrollment during 1970-71 Session	63e
IVe	Area Employment by Occupational Categorizations during 1971-72 Exemplary Program Operation	110e
Ve	Number of Jones County Families Receiving Welfare Assistance by Category during 1971-72 Operation of Exemplary Program	111e
VIe	Jones County School System Enrollment during 1971-72 Session	113e
VIIe	Summary of Jones County Exemplary Program Placement Activities during 1971-72	144e
VIIIe	Gain in Mean Reading Level of Students Enrolled in the Remedial Phase of the Exemplary Program during 1971-72	147e
IXe	Area Employment by Occupational Categorizations during Exemplary Program Operation	157e
Xe	Number of Jones County Families Receiving Welfare Assistance by Category	158e
XIe	Jones County School System Enrollment during 1972-73 Session	160e
XIIe	Annual Expenditures for Supplies & Equipment for the Exemplary Project	180e
XIIIe	Assessment of Occupational Orientation and Remedial Teachers' Attitudes and Opinions in Reference to the Effectiveness of a Workshop Held for the Production of Curriculum Guides	183e

LIST OF FIGURES

Figure		Page
I	Local Exemplary Project Administrative Personnel	17
(Third Party Evaluation Figures)		
Ie	Location of Jones County Exemplary Program	56e
IIe	Location of Jones County Population Centers	57e
IIIe	Location of Jones County School System Facilities	61e
IVe	Jones County School System Administrative Structure	64e
Ve	Local Exemplary Project Administrative Structure during 1970-71 Exemplary Program Operation	68e
VIe	Jones County School System Administrative Structure during 1971-72 Exemplary Program Operation	114e
VIIe	Local Exemplary Project Administrative Structure during 1971-72 Exemplary Program Operation	117e
VIIIe	Example of an Occupational Orientation Rotation Model	136e
IXe	Increase in Students' Occupational Knowledge over a Six-Week Period during 1971-72 School Year	141e
Xe	Achievement of Students in Exemplary and Comparison Groups on Occupational Inventory Instrument in Mean Scores during 1971-72 School Year	142e

SUMMARY

Period Covered: July 1, 1970 - June 30, 1973

Goals and Objectives of Project:

The goal of this exemplary program was to provide guidelines and give impetus to the development of career-centered curriculums for vocational complexes in Mississippi. It was designed to develop and demonstrate to teachers, administrators, and the public a coordinated and integrated program of career development from the first grade through post-secondary vocational-technical education.

Emphasis was placed upon demonstrating that exploratory occupational experiences are essential ingredients in the educational experience of all students if they are to arrive at sound career decisions. This was accomplished through relating the exemplary program to existing educational opportunities at the elementary, junior high, secondary, and adult levels.

To attain the goal of the exemplary program the following specific objectives were established:

*To relate occupational instruction and counseling to elementary students and faculty members.

*To establish an intensive program of occupational guidance and counseling in the junior high and secondary schools.

*To implement the Occupational Orientation Program for all students in the junior high schools.

*To provide cooperative education (work-experience) through local businesses and industries.

*To provide a wide variety of occupational training programs through the vocational complex and post-secondary vocational-technical center (community college).

*To provide intensive occupational training programs during the day or evening for those about to leave school without salable skills.

*To establish the career-centered curriculum as an integral part of the school system's curriculum.

*To provide adequate placement and post-training work counseling for students.

*To develop curriculum guides and instructional materials which might be utilized by other career-centered programs.

*To stimulate career-centered curriculum development in other school systems.

Procedures:

The procedure designed to implement the career-centered concept spanned all levels of the educational ladder. It placed heavy emphasis upon re-orientation of the traditional school concept about occupational education. During the process students were exposed to occupational education as they entered the elementary school and continued learning about, and preparing for the world of work as they progressed through elementary, junior high, secondary, and post-secondary schools in the area.

The procedure viewed the levels of occupational education as being a pyramid, with students making decisions about careers and needed training based upon broad exploratory experiences and counseling obtained through the program. As students narrowed their choices about occupational selections, individual occupational experiences became more sophisticated and intensified.

The process began with the elementary schools providing students with sufficient occupational information and counseling to meet the needs of all children according to their interests and abilities. To accomplish this basic goal, local exemplary program personnel provided basic services to the elementary faculties. These services included obtaining occupational information, providing counseling, and providing resource persons to be utilized by the elementary faculties. In addition, workshops, seminars, and field trips were held to assist the elementary faculties to incorporate career development into the regular instructional program.

In the junior high school, students expanded and intensified their exploratory experiences in the world of work through a specially designed course, Occupational Orientation. In Occupational Orientation, the students' self-awareness of the world of work was increased by capitalizing upon the introduction to occupational information received at the elementary level. The course was designed to provide exploratory experiences in a broad range of occupational categories and levels, with opportunities for students to make comprehensive educational and occupational decisions rather than being forced into limited choices. In the course, the students were brought to grip with self and society, self and occupation, and self and personality development. Throughout the course the students saw career development in logical sequenced steps traversing the entire occupational choice process.

The career-centered curriculum at the senior high school level was a continuation of exploratory experiences received by students in the elementary and junior high levels, with additional emphasis being placed on occupational preparation activities. Students received assistance in planning for and attaining vocational goals and preferences, either in the form of additional vocational training or work experiences. These experiences were obtained by the students through the vocational programs of agriculture, auto mechanics, building trades, cooperative

education, consumer home economics, general metal trades, industrial electricity, or office occupations, which were offered either in the three high school attendance centers or in the area vocational complex.

A concerted remedial program was operated for students who were identified as potential dropouts in conjunction with the exemplary program. This remedial program equipped potential dropouts with competence and skills necessary for pursuing further vocational training in keeping with their occupational objectives.

Results:

A total of 27 new professional level staff positions were utilized in the implementation of the project. During the year all personnel were engaged in an intensive orientation and in-service training program which enhanced the effectiveness of the program.

The lateness of final approval of the project resulted in some difficulties which were not completely resolved during the first year of operation. All students were pre-registered in the spring of 1970 and were required to re-register after the project was officially funded. Delay in final approval prevented employment of all personnel far enough in advance to have completed curriculum guides, and instructional materials and equipment selected and purchased for utilization within the classrooms by the opening of school. Temporary facilities were necessary for some of the project staff during a part of the school year.

An intensive public relations effort was conducted during the first year of operation. Special emphasis was given to acquainting students, parents, and the lay public with the project. Personal contact, mailouts, civic programs, newspaper articles, and radio programs were used in a concerted effort to increase the understanding of and acceptance of the exemplary project.

During the first year of operation an intensive survey was undertaken to determine the occupational materials being utilized in the elementary schools. This survey served as a basis for developing materials guides, etc. to enhance the presentation of occupational materials at the elementary level. Occupational information was integrated into the elementary curriculum through the use of established curriculum components (reading, art, math, etc.) as vehicles. Occupational information was presented as it related to the curriculum component.

The occupational orientation course was consistently reviewed, revised, and restructured during the year. Occupational orientation teachers utilized in-service training activities to further develop the course.

A total of 25 professional level staff positions were utilized in the project during the second year. During the year all personnel were engaged in an intensive in-service training program which enhanced

the overall effectiveness of the program. In connection with these activities new materials and techniques were developed.

Elementary teachers in the ten attendance centers worked on curriculum committees which integrated career education materials into the ongoing curriculum. Many new occupational songs, games, plays, etc. were developed for use with elementary students.

Occupational orientation course content was revised to include six rotation areas designed around occupational clusters. This facilitated increased use of team teaching, "hands-on" experiences, field trips, and resource persons.

The cooperative education program made much progress in increasing enrollment and training stations during the second year of operation. Remedial education classes continued to serve students in order to assist them in attaining their educational and occupational objectives. Intensive short-term training was made available to students about to leave school (both those about to dropout and those about to graduate) with salable occupational skills. Placement offices were established and functioned in each of the three combination junior-senior high school attendance centers. Placement activities were of both the in-school and out-of-school types.

Community involvement was at a much greater level than in the previous year. A concerted effort at dissemination and public relations was maintained. Dissemination was accomplished through news media, professional meetings, open house, visits from personnel in other school systems (state, region, and nation), in addition to phone calls and correspondence concerning the project.

During FY 73 a total of 30 persons made up the project staff. Of this total 26 were professional positions (administrative, instructional, or guidance), 3 paraprofessionals (teacher aides), and a secretary. During the year all personnel were involved in the overall activities of the project and a united or team effort was prevalent.

During in-service workshops throughout the summer and school year, teachers reviewed and revised teaching materials and the career curriculum guides. A teacher's weekly activity summarization outline was developed and utilized by teachers and local administrative staff.

Personnel of the different schools worked closely and a team approach seemed to be very effective for accomplishing instructional objectives. Teachers of occupational orientation also made a concerted effort to finalize and prepare the Career Exploration Level II Guide for publication. The use of multi-media along with close supervised hands-on-experiences tended to have a great impact upon the instructional process.

Elementary personnel reviewed and finalized the curriculum guide along with carrying out regular instructional activities. Additional teaching materials (both commercial and locally prepared) were secured and utilized throughout the school system.

The Cooperative Vocational Education Program was used to give students who had established a primary career objective on-the-job training. Enrollment in the program also increased for the program.

Public relations activities (newspaper articles, radio programs, open house, etc.) were successful in acquainting the local communities and area with the accomplishments of the project. This too was a united effort on the part of the staff, students, and local interested patrons.

Evaluation:

The evaluation procedure centered around the use of the program's educational goal and objectives as a standard by which the outcome of the project was assessed. Evaluation activities for the first year of operation were centered around the "process." In addition, baseline data was collected on the "product." The procedure included data collection; analysis of records and reports; judgments of qualified observers; analysis of instructional materials, techniques, and methods; analysis of equipment and supplies, purchase and utilization; analysis of program activities; and analysis of opinions of program staff, State Division of Vocational and Technical Education personnel, consultants, school system faculty and administration, parents, and students.

The evaluation analysis indicated that the administrative structure designed to implement the project provided for functional operation of the program with slight modification. All personnel (instructional and administrative) in the project met or exceeded the qualifications described in the project proposal. The delay in final approval of funding for the project created a time-lag which proved to be the largest problem in its implementation. This time-lag resulted in delay in the purchasing and utilization of some equipment and materials which hampered the instructional portion of the program during the school year. The exemplary project cost per pupil was $28.41, with $6.25 being considered "start-up costs." Facilities provided for the program enhanced its implementation. An intensive in-service training program (which resulted in noted improvement in the project) was conducted for the staff during the year of operation. The cooperative education part of the project was underpopulated at the start of the year and there was a shortage of training (work-experience) stations. Two objectives of the project (the establishment of a placement center and short-term entry level skill training for students leaving school) were not implemented during the first year of operation; however, planning for their implementation was underway during the year.

Upon analysis of evaluative data it was concluded that the project was making progress toward the attainment of its goal and objectives and should be funded for another year of operation.

The evaluation analysis indicated that all recommendations made during the first year of operation by the third party evaluation contractor were implemented during the second year of operation. Approximately 39 percent of all the school system's students (grades 7-12) were enrolled in occupational preparation programs (agriculture, building trades, business and office, etc.).

During the second year of operation, progress was made in "fusing" the career-centered concept into the ongoing curriculum at the elementary level. In-service activities continued at a high level for all project personnel. Changes were made in the occupational orientation course which provided for greater use of team teaching. This resulted in the increase in the number of "hands-on" occupational experiences students received. The use of pre-test and post-test instruments indicated approximately a 40 percent increase in occupational knowledge in a six weeks period. Exemplary program students consistently rated higher in occupation knowledge than did comparison groups.

Placement centers were established at each of the junior-senior high school attendance centers, and in-school and out-of-school placement occurred.

Remedial courses contained maximum enrollments. An intensive short-term skill training program for those about to leave school (both by graduation and dropping out) without occupational skills was implemented during the second year of the program's operation. Special emphasis was placed on dropout-prone students by this intensive skill training program.

Upon analysis of evaluative data, it was concluded that the project was making progress toward the attainment of its goal and objectives and should be funded for the third year of operation.

The third year evaluation analysis indicated that most of the contract evaluator's recommendations for the second school year were achieved during FY 73. The acceptance of the concept and its implementation was visible through increased interest, enrollment, and activities of students, lay public, and instructional personnel. The year saw the project become a united or team effort that was sufficiently refined to make it both workable and efficient.

During the third year of operation, much time was spent in in-service training for up-grading and up-dating the curriculum guides. This meant the instructional process would be aided as well as the publication of instructional materials.

Individual programs continued to progress. The Cooperative Vocational Education Program's enrollment increased and many new work stations were secured. The remedial programs had maximum enrollment and utilized revised materials and an intensified testing program. This saw students being more properly assessed and instruction more individualized. The use of team teaching and the multi-media approach saw increased student interest and made the instructional process more meaningful. This was used extensively in the occupational orientation classes. Upon analysis of data, it was concluded that the project had made significant progress and reached a respectable level of achievement since its inception.

Conclusions and Recommendations:

Sufficient information was produced by the project to conclude that the career-centered concept could be an important component in any school system for enhancing students' entry into and success in the world of work. It was further concluded that the components which were apparently most successful in the project should be implemented into other selected schools within the state.

The exemplary project made important progress during the first year of operation in developing skills (social, psychological, and occupational) which will serve as a basis for continuous growth and advancement in chosen careers. Satisfactory progress was made in meeting most objectives of the project.

Recommendations for school year 1970-71 were as follows:

*Funding should be continued for the second year of operation.

*Consumer education classes in the project should be incorporated into the occupational orientation classes.

*Occupational orientation classes should be rotated between teachers with specific specialty areas to increase the exploratory experiences of the students.

*Additional "hands-on" experiences should be provided for occupational orientation students.

*Further development of career-centered media centers should continue in all attendance centers.

*Additional student recruitment activities for cooperative education be conducted.

*Continuation of public relations activities connected with the project.

*Additional curriculum materials development should be undertaken.

*Curriculum guides for all phases of the program should be developed and distributed.

*A placement center to aid students in obtaining employment should be established.

*An intensive skill training program for students about to leave school without salable skills should be inaugurated.

By the end of the second year of the project's operation, additional insights into the operational facet of the career-centered concept had been gained. Information provided by the first and second year of operation provided for a smooth implementation of the career-centered concept in four additional school systems in the State. The most successful components of the project enhanced the immediate accomplishment of objectives established by the other school systems.

It was concluded that important progress was made by the project during the year in assisting students in developing skills which would enable them to adjust to changes within the world of work. In addition, progress was made in assisting students in developing psychological skills and occupational skills which will serve as a base for continuous growth and advancement in chosen careers.

Satisfactory progress was made during the second year of operation toward meeting the project's objectives. Two objectives, (1) implementation of short-term intensive skill training for students about to leave school without salable skills and (2) establishment of placement offices, which had not been implemented during the first year of operation were implemented during the second year. All phases of the project are in operation and making satisfactory progress toward fusing the career-centered concept into the school system.

Recommendations resulting from the second year's report were as follows:

*Funding should be continued for the third year of operation.

*Continued emphasis should be placed on providing remedial education classes for all students needing this service.

*Continued emphasis should be given to making the project an integral part of the ongoing school system's activities.

*Curriculum guides (grades 1-12) should be refined and printed in sufficient quantities to provide copies for other school systems.

*Additional student recruitment activities for <u>all</u> vocational courses should be conducted.

*A feasibility study on providing additional vocational offerings for the school districts should be conducted.

*Continued emphasis should be placed on providing short-term intensive skill training for dropout-prone students.

*Placement services should be continued and expanded.

*Public relations activities connected with the program should be continued.

*Intensive inservice training for project personnel should be continued.

*Plans should be finalized for the continuation of the program as Exemplary Funds are phased out.

It was concluded that the third year of operation of the project has been one with fewer problems and a higher degree of instructional sophistication and operation. This has meant more meaningful learning experiences for the students directly involved in the program. Students have been given access to more varied and useful information relevant to developing wholesome sociological and occupational attitudes. This type information has lent itself to students making a more sound primary job or occupational selection. Satisfactory attainment of the evaluator's recommendations for the second year and greater progress toward accomplishment of the overall project objectives was visible, with the exception of the continuation of the program.

I. PROBLEM

The exemplary project described herein viewed the student's total school experiences as preparation for life, with earning a living as the prime focus. This view could be slightly extended by stating that people need at least three types of skills, namely: (1) sociological skills in order to adjust to and participate in determining the direction of change, the interactional involvement in local community, state, national, and international concerns; (2) psychological skills to enable the individual to achieve self-awareness, to develop certain self-perceived desirable personal characteristics as opposed to the mere expression of those which one might accidentally possess; and (3) occupational skills which afford the individual an opportunity to earn a living and which serve as a base for continuous growth and advancement in a chosen career.

To provide students with these minimal skills was the general aim of the career-centered curriculum. The implication is that the components of the entire school system could be focused on the career development concept. There is ample evidence that traditional curriculums do not necessarily provide the desired percentages of persons with these minimal skills (Shill, 1968A, 1968B, 1968C; Boykin, 1968; see Appendix A). For example, approximately 30 percent of all U. S. students leave school before high school graduation (Grant, 1965). Statistics in the Mississippi State Plan for Vocational Education indicate that the percentages of students who do not complete high school are greater for Mississippi than the national averages, and dropouts exceed 50 percent in some counties. In addition to the dropouts are those students who, after completion of high school, face career choice decisions as they enter the world of work. Similarly, those students who choose some type of post-secondary education also need help in the development of their individual careers. So it is that the career-centered curriculum is for all students, and should be designed so that various aspects of it are well articulated at various levels.

There is ample evidence to indicate that students are vitally interested in their career development at early ages and this interest continues as they mature (Slocum and Bowles, 1967; Campbell, 1968). Evidence also indicates that traditional curriculums do not emphasize career planning, i.e., students receive more career information from sources outside than inside the school system (Shill, op. cit.).

Recent consensus seems to support the premise that work has potential for meeting more than just economic needs. Among other things, it also provides for social interaction, personal dignity, self-identity, and an entree into adulthood. Traditional curriculums have not assisted individuals to perceive work as having personal relevance, as being critical to one's determining his own life style, or as being a means that contributes to self-fulfillment.

14 a

Many youths have a limited awareness of the career choices that may be open to them. This seems especially true for those who have been reared in so-called disadvantaged environments. Social class restrictions, much like traditional curriculums, have tended to limit opportunities for career development. The career-centered curriculum in this project was designed to alleviate some of the problems just mentioned.

II. GOALS AND OBJECTIVES

The Mississippi Occupational Orientation Program (OOP) is one concept which was stressed in this exemplary project. The OOP was initiated in 165 Mississippi schools in the fall of 1969. The program consists of eight units centered around Roe's (Roe, 1965) two-dimensional (level x interest category) schema for classifying occupations. In addition to the basic eight units the program contains an introductory unit and a handbook for teachers. The eight units cover (a) service, (b) business contact, (c) organization, (d) general cultural, (e) outdoor, (f) technology, (g) art and entertainment, and (h) science categories of occupations. The OOP is designed primarily for the 7-9 grades. Students at the junior high level become informed about and oriented to the world of work. The concept of self-awareness is expanded and continued from activities gained in the elementary levels. Self-esteem receives prime consideration in the OOP.

The OOP provides activities and exploratory experiences which enhance self-understanding as a person in the world of work. For the inevitable dropout these activities and experiences will need to be compressed into a shorter time span than would otherwise be desirable for the college bound and terminal high school graduates. Entry level occupational and adjustment skills are essential for the prospective dropout. For students who terminate their education with high school graduation, the OOP provides opportunities for exploration of a broad range of occupational categories and levels. The OOP provides the college bound students with opportunities to make educational and occupational decisions instead of forcing them into limited choices.

The self-concept is integrated throughout the OOP because of its importance in shaping individual behavior. The student is brought to grips with self and societal institutions, self and environment, self and occupation, and self in the personality development process. The OOP aids the student to see career development in logically sequenced steps, the route through which forms a pyramid with the broad informational and orientational base being gained in earlier years and the apex or final career being realized after traversing the entire choice process. Experiences in the OOP aids students in the following important ways:

(1) Evaluation and assessment of personal characteristics--interests, abilities, values, needs, and the progressive synthesis of such characteristics when related to occupational roles.

(2) Exploration of occupational areas--to develop the student's concept of occupations, not only of the occupational requirements in terms of necessary education and training, but also the social and psychological requirements of jobs.

(3) Appreciation of economic and social values of work--the contributions to society that one makes through his occupation, the economic importance of individual earning power.

(4) Appreciation of the psychological and sociological meaning of work--self-fulfillment as a significant result of meaningful work, development of interactional relationships through occupations, status roles gained through occupations.

(5) Recognition of interrelationships between education and occupations--the continuous nature of education as related to occupational advancement.

(6) Involvement in the decision-making process--the sequential nature of decisioning, factors and abilities which facilitate decisioning.

The career-centered curriculum at the senior high school level should include a continuation of exploratory experiences, with additional emphasis being placed on occupational preparation activities. Students would receive assistance in planning for and attaining vocational goals and preferences, either in the form of jobs or additional training. Elements of work-experience and cooperative education programs would be used at this level. These activities provide the "hands-on" experiences which allow students to analyze work in relation to self.

The vocational development framework posited by Havighurst (Havighurst, 1964) provides a theoretical base from which to operationalize the curriculum at this point. The third stage of this framework emphasizes choosing and preparing for an occupation, and getting work experience as a basis for occupational choice and for assurance of economic independence. In addition the following principal developmental tasks need to be accomplished during the ages of 15-25 years:

(1) Achieving new and more mature relations with age mates of both sexes.
(2) Achieving a masculine or feminine social role.
(3) Achieving emotional independence of parents and other adults.
(4) Achieving assurance of economic independence.
(5) Selecting and preparing for an occupation.
(6) Acquiring a set of values and an ethical system as a guide to behavior.
(7) Preparing for marriage and selecting a mate.
(8) Starting a family.
(9) Getting started in an occupation.

In order to complete the career development process, a placement office was established. The coordinator established relationships with the local Mississippi Employment Security Office as well as developed close contacts with local businesses and industries. Detailed planning of various aspects of the curriculum at this point demanded the combined

thinking of the placement coordinator and the cooperative education coordinator. Systematic follow-up of students was coordinated by the placement office.

Objectives

*To relate occupational instruction and counseling to elementary students and faculty members.

*To establish an intensive program of occupational guidance and counseling in the junior high and secondary schools.

*To implement the Occupational Orientation Program for all students in the junior high schools.

*To provide cooperative education (work experience) through local businesses and industries.

*To provide a wide variety of occupational training programs through the vocational complex and post-secondary vocational-technical center (community college).

*To provide intensive occupational training programs during the day or evening for those about to leave school without salable skills.

*To establish the career-centered curriculum as an integral part of the school system's curriculum.

*To provide adequate placement and post-training work counseling for students.

*To develop curriculum guides and instructional material which might be utilized by other career-centered programs.

*To stimulate career-centered curriculum development in other school systems.

III. DESCRIPTION OF THE PROJECT

The exemplary project, a Career-Centered Curriculum for Vocational Complexes in Mississippi, is located in the Jones County School System. The system is located in the Coastal Plains area of the southeastern part of Mississippi. The county is classified as being depressed and has a high rate of unemployment.

The school system is made up of ten elementary schools which feed into three combination junior-senior high schools. The three high schools serve as feeder units for a centrally located vocational complex. In addition a community college which includes a post-secondary vocational-technical program is located within the county.

The Jones County School System has an enrollment of approximately 8,000 students, with a professional staff of some 380 teachers and administrators. It serves a school district with a population of approximately 61,000, of whom 25 percent are described as being "disadvantaged."

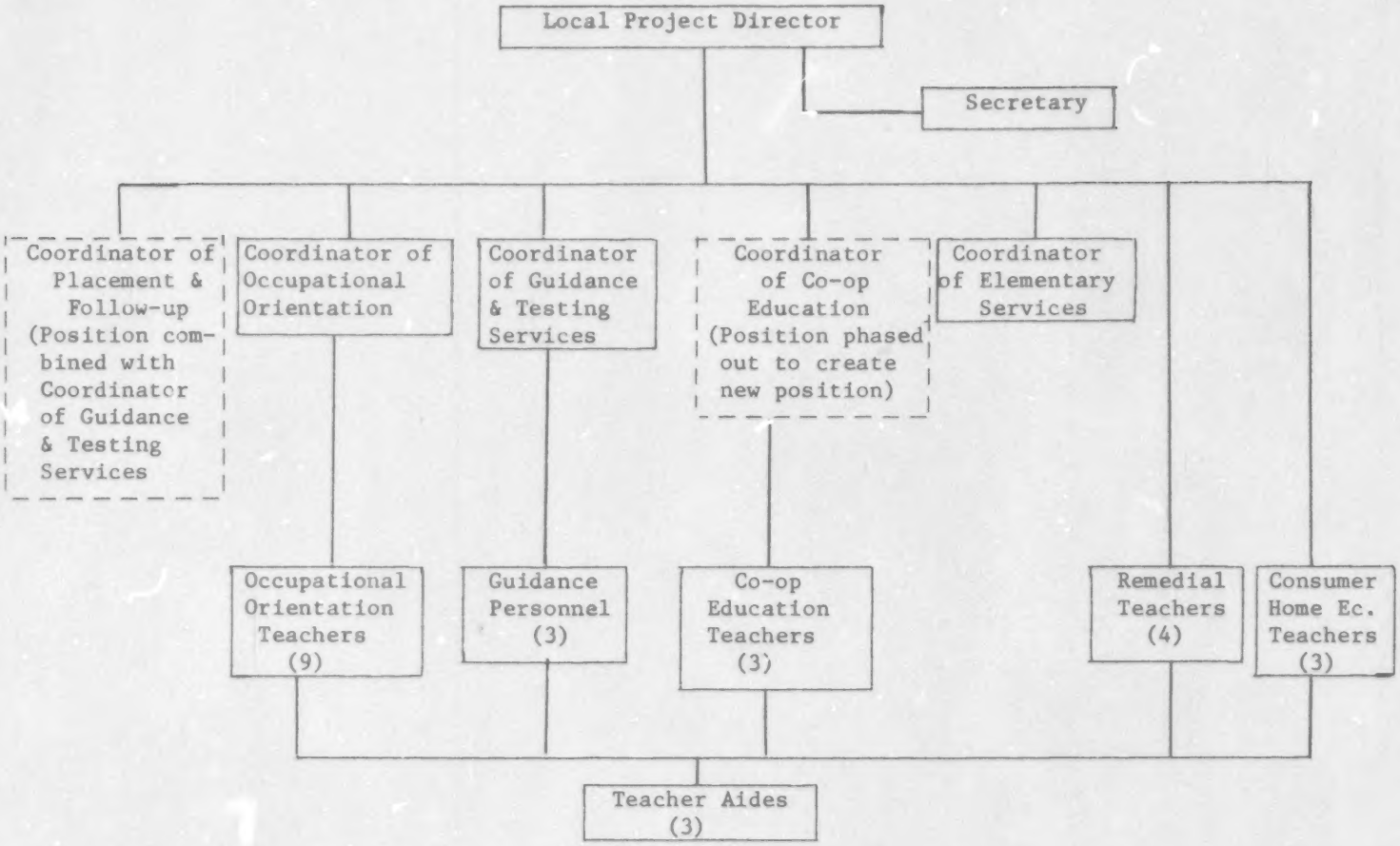
A total of 27 new professional level staff positions were utilized in the implementation of the program at the local level. This number included positions in administration, coordination, counseling, and instruction. In addition, one secretarial position and three teacher aide positions were utilized in the project implementation. All 27 professional-level positions were filled with persons meeting the State certification requirements and having a minimum of a bachelor's degree. Approximately 26 percent of the persons employed held a master's or higher degree. The professional-level positions and administrative structure of the program are shown in Figure I.

The procedure designed to implement the career-centered concept spanned all levels of the educational ladder. It placed heavy emphasis upon reorientation of the traditional school concept about occupational education. During the process students were exposed to occupational education as they entered the elementary school and continued learning about, and preparing for the world of work as they progressed through elementary, junior high, secondary, and post-secondary schools in the area.

The procedure viewed the levels of occupational education as being a pyramid, with students making decisions about careers and needed training based upon broad exploratory experience and counseling obtained through the program. As students narrowed their choices about occupational selections, individual occupational experiences became more sophisticated and intensified.

The process began with the elementary schools providing students with sufficient occupational information and counseling to meet the needs of all children according to their interests and abilities. To accomplish

Figure I. LOCAL EXEMPLARY PROJECT ADMINISTRATIVE STRUCTURE



this basic goal, local exemplary program personnel provided basic services to the elementary faculties. These services included obtaining occupational information, providing counseling, and providing resource persons to be utilized by the elementary faculties. In addition, workshops, seminars, and field trips were held to assist the elementary faculties to incorporate career development into the regular instructional program.

In the junior high school, students expanded and intensified their exploratory experiences in the world of work through a specially designed course, Occupational Orientation. In Occupational Orientation, the students' self-awareness of the world of work is increased by capitalizing upon the introduction to occupational information received at the elementary level. The course is designed to provide exploratory experiences in a broad range of occupational categories and levels, with opportunities for students to make comprehensive educational and occupational decisions rather than being forced into limited choices. In the course, the students are brought to grip with self and society, self and occupation, and self and personality development. Throughout the course the students see career development in logical sequenced steps traversing the entire occupational choice process.

The career-centered curriculum at the senior high school level was a continuation of exploratory experiences received by students in the elementary and junior high levels, with additional emphasis being placed on occupational preparation activities. Students receive assistance in planning for and attaining vocational goals and preferences, either in the form of additional vocational training or work experience. These experiences were obtained by the students through the vocational programs of agriculture, auto mechanics, building trades, cooperative education, consumer home economics, general metal trades, industrial drafting, industrial electricity, or office occupations, which were offered either in the three high school attendance centers or in the area vocational complex.

A concerted remedial program was operated for students who were identified as potential dropouts in conjunction with the exemplary program. This remedial program equipped potential dropouts with competence and skills necessary for pursuing further vocational training in keeping with their occupational objectives.

The career-centered concept in the Jones County School System was enhanced by the availability of extensive vocational-technical training available through an area post-secondary school (Jones County Junior College). The vocational programs at the junior college are open-ended and accept students at any level who can make progress in the occupational training programs. Offerings available in the post-secondary facilities during the project operation included: forestry, horticulture, livestock, technology, distribution and marketing, supermarket training, practical nursing, data processing, secretarial science, building construction technology, drafting and design,

electronics technology, mechanical technology, air conditioning and refrigeration, auto mechanics, horology, machine shop, radio and television repair, and welding.

IV. RESULTS AND ACCOMPLISHMENTS

Major Activities 1970-71:

This first quarter of the project's existence was devoted to the recruitment and employment of staff personnel and to the task of obtaining appropriate instructional materials, testing instruments, and the like. It was necessary to design and promote a good orientation program for project personnel involved directly in the project as well as for personnel involved in a more indirect manner. The orientation of parents and students along with subsequent recruitment of actively participating students came in for considerable attention.

With student schedules already established, as a result of spring pre-registration, there was the need for schedule readjustment in the various attendance centers. This was accomplished without any serious impairment of school opening in the fall. Obviously, it took the wholehearted cooperation of school principals, counselors, and others to harmoniously affect this schedule adjustment.

A staff training workshop was conducted with the objective in mind of establishing and clarifying the specific role of all project personnel in performing and carrying out the objectives of the project. Job descriptions of all project personnel were developed and will be submitted shortly as an addendum to the project. The workshop was led by state staff personnel, institutional teacher education personnel, and Curriculum Coordinating Unit personnel. The first day of the workshop included all members of the Jones County faculty. The State Project Director gave an overview of the training program and the State Director of Vocational Education gave a detailed explanation of the project. A panel discussion, with the Director of the Research Coordinating Unit as moderator, further explained and established the "Career-Centered Curriculum" concept. The remainder of the workshop was devoted to small group sessions composed of project personnel, and institutional teacher education personnel, along with state staff personnel and Curriculum Coordinating Unit personnel. In these group sessions a detailed study of the project was made and as a result personnel roles were established along with methods and techniques for effective project implementation and advancement. Based on response and reaction of the participants, it would have to be concluded that the workshop was highly beneficial toward better preparation of the staff for effective participation in the project. State staff personnel, teacher education personnel, and Curriculum Coordinating Unit personnel also benefited through gaining a better "on-the spot" insight as to how their particular service can assist in carrying out the project objectives.

The second quarter of the project operation can be described as a period of accelerated project activity. Many hours of careful scrutiny were given to study and selection of instructional materials during the first quarter. With these determinations made, the process of acquiring the desired materials and equipment was set in motion. As these materials and equipment began arriving on the scene, there was marked improvement

in both teacher and student interest and morale. The quality of instruction improved through the enhanced quality and numbers of learning experiences that were made possible as a result of the availability of carefully selected teaching materials and facilities. These materials also made it possible for better adaptation of teaching techniques to junior high student levels. Since the occupational orientation program is heavily populated with eighth grade students, this adaptation of teaching techniques is significant.

As a follow-up of the staff training workshop held during the first quarter, state division of vocational education personnel and institutional teacher education personnel worked closely with local project personnel to furnish additional staff training and guidance. Interest expressed in the project by professional and lay people alike has been greatly accelerated.

A very outstanding expression by students enrolled in the program occurred during National Vocational Guidance Week. Many posters and exhibits prepared by students adorned the halls, classrooms, lunchrooms, and campuses of the attendance centers. Almost without exception the posters and exhibits conveyed the message of career preparation.

Detailed instructions for administering the project budget were designed by the project director in cooperation with the State Division of Vocational Education Finance Officer. As a result, requisition and disbursement of funds proceeded smoothly and orderly. Another major achievement during the second quarter of the project operation was the finalizing of job descriptions for project personnel.

Vocational planning inventories were administered during the quarter in all attendance centers. Except for a relatively small number of students who were absent on the date the inventories were administered, all students have been involved with the inventories.

During the quarter, project staff members have participated in an experimental project being conducted by the University of Southern Mississippi. Project staff participation involved evaluating occupational film loops and sound tapes in various occupational fields. Participation in this activity by teachers working in the project has resulted in some very outstanding teaching aids being made available to them for use with their students. Members of the project staff in each attendance center have also organized in-service training sessions for all personnel employed in a given attendance center.

The third quarter of project operation was a period of "leveling off" in the middle and upper school grades. Well supplied for the first time with instructional equipment and materials, the instructional personnel were now in position to better incorporate adequate motivational activities into their teaching process and procedures. Through the use of well-designed resource material and carefully selected resource personnel, interest and effort on the part of students reached a new high.

This was also a period of great expansion into the elementary grades. Moving into the elementary grades on a relatively large scale proved to be very eventful and a worthwhile venture. It was somewhat surprising to learn that a rather great amount of career education was already a part of the elementary grades' curriculum. Obviously, there was a very great need for coordination in the elementary grades to eliminate duplication of effort and to allow each elementary teacher to know what others are doing in the area of career education. To take care of this lack of coordination, permission was asked of and granted by the United States Office of Education to allow the appointment of a coordinator of Elementary Project Activities. It was proposed that this be done by eliminating the position of Complex Coordinator of Cooperative Education and substituting therefor the position of coordinator of Elementary Project Activities. The effectiveness of this transfer was greatly hampered when the occupant of the position became critically ill and, after a lengthy period of hospitalization, was finally taken in death. Present plans are to employ a well-qualified person to fill this position at the earliest possible time.

In spite of the unfortunate illness and death of the staff person designated as having primary responsibility for elementary project activities, significant emphasis was placed upon intensifying elementary students' knowledge of the world of work. All ten elementary schools in the system received some assistance from the project director and coordinators in planning and stressing occupational information within the present courses of study. Project personnel attended elementary school faculty meetings and worked closely with the teachers in helping to organize occupational information for the most effective implementation into the elementary program. The local project staff was impressed with the enthusiastic manner in which the elementary teachers accepted the occupational emphasis in the elementary schools.

Throughout the third quarter, there was in evidence occupational "coloring books" (produced by the local staff) in use in the lower elementary grades. Posters depicting people in occupations, produced by the elementary students, were visible in the halls and classrooms of the elementary schools. An intensive survey was undertaken to determine the occupational materials utilized in the elementary schools.

One other significant accomplishment during the third quarter was the completion of a brief period of intensive training for in-service staff members who were in position to either directly or indirectly influence the cooperative education program. Mr. E. F. Mitchell (now retired), long-time head of the Department of Industrial Education at Mississippi State University, was employed as a consultant to work with co-op coordinators, the local project director, the school principals, and the school counselors with the objective of strengthening the cooperative education program. As a result of his work with the project staff, better understandings were developed concerning the concept, procedures, and techniques embracing co-op programs.

Project personnel devoted much of their time during this reporting period to orientation and recruitment of seventh-grade students for the occupational orientation program. Personnel explained the program in detail to the students and utilized testing and counseling to help students make realistic course selections for pre-registration. Preliminary indications pointed toward favorable results obtained from this approach. Student interest in occupational orientation obviously increased due to this effort.

An important side benefit to the recruitment effort was an increased understanding of, and support for, the occupational orientation program by teachers whose classes were visited in the recruitment activities.

The occupational orientation teachers, together with other key project personnel, were involved in weekly in-service training programs. Personnel have been intensively involved in developing course outlines and materials for use in the program during this reporting period.

Additional equipment was purchased and/or bids received. Much of this equipment was placed in operation in various phases of the exemplary project. The delays in procurement of some of the equipment hampered the instructional program in some instances.

The occupational orientation program utilized various techniques in attempting to develop interest among the students. One unique method of grading which allows the student to compute his grade daily was utilized. The grades were handled as bank accounts in which the students wrote checks and kept balance sheets on their accounts (grades). If a grade of 85 on an exercise was made, the student writes a check for $85 to his account. At the end of the grading period, X number of dollars equals an "A," or X number of dollars equals a "B," etc. Another technique employed with success was the occupational "word-a-gram." Scrapbooks on occupations, posters, and other materials were also utilized in the program.

The remedial part of the exemplary program appeared to be doing an excellent job in assisting students with their specific difficulties. Teacher aides were involved to a much greater extent in actual classroom activities than during the previous reporting period.

More home visitation and training station visitation was carried out by teachers during this period. Home visitation by teachers should have been utilized to a greater extent to increase the awareness of and acceptance of the exemplary program by parents and the general public.

During this period, job descriptions covering each of the project's special personnel were distributed to individual staff members, state supervisory personnel, and the United States Office of Education personnel.

Late in the quarter, a request for budget revision was submitted to the U. S. Office of Education. Approval by the USOE of this request allowed for a more effective utilization of funds available under the grant.

The fourth quarter of project operation was devoted to the completion of the school year in a systematic fashion. It was a period in which much time and energy of personnel were devoted to an intensive review of the first year of operation. Special emphasis was placed upon planning for the second year of operation.

An intensive in-service training program for all occupational orientation personnel was conducted during the entire month of June. Consultants from the University of Southern Mississippi were utilized in conducting the in-service program. The development of a comprehensive curriculum guide which includes objectives, activities, evaluation, and resources was a part of the in-service training activities.

During the period the position of elementary coordinator was filled. Work was immediately begun on the development of an elementary career education outline to be utilized by personnel in the elementary schools.

During the fourth quarter administrative personnel devoted significant portions of their time to developing and refining year-end reports and records as required by State and Federal agencies. Budgets were developed, scrutinized, and approved for the fiscal year 1972.

Major Activities 1971-72:

The fifth quarter of project operation could be characterized as a period of program review, planning, and materials development. In addition, the second school year was begun in an orderly fashion. The project was well supplied with instructional materials and equipment at the opening of school, which enhanced the interest of students. Refined instructional methods and techniques, along with newly-developed resource materials increased the interest of students.

During the period project personnel's duties and responsibilities were reviewed and some changes were made in staff assignments. The responsibilities of the Coordinator of Placement and Follow-up and the Coordinator of Guidance and Testing were consolidated into one functioning position. The position of Coordinator of Elementary Services was also fully implemented during the period. Personnel new to the project also received special orientation during this reporting period.

Continuation of intensive in-service training activities during the quarter resulted in the development of a comprehensive teaching guide for Career Education, Levels I and II, by occupational orientation personnel. In addition, tentative plans were outlined and work was begun on the development of a teaching guide for Career Education, Level III, which was to be implemented during the 1972-73 school year. Occupational Orientation I classes were divided into six units encompassing approximately six weeks duration each. For the first two units (12 weeks) a class remained with its assigned teacher. Then it rotated for three units (18 weeks) to three other teachers with special expertise to increase their knowledge and experiences in the

world of work. The class then returned to its assigned teacher for the final unit (six weeks). Upon completion of the rotation system each student was oriented to more than four hundred occupations, with indepth study of those of particular interest.

Occupational Orientation II was implemented at all junior-senior high school attendance centers. This course was especially designed for upper level senior high school students who had not participated in Occupational Orientation I during the last school year. During the first six weeks period the students were given an introductory unit similar to that of Occupational Orientation I. However, the classes focused their extensive studies in the latter units on occupations of interest to individual students rather than studying large numbers of occupations.

During the period the Coordinator of Elementary Services established effective working relationships with elementary faculties and administrators concerning further implementation of the career-centered concept in the elementary schools. Committees composed of elementary personnel and project personnel developed techniques and procedures for further implementation of the career-centered concept. The coordinator visited each of the ten elementary attendance centers on a two-week interval basis for scheduled meetings and follow-up visitations. However, the coordinator was frequently called by individual teachers in different attendance centers for aid at times other than scheduled visits.

Some occupational activities being conducted in the elementary attendance centers were readily visible within the schools. Classrooms containing bulletin boards depicting occupational themes were noted, occupational "coloring books" were utilized by children in the lower elementary grades, posters on occupations were evident along with many other materials assisting elementary students in becoming aware of the world of work. An example of approaches utilized to motivate elementary students in exploring the world of work while studying the "three R's" was found in one classroom. The students were studying about the use of forest products. The students then built a replica of the local wood utilization plant. They then studied the process through which the wood went to make the product and each occupation that was involved in the making and marketing of the product. Persons from the local wood utilization plant were used as resource persons.

The project facilities at the opening of school were very good and the project plan in most areas is progressing rapidly. Occupational orientation teachers' class schedules generally included four classes of occupational orientation and one study hall. Remedial teachers' schedules consist of five remedial classes.

Size of cooperative education classes increased and the lack of available training stations did not appear to be the problem it was during the program's first year of operation.

Improved communication patterns succeeded in increasing the effectiveness of the entire project. All personnel within the school system (both project personnel and general faculty) appeared to be more aware of the entire project's goals, functions, activities, and progress than previously. This resulted in an observable attitude improvement on the part of personnel (both those directly and indirectly related to the project) concerned with the exemplary project. In addition, increased efficiency in communication between local project personnel and the State Division of Vocational-Technical Education resulted.

Counselors in the attendance centers met on a weekly basis at the centrally located vocational complex to coordinate activities. These meetings improved communications and provided for a unified attempt at meeting the needs of the project as well as the school system in general. These meetings resulted in an ever-increasing awareness of the entire school system's vocational program.

During the sixth quarter each attendance center's occupational orientation met on a weekly basis for planning, coordination, and implementation activities. These meetings, widely involving personnel, apparently enhanced all aspects of the program. They were especially important in bringing about change and redirection within instructional program. In addition, they facilitated the implementation and the reaching of goals and objectives.

The occupational orientation resource center in each of the attendance centers was further equipped with shelving, materials, and supplies during the period. This increased the overall effectiveness. Evaluation personnel noted that last year's occupational orientation students were returning during their own free time to use resource center materials. These former occupational orientation students were observed investigating potential careers and/or making preliminary career plans. Based upon these and other observations, the first year of occupational orientation was successful in increasing the career-awareness and planning ability of participating students.

During the period, evaluation personnel, along with project personnel, were engaged in the development of instruments for assessment of the goals and objectives of this phase of the program. Five instruments were being developed for pre- and post-testing of the rotation areas in the occupational orientation course. An overall instrument was being developed for use with students within the program and control groups in other school systems. Prior to development of these instruments several batteries of standardized tests and/or questionnaires were utilized in an attempt to measure student progress. These standardized tests proved to be unsatisfactory with respect to measuring students' progress in relationship to the program goals. Field testing of the instruments and final revision took place during the reporting period.

Special emphasis was given by elementary teachers within the respective attendance centers to more effective methods of integrating career education into the ongoing curriculum. The elementary coordinator for the

project assisted teachers in planning groups, and individually, in developing techniques for presenting career education to elementary students.

The Course of Study Committees continued to develop plans and courses of study for career education. Through these plans more effective utilization of career development materials was accomplished. A sixth grade unit was developed during the period which effectively integrates materials concerning self-improvement with the goals of the program.

During the period teachers and students constructed new occupational games, songs, verses, and plays. These new materials were duplicated and distributed to all elementary teaching personnel as they were developed.

An intensive survey of all career education materials currently available in the elementary schools was conducted. The findings were printed and made available to all teachers to facilitate knowledge and use of the materials. This assisted the teachers in planning for classroom use and provide a baseline for new materials requisition.

There was an observable increase in the number of occupational resource persons utilized in the elementary schools during the period. Parents, as well as other resource persons, were utilized effectively in bringing the world of work into the classroom. One organized activity which created much interest in several elementary schools was the use of firemen as resource persons. They explained their occupation to the students and demonstrated the use of fire-fighting equipment.

A pre- and post-test instrument was under development for the elementary level during the period. The instrument was field tested and then given as a pre-test to a random sample of students in the elementary schools.

The cooperative education program has made much progress in respect to providing training stations and placement of students. Staff members visited numerous prospective employers to explain and obtain support for the cooperative program. These visitations should enhance the opportunity for future growth, in number, of training stations available, thereby allowing for increased future enrollments.

During the period special emphasis was given in the instructional program to orientation to the cooperative program which included: (1) job application procedures and techniques; (2) financial management; (3) employment standards; (4) employer's operations; and (5) individual student guidance.

The Stanford Achievement Test was utilized in identifying students which might benefit by remedial instruction. Identified students were further assessed by using individual diagnostic tests to determine specific areas of weakness. Through the utilization of test results, individualized programs of instruction were subsequently planned for each student involved in the remedial program.

During the period a pilot program was placed into operation in one high school attendance center. The program was designed to test the efficacy of utilizing peers as teacher aides in the remedial program. Indications were that the use of peers as aids enhanced the progress of remedial students.

Special emphasis was given to the individual counseling of students enrolled in the remedial program. Student interests were channeled into career awareness and emphasis was placed upon vocational planning and preparation for these students.

During the period the role of the vocational counselors has been expanded. A greater portion of the counselor's activities was devoted to the identification and involvement of students in preparing for the world of work.

Counselors held weekly staff meetings with teachers, administrators, and central office personnel. These meetings aided in assessing the activities of the program; assisted in identification of specific problems; and provided opportunities for all concerned to assist in problem solutions. Involvement of all personnel in the meetings facilitated communications and gave similar directional focus to program activities within the system.

Group counseling techniques were utilized, as well as individual techniques, to enhance students' involvement in the program. Increased use of group counseling resulted in more student-counselor contact. Apparently the contact students had with counselors during group sessions tended to remove some of the inhibitions students usually show in initial individual sessions.

During the seventh and eighth quarters of program operation meetings of personnel of the Jones County Exemplary Program were held, including faculty members representing all areas utilized within the project and personnel of agribusiness and natural resources from within the district. The primary objective of these meetings was to inform and/or clarify the role and purposes of the Exemplary Program of Jones County as it relates to the total educational process. Plans for a curricular workshop on the Mississippi State University campus were made to further expedite the career education curriculum in the schools of Mississippi. Also included in the meeting was the reviewing and refinement of the Jones County Career Education Curriculum Guide. This meeting was held in facilities furnished by the Curriculum Coordinating Unit and was attended by the State Project Director, State Vocational and Technical personnel, the local project director, three coordinators and two teachers of the exemplary program, in conjunction with staff members of the Curriculum Coordinating and Research Coordinating Units. Members of the Curriculum Coordinating Unit provided assistance and recommendations for the refinement of curriculum guides.

Other activities attended by personnel of the exemplary program were the Mississippi Vocational Education meeting and the Mississippi

Education Association meeting, plus sectional meetings of respective service areas in vocational education.

In an attempt to assess the progress of the students, evaluative instruments (pre-test and post-test) were developed and field tested by the third party evaluation personnel and project personnel. Items for the tests were based on questions submitted by teachers of career education. The tests represented the following areas: (1) industrial arts; (2) consumer education; (3) production, distribution, and management; and (4) public service. Once a compilation of test questions was made, a random sample of students was taken to form a control group. The test was then given to the control group and the scores were tabulated and summarized. After reviewing the results of the pre-test on the control group, refinement of the test was finalized and the pre-test was given to all the students preceding classroom experiences. After students were exposed to experiences in career education, a post-test was given.

In order to enhance the effectiveness of the instructional process, field trips were used extensively. After students were grouped into interest areas, vivid experiences for the students were more easily attained. Field trips were centered around the interest areas expressed by each group. Individualized field activity centered around a particular student's interest was stressed where possible. This gave students an opportunity to see "first hand" the knowledge areas and competencies needed for a particular occupation. This type activity helped utilize the job analysis approach where classroom experiences of this type were almost impossible. If the preceding type of activity was not available, an activity centered around modular programmed instruction was utilized. During these experiences students were given opportunities to listen to tapes, view slides, etc. Students were also guided through the steps of the scientific method in order to develop decision-making skills and to explore the available avenues of occupational research.

Team teaching was utilized and proven to be quite effective in the program. This approach was implemented in order to give more detailed or indepth instruction to the different interest groups. This approach also utilized to a greater extent "hands-on" experiences. The "hands-on" activities of the students continued to be an integral part of career education.

Several local in-service workshops were held during the quarters. Each week a workshop was held for counselors. In turn, the counselor met with the teachers in order to more readily attain the desired outcome.

As students completed rotation areas for the school year, they returned to the teacher who taught them during the first six weeks of school. This final period was devoted to self-evaluation and planning.

The elementary staff of Jones County Schools, the coordinator of elementary project activities, and other staff personnel within the county, continued to revise the old curriculum guides and/or developed new curriculum guides for all courses of the elementary schools. These new

curriculum guides provided ample flexibility and leeway in various areas for career education to be "fused" into the traditional curriculum. The coordinator of elementary project activities continued to work closely with the elementary teachers in the system. Appointments were scheduled with the school personnel and are followed up by the elementary coordinator.

Local in-service activities included weekly workshops which were held for the purpose of planning and expediting future activities. During these periods each teacher was given a new catalog of available teaching materials. After reviewing these catalogs, a list of materials was compiled for future use. In addition to attending and contributing to the workshop with agribusiness and natural resources personnel of the district, the exemplary project personnel developed the final summary for the mathematics area.

Applications for the 1972-73 school year were made by students for the cooperative vocational education program. Screening of students by cooperative coordinators, counselors, and personnel representing business was completed. Consideration in the screening process was given to: (1) abilities of the applicants, (2) needs of the applicants, (3) aspirations of the applicants, and (4) availability of job openings or occupational opportunities.

New job opportunities were available and students were placed for summer employment. Projected employment needs were analyzed for the next school year. Personal observation of the student on job-training stations was routine, with objective analysis being continuous.

In-service activities included workshops held in conjunction with other coordinators and the state supervisor for cooperative vocational education. A consultant met with the cooperative coordinators to explore other approaches which could improve the overall program.

Remedial instructors, assisted by student aides, continued to make strides in a positive direction for the program. Advanced high school students continue to give noninstructional aid, thereby providing additional time for more individualized instruction for the remedial students by the teacher.

Staff members from Jones County Junior College and from the Division of Vocational and Technical Education, a teacher trainer for the disadvantaged and handicapped, participated in workshops with remedial teachers. This proved to be quite beneficial.

Vocational Education Week focused special attention upon the Jones County Exemplary Project through activities planned by project personnel. Open house was held as a facet of public relations. This provided parents, faculty, administrators, and interested lay citizens a tour of the facilities plus an insight into career education. Publicity for this occasion was spread via news media, radio, television, personal letters, and word of mouth. Posters proclaiming the week as Vocational

Education Week were distributed, and tapes of children explaining "What Career Education has done for me" were recorded and used by local radio stations as part of the coverage for the Career Education project. Plans were made for activities in career education for the school year 1972-73. Recruitment and scheduling of students for vocational programs was completed. Testing of students continued to be vital for determining the progress which was made by students in career education. Administering standardized tests was completed. Counselors continued coordinated efforts to establish rapport with the staff with the underlying purpose being to bring unity and cohesiveness to the staff and instructional program. Interaction among the teachers was emphasized with counselors rendering assistance or supervision where necessary.

Major Activities 1972-73:

During the summer months (July and August, 1972), a variety of activities were carried out by the coordinator and occupational orientation teachers. The major objective of the in-service activities for personnel was to revise and/or update the curriculum guide for occupational orientation, Levels I and II. The total occupational orientation guide was revised through both addition and deletion. The guide was upgraded by making teaching guides in the form of behavioral objectives and by building in an evaluation component consisting of pre-tests and post-tests for each unit. A self-evaluation form was included for the instructor. This form may serve as a basis for further revision of instructional methods, techniques and activities.

Prior to the opening of school, a report form for use by occupational orientation teachers was developed by teachers, the coordinator, and outside evaluation personnel. The form is based on the instructional activities of the teachers. The instructional process or activities were divided into three major headings: (1) instructional objectives, (2) materials and/or resources utilized, and (3) evaluation. The reporting form was developed around the curriculum guide currently in use. The purpose of the form was twofold. First, the form serves as a direct source of feedback for the administration and evaluation personnel. Second, an underlying purpose of the form was to utilize teachers' outlines for weekly planning and to budget instructional activities and resources. Thus, the form was being utilized as a planning instrument.

During the preschool in-service activities, new teachers of occupational orientation were oriented to the career education concept as well as to the operational phase of the total program. Special emphasis was placed upon new personnel's becoming familiar with the objectives of occupational orientation phase of the program. In addition, in-service activities were designed to assist all personnel in increasing their knowledge of available opportunities in the world of work in the immediate area. Field trips to local industries were utilized extensively to gain first-hand knowledge. These field trips served the purpose of assisting teachers in understanding the barriers between school and skills required in the world of work for employment.

The occupational orientation teachers began the school year with the introductory section, which covered many facets of career education and its terms. The objectives of occupational orientation and its activities were covered. The teachers continued to utilize the banking system for grading allotments. This allowed the student to learn how to write checks, keep ledger sheets, etc., and furnished him with daily grade information.

During the time students were exploring career interest areas, their teachers were evaluating each student's needs. This served as a basis on which teachers guided the student in arriving at possible career choices.

During the first part of the summer the elementary coordinator, with the help of elementary teachers, completed the course of study for the elementary grades. This was a united effort among teachers in all areas of the elementary grades. The final editing was completed by the coordinator for elementary activities and turned over to the printers the last of July. This course of study was valuable in that career activities have been further fused into the overall guide. This guide allowed the elementary coordinator to more effectively budget instructional materials needed by the teachers. To aid in the use of the guide, a list of newly acquired career education materials was distributed to teachers. In developing the materials list, two major criteria were used: (1) the type of requests for related materials by teachers the previous school year; and (2) the evaluation of materials by elementary teachers utilizing career materials the previous school year.

A composite list of state adopted textbooks which could be utilized in career education was compiled and copies of these books were obtained. Special emphasis was given to increasing the career information in the upper elementary grades (4, 5, and 6). Upper elementary teachers appeared to be more subject matter or content oriented; therefore, it seemed appropriate to fuse career materials and activities with the adopted text.

Coordination of visits on regular intervals for ten elementary schools remained a major task. Initial visits were made to each school, and regular visitation scheduling was planned. Both principals and classroom teachers were consulted in scheduling visits in order to increase their effectiveness for both the coordinator and teachers. A visitation calendar for school visits was made and copies sent to each administrator for distribution. Requests for the coordinator's assistance in classroom activities and lesson plan development were made. Teachers' requests were made approximately one week in advance to give the coordinator time for scheduling, planning, and/or preparation. This assistance aided elementary teachers in becoming increasingly aware of the benefits career education could have on making the school more relevant and meaningful to the student.

Due to the variety of activities of the cooperative vocational teachers, a unified approach to the problems of the program was difficult. Thus, each teacher made an attempt to individually solve the problems with which his or her program was faced. This included student selection, occupational selection, student placement, and instructional planning. A unified approach to the development of a reporting form was begun. From this effort, a tentative outline was developed.

During the summer remedial teachers attended two workshops dealing with reading and general remedial education as related to the world of work. The reading workshop was held at the University of Southern Mississippi and was considered to be a means of professional improvement. The other workshop held at Grenada was designed for all teachers of students with special needs, with special emphasis being placed on relating remedial instruction to the world of work.

Since a great deal of interest was expressed concerning remedial education for the summer school session, one teacher provided this instruction. The instruction included dealing with reading skills and basic English skills. This instruction was also enhanced by utilizing a practice teacher. This allowed for team teaching efforts and provided the students the advantage of additional pupil-teacher contact. Remedial instruction was offered daily in a four-hour class period. Increased time spent with students yielded additional improvement in student achievement. However, only time will tell if achievement level is retained by students over a long period of time. Adding in the instructional process was the smaller number of students in each class during the summer. This aided the students by increased individualized instruction which allowed the students to accomplish more. To provide the teacher with a means of progress assessment, the Schonell Graded Word Test was given to each student upon enrollment. Advancement was determined by the level of material the student was using at the end of the summer session.

The remedial teachers not involved in summer instruction utilized a portion of their time in developing an activity list related to problems encountered over the past two years. In addition, they developed and compiled instructional materials for observed problem areas. In order to make the task more comprehensive in nature, a list of teacher problems was derived and priorities established. Once priorities had been established, the materials were assembled according to priority area.

Another activity carried out by remedial teachers during the summer was the visits to local industries to become better acquainted with the world of work. This was accomplished through field trips with occupational orientation personnel. Through these experiences the teachers developed insights regarding industries in the area and made plans to relate their remedial instruction to the career concept.

Activities of the guidance personnel included a variety of activities for the reporting period. First, vocational counselors were engaged in professional improvement courses at the University of Southern Mississippi. Also during the summer, a statewide vocational guidance counselors'

workshop was held in Jackson which guidance personnel attended. During this workshop a handbook for vocational counselors was begun. Vocational counselors also visited local industries during the summer. These trips were made in cooperation with other personnel of the Jones County Exemplary Project. Vocational counselors gained insights from these experiences and planned to use these experiences in counseling with students about jobs and the world of work.

During the summer, vocational counselors, coordinators, and personnel of the Research Coordinating Unit met at the Jones County Vocational Complex to develop or establish a format for a concise meaningful reporting form. Vocational counselors then met and developed an outline to be utilized in summarizing daily activities and as an aid in planning and reporting. Study was given to planning a system by which tests of the Exemplary Program might be administered on a unified basis. This was an effort on the part of all exemplary counselors on a cycling basis from school to school. Much time was devoted since the opening of school for screening students, writing letters to parents, and promoting Title IV for special education classes at Jones County Junior College. Time was also allotted to help the academic counselor and administration in the placement of students in the Exemplary Program's classes.

The local project director and career exploration coordinator, along with other personnel, began to review, plan, edit and assemble the Level I guide for Career Exploration. This consumed a great deal of time during the reporting period. With the help of personnel from the Curriculum Coordinating Unit, a format was developed for use in the preparation of the guide. The staff made steady progress toward completion of the guide.

Activities were jointly planned and carried out by the counselors and teachers, (such as a visit to the Masonite Corporation and "Career and College Day" at West Jones) which was beneficial to the students and which resulted in a unity of purpose among staff members. New staff members had some difficulty in formulating concepts of the methods used in the career program. Since the career concept uses a somewhat different approach from the traditional methods of teaching, most first year teachers needed a few weeks within the classroom with the aid of career education experienced teachers. These problems were overcome through united efforts of the project staff and the school administration. It was apparent that the team approach was successful. Through the experiences mentioned briefly above, a group of teachers became a team of teachers. This resulted in a great deal of progress being made in the project in a short period of time.

Different methodology and multi-media were used in teaching and providing the student with relevant, factual, and up-to-date information. Teachers utilized time and activities wisely to benefit the program. Planning sessions were numerous and activities were well coordinated.

In each attendance center, occupational orientation personnel met on a weekly basis for planning, coordination, and implementation of activities.

These meetings, which involve personnel extensively, have apparently strengthened most aspects of the program. They have proved especially valuable in bringing about change and redirection within the instructional program. In addition, they facilitated the implementation and the reaching of goals and objectives.

The occupational orientation resource center in one of the attendance centers was further equipped with shelving, materials, and supplies during the reporting period. This increased the overall effectiveness for that particular segment of the program.

At least four visits were made to each teacher in the ten elementary schools by the elementary coordinator. More than 20 teachers requested assistance from the coordinator and were visited. During visits with teachers at the attendance centers, forms and verbal requests for materials relating to career activities were received. These requests were filled and materials distributed. Teachers were very cooperative by planning for visits in advance which enabled the coordinator to devote the entire time allotted to assisting each teacher.

As reported previously, the coordinator, by using requests for and suggestions by teachers, concerning career related materials, developed a list of instructional materials that could be ordered for the school year 1972-73. These materials were intended to complement the career materials already available to the teachers in Jones County. Updating the resource catalog is a continuous process by the coordinator. A complete annotated bibliography of career related instructional activities was developed. This was added to the Jones County Career-Centered Curriculum Instructional Materials Catalog and disseminated to each teacher and administrator in the county.

The 1971-72 curriculum guide developed by the teachers and coordinators was used as a basic guide in developing new and updated career activities. This guide also served as the basis for the elementary career awareness guide. Activities were correlated with the available instructional materials, plus any adopted textbook used by the elementary teachers throughout the entire system. The process of review and addition began with the social studies section for grades 1-3. This section was completed and distributed to the elementary teachers.

The coordinator made lesson plans for each grade level utilizing career activities and instructional materials. Upon request, the coordinator taught a class or classes using the lesson plans previously prepared. This proved helpful in orienting new teachers to the program as well as changing some of the teachers' attitudes who were rigidly subject matter oriented.

In order for the cooperative vocational education teachers to supervise 112 students and the experiences they received on the job, a great deal of time was required. Thus, large time segments were allotted for student supervision. The coordinators also encountered several problems between students and employers, as well as individual students with

problems. A great deal of time was spent evaluating certain problem situations This resulted in relocation of some students and/or training stations. In addition, securing new training stations received top priorities. Certain personal problems of students resulted in a few withdrawals from the co-op program.

The coordinators began early to evaluate businesses as possible training stations for the coming year. Due to the increase in enrollment for the current year, requirements were somewhat relaxed for training stations. Answers concerning two basic factors, the type of occupation and the suitability of the training station were determined before selecting a business as a place to train students.

Testing and interpretation of test results were vital parts of the remedial program. Before students received instruction, their capabilities and achievements to date were evaluated. This was accomplished through the utilization of batteries of commercial and teacher-made tests. The Schonnel Word Test, a test to evaluate simple mathematic skills (addition, subtraction, multiplication, and division), was administered along with the Stanford Diagnostic Reading Test, and the Primary Mental Abilities Test. These tests, along with available school records and teacher-made tests, gave the remedial teachers valuable insights into students' individual weaknesses.

From information gathered, teachers were able to organize and plan learning experiences that could be utilized by individual students. In some instances testing made grouping for instruction possible. At first grouping was based on levels of achievement. Then as time passed and students progressed in achievement, occupational interest grouping was utilized and served as a stimulator to some of the students. This also assisted in broadening students' knowledge in special interest areas. Students learned to interact with others with similar interests. These interests were capitalized on in relating to the world of work.

Language arts skills involving words, their meaning, and their use, comprehension in reading, phonics, word and paragraph organization, and listening effectively were taught. In teaching the students words, their meaning, and their use, a lesson involving the use of the dictionary was taught. These lessons utilized activities in the Picto-Cabulary Builder series as well as the tape, How to Use the Dictionary. Activities created by the teacher were also used. The use of various dictionary games motivated students and added to the learning experience of each class member. The bulletin board illustrating the parts of the dictionary and how each part is used served as an aid to learning. Vocabulary activities requiring the use of the dictionary to find meanings of words served as an added supplementary activity. Enjoyment of learning was evident by students in activities utilizing nature studies. Knowing the children, their interest, etc. helped to develop activities which served as stimuli for learning. Subsequent evaluation of these students revealed marked progress.

In studying reading, students also worked on determining the number of vowel sounds in a word. This resulted in their being able to determine the number of syllables in different words. The Educational Development Laboratory tapes were used to practice auditory discrimination between variant vowel sounds utilizing the posters prepared by the Ginn Company and The Ideal Syllables Rules Book. The classes began to show comprehension of words and of the sounds used in pronouncing each word. Students who previously performed poorly in related exercises seemed challenged to improve their skills. Thus, the base was formed to increase oral reading skills, to recall main events of a story, to use context clues to determine word meaning, and to locate information using reference books. Commercial instructional materials such as, The Sounds We Hear and the Controlled Reader Series were utilized. Students read and answered comprehensive and detailed questions on "The Golf Ball Mystery" from The Thousand Voices of Timothy Reece. Work on vocabulary skills, with worksheets focused on word relationship, (Ex. Straight is to curly as master is to servant) were continued. Discussions were held with students about the importance of comprehension and speed in reading, emphasizing that different reading materials will require different reading speeds. From these discussions students were able to understand the usefulness of exercises on sentence comprehension, including identifying parts of speech. Students worked on exercises centered on paragraph comprehension, in which they located topic sentences and determined the main idea of a paragraph. Topic sentences were identified with SRA Rate Builder Cards. The material was more complex than that included in many previous activities. Some of the students were discouraged by this material while others tried harder to complete the lessons. The students worked on refining word meaning--replacing overused verbs with verbs of more precise meaning.

Stories were selected by each student from the Pilot Reader Series. Oral presentations by each student followed the reading of the Pilot Reader story. Tapes of the students' oral presentations were made to assist in the learning process. This activity served as a stimulus for the students to learn the correct pronunciation and expression in preparing their presentations from the Pilot Series.

Student interest and involvement were utilized to infuse mathematic activities into the lesson. Through the success experiences in reading and oral presentation, students gained confidence. Remedial teachers infused simple mathematical computations into the reading materials. This assisted students in learning to perform certain mathematical skills, while developing confidence. Upon completion of these learning experiences games and special mathematical instructional materials were used to increase students' skills and recall of certain calculations. Most students indicated progress due to these types of experiences.

A comprehensive reporting form was adopted by the counselors. The duties of the counselors were divided into five major areas. These areas were: (1) Information Service; (2) Counseling Service; (3) Testing and Evaluation Service; (4) Placement Service; and (5) Follow-Up Service. Each counselor allotted their time according to the needs of the students at

the individual attendance centers. Guidance personnel were involved in disseminating materials and/or information which was occupationally related, to more than 450 junior-senior high students.

"Career and College Day" was held for the entire school system. This activity impressed upon high school students, especially juniors and seniors, that they would soon be making their decisions to enter the world of work or continue their education. Through a united effort on the part of the occupational orientation personnel and the counselors, a field trip to the Masonite Plant in Laurel was taken. This gave an opportunity for all the students in career exploration to get a "first hand" look at the jobs, the requirements for the different jobs, and the complexity of one of the largest industries in their community.

The testing service activities by the counselors were varied. These included evaluation of mental abilities of all students in Exploration, Remedial, and Cooperative courses. Time was utilized in giving the test, Finding Your Orbit. Once the battery of tests was completed, an evaluation was made by qualified personnel. Students' school records, aptitude interests, and results of Ocuscan, and Orbit Profile were analyzed. With the help of this information the counselors and teachers were better able to assist students in determining realistic career goals.

A vital step was taken in providing students with realistic information pertaining to the available job opportunities, requirements, etc., within the State. Through a united effort of the Jones County School System and the Mississippi Employment Security Commission, microfiche readers were purchased and placed in the Career Center at each attendance center and at the Vocational Complex. Microfiche showing jobs immediately available was provided by the Mississippi Employment Security Commission each week. This equipment was available to all the junior-senior high students. This activity helped to increase interests of students in Levels I and II of occupational orientation. This was very helpful in making the career concept increasingly real to some of the older students.

Along with routine activities of the project, the school year saw exemplary personnel, teachers, coordinators, directors, and aides, involved in finalization of the curriculum guides for the career centered curriculum. Aided by personnel of the R/CU of Mississippi State University and other resource persons, the following guides were completed and will be attached to the report as addenda. They are:

Career-Centered Curriculum for Vocational Complexes in Mississippi
An Introduction to Career Awareness

Career-Centered Curriculum for Vocational Complexes in Mississippi
Career Exploration - Level I

Career-Centered Curriculum for Vocational Complexes in Mississippi
Career Exploration - Level II

Career-Centered Curriculum for Vocational Complexes in Mississippi
An Introduction to Career Preparation

Significant Findings 1970-71:

During the first quarter of project operation there was a great amount of planning for testing students enrolled in the program. Acquisition of tests selected as most appropriate for use with project participants was in process. Until these tests were administered and results interpreted, significant findings were fragmentary. It was found that remedial education would be essential if some students were to realize maximum benefits from participation in the project. This was particularly true in the area of reading skills and to a lesser degree in the area of math and other basic communication skills. Corrective measures were applied and varying degrees of success were realized.

In any new or innovative educational program, alert teachers discover many things. It was found that occupational orientation could be made much more effective when experience type learning was made a part of the instructional program. Occupational orientation teachers in this project discovered that participation by students is an absolute essential if their instructional program is to be meaningful and effective.

A very pleasant finding, as revealed by teachers employed in the project, was the strong indication of a growing interest in occupational orientation on the part of older high school students. With the excellent opportunity for varied occupational training through the post secondary offerings of nearby Jones County Junior College, these students may enroll for additional skill training and thus enter the world of work with a more specialized salable skill. Still another alternative was provided for graduating high school seniors through adult programs at both the secondary and post secondary levels. Thus, this discovery of a growing interest on the part of older high school students nearing graduation without having participated in a vocational training program may well be an indication of an early need to call on one or more of the special provisions of the project.

The most surprising discovery in the third quarter, perhaps, was the fact that a great amount of occupational information was already being introduced in the elementary grades. This discovery immediately led to still another significant finding that beckoned for corrective attention. While more career education was being conducted in the elementary grades than had been expected, it lacked continuity. This caused project leaders to think in terms of finding ways to better coordinate the work being conducted by individual teachers.

Still another somewhat unexpected but pleasant finding was the overwhelming enthusiasm with which the exemplary program was received by elementary administrators, teachers, and students. It was discovered that teachers were quite creative and that elementary children responded to career education. By this time it was becoming obvious to middle-grade teachers that the idea of career education needed to be implemented

in the earlier elementary grades in the form of career awareness.

During the fourth quarter career media centers were established at the combination junior-senior high school centers as well as at some of the elementary attendance centers. Development of curriculum materials and aids continued. In addition purchased and developed materials were tested under classroom situations. Evaluation of materials resulted in the elminiation of some, adoption of others, and modification of some before system-wide implementation.

Departures from Original Plan 1970-71:

Departures from the original plan were limited. As originally written, the project was to begin on March 1, 1970, and extend through February 28, 1973. For numerous reasons it became necessary to delay its beginning until July 1, 1970. Actually most of July was devoted to recruiting a staff and project implementation did not gain momentum until August 1, 1970.

In order to strengthen the project two important service areas were added. This was a departure from the original plans. Because of the existence of a relatively high percentage of academically disadvantaged students who should be able to profit from participation in the project, provisions were made for remedial education to be included. The need was particularly critical in the basic communications skills. To serve this need, a remedial education program was initiated at each of the attendance centers and at the vocational complex. This effort payed immediate dividends.

Since one of the three major types of skills to which the project was addressed was in the area of sociological needs, it was advisable to incorporate consumer home economics into the training program. One such teacher was added in each of the three county attendance centers. Some rather ambitious plans were finalized for this program and with some deviation from the usual or normal concept of consumer home economics, the addition of this service was added to the project. Another departure from original plans which added strength to the project was the decision to convert the existing industrial arts program to the broader occupational orientation program. This enabled the project to add three teachers in each of the attendance centers devoting full time to occupational orientation. Originally the plans were to utilize only two teachers in each of the attendance centers in occupational orientation. The large numbers of students enrolled in occupational orientation made this decision feasible.

One other departure from original plans worthy of mention was not an intentional one. In spite of all efforts to secure qualified co-op coordinators, one of the attendance centers could not fill the position.

In another departure from the original plan the administrative structure of the project was revised during the first year of operation. The position of coordinator of cooperative education was phased out of the

project and a new position (coordinator of elementary services) created. In addition, plans were developed for the consolidation of the position of coordinator of placement and follow-up with the position of coordinator of guidance and testing services.

Significant Findings 1971-72:

Progress was being made in the establishment of occupational media centers in all the school system's attendance centers. Equipment and materials were being stored centrally for more effective use by personnel in their respective attendance centers. In addition, the school system's media center (located in the vocational complex) was continually expanded and enhanced.

The elementary teachers continued to display high degrees of interest in the career-centered concept as demonstrated by their participation. Most teachers on the elementary level were most receptive to the incorporation of occupational materials into their on-going courses of study. Much progress in the area of the project was visible.

All teachers in the exemplary project appeared to be operating at a much higher level of competency the second year of operation. The additional time for planning and review, plus one year's experience in the new project added much stability to the operation. In addition, the additional materials, supplies, and equipment received for utilization greatly benefited the project.

Project personnel continued to place emphasis upon obtaining additional instructional materials. Increased emphasis was placed upon the development of materials, special techniques and methods to strengthen the career-centered concept's implementation within the system.

For a variety of reasons (i.e., better communication, increased goal clarity, and the production of curriculum and material guides) the second year's occupational orientation courses appeared to operate remarkably smoothly. All personnel involved in the program exhibited a sense of unity of purpose. A favorable goal-oriented attitude was observable on the part of staff members.

Students responded to the "What I Like To Do" form, personality rating scales, occupational questionnaire, leisure time questionnaire, and pre- and post-test questionnaire during the period. These data were tabulated and utilized as a baseline to assess future growth.

Students in occupational orientation classes participated in the following activities during the period: (1) collected clippings of jobs available in the area; (2) constructed occupational orientation bulletin boards; (3) applied for and received social security number; (4) constructed occupational orientation posters; (5) maintained notebooks of occupations; (6) participated in occupational orientation games; and (7) wrote autobiographies. In addition, students maintained a ledger of work completed and reported on various jobs on which they had conducted research.

Sources of information utilized consists of D.O.T. chronicle file, Occupational Orientation Handbook, Largo File, S.R.A. Information Kit, and others.

Students participated in activities designed to relate individual hobbies, personalities, and skills to various jobs. They also participated in "hands on" exploratory experiences in the various rotation areas. This experience included the actual use of hand and stationery equipment. "Hands on" exploratory experiences were provided for all occupational orientation students in the area of industrial arts. Students were provided with exploration of small engine repair, auto engine repair, and the general approach to each. Consumer education "hands on" experiences were provided in the use of the sewing machine, the oven and range, and small appliances. In addition, first aid experiences were provided. Manners, courtesies, and social customs were also dealt with in the consumer education area.

Simulated job application procedures were provided for all occupational education students. Data regarding the job requirements, decision as to student qualifications, the application, and the interview situation were covered.

Subjective criterion referenced pre- and post-tests were constructed to assess the effectiveness of the program. The pre-test was administered to all elementary grades during the early part of the school year. Analysis of the pre-test results indicates no increase of career awareness with increase in grade level. This may indicate the need for a "stepped-up" operation in the upper elementary grades. Further analysis revealed extreme variation in the knowledge of career information within each age group.

The Jones County Course of Study Committee expressed interest in the exemplary program. Investigation and thought were given as to how the social studies area could lend support to the program. Social science teachers reviewed the exemplary objectives, materials, and procedures. This committee was impressed with the achievement of the project.

As a component of the co-op agreement between teacher, student, parent and employer, a student worksheet was developed. This worksheet permitted records of much greater detail to be kept of student's weekly hours, his job performance, his learning experiences, and his earned salary.

Approximately one-half of all students involved in the remedial program were assigned to remedial reading. Most of these students scored from 20 to 30 on the SDRT; others ranged from 1.0 to 5.8 grade level. All students assigned to the reading class were in need of remedial services.

The remedial teachers used a variety of methods and approaches, depending on the needs, interests, and achievement level of the student. Individualization of instruction was achieved to the highest possible extent. Reading materials which have an occupational slant were utilized when possible. There was some evidence of achievement improvement in other

academic areas for those students who have been participating in the remedial program.

During the 1971-72 school year indications were that students' attitudes were much more favorable toward career education than in the previous year. "Hands-on" experiences played an integral part in stabilizing students' interest.

It became quite evident during the year that numerous students lack the necessary skills in reading and comprehension. This, in turn, led to a diminished tempo in the educational process for those students. "Hands on" experiences for both boys and girls who lack reading and comprehension skills provided increased interest in learning activities, especially in consumer education and industrial arts areas.

In addition to the use of "hands-on" experiences in these areas, audio-visual and other teaching aids proved immensely helpful. Even though teachers had greater supplies of materials, and these materials were rotated among the three schools, there was a definite need for additional material purchases. Such things as 35mm projectors, and programmed instruction materials could have greatly enhanced the program.

Teachers who continue to carry out the traditional instructional process began to utilize career education materials to a greater extent. This served to increase interaction among staff members, which in turn alleviated some barriers between the exemplary project staff and the regular teaching staff.

As personnel of the Jones County elementary schools develop course outlines, it was evident that career education played a greater role in the instructional process.

Career education in the Jones County elementary schools was responsible for a change in the traditional image of elementary education. As a result of this change, a progressive attitude was observed in members of the staff, in parents, in the public, and in the students. Planning of future activities for the elementary grades provided the key to continued enthusiasm among elementary teachers. Available educational materials played a vital role in creating new learning experiences for both teachers and students. The use of available materials was somewhat limited, due to the fact that they were being distributed among ten schools in the county.

Work attitudes and personal interest proved to be important aspects to consider when attempting to fill a job opening. Thus, student screening became more and more important. It was demonstrated that when a student's interest for school activities decreases, so does his interest for his job training. A continuous flow of communication between the co-op coordinator and the business supervisor is essential. This type of interaction gave both coordinator and employer the "inside" track in attempting to assist the student.

Significant Findings 1972-73:

Refinement and updating of teaching methodology and instructional materials were performed during the year. This was accomplished through in-service meetings, group planning sessions, and individually. These changes made the previously used practices more sophisticated and lended itself to a more complex approach of team teaching. Utilization of materials and approaches brought a better understanding of the program and its objectives to the students. Activities, assignments, and instruction were better adjusted to the different grade levels within the school system. Experience of teachers concerning the concept of career education as well as the understanding of the method used to implement the project helped to give teachers insight as to the best means to accomplish his or her own objectives. Use of multi-media to provide more realistic as well as more meaningful learning experiences for the instructional process was successful. The use of this type approach became widespread among students and provided incentive for students not directly enrolled in the project. Extracurricular activities were related to the project, as was evident in events such as homecoming, Christmas, pep rallies, etc. Thus, acceptance and approval of the project was reinforced and more widespread than previously.

Teachers reported throughout the year that instructional objectives were accomplished to a high degree (some as high as 90 percentile). Coordinators were able to get direct and immediate feedback from teachers through a specially designed outline for planning and summarizing daily activities. Such an instrument was adopted by occupational orientation teachers, remedial teachers, guidance counselors, and cooperative vocational education teachers. This instrument facilitated planning and was a key element in reporting.

A more coordinated and unified testing program was carried out in all phases of the project during the year. Teachers of occupational orientation administered an overall pre- and post-test and in addition a pre- and post-test for each unit was developed and utilized. This helped the teacher find both class and individual strengths and weaknesses. Again this lended itself well to the teaching methodology and techniques used in the program. Individualization, in-depth research, and hands-on experiences could be better planned and executed as a result of the findings of the tests.

The guidance personnel utilized a unified approach for administering achievement, diagnostic and other standardized tests. These were administered in regard to all aspects of the school program. Results were used extensively by teachers in remedial and special education. All tests were given on a rotational basis throughout the county.

As mentioned earlier the influence of hands-on experiences and well planned field trips was immeasurable. The effect of being able to perform simple job related tasks, as well as the success experiences for low or underachievers were invaluable. The ability to see the complex skills or the complicated or technical machinery also provides realistic

learning experiences for the students. This also helped the students in developing correct attitudes toward work and the necessity of being able to perform or possess a salable skill. Again, simulation of work situations helped maintain and stimulate interest in the classroom. In many instances when field trips etc. were not feasible, the simulated experience seemed to help fill the barrier between school and work. Games and group discussions or buzz sessions were utilized. The acquisition of microfiche readers for each junior-senior high school and the vocational complex helped illustrate to the students what jobs were available and the qualifications needed to fill the positions. This was a united effort with the Mississippi Employment Security Commission who supplied the project with new microfiche each week. This turned out to be a valuable asset to the program.

Students also showed great enthusiasm for conducting in-depth job research. In one school, students who had made primary career choices developed their own career resource center. Each student or small group with similar job interests developed bibliographies for their particular jobs or occupations. The students would then write different companies, people, etc. to secure information and data. In other instances, some students interviewed persons who held positions in the occupations the students were interested in.

As mentioned previously, finalization of the Career-Centered Curriculum Guides for Vocational Complexes in Mississippi was completed. Specific names of the guides were given in another section of the report. These guides are attached to the report as addenda.

Dissemination Activities 1970-71:

The first quarter was devoted almost exclusively to project implementation, so very little in the way of dissemination activities was conducted. Complete copies of the project were duplicated and furnished to each faculty member in the Jones County School System. During a staff training session attended by the faculty, the project was explained in detail.

Additionally, a brief digest of the project was furnished to project staff members and key people in the State Department of Education who had supervisory or other responsibilities for the project.

The project received publicity in one of Mississippi's most popular statewide newspapers, the Jackson Clarion Ledger. Publicity regarding the training program for project personnel also appeared in a local newspaper having rather wide circulation.

Letters explaining objectives and interesting features of the project were mailed to parents and other interested persons in the area. Likewise, the local press was used to acquaint the public with both the program and the personnel involved in the program.

Included among the early visitors of the project was Dr. M. C. Garr of the Atlanta Office of the U. S. Office of Education. Other educators

who visited the project include representatives of Mississippi State College for Women, Mississippi State University, and the University of Southern Mississippi. In addition to these, State Department of Education officials, and a representative of the United Electronics Institute of Louisville, Kentucky, called at the project site.

Dissemination activities during the second quarter were fairly extensive. Project staff members appeared on the local radio station's programs featuring the project. During Vocational Guidance Week numerous "spot" announcements were made relative to guidance services being employed in the project. News articles appeared in both local newspapers focusing attention on National Vocational Guidance Week while calling attention to the exemplary project.

Numerous requests for information about the project have come from other states. Copies of the project, quarterly reports, and other compiled information on the project were furnished to those who have requested information. State supervisory personnel, institutional teacher education personnel, and others have been informed about project activities and developments.

Visitors to the project site included institutional teacher education personnel, State Department of Education personnel, and one representative of a private college in Mississippi.

During the third and fourth quarters, additional dissemination activities were conducted. Local exemplary project personnel engaged in a concerted effort to better inform the public concerning the project's operation, purposes, and results during the periods. Personal contact with parents, teachers, students, and other interested persons by project personnel were utilized in gaining support and understanding from the public. In addition, radio station WNSL (Laurel) broadcast seven "spot" commentaries and interviews dealing with vocational education emphasis for the Jones County System. Project personnel appeared before civic clubs and other organizations to explain and depict different phases of the exemplary project to the public. Several feature articles on the project have appeared in the local paper (The Laurel Leader).

The local project director and the coordinators made concerted efforts to inform all segments of the public about the exemplary program. Numerous inquiries have been received from interested people throughout the United States. During the month of March alone information was sent to seven school systems in the states of New York, California, New Jersey and Tennessee.

Several meetings were held involving State Division of Vocational Education personnel, college and university personnel, and local administrative, counseling, and teaching personnel. The purpose of these meetings was to offer opportunity for exchange of ideas, frank evaluation of project activities, and progress as well as to inform all concerned about expected project outcomes.

Inquiries concerning the exemplary project (both from within and without the State) became so numerous that an eight-page bulletin entitled Career-Centered Curriculum for Vocational Complexes in Mississippi: An Exemplary Program was prepared on the State level. This bulletin detailed the project's location, purpose, objectives, procedures, and evaluation methods. Approximately 500 bulletins were mailed out in response to inquiries.

Dissemination Activities 1971-72:

Local exemplary project personnel were engaged in a concerted effort to keep the public as well as professional educators abreast of the project's operation and results. Project personnel had continuous contact with parents, students, teachers and the general public. Project personnel appeared before civic clubs and other organizations in an effort to disseminate results of the project.

As a part of dissemination activities the project personnel aided the State Division of Vocational-Technical Education in conducting a three-day workshop at the project site. This workshop was designed to aid the four school systems in the state which were beginning career-centered curriculums within their respective systems. The school systems involved were: Amory, New Albany, Franklin County, and Kemper County.

Personnel from Mississippi State University and the University of Southern Mississippi made several visits to the project during the period to become better acquainted with its operational methods and procedures. In addition local project personnel served as resource persons to career-centered classes at Mississippi State University.

State and local project personnel presented a program on the Jones County Career-Centered Curriculum at the statewide Vocational Education Convention held in Jackson, Mississippi, during August. Approximately 2,000 vocational educators were in attendance at the time the project program was presented.

During this reporting period numerous personnel from various school districts in the state visited the program. Out-of-state visitors included personnel from the Huntsville, Alabama, school system.

The development of the Curriculum Guide for Occupational Orientation was completed during the period. Advance copies of the Guide were distributed to local school systems within the state which were initiating career-centered programs as well as to other key vocational personnel. Publication of the Guide is presently underway and the material should be available for general distribution in the near future. Inquiries about the project were received from many parts of the nation during the period.

Occupational education students toured the WDAM TV facilities. During the tour, students were oriented as to the various occupations at the TV station and to the qualifications necessary for each occupation. Students also toured one of the local newspaper facilities for the same

purpose. During these visits occupational education students were given an opportunity to explain the purpose of the program to TV and newspaper personnel.

During the fall semester, students constructed occupational orientation posters which they entered in a contest. The winners of the local contest were written up in the local newspaper, along with an explanation of the occupational education program. In addition to the local TV and press, numerous visits were made to exemplary program by outside educators. Included in these were groups from Biloxi, Mississippi, Tuscaloosa, Alabama, and two universities in the State. Project coordinators devoted considerable time to the orientation of local teacher groups to the goals and purposes of the exemplary program.

Dissemination activities also included several radio spots concerning career education on radio stations WNSL and WLAU. Speeches concerning the program were made to the Hattiesburg Literary Study Club and the AAUW during the month of December.

Numerous outside resource persons were utilized in the presentation of career information to career education and occupational orientation students. These visits permitted learning experiences for the students and also served as a method of dissemination of program methods and purposes back to the community.

Various methods of public relations were evident in the Jones County Exemplary Program. Media, such as newspapers, radio, speeches, resource persons, open house, and word of mouth, were used during this quarter to explain the role of career education. This quarter saw a number of resource people, such as U.S. Air Force personnel, inhalation therapist, vocational rehabilitation counselor, choral director, etc., visit the exemplary program as well as explain their role in the world of work. Also, during this period the local director traveled to the Southern Region Agricultural Education Conference and presented a program for teacher educators on "Research Strategy for Teacher Education Programs to Assist Local Programs with Career Education." Vocational Education Week provided a time for an "all out" effort on the part of Jones County vocational educational personnel. Newspapers, radio, and television cooperated in making the week of February 7-13 (Vocational Education Week) a week of emphasis for career education in Jones County.

Dissemination Activities 1972-73:

All types of media were used to convey the purposes, activities, and to promote understanding of the Jones County Exemplary Program. There were several newspaper articles concerning the Exemplary Program's personnel, their visits to industries, and the visit of the State Vocational Education Advisory Council to the program and the school system.

The local newspaper also carried an article on the new personnel for the Exemplary Program. A local radio station, WNSL, presented several

spots on career education, which helped keep the public informed about the total concept of career education in the school system. On September 14, the State Director of Vocational and Technical Education, and the local project director, were on WNSL's program, "School News." The Exemplary Program was discussed, and the radio announcer asked pertinent questions concerning the vocational program in general. Word-of-mouth was a good instrument for public relations for the project as any other media. This is especially true when students were impressed and carried information to the parents. Personal visits from parents to school and to the teacher were advantageous for the program during the first weeks of school. Visitors, other than local people observed the program and represented a wide range of expertise. These included personnel from other school systems within the state, State Division of Vocational-Technical Education personnel, University personnel, and the State Vocational-Technical Education Advisory Council.

Varied media were used to convey events and happenings of the project to parents, professional personnel, and other interested lay citizens. One of the keys to effective public relations activities in Jones County was the students. Once a favorable impression toward the program was created by the students, word-of-mouth became one of the best methods of public relations. Students related to their parents and friends positive experiences about the program which in turn produced a good image of the program.

Occupational orientation students became involved in the homecoming festivities and several vehicles in the parade were utilized to exhibit the Career Education concept. Other media included video-taping of hands-on experiences in the occupational orientation shops to be viewed by a labor relations board; presentations pertaining to the career program of Jones County by teachers in classes at Jones County Junior College and the University of Southern Mississippi; contacts with businessmen by phone, and through professional conferences (Mississippi Personnel and Guidance Association Conference, etc.).

Persons from different organizations visited the program this reporting period. These included personnel of the following: (a) Hattiesburg Public School System, (b) Alcorn County School System, (c) Tishomingo County School System, (d) University of Southern Mississippi, (e) Mississippi State Department of Education, and (f) Mississippi State University. Representatives of some of the different unions in the State visited the program to become familiar with the concept as well as persons from Pascagoula and Bay St. Louis.

During the year a film, Can Johnny Earn A Living, was made on location throughout the Jones County School System. The film spands the career concept and is 14 minutes in length and is in color. It is a portrayal of the implementation of a career education program and a Mississippi school system. The film gives a brief rundown on the career education concept in addition to providing the viewer with a step-by-step procedure for implementing a career education program in grades one through twelve. Six copies are available on loan basis from the Research and Curriculum Unit of Mississippi State University.

V-A. THIRD PARTY EVALUATION

Fiscal Year 1970-71

INTERIM EVALUATION REPORT

Project No. 0-361-0067

Grant No. OEC-0-70-5177 (361)

THE CAREER-CENTERED CURRICULUM FOR VOCATIONAL COMPLEXES IN MISSISSIPPI

An Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

James F. Shill
James E. Wall
Norbert Johnson

Mississippi State University
Mississippi State, Mississippi 39762

July, 1971

I. INTRODUCTORY SECTION

A. THE LOCALE

1. Geographical Description. Jones County is located in the Coastal Plains area of southeast Mississippi, some 100 miles north of the Gulf Coast. The county contains 706 square miles or 451,840 acres of land and is almost square in shape (see Figure Ie). It is located approximately 90 miles southeast of Jackson and 10 miles north of Hattiesburg, Mississippi. It is bordered to the north by Jasper County, to the west by Covington County, and to the south by Forrest and Perry Counties.

   The county is part of the long-leaf pine area of the state with considerable acreage devoted to forest utilization. The topography is generally steep, with small areas of nearly level and moderately sloping land. The soils in the county posses low natural fertility, but respond well to good management and fertilization. The steep hill land is generally forested, with farming confined to the broad ridge tops and river bottoms.

   There are three incorporated centers (see Figure IIe) in the county, each approximately five miles apart. These are Laurel, Ellisville, and Sandersville. In addition, there are 65 unincorporated communities scattered throughout the county. At the northeast corner of the county is a Choctaw Indian Reservation and the southeast corner is included in the Desoto National Forest (Chickasawhay Division).

2. Density and Population Trends. The population center in Jones County is at Laurel (the county seat) which has a population of 24,145 according to the 1970 census. In addition, the other centers and communities in the county contain 32,212 persons, for a total population of 56,357 for the county. This represents an overall decrease in population of 5.3 percent from the 1960 census. During the period between 1967 and 1970 in Jones County there was a decrease in the five-and-under age group (-29 percent), in the six-to-14 age group (-6 percent), and in the 45-64 age group (-25 percent). Increases were reported in the 15-44 age group (+11 percent), and in the 65-and-over age group (+17 percent). The 1960 census reported a population of 59,542 for Jones County; however, the 1970 census reported a drop in population to 56,357. The greatest proportion of the out migration occurred between 1965 and 1970. The out migration appears to be affecting the small rural communities in the county more so than the three incorporated population centers.

3. Occupational Breakdown of Locale. The specific occupational breakdown for the locale includes an entire Employment Security District comprised of Jasper, Jones, Smith, and Wayne Counties.

Figure 1e. Location of Jones County Exemplary Program

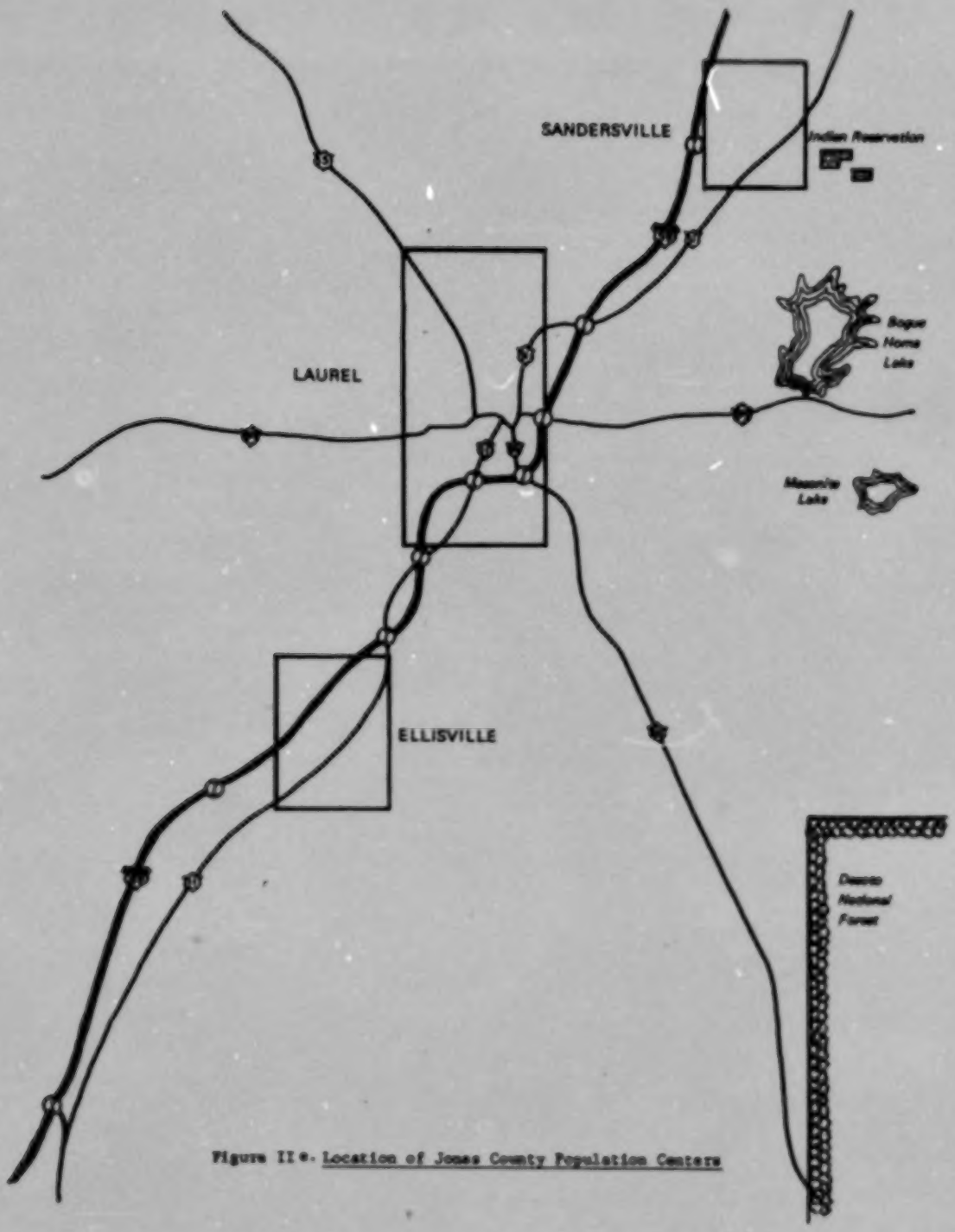


Figure II e. Location of Jones County Population Centers

However, most industrial jobs within the District are located in Jones County, Table Ie depicts employment by occupational categories and changes during the operation of the exemplary program.

4. Unemployment Rate and Trend. The total work force in the Employment Security District in January 1971 was reported to be 32,880. The unemployment rate increased from an average of 4.2 percent in 1969 to 5.3 percent in 1970. The Mississippi Employment Security Commission estimated that the downturn in the economy increased the unemployment rate to between eight and nine percent for the first and second quarters of 1970 for this specific employment area. Jones County has been classified as a depressed county because of this high rate of unemployment and other conditions.

5. Incomes of Residents. Complete statistics on incomes of residents from the 1970 census were not available in time for inclusion in the interim evaluation report. However, information obtained from other sources indicates the median annual family income for the county in 1970 was $3,993. Indications are that 37.4 percent of the families' annual incomes in the county were below what is considered by many to be the poverty line (less than $3,000). Only 5.4 percent of the families' annual incomes were $10,000 or above. The reader is cautioned not to overemphasize annual cash income alone in drawing a mental picture of residents' living conditions, since most of the population is rural, and the residents operate part-time farms on which they produce and utilize various food items in the home.

6. Families Receiving Welfare Assistance. Approximately 2,600 of the 14,000 families in Jones County, or 18.6 percent, received some type of family assistance checks during the year. This figure does not include those families in the county receiving food stamps but not welfare assistance checks. The number of persons receiving assistance by categories is shown in Table IIe.

B. THE SCHOOL SYSTEM

1. Facilities Description. The Jones County School System is comprised of fourteen separate physical plants. Of this number ten are elementary schools, three are combination junior-senior high schools, and one is a centrally located vocational complex. (See Figure IIIe). The three combination junior-senior high schools and the vocational complex are of modern construction and are in excellent condition. With the elimination of the dual school system, some facilities were closed, resulting in some over-crowding of facilities. During the school year, temporary as well as permanent facilities were constructed which tended to alleviate some of the over-crowded conditions. The physical plants utilized as elementary facilities run the

Table Ie. Area Employment by Occupational Categorizations During 1970-71 Exemplary Program Operation.

Occupational Category	Employment January 1970	Employment January 1971	Employment February 1972
Agricultural (production)	3,400	3,400	3,400
Food Processing	1,040	1,080	1,250
AGRICULTURAL TOTAL	4,440	4,480	4,650
General Manufacturing (includes lumber and wood)	3,590	3,520	3,660
Apparel	1,410	1,650	2,020
Printing and Publishing	110	110	110
Machinery	1,360	1,160	1,530
Other mfg. (Furn. & Fixtures; paper & allied; stone, clay & glass; and metals)	640	600	660
MANUFACTURING TOTAL	7,010	7,040	7,980
Construction	1,070	1,060	1,050
Transportation and Utilities	1,180	1,170	1,200
Wholesale & Retail Trade	4,090	3,920	4,200
Finance, Ins., & Real Estate	620	630	650
Service & Miscellaneous	3,860	3,960	4,170
Government	4,950	4,980	5,650
Other	3,800	3,800	3,800
NONMANUFACTURING TOTAL	19,570	19,520	20,720
EMPLOYMENT--GRAND TOTAL	31,020	31,040	33,350

TABLE IIe.

Number of Jones County Families
Receiving Welfare Assistance by Category
During 1970-71 Operation of The Exemplary Program

Category	No. Families June 1966	No. Families June 1970	No. Families June 1971
Old Age Assistance	1,415	1,488	1,554
Aid to the Blind	41	36	36
Aid to Dependent Children	342	467	586
Aid to the Disabled	428	458	523
Total Families	2,226	2,449	2,669

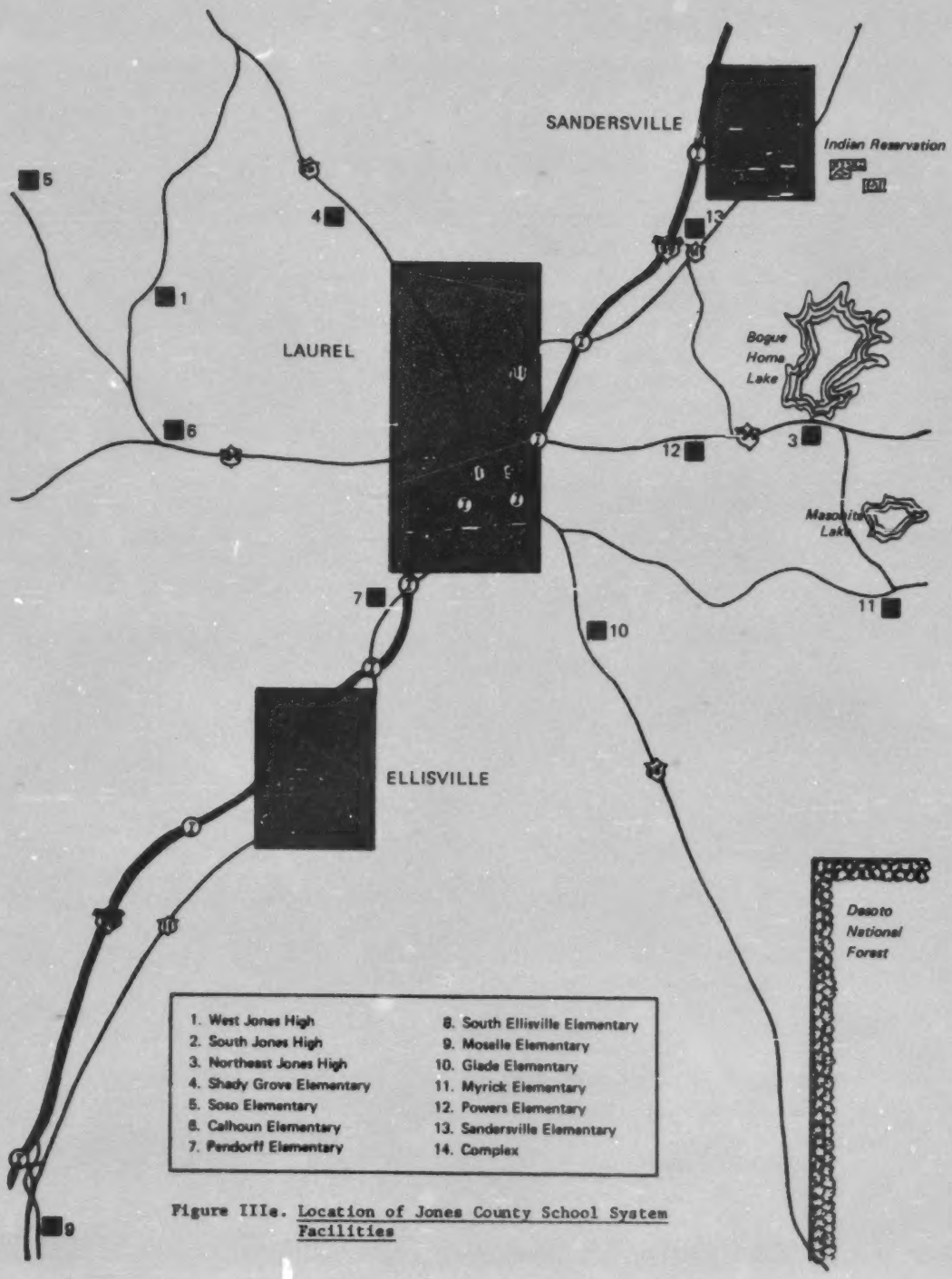


Figure IIIe. Location of Jones County School System Facilities

gauntlet from old to modern construction.

Students who desire vocational training of a specific nature attend the centrally located vocational complex from West Jones Junior-Senior High School, Northeast Jones Junior-Senior High School, and South Jones Junior-Senior High School. The vocational complex in turn prepares students who desire more specialized vocational-technical training to enter the community college programs at Jones Junior College, which is located in the southern part of the county.

The elementary schools of Soso, Calhoun, Shady Grove, and Pendorff send students, upon completion of six grades, to West Jones Junior-Senior High School. The Moselle and Ellisville Elementary Schools send students to South Jones Junior-Senior High School. Powers, Myrick, Glade, and Sandersville Elementary schools send students to Northeast Jones Junior-Senior High School.

All elementary school facilities in the system, with the exception of Moselle and Soso, house grades one through six. The facilities at Moselle and Soso are utilized for grades one through seven. All three combination junior-senior high school facilities house grades seven through twelve.

2. Enrollments. There has been a trend toward a slight decrease in total enrollments in the school systems over the past ten years. The school system's enrollments have fluctuated around the 8,000 mark for the past ten years. The enrollments have decreased from 8,103 in the 1962-63 session to 7,886 during the first month of the 1970-71 session. The enrollments during the fifth month of the 1970-71 session are shown in Table IIIe.

3. School System Faculty. During the 1970-71 session there were 379 persons employed in the system as teachers, counselors, or administrators. Of this number, 65 possessed a master's or higher degree; 305 possessed a bachelor's degree, and eight had not completed the bachelor's degree. Five of the eight were qualified trade instructors employed in the vocational complex. In addition, the system employed teacher aides, secretaries, custodians, and other service personnel.

4. School System Administrative Structure. The Jones County School Board members, as well as the county superintendent, were elected by the people in general elections. The specific administrative structure for the operation of the system is depicted in Figure IVe.

5. School System Curriculum. The number of units (or credits) required by the school system for graduation increased to 17½ during the 1970-71 session and will increase to 18 during

TABLE IIIe.

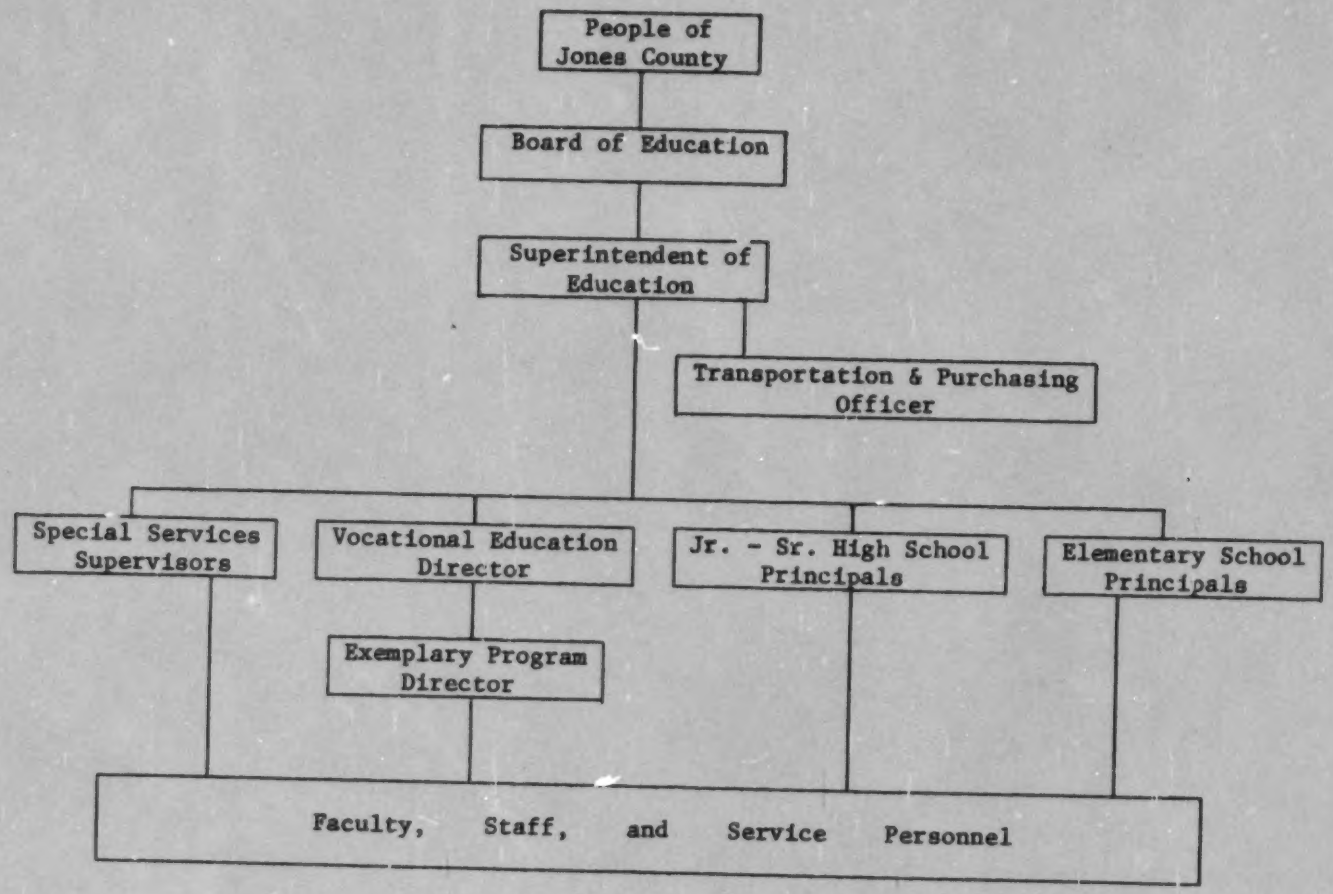
Jones County School System Enrollment

During 1971-72 Session

(By Attendance Centers)

Attendance Centers	Enrollment During 5th Month	Average Daily Attendance
Combination Jr. - Sr. High Schools (Grades 7 - 12)		
Northeast Jones	1,204	1,171.30
South Jones	1,146	1,096.50
West Jones	1,496	1,422.80
Jr. - Sr. High Total	3,846	3,690.60
Elementary School (Grades 1-6)		
Calhoun	529	504.10
Ellisville	854	803.90
Glade	465	455.65
Myrick	267	253.40
Pendorff	267	253.40
Powers	220	206.10
Sandersville	310	292.15
Shady Grove	560	532.60
(Grades 1-7)		
Moselle	343	322.95
Soso	300	291.55
ELEMENTARY TOTAL	4,118	4,065.92
SYSTEM TOTALS	7,964	7,618.15

Figure IVe. Jones County School System Administrative Structure



the 1971-72 session. This apparently may be a significant factor in the future enrollment of students in the centrally located vocational complex. Students enrolling in the vocational complex for classes one-half of the school day may find it difficult to meet graduation requirements in what is considered the normal time span of four years. Specific requirements for graduation in the system for 1970-71 were:

English - - - - - - - - - - - - - 4 units
Mathematics - - - - - - - - - - - 2 units
Social Studies - - - - - - - - - 3 units
(Miss. History - ½)
(Civics - ½)
(American History - 1)
(American Government - ½)
(Social Studies elective - ½)
Science - - - - - - - - - - - - - 2 units
Electives - - - - - - - - - - - - 7 units

6. Dropout and Transfer Trends. Based upon statistics approximately 63 percent of all students entering the first grade in the system will complete high school. During the 1969-70 school year approximately three percent of the students were listed as school dropouts. The fluctuation of enrollment during the school months seemed to indicate that perhaps more transferring of students takes place than in most rural systems in the state. This may be partially explained by the high mobility of students' parents who are engaged in oil industry occupations of which there are many in Jones County. In addition, changes in the employment picture in the area may be causing families to seek employment away from the area of residence.

7. Financial Status of School System. Over a ten-year period local revenue for the support of the school system increased 45 percent. During the same period state revenue for the school system also increased 48 percent. Total revenue expended by the school system (not including capital outlay) during the 1969-70 session amounted to $3,484,151. Of this amount, $756,196, or 21.71 percent, came from local sources; $2,205,648, or 63.30 percent, from state sources; and $522,307, or 14.99 percent, from Federal sources. The expenditure per pupil increased from $191.50 to $406.64 in the ten-year period ending with the 1969-70 session. The tax levy (25 mills) for the school system is the maximum allowed under State law.

II. THE EXEMPLARY PROGRAM

A. BACKGROUND INFORMATION

1. Origination of Program. The Exemplary Programs and Projects Section of the Vocational Amendments of 1968 offered an unparalleled opportunity to integrate more effectively proven concepts in vocational education with the total school effort. It allowed for a concentrated effort in providing school experiences that were meaningful for all students. The decision was made to commit all funds received in Mississippi from the Exemplary Programs and Projects Section (both the State and USOE Commissioner's share) to one project in a school system which would demonstrate the feasibility of the career-centered concept. The allocation of funds into one project was an attempt to make the greatest impact upon vocational offering in a school system which could demonstrate to teachers, administrators, and students in other schools in the state the effectiveness of the career-centered concept.

   The Jones County Exemplary Program was to begin on July 1, 1970. However, delay in final approval of the project caused some delay in the start-up time of some areas of the program. The contract for the third-party evaluation was not approved until February 1971, thus causing a delay in the collection of baseline data. The project was in its second semester of operation, which prevented the use of pretest evaluation materials during the first year's operation by the contractor. Baseline information on students was obtained from instruments utilized by the school system.

2. Modification of Existing School Programs. The implementation of occupational orientation classes resulted in a majority of students not being placed in study halls. Some teachers in the areas of vocational agriculture, home economics, and industrial arts were transferred into the exemplary program in various capacities. This resulted in a decreased offering in their specific teaching areas and an increased offering in occupational orientation.

   A special administrative structure was designed and implemented for the exemplary program. This structure is illustrated and discussed in other sections of this report.

B. SCOPE OF THE PROGRAM

1. Participants Served. All of the Jones County School System's approximately 7,886 students were involved with the program in some manner. Those not directly enrolled in the program classes were influenced through poster contests, recruitment, counseling,

assembly programs, contact with students in the program, etc.

2. Objectives of the Program. The specific objectives by which the program was evaluated are delineated in the project proposal as being:

   -- To establish structural relationships which will facilitate implementation of the career-centered concept in the Jones County School System.

   -- To establish the necessary relationships with local businesses and industries to provide cooperative (work-experience) education in all aspects of vocational offerings in an effort to meet total manpower needs better.

   -- To provide intensive and short-term entry level skill training immediately prior to exit from the school, for those students who have not previously been enrolled in one of the regular vocational programs.

   -- To establish an intensive program of guidance-counseling-placement, relating to activities in Objective one above, and including activities which will assure adequate post-training work adjustment for each student.

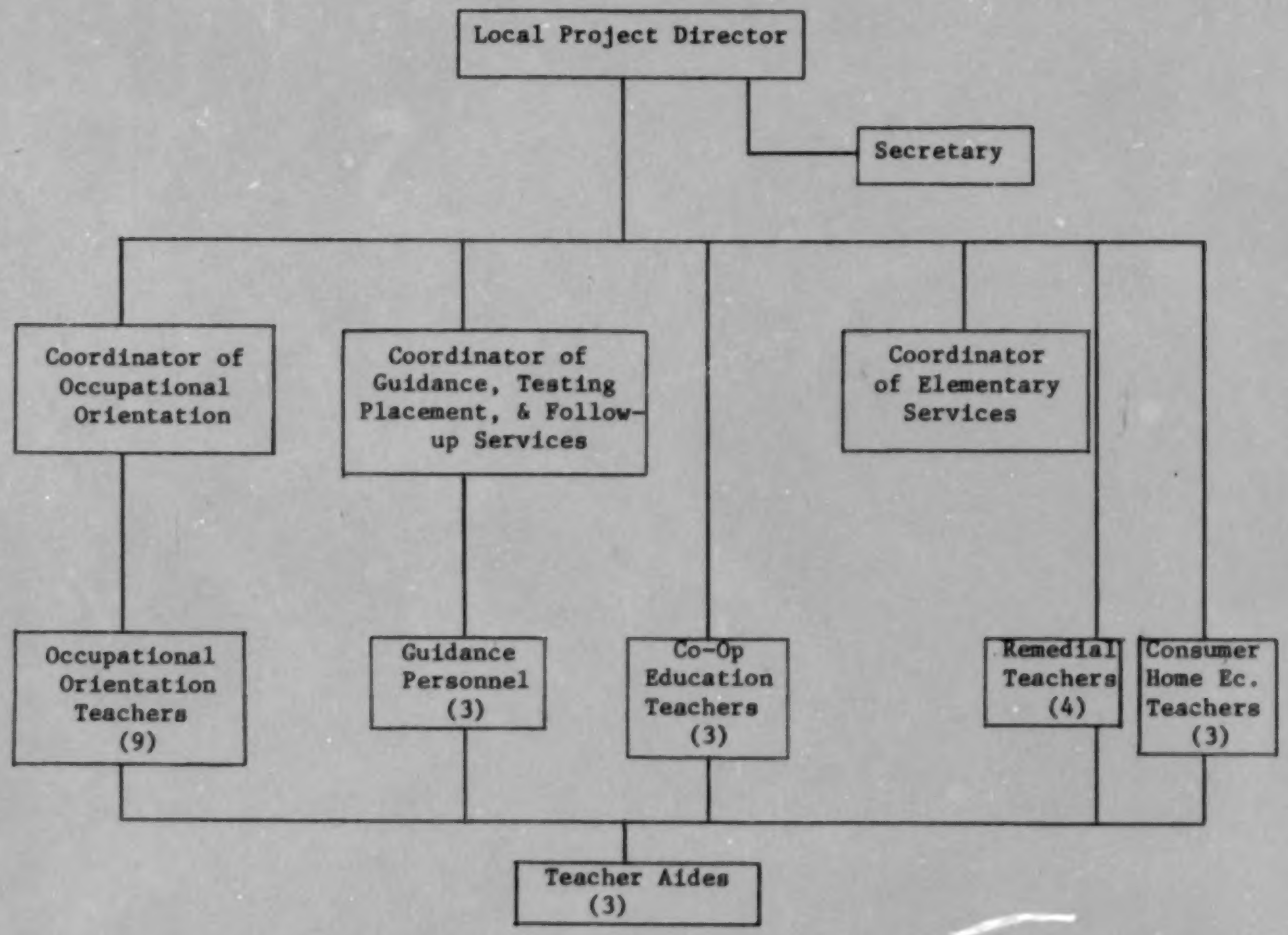
C. PERSONNEL

1. Personnel Added by the Program. A total of 27 new professional level staff positions were utilized in the implementation of the program at the local level. This number included positions in administration, coordination, counseling, and instruction. In addition, one secretarial position and three teacher aide positions were utilized in the project implementation. All 27 professional-level positions were filled with persons meeting the State certification requirements and having a minimum of a bachelor's or higher degree. The professional-level positions and administrative structure of the program are shown in Figure Ve.

2. Administrative Staff. The five persons employed to administer and coordinate all phases of the exemplary project had an average of 16.2 years of teaching and administrative experience at the beginning of the program. The staff possessed experiences from the areas of vocational agriculture, home economics, guidance and counseling, history, and elementary education, as well as administrative and supervisory experiences. The entire administrative staff devoted full time to administrative and coordinative activities.

   The local project director brought 21 years of vocational teaching and administrative experience to the program. He assumed

Figure Ve. LOCAL EXEMPLARY PROJECT ADMINISTRATIVE STRUCTURE



responsibility for coordinating all phases of the program with the State Project Director, including recruitment, selection, and supervision of all personnel. In addition, he purchased equipment, supplies, and materials; arranged for consultative services; conducted in-service training of staff; conducted public relations activities; cooperated in evaluation activities; and made necessary reports.

The coordinator of placement, follow-up, and evaluation had 15 years' teaching experience. His duties and responsibilities included counseling with staff personnel and students; obtaining and providing vocational guidance information; collecting, organizing, and analyzing materials; utilizing measuring instruments; conducting follow-up of students; and assisting in placement of students.

The coordinator of occupational orientation had 25 years' vocational teaching and administrative experience. His responsibilities included coordination of equipment, supplies, and materials (purchase and utilization); materials development; assistance in course guide development and utilization; development of instructional materials; assistance in staff development; and assessment of the occupational orientation program.

The coordinator of guidance and testing had five years' experience in teaching and counseling. His responsibilities included synchronization of the testing program; interpretation of test results; obtaining and providing counseling materials; and assessment of the guidance and testing program.

The original administrative structure provided for a coordinator of cooperative education. This position was filled until the untimely death of the coordinator. Following the vacancy in the position, the recommendation was made to phase out this position and add a new position of elementary coordinator. This position was established in order to provide increased emphasis upon career development on the elementary level.

The elementary project coordinator's responsibilities included obtaining and distributing teaching aids, equipment, and supplies to elementary teachers; scheduling resource persons, films, etc.; assisting in the development of objectives, methods, and evaluation of the elementary activities; assisting in the survey of local resources; and conducting in-service programs on the elementary level. The coordinator also assisted in the overall planning, implementation and evaluation of the entire exemplary project.

3. Student Service Personnel. The exemplary program added one vocational guidance counselor to each of the three combination junior-senior high school attendance centers. The persons

employed in these positions all held master's degrees and averaged 4.7 years of experience at the beginning of the school year. Their responsibilities included collection, organization, and analysis of student information to be used in individual vocational and educational planning; providing counseling services; assisting in the selection of students for vocational courses; referral of students to local, state, and federal service agencies; assessment of counseling effectiveness; and assisting in interpreting the aims and objectives of the exemplary project to students, faculty, parents, and the community.

4. Instructional Personnel. The exemplary program added two cooperative education teachers, nine occupational orientation teachers, four remedial education teachers, three consumer education teachers, and three teacher aides to the regular instructional staff. All of the teachers and teacher aides were assigned to the three combination junior-senior high school attendance centers with the exception of one remedial teacher who was assigned to the vocational complex. All instructional personnel meet State certification standards.

Only two of the three junior-senior high schools had cooperative education teachers due to the lack of qualified applicants for the positions. Both teachers hold bachelor's degrees and averaged 1.5 years of teaching experience when employed. The cooperative education teachers' responsibilities included: working closely with guidance and counseling personnel in the selection of students; arranging for student training stations; providing individualized student study; developing of training plans; developing public relations program; and supervising students at on-the-job training stations.

Of the nine occupational orientation teachers, all hold bachelor's degrees and one holds a master's degree. The teachers averaged 3.9 years' teaching experience at the start of the program. Their responsibilities included providing students with sound knowledge and experiences for making career choices; assisting students in self-assessment; assisting students in understanding the American economy and the world of work; and maintaining follow-up records.

The four remedial teachers averaged 8.8 years of teaching experience at the beginning of the program. Three of the remedial teachers were assigned to the junior-senior high school attendance centers and one to the vocational complex. Their responsibilities included developing an instructional program for dropout-prone students; developing a system for selecting students needing remedial assistance; adapting remedial subject matter to vocational choices of students; providing remedial instruction; and assisting the faculty in providing remedial instruction in specialty areas.

Each of the three junior-senior high school attendance centers was provided with one consumer education teacher. The three teachers possessed an average of nine years' teaching experience. Their responsibilities included planning, developing, and utilizing units of instruction in consumer education for students; conducting a visitation program; surveying opportunities; utilizing news media for consumer education activities; and assessing the consumer education program.

Two of the three teacher aides in the program had some college training. Each junior-senior high school attendance center was assigned one teacher aide to be utilized in duplicating materials; monitoring study activities of students; assisting in record keeping; assisting in the development of teaching aids; and operating audiovisual equipment.

5. Recruiting and Maintaining Personnel. Due to the delay in final approval of the program, difficulty was encountered in filling teaching positions in the program early enough to conduct an intensive pre-service training of staff before the opening of the school year. Only one position, that of cooperative education teacher, was not filled during the year, and this was due to the unavailability of qualified applicants. This position was filled for the coming school year. Two vacancies in positions appeared during the school year due to illness and death. One position was filled without difficulty. The other position, that of cooperative education coordinator, was phased out of the program to create a new position, elementary coordinator, that provided added thrust to the career-centered concept in the elementary schools. Two occupational orientation teachers and one counselor in the program resigned at the end of the school year to accept employment in other school systems. These positions were filled, and a number of other applications were put on file.

D.. PROCEDURES

(The Jones County Career-Centered Curriculum was funded for a three-year period. This section of the report is an evaluation of the first year of operation.)

1. Physical Arrangements. The elementary level of the program required no special arrangement of facilities. An occupational materials and equipment center for each elementary attendance center in the system was established in or near the principal's office. This arrangement allowed for accessibility to all teachers in the attendance center and enhanced material utilization. All individual classrooms were used without having to undergo major rearrangement of furniture or furnishings. Occupational orientation courses in the junior high schools used existing industrial arts shops and standard classrooms

with little, if any, rearrangement of facilities. In one instance, a trailer classroom was used to eliminate overcrowding.

At two of the high school attendance centers remedial classes were held in classrooms equipped as language labs, and in one attendance center a regular classroom was used. At the vocational complex the remedial classes met in a conventional classroom.

All cooperative education classes were conducted in conventional classrooms. Consumer education classes at all three high school attendance centers were conducted in specially equipped trailers to facilitate the teaching of this subject.

Vocational counselors were provided with private offices. At two of the attendance centers the offices were in the general vicinity of the school administrative offices. At one school the office was adjacent to the cafeteria.

In all cases the physical arrangement was designed to enhance the integration of the program's activities and personnel into the on-going school operations. Classrooms and offices were arranged to as not to place all segments of the exemplary program in one specific area of the school plant.

Classroom teachers in the program were given maximum flexibility in the utilization and furnishing of their respective classrooms and/or shop facilities. While many identical materials were used in the classrooms, teachers arranged and utilized them in different ways.

The vocational complex (centrally located) was used as a purchasing and storage area for supplies, materials, and equipment (shared among all schools in the system). Teachers were provided supplies, materials, and equipment as requested from the central staging area.

2. Review and Planning. A number of planning and review sessions were held during the year. These sessions included the state exemplary project director, local exemplary project administrative personnel, Jones County School System administrative personnel, personnel from the State Division of Vocational-Technical Education, and consultants.

The local exemplary project administrative staff engaged in daily planning and review sessions at the vocational complex. In addition, the staff participated in weekly planning and review sessions with personnel at the attendance centers. Personnel at the attendance centers were engaged daily in coordination of activities (planning and reviews). These

sessions were conducted both during the school day and after normal school hours.

The utilization of daily planning and review sessions resulted in numerous modifications of the program's techniques and activities during the first year of operation. This effort accomplished a more uniform instructional program than is generally encountered in the start-up phase of most developmental-type programs.

3. In-service Training. A staff workshop was conducted for the purpose of establishing and clarifying the specific roles of all project personnel in performing and carrying out the objectives of the project, prior to the starting of school. All teachers and administrators in the system (not just exemplary project personnel) were involved in the workshop. In the workshop a detailed study of the project was made and personnel roles were established, along with methods and techniques for effective project implementation and advancement. Personnel from other agencies involved in the workshop were representatives from the State Division of Vocational-Technical Education, the Research Coordinating Unit at Mississippi State University (MSU), the Curriculum Coordinating Unit at MSU, and teacher education personnel at Mississippi State College for Women, Mississippi State University, and the University of Southern Mississippi.

In-service activities were generally conducted along specific interest areas. The occupational orientation teachers, along with other key project personnel, were involved in weekly in-service training programs. These training programs included developing course objectives and outlines; improving teaching techniques and methods; developing and utilizing instructional materials; demonstrating effective operation and utilization of equipment; etc. In addition, most occupational orientation teachers were enrolled in special problems courses which were designed to aid the exemplary project, and were taken for graduate credit. Special consultants were utilized for all phases of the in-service training program.

Remedial teachers met on a regular basis throughout the school session for in-service activities. All the remedial teachers attended a reading clinic held at a university during the session.

In-service activities were conducted with elementary teachers during a three-months period at the latter part of the school year. These activities helped the teachers to incorporate occupational materials into their courses of study and to minimize duplication of effort.

At the close of the school year a one-month workshop was conducted for all exemplary staff personnel. During this workshop personnel reviewed activities of the program and developed plans for the approaching school year. Individual course objectives were established, course content outlined, materials developed and/or purchased, and techniques and methods refined.

4. Activities. The career-centered exemplary project was based upon the assumption that all children should be assisted by the school in making realistic career decisions. This assumption implies that a total school experience for students is preparation for life, with earning a living a prime focus. Through the project, components of the entire school system were focused upon the career development concept in order to increase the awareness of career choices among students. A summary of activities designed to bring about the objectives in the project is presented below.

The process began in the elementary schools by providing students with sufficient occupational information and counseling to meet the needs of all children according to their interests and abilities. To accomplish this, local exemplary program personnel provided services to elementary faculties which would aid in the incorporation of career development into the regular instructional program. These services included obtaining occupational information, providing counseling, providing resource persons, conducting workshops, seminars, and field trips. The elementary teachers did not teach vocations as such, but used careers with which the children came in contact to increase their awareness and knowledge of the world of work. The children's interaction with their environment, parents, peers, and others was utilized to enhance their interests in the world of work.

Each elementary teacher was assigned to one of several committees to coordinate the activities of the elementary schools in the career development process. These committees began the development of a course of study utilizing occupational information for each grade. For grades one through three the subject area and the grade levels were separated. In grades four through six, only the subject areas were divided. The career-information was presented to the students in the following manner:

Grade 1 -- Career information centering around the home and school.
Grade 2 -- Career information centering around the neighborhood and community.
Grade 3 -- Career information centering around surrounding communities.
Grade 4 -- Career information centering around the state.

Grade 5 -- Career information centering around the United States.
Grade 6 -- Career information centering around foreign countries.

Examples of some activities that were conducted for grades one through three are: a) students told what their parents did on their jobs; b) parents served as resource persons for classes; c) students made posters and dolls of parents and others in occupations; d) students used occupational coloring books; e) students role-played parents' occupations; f) students developed lists of job-related activities they perform at home; g) students read stories in basic and supplementary readers that dealt with occupations; h) students viewed visual materials on occupations; i) students used tools that were related to occupations they were studying; j) students played occupational games; and k) students made up occupational songs, poems, and riddles. This is only a partial list of activities used to incorporate career awareness into the regular instructional program, but it should give the reader some insights into activities which could be utilized to increase elementary students' concept of the world of work.

As the elementary students progressed to grades four through six, emphasis was placed upon students' enhancement of self-concept as related to career development. Such activities as: a) listing good and poor personality traits; b) classes choosing occupations of the week; c) conducting class appearance and personality contests; d) girls designing work clothes fashions; e) viewing occupational visual aids; f) discussing characteristics of persons needed to fill jobs; g) making collections of materials on jobs students would like; h) discussing types of persons needed to fill jobs students are interested in; i) collecting and studying "want ads" from newspapers; j) role playing employer-employee situations; k) studying and role playing jobs that their age group can obtain (baby sitting, paper boy, etc.); l) planning and role playing job hunts; and m) utilizing field trips and related activities in continuation of the career-centered concept. All activities were carried out by the regular elementary teachers (those not being paid from the project budget) with their respective classes. Exemplary project personnel aided with materials collection, equipment procurement, etc., but were not generally involved in classroom activities.

The exemplary project was extended into the junior high schools mainly through occupational orientation classes, consumer education classes, as well as remedial and counseling services. The occupational orientation course was designed to help students explore the world of work, including its requirements, conditions, and rewards;and to aid them in making meaningful

career selections and decisions.

Occupational orientation teachers, with the aid of guidance personnel, utilized the Ohio Vocational Interest Survey (OVIS) and the Vocational Planning Inventory (VPI) to help students determine their occupational interests and abilities. Results of these instruments were used in course development as well as in individual and group counseling. Students were encouraged to use the knowledge of "self" gained from these instruments to explore effectively the world of work.

The basic structure of the occupational orientation course was provided by the Anne Roe's Schema[1] which grouped occupations into eight categories for study. These categories in which students studied and from which they received exploratory experiences were: (1) Service; (2) Business Contract; (3) Organization; (4) Technology; (5) Outdoors; (6) Science; (7) General Cultural; and (8) Arts and Entertainment. The class as a whole moved from category to category for the sake of educational expediency as well as to acquaint each student with numerous occupations. Each category was developed by a three-phase procedure. Phase I introduced the students into the occupational category by defining, identifying and clustering occupations within the category; analyzing employment data, mobility and trends; examining abilities and interests of persons successfully employed in the occupations; and determining qualifications necessary for employment entry. Phase II was the transition period for individual pre-planning which includes individual student's interests and abilities; relationship between educational level and employment level; identification of potential occupational clusters by each student; and collection of occupational information. Phase III was composed of individual student exploration centering around indepth exploration on selected occupations; exploration of manipulative elements of selected occupations; exploration of cognitive activities of selected occupations; self-evaluations; and the planning for entry into selected occupations.

Numerous activities and motivating techniques were employed to assist in meeting the objectives of the occupational orientation phase of the project. In the interest of brevity, an abbreviated list of activities conducted during the school term is presented in this interim report. These were:

-- Students engaged in various types of role-playing, including practice interviews.
-- Contests were conducted relating posters to occupations.
-- Resource persons from the local community came into the classrooms to discuss their respective jobs.

---

[1]Roe, Anne. The Psychology of Occupations. New York: John Wiley and Sons, 1956.

-- Students acted out jobs through playing charades.
-- Letters of application, resumes, follow-up letters of appreciation, and letters asking for permission to use someone as a reference were written by the students.
-- Students wrote research papers on occupations in which they were interested.
-- Students set up bulletin boards depicting occupations.
-- Students related hobbies to occupational interests.
-- Want ads in newspapers were reviewed to determine job availability.
-- Personality check lists were utilized by students.
-- Field trips were conducted.
-- Occupational crossword puzzles were utilized.
-- Occupational games were utilized.

A unique grading system based upon banking procedures was utilized by the occupational orientation teachers. Each student kept a checking account and wrote checks to a savings account corresponding to the monetary value placed on his work by the teacher (see Sample A). A student was able to keep a current record (ledger sheet--Sample B) of the amount he had on deposit which corresponded to a letter grade. The system also allowed the student to obtain a loan at the end of the grading period (if necessary) to make up deficiencies in his account. These loans would be repaid during the next grading period with additional work assignments. This system allowed the student to know his grade at all times during the grading period, as well as providing instruction in banking procedures.

The occupational orientation teacher-pupil ratio was one to 92, with a 23-pupil-per-class average. A typical schedule for 8th grade students included English, mathematics, American History, science, and occupational orientation. Classes were composed of 50-minute time blocks. Some occupational orientation classes contained both sexes, while others contained members of one sex only.

The remedial education classes were open to students from the seventh through the twelfth grades on a voluntary basis. However, the largest percentage of the students (approximately 91 percent) were in the seventh and eighth grades. Remedial instruction centered around individual needs which, in most cases, were in the areas of reading and/or communications skills and mathematics. During the first year of operation, there was a teacher-pupil ratio of one to 39. Remedial class sizes were generally held to between eight and ten students per class in order to facilitate maximum use of individualized instruction.

Remedial teachers utilized the Stanford Diagnostic Reading Test, the Schonell Graded Work Reading Test, as well as informal

SAMPLE A:

NO. _____
DATE _____ 19 ____
TO _____
FOR _____

	DOL.	CENTS
BAL. BRO'T FOR'D		
AMT. DEPOSITED		
" "		
TOTAL		
AMT. THIS CHECK		
BAL. CAR'D. FOR'D		

No. _____ _____ 19 ____

THE EXEMPLARY PROGRAM BANK
Laurel, Miss. 39440

NON-NEGOTIABLE

PAY TO THE ORDER OF _____ _____ $ _____

_____ _____ DOLLARS

FOR _____

_____

NO. _____
DATE _____ 19 ____
TO _____
FOR _____

	DOL.	CENTS
BAL. BRO'T FOR'D		
AMT. DEPOSITED		
" "		
TOTAL		
AMT. THIS CHECK		
BAL. CAR'D. FOR'D		

No. _____ _____ 19 ____

THE EXEMPLARY PROGRAM BANK
Laurel, Miss. 39440

NON-NEGOTIABLE

PAY TO THE ORDER OF _____ _____ $ _____

_____ _____ DOLLARS

FOR _____

_____

NO. _____
DATE _____ 19 ____
TO _____
FOR _____

	DOL.	CENTS
BAL. BRO'T FOR'D		
AMT. DEPOSITED		
" "		
TOTAL		
AMT. THIS CHECK		
BAL. CAR'D. FOR'D		

No. _____ _____ 19 ____

THE EXEMPLARY PROGRAM BANK
Laurel, Miss. 39440

NON-NEGOTIABLE

PAY TO THE ORDER OF _____ _____ $ _____

_____ _____ DOLLARS

FOR _____

_____

NO. _____
DATE _____ 19 ____
TO _____
FOR _____

	DOL.	CENTS
BAL. BRO'T FOR'D		
AMT. DEPOSITED		
" "		
TOTAL		
AMT. THIS CHECK		
BAL. CAR'D. FOR'D		

No. _____ _____ 19 ____

THE EXEMPLARY PROGRAM BANK
Laurel, Miss. 39440

NON-NEGOTIABLE

PAY TO THE ORDER OF _____ _____ $ _____

_____ _____ DOLLARS

FOR _____

_____

SAMPLE B:

OCCUPATIONAL ORIENTATION --------- CHECK LEDGER

STUDENT NAME: _____

Check Nbr.	Date	Check Issued For	Amount of check	Date of Deposit	Amount of Deposit	Balance

79e

reading inventories compiled by the teachers in the diagnosing of individual reading problems. To increase student interest, the classes engaged in such activities as building puppet plays, and filming the plays. Remedial activities were centered around students' interests with special emphasis upon its relationship to occupational interests. For example, if a student indicated interest in automobiles, his reading was centered around publications concerning them. If this same student needed assistance in math, the instruction centered around math as it could be utilized with his interests.

Consumer education classes were conducted for 8th grade girls in the exemplary project. The consumer education teacher-pupil ratio in the project was one to 93, with approximately 19 pupils per class. Activities were designed to provide experiences in such areas as grooming; clothing selection, purchasing, and construction; nutrition and selection and purchase of foods; human relations; occupational information; and occupational exploratory experiences.

The cooperative education teacher-pupil ratio was one to 15. One high school in the system did not employ a cooperative education teacher during the first year of the program's operation. Both programs were of the diversified occupations type which included a broad range of job-training activities. Activities conducted by teachers in the programs were designed to assess interests and needs of students; to recruit and select students; to place students in appropriate job-training stations; to supervise students on jobs; to conduct individualized instruction related to jobs; and to provide occupational counseling for students.

The guidance specialist-pupil ratio was one to 436 pupils enrolled in project courses at the junior-senior high school level. However, the guidance personnel also worked with students not enrolled in project courses. Guidance personnel at each attendance center conducted activities centered around the collection, organization, and analysis of information concerning students' interests, abilities, aptitudes, and personality characteristics; counseling with students concerning problems and planning; administering tests and maintaining records; assisting in the identification, recruitment, and selection of students for exemplary project courses, vocational courses, and/or remedial courses; aiding students in obtaining needed services provided by local, state, and/or federal agencies; and interpreting the exemplary project to students, faculty, and parents.

The local exemplary project administrative personnel's (project director and coordinator) activities were conducted out of the centrally located vocational complex. The activities centered

around the supervision and in-service training of personnel; reporting and record keeping; conducting staff meetings; planning and implementing specific phases of the project; maintaining communications with all school system personnel; and conducting extensive public relations activities. In addition, a relatively high percentage of the local administrative staff's time during the first year of operation was spent in the selection, purchase, and distribution of materials, supplies, and equipment.

5. Instructional Equipment and Materials. The instructional aids utilized by the exemplary project included printed materials (books, bulletins, brochures, pamphlets, fly sheets, newspapers, etc.), occupational games and songs, audiovisual devices, occupational coloring books, and mockups. Many special materials such as occupational coloring books, occupational songs, occupational mockups, and occupational games, as well as other materials were developed and refined for use in the project. The project purchased on the open market a variety of materials and equipment which were utilized in the conduct of the project. A partial listing of major materials and equipment, along with methods of use follows:

   a. Audio equipment:
      - The three junior-senior high school attendance centers were supplied with solid state record players for use with records supplied with filmstrips. Remedial teachers have found these aids especially helpful.
      - Four cassette tape recorders were purchased and utilized. A series of on-the-job interviews with persons giving first-hand accounts of occupations was purchased on the open market in addition to personnel making tapes on occupations in the local area.
      - One reel tape recorder was purchased for the project.

   b. Visual equipment:
      - Each school was supplied with a 16mm projector.
      - Each school was supplied with a film-strip projector.
      - Each school was supplied with overhead projectors.
      - Each school was provided with screens, stands, and other visual support equipment.
      - One opaque projector was purchased for the project.
      - One super 8mm projector was purchased for the project.
      - One sound-on-slide system and accessories were purchased for the project. (Since such large numbers of students were being involved in field trips, industries felt they were able to oblige only a few classes per year for tours. The sound-on-slide system allowed industry to be brought into the classroom with its sounds and sights. Each slide with its magnetic sound disc is narrated by the person actually performing the operation at the time the slide was made. This system appears to have some distinct

advantages over motion pictures in that an individual slide may be stopped and occupational information studied in greater detail by students in the career development process.)

- One 35mm camera was purchased to make slides for the sound-on-slide system.
- Filmstrip series for the elementary, junior, and senior high levels have been purchased (such as Career Development and Guidance Series, Widening Occupational Roles Series, Vocational Product Series, etc.).

c. Printed materials:
Numerous printed materials were utilized in the exemplary project, and a sample of the types utilized will be reported.

(1) Sample of materials used in occupational orientation and guidance phase of the project:
- Dictionary of Occupational Titles (DOT)
- Encyclopedia of Careers and Vocational Guidance
- Counselor's Guide to Occupational and Other Manpower Information
- Educator's Guide to Free Guidance Materials
- Chronicle Guidance Kit
- Sextant Series
- Occupational Exploration Kit
- Junior Guidance Series Booklets
- Careers in Depth Series
- Occupational Outlook Handbook

(2) Samples of materials and/or equipment used in remedial education:

- Cyclo Teacher Learning and School Kit
- The Kaleidoscope Readers
- The Checkered Flag Series
- Happenings
- Reading Lab
- Reading Attainment System
- Phonics We Use Learning Games
- Britannica Junior Encyclopedia
- Language Master, with cards
- Reader's Digest New Reading Skill Builder
- Lesson for Self-Instruction in Basic Skills

6. Parent-Community Involvement. Parents were not utilized as much in the initial planning and implementation stages as the local project staff had desired, due to the lack of sufficient lead-in time. However, a directed effort was made to keep parents and the community-at-large informed about the objectives, activities, and progress of the project through different media.

Parents of students involved in the program received individual communications designed to increase their knowledge and understanding of the program. Examples (Samples C and D) of the types of communication designed to inform parents about specific areas of the program are included in this section of the report. In addition to letters sent to parents, individual conferences (both by phone and in person) were held with parents.

Mass media were utilized to introduce the project and to keep the public informed as to its progress. Several radio programs on WNSL-Laurel were utilized to acquaint the public with the project. In addition, several newspaper articles (Samples E-H) appeared in papers with local and statewide circulation. Programs were also presented to civic and other organizations which increased citizen understanding of the project.

SAMPLE C

SOUTH JONES HIGH SCHOOL

Dear Parents:

We would like to send you news letters about our program, the units and areas we will be studying in Consumer Home Economics education this year.

First, we believe we should give you an idea of what we are studying to help our students acquire some skills and abilities in the areas of home economics and family living, so that they will be better prepared for the future.

We have started our course of study with a unit on "Management of Personal Resources." This unit is a study of how we could improve the use of such resources as money, skills, abilities, energy and material goods.

Our next unit will be on "Good Health and Grooming" in which we will study good health practices to improve on or develop, to be a healthier and more attractive person. The use and value of cosmetics for teenagers related to cost will be covered.

We would appreciate any comments or suggestion you might like to make to improve our program for the students ultimate benefit.

Please feel free to visit us or call if you would like to ask questions or make a suggestion.

Thanking you for your cooperation, I am

Your truly,

Mrs. C. J. Ridgeway
Consumer Home Economics Teacher
South Jones Junior-Senior High School

SAMPLE D

TO PARENTS OF STUDENTS ENROLLED IN OCCUPATIONAL ORIENTATION

It has been called to our attention that some parents of students enrolled in Occupations Orientation are concerned that the class is being directed toward the non-college student. This is not the case.

The purpose of Occupational Orientation is to expose students to as many facts as possible concerning the world of work. Students will be given a broad survey dealing with job opportunities that will be available to them as future wage earners. The students will also be taught future trends in the world of work, requirements for entering different occupations, salary expectations, nature of the work involved in various jobs, and other facts that will assist students in choosing the field of work that they wish to enter.

At no time will a student be coerced into a program of study that is not of his choosing. Students have at their disposal trained vocational counselors to assist them in better understanding themselves and their potentials for the particular vocations in which they are interested.

The purpose of Occupational Orientation is not to have a student make an irreversible choice at his particular stage of life, but to assist him to understand the world of work and his particular potentials for occupations in which he is interested.

Again, Occupational Orientation is designed for all students, the college bound and the non-college bound student. The decision to go to college or not to go to college can only be made by the individual, not the Occupational Orientation teacher or the vocational counselor.

Teachers and counselors will only present to students information about himself and the world of work in order that he can hopefully make the best choice possible concerning his future occupation.

If you desire further information concerning the Occupational Orientation class, please contact your child's teacher or one of the following people:

Reese T. Ishee, Director

Clifton Wade, Coordinator of Occupational Orientation

Jasper Fail, Coordinator of Evaluation and Follow-Up

Ken Morris, Coordinator of Guidance and Testing

SAMPLE E:

Pilot Program In Exemplary

By REESE ISHEE
Director Of Exemplary
Program Jones County Schools

Many accomplishments have been made this year in the exemplary program since its inception in July 1, 1970. These actions involved teachers, parents, students, administrators, coordinators, state and local directors, and other personnel who are interested in the student. All personnel in the exemplary program have attended and taken part in professional meetings and workshops, both locally and on state level. A questionaire was developed for registeration of pertinent information on IBM DATA processing cards. These are presently being recorded and punched by Mississippi State University.

A voluminous amount of materials, supplies, and equipment, has been and is being added to the Jones County school system. Letters, public addresses to clubs, and by various news media have helped to disseminate the actions of those involved in the program. Since this exemplary program is a pilot program, job descriptions have been completed and adopted by the state department of all personnel in the program. Due to the lateness of the programs inception, administrators, counselors, coordinators, teachers, and students were involved in some swift adjustments that were made by good cooperation by our school administrators.

After commencing the program, which involved approximately 1300 youth, social security cards were processed for each student, with the cooperation of the local social security administration. Selection of various interest inventories and aptitude test were made and administered in interest of helping the student to develop interest in and relate ideas of his interest and ability to perform various vocational feats. The Ohio Vocational Interest Survey, vocational planning inventory, accompanied the California Mental Maturity and California Test of Basic Skills (adopted anew as the California Achievement test) in helping the teacher, counselor, and administrator do a better job in helping our youth.

Other Measurements

Other measurements adopted and used include the Stanford diagnostic reading test, for those who may have had or are having a problem of a definite nature in reading skills. Those who are interested and are participating in cooperative education are also exposed to the Kuder Vocational for Proper Placement. For those students who give evidence of interest and register for specific vocational training at our Jones County Vocational Complex, a general aptitude test battery is administered for better ascertaining the student's interest-ability. This battery is administered by the vocational personnel.

A prodigious amount of free materials have been gathered from throughout the nations, as

REESE ISHEE

the coordinators and director studied these for better administration and execution of the program. Various resource personnel have been enlisted into the program at various times for vocational information dissemination to the student body in fields of unique interest. Through liaison effort various courses are being offered by U. S. M. and Miss. State for benefit of those in the program. All occupational teachers are presently enrolled in a field course with SOUTHERN. Many of these instructors and other personnel also carried special courses at Miss. State during the summer. Inservice programs are being conducted with this personnel each week along with coordinators and director.

Information has been gathered from the labor department concerning child-labor and work permits have been made available for those students who are juniors and-or seniors who are working in cooperative education. Recent developments include a change in the grading system to that of a monetary check system, where the student is able to keep record of his achievements by book-keeping methods of training. Occupational games, cross-word puzzles, word-o-grams and other brain teasers have become an integral part of the occupational program, which involves the student.

Sketched Maps

The students have sketched maps of their home location for benefit of the teachers who are in the program, to make visits for consultation with both students and parents to better serve our vital interest — the student. The occupational teachers have divided Roe's classification, with each taking four areas and industrial arts is drawing from eight areas for instruction purposes. A three-way rotation of the student is involving all students in the program in industrial arts, occupational information, and consumer education. The students help in their study by special research, and by posting the data found concerning the various job descriptions. A series program is planned from grades 1-10 with the privilege of the 11th and 12th years being able to carry the occupational information orientation course with those in the 10th year as is felt feasible. Grades 1-7 will be taught with home-room teacher instruction, coordinated by exemplary personnel.

A number of consultants have been made available from the University of Southern Mississippi, Mississippi State University, and the State Department of Education. Bi-monthly evaluations are being conducted with a follow up of quarterly reports, which are submitted from local and state level to the United States Department of Education.

This is a pilot program, the only one of its specific kind in the United States. Schools in Jones County have the eyes of the United States focused on them. Innovations are adapted and improvised. Students become more involved. Preparation and outlook for the future looks good much progress has been and is being made. All are cooperating to make this exemplary program a success. Administrators, counselors, teachers, and other school personnel, employment services, business, and industry, parents and students.

Invitational public addresses have been made to clubs, and school groups. Radio spots, news articles, personal letters, ET AL have been a part of disseminating the news and helping to inform the public of the Jones County Exemplary Program.

SAMPLE F:

16 The Clarion-Ledger JACKSON DAILY NEWS
SECTION A Sunday, July 18, 1971

Career Centered Courses Doing Well, Jones County

Last fall the students in the Jones County school system began a program, unique in Mississippi, geared to teaching every boy and girl, beginning in the first grade, everything that it is possible to teach about the world of work—the skills required, the financial rewards, the place in society of the occupation, the advantages and drawbacks and the personal traits required of a particular occupation. The over all program is called a "Career Centered Curriculum."

The concept for a career centered curriculum came from various ideas. Actually it was a natural process of educational evolution based on the need for a course of study to meet the needs of the boys and girls of the state.

FOUNDER

Credit A. P. Fatherree, state director vocational education, for getting the program going in Mississippi. Fatherree has been directly involved with the vocational education in the state for 46 years. He had long seen the need for boys and girls to get the education that prepared them to make the maximum contribution to society.

It was not until 1968, when Congress authorized funds for such projects, that it was possible for the career centered curriculum to get started.

Under Fatherree's guidance the state vocational education staff, along with the vocational curriculum laboratory at Mississippi State University, prepared a plan for a career centered education.

Several schools were contacted before one was found willing to deviate from the traditional college preparatory curriculum to one which was career centered.

Jones County, under the leadership of A. C. Knight, county superintendent of education, along with members of the county board, Alonzo Nicholson, Jimmy Rowell, W. T. Shows, Lonnie Knight and Donald Bryant, accepted the responsibility for attempting such a program. After negotiating with the U.S. Office of Education for 12 months, the program was finally approved in June 1970 and got under way the following September.

The program consists of a course of study beginning in the first grade continuing through the twelfth. Grades one through six are devoted to teaching the child to become aware of the world of work. Reading, writing and arithmetic are taught through study of various occupations rather than reading about Dick, Jane and Sally.

PRINCIPALS IN JONES COUNTY PROJECT — Guiding the Jones County Career Centered Curriculum program are, front row from left, A. P. Fatherree, state director, vocational education; A. C. Knight, Jones County superintendent of education; back row, from left, J. H. McMinn, coordinator, research, curricula and teacher training, vocational division; D. T. Johnson, Jones County vocational education director and Reese T. Ishee, local project director.

BULLETIN BOARDS USED FOR INFORMING—Lester Boyles, counselor, points out an item on the bulletin board to A. C. Knight, county superintendent, Mrs. Juanita Jeffcoat and Bob Davidson, both teachers in the Jones County program.

7TH GRADE

When the student reaches the seventh grade, he goes into an in-depth survey of the world of work.

The eight and ninth grades are devoted to an intensive occupational orientation program where the students study and are exposed to as many occupations as is possible. This is done through team teaching, field trips, films and other teaching aids, all pointing toward helping the child make a meaningful choice of an occupation.

The tenth grade is pre-vocational education, at which time the student is taught basic principals and skills of a cluster of occupations in which he shows an interest. For example, students interested in industrial occupations are given one year of industrial arts. Those interested in agriculture are given one year's instruction in basic agriculture.

The eleventh and twelth grades are devoted to occupational preparation. Students are carried to a central vocational complex where they are taught and drilled in the occupation they have selected.

At the completion of high school the student has a choice of continuing his education in a 4-year college, going into employment, or entering Jones Junior College for more specialized study in trade of technical courses.

SERVICES

During all this time—from the first grade through junior college—vocational guidance and counseling services are offered to the student, his teacher and his parents.

At the beginning of the program in September of last year, there was some resistance on the part of some faculty, students and parents. Many teachers found it difficult to break away from the college preparatory educational concept. As the program progressed this resistance began to weaken and, prior to the close of school, all resistance had vanished and everybody involved in the project was enthusiastic.

A. C. Knight says that Jones County will never have the old kind of traditional college preparatory education again. Says Knight, "Efforts will be increased to offer a curriculum that will enable all the children to leave school with a saleable skill or be prepared for further academic education in college."

Classroom teachers have been caught up by the success of the program too. One teacher said, "I'll never be the same kind of teacher again."

Recent evaluation of the program by members of the U.S. Office of Education were high in their praise of the program, and one official stated that the Jones County project was the best of its kind that he had observed in the nation.

FULL SUPPORT

Dr. Garvin Johnston, state superintendent of education and his staff are giving the program full support. Dr. Johnston said, "I'm glad to see the idea of a career centered curriculum catching on in our state. Four more schools will initiate the program in the 1971-72 school year."

The Jones County program has been supervised from the state level by J. H. McMinn, coordinator, Research, Curricula and Teacher Training. Ken Morris, who has been directly involved in the Jones County project for the past year, recently joined the state staff to help supervise the new programs starting this fall. Reese T. Ishee is the local project director.

Interest is being shown in the program in other parts of the country. A. P. Fatherree has been invited to present a description of the concept to a meeting of the National Association of State Directors of Vocational Education in Portland, Ore. this fall.

SAMPLE G:

From Laurel newspaper: Occupational Orientation Theme of Lions Program

Sandersville, Mississippi

"Whatever a child is capable of doing, that potential should be developed," Reese Ishee told Sandersville Lions at their first May meeting. "His happiness depends on the right choice."

Ishee is Jones County project director for Occupational Orientation, a state - federal program designed to assist students to find themselves. In simple language, the aim is to spot talent and then help it move in the proper direction. Ishee was introduced by Ed Blackledge.

According to him, children as far down as second grade are encouraged to begin thinking about what they would like to do in life. The posters they make are quite revealing as to the types of endeavor that look good to them at present. To be sure, their interests may change a half-dozen times before they reach maturity.

The program includes guidance counseling as well as remedial work in any subject in which the student may be weak. There is now one remedial teacher in each of the county's three high schools.

Reading receives special emphasis. Ishee mentioned one student who was assigned to use a lathe but couldn't read the instructions. For another, a 12th grader, extra instruction paid off and he was able to read the school paper for the first time.

At the big A. P. Fatherree Complex across from the Dixie golf course, Ishee pointed out, students are taught metal trades, auto mechanics, industrial electricity, building trades, industrial drafting and business-office work. The complex is well equipped, one machine alone costing more than $50,000. Twenty-seven are enrolled.

SAMPLE H:

Laurel Kiwanians Hear Two Speakers, 2 Topics

Members of the Laurel Kiwanis Club had a double program Wednesday — a brief demonstration of the National Education Week on Smoking (NEWonS) program being given in the schools and a fuller discussion of the Jones County Schools' Exemplary Project.

C. W. (Sonny) Farrar, director of health and physical education, Laurel City Schools, presented the anti-smoking demonstration using "Smoking Sam," a cigaret-puffing mannequin which demonstrates the effects of smoking on the lungs.

After Farrar's brief presentation, W. D. Gordon, January program chairman, introduced Reese T. Ishee, Exemplary Project director, and Ken Morris, the project's vocational guidance coordinator. Morris was the speaker.

He told the Kiwanians the Exemplary program incorporates the new concept of a career- centered curriculum. It gears all of a student's school life to helping him establish an occupational goal and work toward accomplishing it.

According to Morris, the program attempts to provide skills in the three fields necessary to a fruitful and happy life: Sociological psychological and occupational.

Pointing out the nation-wide drop-out rate, between first grade and graduation is 30 per cent, while the rate in some parts of Jones County is 50 per cent, Morris said it has become evident children become interested in possible vocations early, but most vocational guidance has been found outside the schools. It is this trend the Exemplary Project seeks to change.

One phase of the program is the occupational orientation class. Each of Jones County's three junior-senior high schools has three teachers in this field, plus teacher assistants. These courses give the students a broad look at occupational opportunities, Morris explained.

Several methods are used to accomplish this, including regular classroom lectures, guest speakers, film strips and films.

The vocational guidence counselors — to which each school has had an addition of one — provide more extensive information on career fields in which students become interested, including educational and other requirements. They also administer vocational aptitude and vocational interest tests to help the students with career choices.

Morris said one extremely valuable phase of the program is remedial studies. He said emphasis is placed on reading because that is the main problem, but help in mathematics and other fields is offered if necessary.

The cooperative education program is the portion which allows students to attend classes half a day and work the other half. It provides on-the-job training for them.

Finally, there is the consumer economics course, which trains students in home finances, marketing, purchasing and budgeting. Morris noted this class primarily attracts girls — the future housewives.

He pointed out the Exemplary Program is separate from the Jones County Schools' Vocational- Technical Education program, though the two work together and the Exemplary Program offices are in the A. P. Fatherree Vocational - Technical Complex.

The vo-tech program actually offers classes in career areas; currently auto mechanics, industrial electricity, building trades, business and office machines and industrial drafting.

"We are attempting to solve some of the complications the students in Jones County are going to face in making vocational decisions and to provide for those who are not college bound," Morris asserted.

He pointed out the Exemplary Program is not a novelty because the courses and services within it have been offered basically before.

"It is the only one of its kind in the United States, as far as we know," he declared. "We have taken the best of all the areas of vocational education and combined them in one program."

"Our goal is to help our students get an early start, whether they are planning for college or a career immediately after high school," the guidance coordinator concluded.

W. D. Rayner, Nashville, Tenn., Kiwanian, and Chuck Reddoch were welcomed as guests.

Attendance prizes, given by John D. Parker and R. G. Patterson, were won by Lavon Boyles and Charles Brett.

IN JONES COUNTY

Set Observance Of Vo-Ed Week

National Vocational Education Week, Feb. 7-13, is being observed in Jones County, according to Reese Ishee, Jones County director of the Exemplary Program.

"It is important for education, industry, and business to realize that only eight per cent of those students who enter elementary educational institutions in the state will complete their college works," stated Ishee.

"Mississippi has taken great leadership in trying to reach the other 92 per cent of our youngsters who must also fill a place in our society," he said.

There are now 1,759 high school programs, 264 junior-senior college and 1,618 adult programs included in the 3,641 vocational programs in operation in 457 schools in Mississippi. The enrollment in these schools reaches more than 110,660 students.

The 92 Per Cent

Ishee claimed for many years our school systems have operated solely on a college preparatory program for only eight per cent of the students, while 92 per cent of all students left high school without special preparation for a vocation.

"Although they have their diplomas, maladjustments result vocationally," Ishee observed. "A person may work in a field in order to make a living, rather than be competently trained to enter a vocation he will like and be able to compete in because of his vocational training," he went on.

Ishee suggests that the majority of youngsters who enter elementary school be given the opportunity of vocational preparation.

"Jones County is taking a l by informing the students of 'world of work', through the emplary Program which rea es most every student who ters the eighth grade," acco ing to the director. This is er than the long - time est lished vocational programs agriculture, shop and home e nomics.

The Exemplary Program i specialized service which is c cerned with occupational in mation and which gives instr tion to students concerned w the "world of work".

On Job Training

Cooperative education gi students the opportunity to perience on - the - job train under supervision, receive h school credits toward their gr uation, and receive a prop tionate amount of pay for t services through cooperat with the on - the - station w program.

Ishee noted other progra which give special empha to preparation for the job clude consumer education remedial education.

The Exemplary Program Jones County has a number specially trained personnel, are able to give professional sistance through testing, co seling, instructing and aid the student in proper placem for and in the world of wo

The director said industry, b iness and the employment vice have proved their inte in the 92 per cent of the st ents by offering employm consultive service and full co eration to make National Vo tional Education Week be a r ity this and every week.

87

90e

7. Budget. The program was designed to involve each pupil in the school system and all costs (including the on-going vocational programs) concerned with career development were included in the budget. A total of $600,563 was budgeted for the first 12 months of operation. Of this total, $224,040 came from exemplary funds, $239,163 from State and other Federal funds, and $137,360 came from local funds. The exemplary funds made up 37.3 percent of the entire budget for career development in the school system.

Approximately $50,000 of the budget was considered to be "start-up" funds for the career-centered phase of the program. If "start-up" funds are considered for "new" regular vocational programs which were started in the vocational complex at the same time the total "start-up" costs increased to $166,887.

Per-pupil cost is presented in this section in two different ways. First, the per-pupil cost is presented for the total program (total vocational costs, including career-development phase, of the system, divided by the number of students involved in the program). This cost amounted to $76.16 per pupil, of which $25.03 per pupil was considered to be "start-up" costs. Secondly, the per-pupil cost is presented as it concerns the career-centered exemplary project. The per-pupil cost of this phase of the program (total exemplary project costs divided by the number of students involved in the program) amounted to $28.41. Of this amount, approximately $6.25 was considered "start-up" costs.

III. EVALUATION ANALYSIS

The evaluation section of the first interim report was devoted to a process evaluation. With the implementation of the exemplary project on the career-centered concept, it was felt that evaluation activities could make the greatest impact on the implementation phase of the program by focusing upon the process. Deficiencies in the process detected at early stages could best be corrected with the least amount of confusion if evaluative data concerning the process were continually fed back and incorporated into redirecting programmatic efforts. Therefore, evaluation activities for the first year of operation were centered around the "process."

Included in the process evaluation were data collected from analysis of records and reports; analysis of program operation; judgments of qualified observers; analysis of instructional materials, techniques, and methods; analysis of equipment and supplies, purchase and utilization; analysis of opinions of program staff, State Division of Vocational and Technical Education personnel, consultants, school system faculty and administration, parents, and students. In addition, special emphasis was given to in-service education activities.

The process evaluation in the 1970-71 interim report centered around the use of the program's educational goal as a standard by which the outcomes of the project were assessed. The authors utilized the project's objectives in the realm of an educational goal and developed specific evaluative objectives for the purpose of analysis.

PROGRAM GOAL -- TO ESTABLISH STRUCTURAL RELATIONSHIPS WHICH WILL FACILITATE IMPLEMENTATION OF THE CAREER-CENTERED CONCEPT IN THE JONES COUNTY SCHOOL SYSTEM.

1. Evaluation Objective: To provide an administrative organization for efficient operation of the program.

   The administrative structure designed to implement the project provided for functional operation of the program, with some modification. During the first year's operation, it became apparent that if the objectives of the project concerning implementation of the career-centered concept on the elementary level were to be attained in the shortest possible time span, a position in the administrative structure, with specific responsibilities on the elementary level, should be developed. This recommendation was made to the State and local project directors. This decision was made to create the position of coordinator of elementary services and phase out the position of coordinator of cooperative education. This change was the only one recommended and made in the original administrative structure.

Evaluative personnel attribute much of the success of the administrative organization's efficient operation to the effort demonstrated by the administrative personnel involved. When problems arose, all administrative personnel focused their activities on the problem in a team effort. As the project progressed, job descriptions for administrative personnel were modified to include additional responsibilities as the situation demanded.

Project administrative personnel were well qualified to handle the planning, implementation, and operation of the program. At the start of the project, local administrative personnel averaged 16.2 years of teaching, counseling, and/or administrative experience. The administrative personnel met or exceeded the minimum qualifications set forth in the original proposal.

Record and report analysis conducted by the evaluative team disclosed a comprehensive system of record keeping on both the local and the State levels. Written reports on the local level tended to be concise and in some cases did not contain enough information about selected phases of the project to give a complete picture of the operation to persons who had not visited the project.

The administrative personnel used several procedures to keep the lines of communication open for project personnel. Letters, memos, and conferences were utilized effectively for keeping individual communication lines open. Group communication was obtained through the use of weekly staff meetings and participation in committees, conferences, and workshops. The only communication difficulties observed occurred during the initial phase (first six months) of the project. These difficulties resulted from too many different solutions to the same problem being offered to the different project personnel at the same time by consultants and other persons with specific expertise who worked with the staff during this phase. This communication difficulty was alleviated to a great extent when all consultants' recommendations and suggestions were channeled through the State and local project directors before implementation--thus allowing for the interfacing of recommendations throughout the project staff.

The administrative personnel devoted as much time as possible to the supervision of personnel. However, due to the urgent need to purchase equipment and supplies and to conduct curriculum development activities, etc., during the initial phase of the project, the staff's supervisory activities, as far as some personnel were concerned, were limited. The administrative staff utilized the principals in the attendance centers as much as possible for on-site supervision of personnel. Priority was given by the entire administrative staff to the supervision of beginning personnel and to those with apparent weaknesses in performance. Supervisory

activities pointed out special areas of concern in the program around which in-service training and staff development programs were conducted.

The purchasing procedure outlined for equipment and supplies was noted to have caused some concern among teachers and local administrative personnel. The laborious procedures of first receiving prior approval on all equipment and supplies from the State Department of Education, then advertising the items for bid, then submitting purchase orders, and then finally receiving the items, created a time-lag for use in the program which was never overcome during the first year of operation. All purchases of major items were completed prior to the beginning of the second year of operation.

During the year numerous budget revisions were necessary to allow for the most effective operation of the program. All revisions in the budget were cleared through the State Project Director and the appropriate U.S. Office of Education personnel before being enacted. The operating budget depicted funding from Regular Part B Vocational Funds, State Funds, Part C Vocational Funds, Local Funds, as well as Exemplary Funds. Exemplary Funds made up approximately 37.3 percent of the funds utilized in the career-centered curriculum. Analysis of the final budget revision indicated that approximately 58.6 percent of the budgeted funds were spent for personnel salaries and employee benefits; 1.8 percent for travel; 7.8 percent for supplies and materials; 1 percent for testing; 29 percent for equipment and 1.7 percent for contracted evaluation. The total cost per student in the system for the career-centered curriculum during the first year was $76.16. Of the $76.16, a total of $25.03 was what was considered start-up costs. This brought the total operational costs to approximately $51.13 per student for the first year of operation. Of this cost ($51.13) $28.41 per student was spent from Exemplary Funds.

2. <u>Evaluation Objective: To provide adequate facilities for the operation of the program</u>.

The project was begun at the same time that the school system opened under a unitary system for the first time. This resulted in the closing of some of the system's facilities and an overcrowding of the remaining facilities. Despite this obstacle, the facilities provided for the project at the outset were good, with a few exceptions. All schools in the system were in the process of expanding classroom space at the opening of the school session. In addition, three mobile classrooms were erected for use by the project classes.

Facilities utilized by the local project administrative staff included a private office which housed the local project director at the vocational complex. Other local administrative personnel

(coordinators) were housed in a central office pool adjacent to the local director's office. This arrangement appeared to present a slight problem concerning privacy when coordinators counsel with instructional personnel. Generally, the project director's office was used for individual conferences by coordinators, which necessitates the interruption of the project director's activities.

Facilities utilized by the remedial teachers at the beginning of the school year ranged from excellent to poor. Two of the remedial teachers met classes in rooms designed as language labs which were well equipped for remedial instruction. One teacher met in a regular classroom facility equipped with remedial instruction aids and one met in a storage room for a six- to eight-week period, at the beginning of the project. However, this facility was vastly improved when a regular classroom equipped for remedial instruction was made available.

Guidance personnel facilities were generally very good. Each was housed in a private office equipped with adequate guidance materials. Two of the offices were centrally located in the attendance center's administrative suites. One guidance counselor's office was located adjacent to the cafeteria.

Consumer home economics teachers involved in the project met classes in classrooms and/or mobile classrooms especially equipped for the consumer home economics program. These facilities were very good and enhanced the program's effectiveness.

Occupational orientation facilities were classrooms and/or shops especially equipped for teaching occupational orientation. These facilities were rated by the evaluation team as being very good.

Due to the low enrollment in the cooperative education program at the start of the program, space allocation was of a temporary nature. Rooms which had not been utilized for instructional purposes prior to the implementation of the project and the unitary school system were assigned to cooperative education classes for approximately six weeks. After that period of time, special classrooms equipped with special materials housed the classes.

Maximum utilization of facilities was accomplished by the project. All facilities were observed to possess adequate lighting, heating, and acoustics. The general appearance of all facilities was excellent at all times, with a thorough maintenance program in evidence.

3. <u>Evaluation Objective: To provide adequate equipment and supplies for the effective operation of the program</u>.

The necessary purchasing procedures (as discussed in Evaluation Objective No. 1) for equipment and supplies tended to impede full utilization of equipment and supplies during the first year's operation. Since most major supply and equipment purchases for

the program were completed, no logistical problems of this nature were anticipated during the second year of operation.

All major items of equipment and materials which were to be rotated between attendance centers were stored at the centrally located vocational complex. Supplies and materials were also dispersed from this central location. This policy which seemed extremely workable to evaluative personnel was of concern to some teachers in the attendance centers. Some of the teachers complained about the inaccessibility of the supplies and equipment. These complaints had absolutely no basis when one is cognizant of the fact that each teacher had a travel budget which could be utilized for this purpose. These complaints tended to indict these specific teachers for failure to plan classroom activities far enough in advance to maximize use of these materials and/or equipment rather than the policy regarding shared equipment.

All attendance centers were furnished with some equipment, supplies, and materials which were shared by the personnel at the specific attendance center. No problems or complaints were detected from the implementation of this policy.

During the first year of operation, much time was spent in the selection of instructional materials, equipment, etc. The procedure used in the selection of these items proved to be successful. Coordinators, teachers, consultants, and other personnel formed committees dealing with specific areas of the program. Samples of instructional materials, equipment, supplies, etc., were obtained and evaluated by the committees for use within the program. Committee selections of instructional materials, equipment, supplies, etc., were then purchased and/or obtained without cost for use in the program.

4. Evaluation Objective: To provide adequate staff for the implementation and conducting of an effective program.

A total of 27 new professional level staff positions were utilized in the effective implementation of the program at the local level. This number included positions in administration, coordination, counseling, and instruction. In addition, one secretarial position and three teacher aide positions were utilized in the project implementation. All 27 professional-level positions were filled with persons meeting the State certification requirements and having a minimum of a bachelor's degree. Approximately 26 percent of the persons employed held a master's or higher degree.

An analysis of the education, employment records, teaching experiences, and certification status of personnel revealed that all persons employed met or exceeded the educational requirements of their job descriptions. The staff averaged 6.4 years teaching experience per person and all held valid teaching credentials issued by the State of Mississippi. Six of the 27 were beginning their

first year of teaching, but the staff contained enough experienced personnel to add stability to the project. These experienced teachers assisted the new teachers in the development of the program.

The selection procedure used in the employment of staff followed the normal recruitment procedure. An active file or applications for possible employment in the program was kept up-to-date. Persons with the necessary skills and competencies needed by the program were contacted as soon as vacancies occurred. Only four vacancies occurred during the first year of operation of the program, and all have been filled without difficulty. Salaries paid by the program were on the same scale as other school system personnel in comparable positions.

Instructional personnel in the program had excellent work loads with a few exceptions. Most instructional personnel met classes four or five periods per day. The normal load for the general faculty was five periods plus a study hall or other activity. Some program personnel actually had fewer class hours scheduled per day than did many other general faculty members. This proved to be a point of slight friction to some members of the general faculty. However, program personnel utilized the "free time" to plan, develop, and implement the program.

Professional growth activities of the program personnel was a continuous process. All of the staff held membership in various professional organizations and participated in local and State meetings. Most of the staff were enrolled in one or more graduate credit courses in their specialty areas during the year of operation. In addition, an intensive in-service training program for staff personnel was conducted during the first year of operation. A pre-session workshop was conducted prior to the opening of school for all program personnel. After school opened, weekly training sessions, in which all project personnel were involved, were conducted throughout the school year. At the close of school a workshop was conducted for project personnel for the entire month of June. In addition to the series of workshops and/or seminars conducted throughout the year, staff meetings and committee meetings aided in total staff development. Consultants were used in conducting some workshops and seminars; however, it appears that the greatest benefits evolving from the professional activities were the opportunity for the planning, development, and implementation of a unified program throughout the school system based upon the participants' development activities. For example, course contents were developed by all project personnel which divided a particular course into units, stated the instructional objectives, stated behavioral objectives, delineated activities to be carried out, determined evaluation methods, and listed resources to be utilized. These activities probably did more to increase the effectiveness of the program over the long-run than any other single activity that was conducted during the first year of operation.

5. Evaluation Objective: To provide an adequate curriculum for the implementation of the program.

During the last semester of the school year (1970-71) a concerted effort was begun to implement the career-centered concept into the elementary grades. At this level it was planned to make occupational preparation a force within the on-going elementary curriculum by utilizing standard components (reading, science, etc.) as occupational vehicles. The regular classroom teachers were responsible for the occupational activities.

As program personnel began to investigate the use of occupational information in the elementary grades, they were astounded to find the amount of occupational information in use at this level. Obviously, elementary students within the school system were being exposed to some occupational information. However, it was readily evident that duplication and erraticism characterized the career-education effort. Project personnel with elementary teachers and principals, formed committees with the tasks of career information coordination planning, development, and implementation for the elementary grades. The committees began development of courses of study utilizing career information for each grade. For grades one through three, the committees decided the subject area (reading, math, etc.) and the grade levels should be separated. In grades four through six, only the subject areas should be divided. The committees decided to present the career information to the students in the following broad areas:

Grade 1 -- Career information centering around the home and school.
Grade 2 -- Career information centering around the neighborhood and community.
Grade 3 -- Career information centering around surrounding communities.
Grade 4 -- Career information centering around the state.
Grade 5 -- Career information centering around the U.S.
Grade 6 -- Career information centering around foreign countries.

Career information centers were established at selected elementary schools. These were chosen for special testing and refining of the career information techniques at the elementary level during the second semester. Refined techniques, methods and materials were planned for implementation in other elementary schools during the second year of operation.

Evaluative personnel were extremely impressed with the enthusiasm by which the career-centered concept was received by elementary faculties, administrators, and students. The creation of the position of elementary coordinator gave this phase of the career-centered curriculum unparalleled acceleration for implementation throughout the school system.

The career-centered concept was extended into the junior high schools mainly through occupational orientation classes, consumer education classes, and remedial and counseling services. The occupational orientation course was a new effort in career development and course content was constantly being developed and refined during the first year of operation. Lack of sufficient lead-in time before program implementation prevented the most effective utilization of equipment, materials, and supplies by instructional personnel, in course content.

The occupational orientation course allowed students (mainly in 7th and 8th grades) to explore the world of work, including its requirements, conditions, and rewards, thus assisting them in making meaningful career selections and decisions. The course was grouped into eight categories for study by students. These were (1) Service; (2) Business Contact; (3) Organization; (4) Technology; (5) Outdoors; (6) Science; (7) General Cultural; and (8) Art and Entertainment. During the first year of operation, project personnel became discontented with this approach and began the planning and development of course content for more effective instruction during the second year of operation. Development activities continued after the closing of school and a tentative curriculum guide was prepared for use during the second year of operation.

During the first year of operation, it became apparent that while the course was designed to give students "hands on" exploratory experiences, some students were unable to obtain this "hands on" experience due to the fact that all teachers did not have access to varied types of facilities (shops, home economics labs, etc.) or were lacking expertise in some areas. It also became apparent during the year that teachers were more effective in helping students receive "hands on" exploratory experiences in occupations within the teacher's specific specialty area (home economics, agriculture, trade and industry, etc.).

Committees of occupational orientation teachers and coordinators worked throughout the school year in the planning, developing, and refining of course content. This activity allowed for the field testing of many concepts on career development and the strengthening of course content.

Remedial instruction was a service of the program offered to junior high school students as well as high school students. Approximately 91 percent of students in the remedial education component of the program were in the 7th and 8th grades. The remedial phase of the program centered effectively around the needs of the students (generally reading and/or communications skills and mathematics). Classes were small (usually 8 to 10 per class) which allowed for maximum individualized instruction. Students participated in the part of the program on a voluntary basis. Excellent results were observed in this phase of the program. Career information was utilized in the remedial instruction with success.

As part of the exemplary program, consumer education classes were conducted for eighth grade girls. Activities in the classes provided students with experiences in such areas as grooming; clothing selection, purchasing, and construction; nutrition and selection and purchasing of foods; human relations; occupational information; and occupational exploratory experiences as related to home economics. The consumer education classes were successful in meeting their objectives. However, there appeared to be a question concerning their relationship (as conducted during the first year of operation) to the career-centered concept in general. It appeared that limiting a student's view of the world of work in the eighth grade to one specific area or field (in this case, consumer education) would not increase the student's knowledge of the world of work to the degree desired in the career-centered concept.

6. Evaluation Objective: To establish the necessary relationships with local businesses and industries to provide cooperative (work-experience) education in all aspects of vocational offerings in an effort to better meet total manpower needs.

During the first year of operation some progress was observed in the establishement of relationships with local businesses necessary for providing work-experiences for students. However, at the beginning of the school year these relationships had not developed to the desired level. This was indicated by the lack of sufficient training (work-experience) stations for all students enrolled. Also small enrollments in the cooperative phase of the exemplary program tended to be limiting its effectiveness in the preparation of persons training to meet the total manpower needs of the area. Progress was made in the working relationships between local businesses and the cooperative program during the first year of operation as demonstrated by the increased number of training stations and increased enrollment in the cooperative program.

7. Evaluation Objective: To provide intensive and short-term entry level skill training immediately prior to exit from the school, for those students who have not previously been enrolled in one of the regular vocational programs.

During the first year of operation of the program other areas of the program required maximum effort, and this phase of the program was deferred and not implemented. However, planning for the implementation of this phase of the program was begun during the latter part of the school year.

8. Evaluation Objective: To establish an intensive program of guidance-counseling-placement, relating to activities in Objective I above, and including activities which will assure adequate post-training work adjustment for each student.

The program made progress toward meeting certain phases of this objective during the first year of operation. Each of the three combination junior-senior high school attendance centers housed full-time vocational guidance personnel who counseled with students. In addition to the guidance personnel each attendance center housed three or more occupational orientation teachers whose courses were designed to utilize group guidance techniques. The guidance personnel, occupational orientation teachers, and other vocational education teachers planned and implemented a testing program designed to aid in career exploration, self-analysis and counseling for students.

Group counseling centered around assisting students in appraisal of individual interests, abilities, aptitudes, and skills; development of characteristics such as ambition, honesty, perserverance, initiative, cheerfulness, loyalty, and dependability; acquainting students with sources of occupational information and use; assisting students in the beginning of early career planning; and assisting students in participating in the American Economic System. Special emphasis was placed on assisting students in learning proper ways to seek satisfying employment.

Placement of students was generally handled through regular vocational teachers. A placement center was not established as such during the first year of operation.

IV. RECOMMENDATIONS

During the first year of operation numerous recommendations evolving from evaluative activities were fed back into the program through the state and/or local project directors. Most of these recommendations have been implemented and will not be elaborated upon in this section. Consequently, only those recommendations given at the end of the first year of operation shall be reported in this section. The authors of this evaluation report recommended that:

* Funding should be continued for the second year of operation.

* Consumer education classes in the project should be incorporated into the occupational orientation classes.

* Occupational orientation classes should be rotated between teachers with specific specialty areas to increase the exploratory experiences of the students.

* Additional "hands-on" occupational experiences should be provided for occupational orientation students.

* Further development of career-centered media centers should continue in all attendance centers.

* Additional student recruitment activities for cooperative education be conducted.

* Continuation of public relations activities connected with the project.

* Continuation of the intensive in-service program for the project staff.

* Additional curriculum materials development should be undertaken.

* Curriculum guides for all phases of the program should be developed and distributed.

* A placement center to aid students in obtaining employment should be established.

* An intensive skill training program for students about to leave school without salable skills should be inaugurated.

V. SUMMARY

The goal of the project stated in its simplest form was to establish structural relationships which facilitate the implementation of the career-centered concept in the Jones County School System. The approximately 8,000 students in the school system were to be involved in the program in various ways. The program began with the elementary schools providing students with career information and counseling, access to resource persons, and field trips incorporated into the "regular" elementary curriculum. The program in the junior high school expanded and intensified career exploratory experiences through a specially designed course, occupational orientation, as well as counseling activities which assist students in the occupational choice process. At the high school level students received assistance in planning for and attaining vocational goals and preferences through a variety of vocational programs.

The evaluation procedure centered around the use of the program's educational goal and objectives as a standard by which the outcome of the project was assessed. Evaluation activities for the first year of operation were centered around the "process." In addition, baseline data was collected on the "product." The procedure included data collection; analysis of records and reports; judgments of qualified observers; analysis of instructional materials, techniques, and methods; analysis of equipment and supplies, purchase and utilization; analysis of program activities; and analysis of opinions of program staff, State Division of Vocational and Technical Education personnel, consultants, school system faculty and administration, parents, and students.

The evaluation analysis indicated that the administrative structure designed to implement the project provided for functional operation of the program with slight modification. All personnel (instructional and administrative) in the project met or exceeded the qualifications described in the project proposal. The delay in final approval for funding of the project created a time-lag which proved to be the largest problem in its implementation. This time-lag resulted in delay in the purchasing and utilization of some equipment and materials which hampered the instructional portion of the program during the school year. The exemplary project cost per pupil was $28.41 with $6.25 being considered "start-up costs". Facilities provided for the program enhanced its implementation. An intensive in-service training program (which resulted in noted improvement in the project) was conducted for the staff during the year of operation. The cooperative education part of the project was underpopulated at the start of the year and there was a shortage of training (work-experience) stations. Two objectives of the project (the establishment of a placement center and short-term entry level skill training for students leaving school) were not implemented during the first year of operation; however, planning for their implementation was underway during the year.

Upon analysis of evaluative data it was concluded that the project was making progress toward the attainment of its goal and objectives and should be funded for another year of operation. Specific recommendations resulting from the first year evaluation effort included:

* Consumer education classes in the project should be incorporated into the occupational orientation classes.

* Occupational orientation classes should be rotated between teachers with specific specialty areas to increase the exploratory experiences of the students.

* Additional "hand-on" experiences should be provided for occupational orientation students.

* Further development of career-centered media centers should continue in all attendance centers.

* Additional student recruitment activities for cooperative education be conducted.

* Continuation of public relations activities connected with the project.

* Continuation of the intensive in-service program for the project staff.

* Additional curriculum materials development should be undertaken.

* Curriculum guides for all phases of the program should be developed and distributed.

* A placement center to aid students in obtaining employment should be established.

* An intensive skill training program for students about to leave school without salable skills should be inaugurated.

V-B. THIRD PARTY EVALUATION

Fiscal Year 1971-72

SECOND
INTERIM EVALUATION REPORT

Project No. 0-361-0067

Grant No. OEC-0-70-5177 (361)

THE CAREER-CENTERED CURRICULUM
FOR
VOCATIONAL COMPLEXES IN MISSISSIPPI

An Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

James F. Shill
James E. Wall
Norbert Johnson

Mississippi State University
Mississippi State, Mississippi 39762

June 1972

I. INTRODUCTORY SECTION

A. THE LOCALE

1. Geographical Description.

See Section V-A, p. 55e

2. Density and Population Trends.

See Section V-A, p. 55e

3. Occupational Breakdown of Locale. The specific occupational breakdown for the locale includes an entire Employment Security District comprised of Jasper, Jones, Smith, and Wayne Counties. However, most industrial jobs within the District are located in Jones County. Table IVe depicts employment by occupational categories and changes during the operation of the exemplary program.

4. Unemployment Rate and Trend. The total work force in the Employment Security District in February, 1972 was reported to be 34,870. This figure represented an increase of 5.7 percent in the work force from the previous year. The unemployment rate decreased from 6.4 percent in February, 1971 to 4.3 percent in February, 1972. Although the area has been classified as being depressed, there appeared to be a trend toward fuller employment for the area.

5. Income of Residents. Information obtained from the 1970 census indicates that the average family income in Jones County was $6,630. Approximately 68 percent of the men and 35 percent of the women above 16 years of age were in the Jones County labor force. The per capita income was approximately $2,074 for the county.

6. Families Receiving Welfare Assistance. Approximately 2,680 of the 14,000 families in Jones County, or 19.4 percent, received some type of family assistance checks during the year. This figure does not include those families in the county receiving food stamps but not welfare assistance checks. The number of persons receiving assistance by categories is shown in Table Ve.

B. THE SCHOOL SYSTEM

1. Facilities Description.

See Section V-A, p. 58e

Table IVe. Area Employment by Occupational Categorizations During 1971-72 Exemplary Program Operation.

Occupational Category	Employment January 1970	Employment January 1971	Employment February 1972
Agricultural (production)	3,400	3,400	3,400
Food Processing	1,040	1,080	1,250
AGRICULTURAL TOTAL	4,440	4,480	4,650
General Manufacturing (includes lumber and wood)	3,590	3,520	3,660
Apparel	1,410	1,650	2,020
Printing and Publishing	110	110	110
Machinery	1,360	1,160	1,530
Other mfg. (Furn. & Fixtures; paper & allied; stone, clay & glass; and metals)	640	600	660
MANUFACTURING TOTAL	7,010	7,040	7,980
Construction	1,070	1,060	1,050
Transportation and Utilities	1,180	1,170	1,200
Wholesale & Retail Trade	4,090	3,920	4,200
Finance, Ins., & Real Estate	620	630	650
Service & Miscellaneous	3,860	3,960	4,170
Government	4,950	4,980	5,650
Other	3,800	3,800	3,800
NONMANUFACTURING TOTAL	19,570	19,520	20,720
EMPLOYMENT--GRAND TOTAL	31,020	31,040	33,350

TABLE Ve.

Number of Jones County Families
Receiving Welfare Assistance by Category
During 1971-72 Operation of Exemplary Program

Category	No. Families June 1966	No. Families June 1970	No. Families June 1971
Old Age Assistance	1,415	1,488	1,554
Aid to the Blind	41	36	36
Aid to Dependent Children	342	467	586
Aid to the Disabled	428	458	523
Total Families	2,226	2,449	2,669

2. Enrollments. There was a trend toward a slight increase in total enrollments in the school systems over the 1970-71 school year. The enrollment slightly increased from 7,923 during 1970-71 session to 7,964 during the 1971-72 session. The enrollments during the fifth month of the 1971-72 session are shown in Table VIe.

3. School System Faculty. During the 1971-72 session there were 385 persons employed in the system as teachers, counselors, or administrators. This total was six over the 1970-71 session. Of this number, 71 possessed a master's or higher degree; 309 possessed a bachelor's degree, and five had not completed the bachelor's degree. All five were qualified trade instructors employed in the vocational complex. In addition, the system employed teacher aides, secretaries, custodians, and other service personnel.

4. School System Administrative Structure. The Jones County School Board members, as well as the county superintendent, were elected by the people in general elections. The specific administrative structure for the operation of the system is depicted in Figure VIe.

5. School System Curriculum.

   See Section V-A, p. 62e

6. Dropout and Transfer Trends.

   See Section V-A, p. 65e

7. Financial Status of School System. Over a ten-year period local revenue for the support of the school system increased 45 percent. During the same period state revenue for the school system has also increased 48 percent. Total revenue expended by the school system (not including capital outlay) during the 1970-71 session amounted to $3,459,870. Of this amount, $1,308,496, or 37.8 percent, came from local sources; $1,827,426, or 52.8 percent, from state sources; and $318,753 or 9.4 percent, from Federal sources. The expenditure per pupil increased from $191.50 to $493.53 in the ten-year period ending with the 1970-71 session. The tax levy for the school system is the maximum allowed under State law - 25.0 mills.

TABLE VIe.

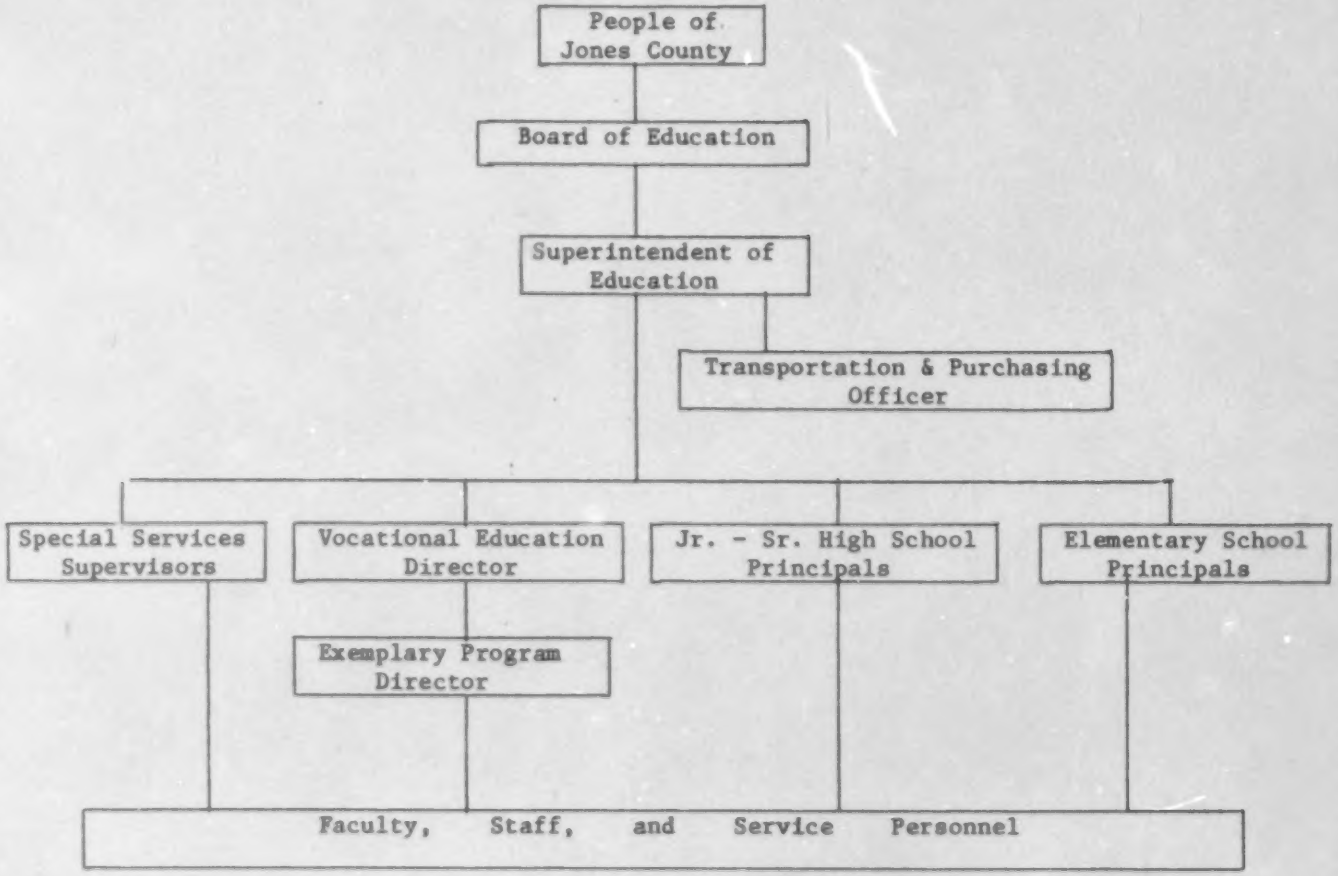
Jones County School System Enrollment

During 1971-72 Session

(By Attendance Centers)

Attendance Centers	Enrollment During 5th Month	Average Daily Attendance
Combination Jr. - Sr. High Schools (Grades 7 - 12)		
Northeast Jones	1,204	1,171.30
South Jones	1,146	1,096.50
West Jones	1,496	1,422.80
Jr. - Sr. High Total	3,846	3,690.60
Elementary School (Grades 1-6)		
Calhoun	529	504.10
Ellisville	854	803.90
Glade	465	455.65
Myrick	267	253.40
Pendorff	267	253.40
Powers	220	206.10
Sandersville	310	292.15
Shady Grove	560	532.60
(Grades 1-7)		
Moselle	343	322.95
Soso	300	291.55
ELEMENTARY TOTAL	4,118	4,065.92
SYSTEM TOTALS	7,964	7,618.15

Figure VIe. Jones County School System Administrative Structure During 1971-72 Exemplary Program Operation



II. THE EXEMPLARY PROGRAM

A. BACKGROUND INFORMATION

1. Origination of Program.

See Section V-A, p. 66e

2. Modification of Existing Programs.

See Section V-A, p. 66e

B. SCOPE OF THE PROGRAM

1. Participants Served. All of the Jones County School System's approximately 7,964 students were involved with the program in some manner. Those not directly enrolled in the program classes were influenced through poster contests, recruitment, counseling, assembly programs, contact with students in the program, etc.

2. Objectives of the Program. The specific objectives by which the program shall be evaluated are delineated in the project proposal as being:

-- To establish structural relationships which will facilitate implementation of the career-centered concept in the Jones County School System.

-- To establish the necessary relationships with local businesses and industries to provide cooperative (work-experience) education in all aspects of vocational offerings in an effort to meet total manpower needs better.

-- To provide intensive and short-term entry level skill training immediately prior to exit from the school, for those students who have not previously been enrolled in one of the regular vocational programs.

-- To establish an intensive program of guidance-counseling-placement, relating to activities in Objective one above, and including activities which will assure adequate post-training work adjustment for each student.

C. PERSONNEL

1. Personnel Added by the Program. A total of 25 professional level staff positions were utilized in the program at the local level during the second year of operation. This number included positions in administration, coordination, counseling, and instruction. In addition, one secretarial position and three teacher aide positions were included in the project. All 25 professional-level positions were filled with persons meeting the State certification requirements and having a minimum of

a bachelor's or higher degree. The professional-level positions and administrative structure of the program are shown in Figure VIIe.

2. Administrative Staff. The five persons employed to administer and coordinate all phases of the exemplary project had an average of 21.1 years of teaching and administrative experience. The staff possessed experiences from the areas of vocational agriculture, home economics, guidance and counseling, history, and elementary education, as well as administrative and supervisory experiences. The entire administrative staff devoted full time to administrative and coordinative activities.

   The local project directors possessed 22 years of vocational teaching and administrative experience to the program at the beginning of the second year of operation. He assumed the duties of coordinating and supervising all phases of the program with the state project director. Specific responsibilities of the local director are noted in Section V-A, p. 67e.

   The coordinator of placement, follow-up, and evaluation had 16 years teaching experience at the beginning of the second year of operation. His specific duties and responsibilities are cited in Section V-A, p. 69e.

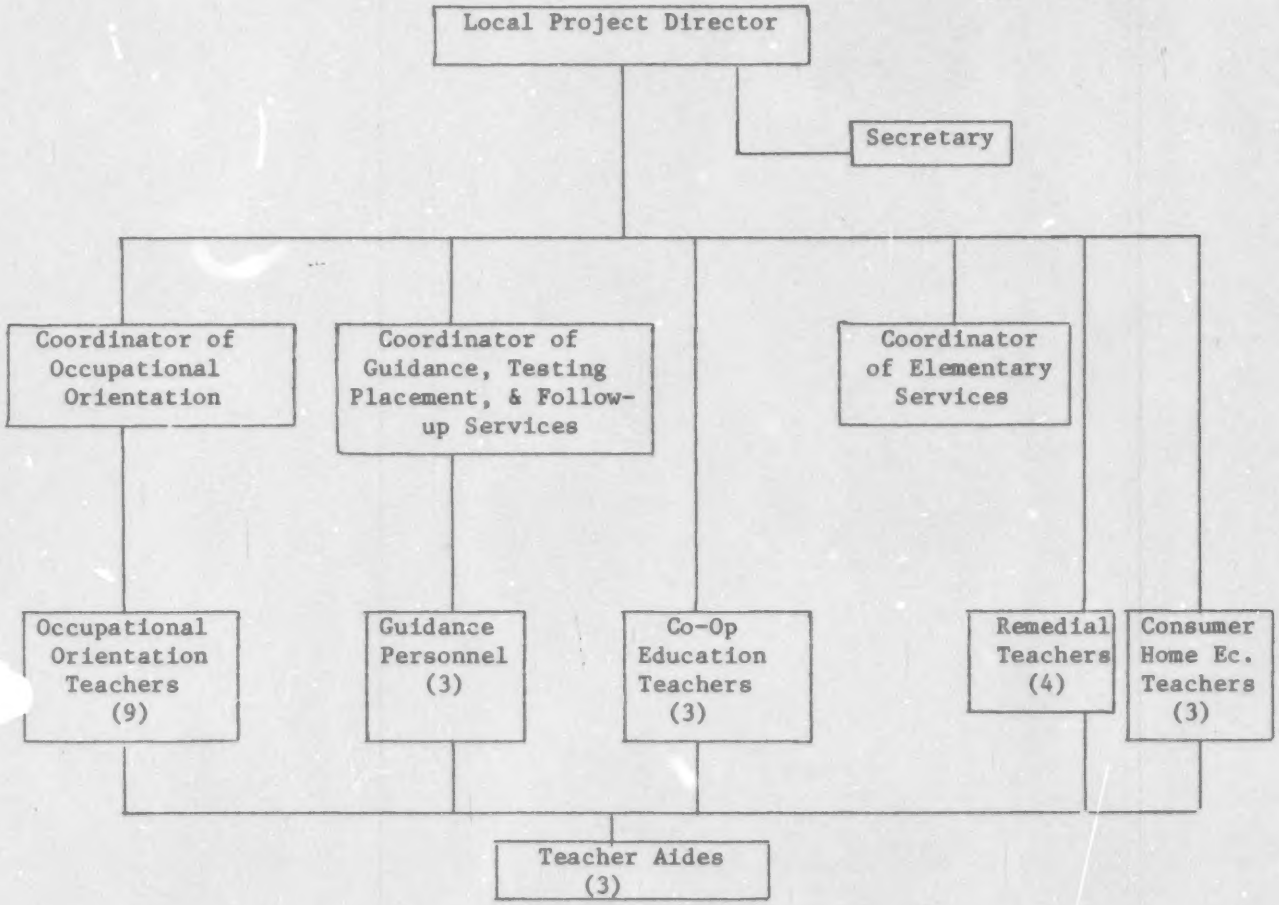
   The coordiantor of guidance and testing position was consolidated with the position of coordinator of placement, follow-up services, and evaluation service. His responsibilities included synchronization of the testing program; interpretation of test results; obtaining and providing counseling materials; and assessment of the guidance and testing program.

   The coordinator of occupational orientation had 26 years vocational teaching and administrative experience. Specific duties and responsibilities of the o.o. coordinator are noted in Section V-A, p. 69e. The elementary coordinator possessed over 20 years of elementary teaching and administrative experience before the 1971-72 school session. Her specific duties and responsibilities are cited in Section V-A, p. 69e.

3. Student Service Personnel. As mentioned previously, the exemplary program added one vocational guidance counselor to each of the three combination junior-senior high school attendance centers. The persons employed in these positions all held master's degrees and averaged 5.6 years of experience at the beginning of the second year of program operation. Their duties and responsibilities are given in Section V-A, p. 69e.

Figure VIIe. LOCAL EXEMPLARY PROJECT ADMINISTRATIVE STRUCTURE DURING 1971-72

Exemplary Program Operation



4. Instructional Personnel. The exemplary program added three cooperative education teachers, twelve occupational orientation teachers, four remedial education teachers, and three teacher aides to the regular instructional staff. All of the teachers and teacher aides were assigned to the three combination junior-senior high school attendance centers with the exception of one remedial teacher who was assigned to the vocational complex. All instructional personnel met State certification standards.

All three junior-senior high schools had cooperative education teachers during the second year of operation. All teachers held bachelor's degrees and averaged 1.6 years of teaching experience at the start of the second year. The cooperative education teachers' responsibilities can be found in Section V-A, p. 70e.

Of the twelve occupational orientation teachers, all held bachelor's degrees and one held a master's degree. The teachers averaged 9.3 years' teaching experience at the start of the second year of the program. Their responsibilities are cited in Section V-A, p. 70e.

The four remedial teachers averaged 9.8 years of teaching experience at the beginning of the second year of the program. Three of the remedial teachers were assigned to the junior-senior high school attendance centers and one to the vocational complex. Their responsibilities are given in Section V-A, p. 70e.

D. PROCEDURES

(The Jones County Career-Centered Curriculum was funded for a three-year period. This section of the report is an evaluation of the second year of operation.)

1. Physical Arrangements.

See Section V-A, p. 71e.

2. Review and Planning.

See Section V-A, p. 72e.

3. In-service Training. Activities related to the development of personnel, materials, etc. were structured in approximately the same manner as the first year. However, the content, sophistication and refinement of materials, suggested learning experiences curriculum guides, etc. were more detailed. (For specific arrangement and methodology, see Section V-A, p. 73e.

4. Activities. Elementary activities for the second year were structured and implemented in the same manner as used in the first year of operation. Emphasis was placed on those areas that seemed to be more subject matter oriented. For details of elementary activities, see Section V-A, p. 74e.

The exemplary project was extended into the junior high schools mainly through occupational orientation classes, consumer education classes, as well as remedial and counseling services. The occupational orientation course was designed to help students explore the world of work, including its requirements, conditions, and rewards; and to aid them in making meaningful career selections and decisions.

Occupational orientation teachers, with the aid of guidance personnel, utilized the Ohio Vocational Interest Survey (OVIS) and the Vocational Planning Inventory (VPI) to help students determine their occupational interests and abilities. Results of these instruments were used in course development as well as in individual and group counseling. Students were encouraged to use the knowledge of "self" gained from these instruments to explore effectively the world of work.

The basic structure of the occupational orientation course was changed prior to the opening of the second school session. The eight categories in which students received exploratory experiences during the first year of operation were incorporated into six basic units utilizing team teaching to enhance hands-on exploratory experiences. Teams were made up of teachers with various speciality areas in each of the attendance centers. Students received instruction in each unit for approximately a six week period.

In Unit I students were involved in appraising their individual interests, abilities, aptitudes, and skills as they explored a variety of vocational opportunities. Students began to develop occupational vocabularies, became acquainted with sources of information, began to realize a need for vocational planning, and acquire knowledge about the American Economic System.

Unit II was devoted to Industrial, Trade, and Craft occupations. Students became acquainted with a wide range of occupations within the cluster. Through the use of "hands-on experiences," resource persons, and field trips, students learned about occupational settings, worker skills, and training needs and opportunities. Students reappraised their own interests, abilities, and potentials for Industrial, Trade and Craft employment.

As students moved through Unit III which was devoted to Consumer Education they became acquainted with a wide range of occupations in this specific area. Emphasis was placed on work, settings,

opportunities, and worker skills. Training needs and opportunities were explored and students reappraised their interests, abilities, and potential for successful and satisfying employment within this area.

Unit IV was devoted to student explorations of Public Service Occupations. In Unit V students explored Production, Distribution and Management occupations. Both units' methods and procedures were similar to those in Units II and III.

The final Unit (VI) was devoted to allowing students to evaluate their occupational exploratory experiences and plan ahead. Students placed emphasis upon educational planning as related to occupational exploration and/or choices. Personal development, independent study, methods of finding part-time employment, etc. were stressed.

Different activities and techniques were used to assist teachers in accomplishing their instructional objectives. Teachers were more able to adapt such activities to age, grade level, and time during the second year of operation. A partial list of activities that were used is as follows:

-- Students engaged in various types of role-playing, including practice interviews.
-- Contests were conducted relating posters to occupations.
-- Resource persons from the local community came into the classrooms to discuss their respective jobs.
-- Students acted out jobs through playing charades.
-- Letters of application, resumes, follow-up letters of appreciation, and letters asking for permission to use someone as a reference were written by the students.
-- Students wrote research papers on occupations in which they were interested.
-- Students set up bulletin boards depicting occupations.
-- Students related hobbies to occupational interests.
-- Want ads in newspapers were reviewed to determine job availability.
-- Personality check lists were utilized by students.
-- Field trips were conducted.
-- Occupational crossword puzzles were utilized.
-- Occupational games were utilized.

The same method for grading was utilized the second year. This was a system based upon banking procedures. Specific details and samples are given in Section V-A, p. 77e.

The occupational orientation teacher-pupil ratio was one to 85.6 with a 17.7 pupil-per-class average. A typical schedule for the 8th grade students included English, mathematics, American History, science, and occupational orientation.

Classes were composed of 50-minute time blocks. All occupational orientation classes contained both sexes.

The remedial education classes were open to students from the seventh through the twelfth grades on a voluntary basis. However, most of the students were in the seventh and eighth grades. Remedial instruction centered around individual needs which, in most cases, were in the areas of reading and/or communications skills and mathematics. During the first year of operation, there was a teacher-pupil ratio of one to 42. Remedial class sizes were generally held to between eight and ten students per class in order to facilitate maximum use of individualized instruction.

Remedial teachers utilized the Stanford Diagnostic Reading Test, the Schonell Graded Work Reading Test, as well as informal reading inventories compiled by the teachers in the diagnosing of individual reading problems. Remedial activities were centered around students' interests with special emphasis upon its relationship to occupational interests. For example, if a student indicated interest in automobiles, his reading was centered around publications concerning them. If this same student needed assistance in math, the instruction centered around math as it could be utilized with his interests.

The cooperative education teacher-pupil ratio was one to 20. All programs were of the diversified occupations type which included a broad range of job-training activities. Activities conducted by teachers in the programs were designed to assess interests and needs of students; to recruit and select students; to place students in appropriate job-training stations; to supervise students on jobs; to conduct individualized instruction related to jobs; and to provide occupational counseling for students.

The guidance specialist-pupil ratio was one to 456 pupils enrolled in project courses at the junior-senior high school level. However, the guidance personnel also worked with students not enrolled in project courses. Guidance personnel at each attendance center conducted activities centered around the collection, organization, and analysis of information concerning students' interests, abilities, aptitudes, and personality characteristics; counseling with students concerning problems and planning; administering tests and maintaining records; assisting in the identification, recruitment, and selection of students for exemplary project courses, vocational courses, and/or remedial courses; aiding students in obtaining needed services provided by local, state, and/or federal agencies; and interpreting the exemplary project to students, faculty, and parents.

The local exemplary project administrative personnel's (project director and coordinator) activities were conducted out of the centrally located vocational complex. The activities centered around the supervision and in-service training of personnel; reporting and record keeping; conducting staff meetings; planning and implementing specific phases of the project; maintaining communications with all school system personnel; and conducting extensive public relations activities.

5. Instructional Equipment and Materials. The basic types of materials utilized during the second year were the same as during the first year. These materials were in constant revision and in the continuous process of up-dating. For specific types of materials and the equipment furnished to the exemplary project are given in Section V-A, P.

   a. audio equipment: See Section V-A, p. 81e.
   b. visual equipment: See Section V-A, p. 81e.
   c. printed materials: See Section V-A, p. 82e.

6. Parent Community Involvement. During the second year of the project's operation parents and other persons from the community were utilized to a much greater extent than during the first year of operation. Many parents and others served as resource persons, aided in field trips, and provided occupational materials for the project. A directed effort was made to keep parents and the community-at-large informed about the objectives, activities, and progress of the project through different media. Parents of students involved in the program received individual communications designed to increase their knowledge and understanding of the program. In addition to letters sent to parents, individual conferences (both by phone and in person) were held with parents.

   Mass media were utilized to introduce the project and to keep the public informed as to its progress. Several radio programs on WNSL-Laurel were utilized to inform the public of the progress made by the project. In addition, several newspaper articles (Samples A-J) appeared in papers with local and statewide circulation. Programs were also presented to civic and other organizations which increased citizen understanding of the project's operation.

JONES COUNTY EXEMPLARY PROGRAM MEETS A NEED

'Career Education a continuing need'

Friday, February 18, 1972, concluded a very active period for the personnel of the Jones County Exemplary Program — National Vocational Education Week. However, since the program is a pilot program, offering space for improvision, innovation and original concepts of education — the staff has become accustomed to queries, observations, interruptions and counsel from within and without the school system of Jones County. The program has claimed national attention frequently in the news media. Visitors from throughout the United States and from throughout the state of Mississippi have made observations and evaluation of the Jones County Exemplary Program.

The personnel who make up the Jones County Exemplary Program include a local project director, Reese T. Ishee; a Coordinator of Career Education, Clifton Wade; a Coordinator of Elementary Project Activities, Mrs. Juanita Jefcoat; a combined Coordinator of Guidance - Coordinator of Placement, Follow-up and Evaluation, Jasper E. Fail; and a secretary, Mrs. Shirley Trest; which are housed in the Jones County Complex. The in-school staff positions included in the three Jr. Sr. high schools are a vocational guidance counselor, a remedial education teacher, a co-op coordinator and four career education specialist — (one industrial arts, one consumer education (home-making) and two other career research education specialist in vocational education) and one teacher aid. One remedial teacher serves at the Jones County Vocational Complex.

The Vocational Guidance Counselors for the three Jones County schools are Cliff Padgett, West Jones; Mrs. Patricia Scarbrough, South Jones; and Wm. Moss, Northeast Jones.

The specific role served by the Exemplary staff is as follows: The four Career Education specialist have divided Ann Roe's classification of jobs into their own respective training roles — where they feel most competent. The training the students experience, in a rotating cycle among the four teaching areas, include hands-on experience in both consumer education and industrial arts of Career Education. The student cycles through various phases of the four areas of educational endeavors, getting basic research, field trips, giving reports, speeches, involved in art (poster making and related) and many other related activities. Level I of Career Education is planned for Jr. high, while levels II, III, and IV involve high school students, offering two units of credit and

one half unit for those in the twelfth grade, without previous vocational orientation.

The Vocational Counselors assist the teachers and students in testing, in-school coordination, counseling, et. al. as is expedient to advance the purposes of the Jones County Exemplary Program — help develop the student educationally, occupationally, socially, psychologically, and help the student prepare for a well rounded, vocationally adjusted life with salable skills, suitable for economic independence.

The Co-op Coordinator works with those students in his respective school, who have made application for, and have been placed in a supervised job slot for specialized training. The Co-op Coordinator locates a job station that will complement the vocational desires and abilities of the student — he is placed accordingly and is supervised by the employer in cooperation with the Co-op Coordinator. Two units of high school credits are awarded for suitable performance by the student in this supervised work station.

The Remedial Education teachers assist in aiding the underprivileged student to become more proficient in his performance of general academic duties. The remedial teacher ascertains the students' weakness by use of specialized measuring instruments — then attempts are made to re-enforce the pupil, where these weaknesses are most prominent.

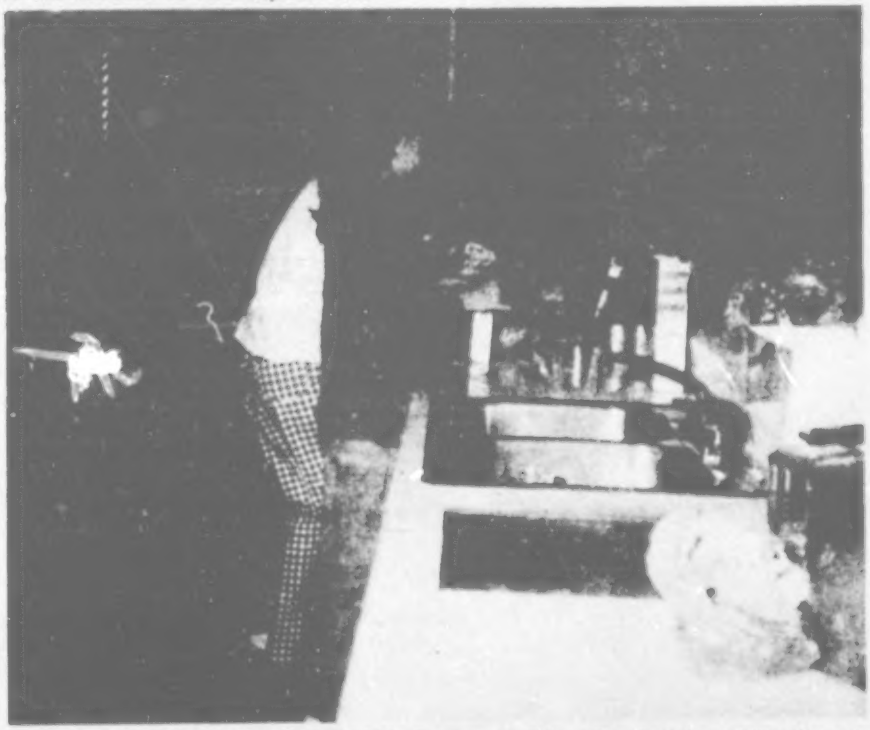
As a team working together and with the other staff of the Jones County school system, it is the purpose of this staff to see a better, more appreciative student — by meeting the needs of each and every student.

In a Pilot program it is always difficult to make a true evaluation especially when the program is young. However the Jones County Exemplary Program has overcome many of the pitfalls that so often beset trial projects. In viewing the over-all situation in all three Jones County Jr.-Sr. High Schools, it appears that under the capable leadership beginning at the Vo-Tech Complex and extending on into the classrooms and shop that this program is well on the way to being recognized as one of the best.

There seems to be much concern for the youth of this area to be better able to meet the needs of tomorrow and this particular program is helping to meet that need with its dedicated leadership.

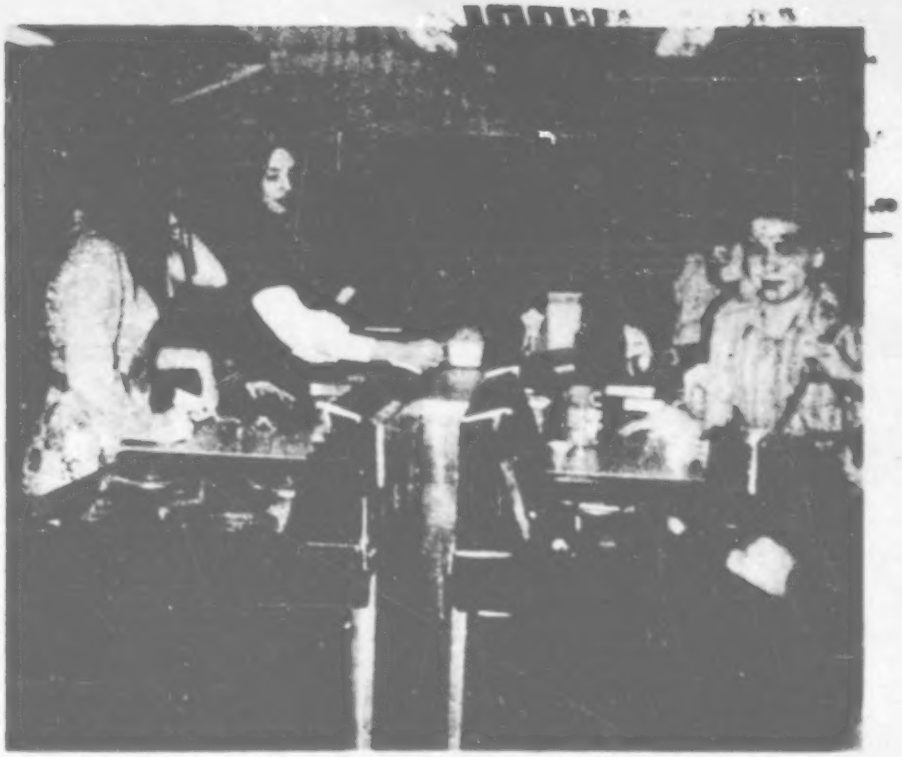
SAMPLE B:

GROUP OF STUDENTS participate in operating a wood lathe at Northeast Jones High School in the Industrial Trades and Craft Department. Bob Davison is the teacher in this department.



MRS. GRETCHEN COCKERHAM, Consumer Education teacher at Northeast Jones, is proud of her students for their achievements this year. (They can cook delicious cakes, too).

SAMPLE C:



MRS. GAIL PACE, left, teacher in Consumer Education at West Jones High School, is shown instructing students on the art of candy making.

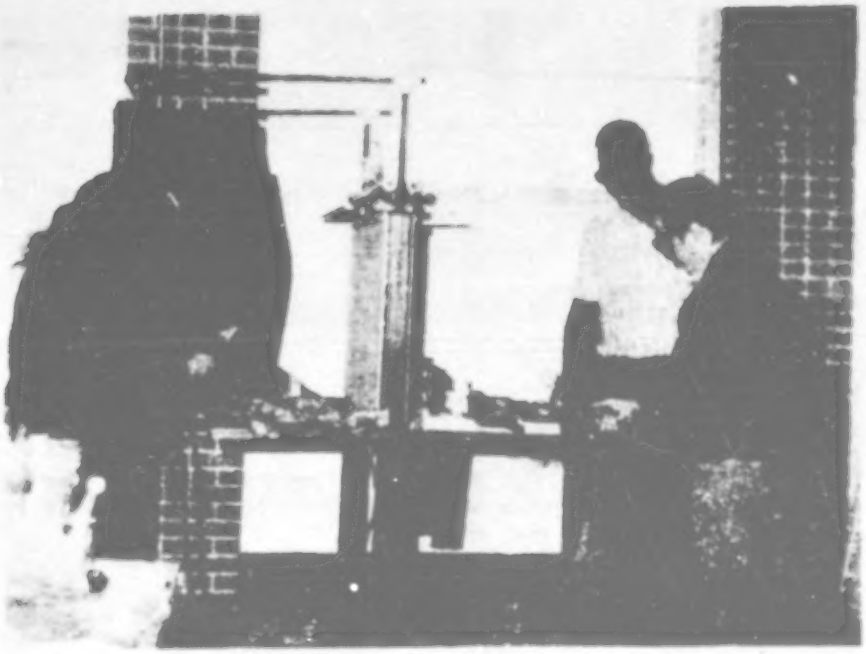
STUDENTS OF WEST JONES Level II Career Education are looking at job opportunities in bulletins from their Civil Service Board as Charles Davis, teacher, looks on.

SAMPLE D:

JAMES THOMAS, teacher in Industrial Arts and Crafts at South Jones shows a group of girls how to check auto battery, water, oil, etc., as a phase of work in this department.

LEVEL II TEACHER in Career Education, Mrs. Nelda Turner, is discussing occupation orientation with group of her students.

SAMPLE E:



GRADY MARSHALL, teacher in Industrial Arts at West Jones, is shown instructing a young man in Acetylene Welding. Also note that welding is not necessarily for the boys, as a young lady in the left of picture is trying her hand at electric arc welding.

GIRLS AND BOYS learn proper procedure for setting table at South Jones High School from Mrs. Emily Mooney, teacher in Consumer Education.

SAMPLE F:

INNOVATIVE IDEA

Career Centered Study Aids Community Understanding

One of the mos. exciting additions to the public school program in Mississippi is the Career Centered Curriculum systems.

The first such program was started in Jones County in the fall of 1970. At the beginning of this school year the program was begun in the Franklin and Kemper County school systems and New Albany and Amory Separate School Districts.

The Career Centered Curriculum involves all grades, all personnel in the school. In the schools where the Career Centered Curriculum operates bulletin boards throughout the building point out career concepts and ideas. Special sections in the library are devoted to the career centered ideas.

The Career Centered Curriculum breaks down into three phases: awarness, grades 1-6; exploration, middle grades and preparation in the high school years.

In the awareness phase of the program, children are taught to be conscious of the occupations of their parents and others in the family group.

Later, jobs in the community are - explored —"community helpers" they are called.

Teachers have found that most children are somewhat familiar with the job his parent has; but, outside the immediate family, he is unaware of what others do for a living.

It is during this phase that misconceptions about careers are cleared up and the proper name of the job is learned. For instance, a first grader might say he wants to be an airplane driver. It is during this phase that he learns that the proper job title is airplane pilot.

During the awareness phase, when it comes time to learn how to count money, pupils do this by operating a make believe drug or grocery store, with each student having a chance to be the store keeper and both he and the customer learn how to count money and to make change.

The course of study in the middle, or junior high classes, continues the ideas started in the loweer grads. However, students explore occupations, learning through field trips, visiting resource speakers and by other means, the requireby other means, the requirements, the social standing in the community, the compensation and thee advantages and tion and the advantages and disadvantages of specific occupations.

Again, in this stage of the curriculum, misconceptions about various careers are cleared up by actual study of the occupation.

The third phase—preparation, comes driving the high school years. By this time the student has some idea of whether he wants to attend college or terminate his education at graduation. For those students college bound he course of study is a college preparatory one. For others, they are introduced to various vocational courses. But, whether the student is going to college or not, he has been prepared for the career he had chosen.

Throughout the school years, by the teacher in the lower grades, and by counselors in the middle and high school grades the child is made to become aware of himself. The student learns something about his potentialities, his weaknesses and his strong points. The student is steered in the right direction for his best interest. As is usual in the case of new ideas, reluctance is hown by some teachers while the career centered program is being planned; but after having worked with the concept, the teachers —almost without exception—are high in their praise of the Career Centered Curriculum. Parents are pleased because their children are receiving relevant instruction, guiding him toward a career that is suited to him.

The Vocational Divison of the State Department of Education has the responsibility of implementing the program.

Troy V. Majure, state director Vocational Education, said, "Educators for a long time have felt the need for the ideas contained in the Career Centered Curriculum. I am very proud of the progress that Mississippi has made in this field. Mississippi is one of seven states with a career centered program rated as outstanding by evaluation teams."

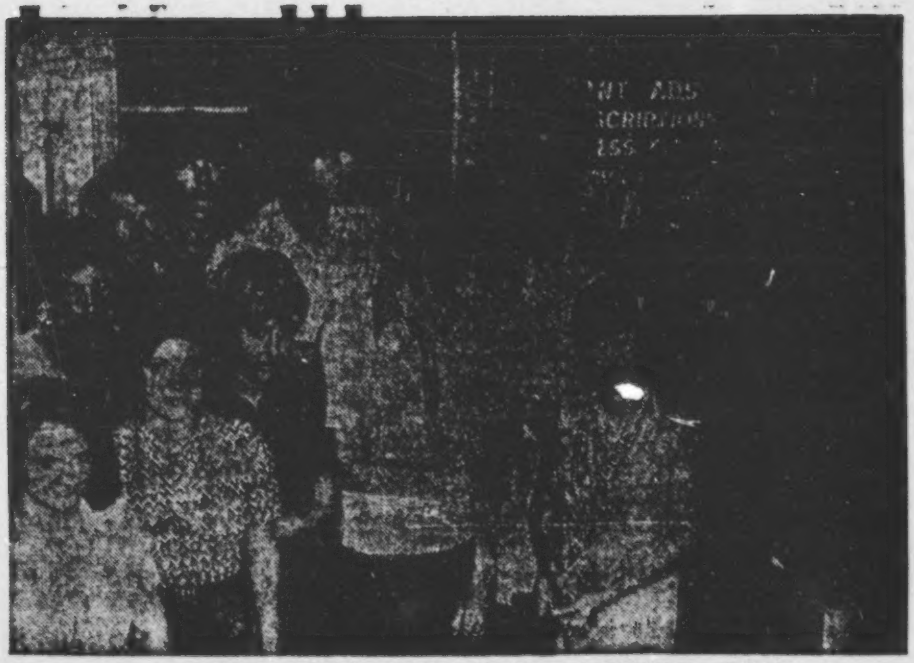
J. H. McMinn, Vocational Division, is the coordinator of programs in Mississippi, while Ken Morris, Vocational Division, is the program officer for the five projects in operation in Mississippi.

PARTS OF AN AUTOMOBILE—Students identify various parts of an automobile, and learn how to spell and pronounce the names in a career centered curriculum classroom.

OPERATE DRUG STORE — Pupils in the grammar school level of Career Centered Curriculum learn how to count money by operating a make believe drug store.

COMMUNITY HELPERS—This second grade student gives a news report tied into the class' study of the daily newspaper.

SAMPLE H:



S. JONES STUDENTS VISIT LEADER-CALL

Students in the Jones County Exemplary Program at South Jones High School recently visited the Laurel Leader-Call and were taken on a guided tour of the building.

The young people were accompanied by their consumer education teacher, Mrs. Emily Mooney, and assistant teacher, Mrs. Dianne Pickering.

(Leader-Call Staff Photo)

SAMPLE I:

SOSO CHILDREN ON FIELD TRIP

Culminating an intensive study of "occupations", the two first grade students of Soso Elementary School took a field trip. Pupils of Mrs. Hazel Johnson and Mrs. Dawn Joyner rode the bus to the Hebron Community where they visited the Chester Ray Jefcoat dairy, the Pickering catfish farm, and the Roy Jefcoat farm where they saw sheep, cows and trees tapped for turpentine.

After lunch at the Hebron Community Center they returned to the Pickering farm to watch the baleing of hay. In addition to their teachers, the children were accompanied by Mrs. Laz Jefcoat, teacher's aide, and Mrs. A. B. Wiggington, the bus driver.

BETTY SMITH

Co-Op Student of the Week at Northeast Jones High School is Betty Smith, 19 year old daughter of Mrs Ruby Nell King of Rt. 2, Laurel.

Miss Smith is a member of the Co-Op Club, Red Cross Club, Future Homemakers of America, and the Medical Careers Club. She is now receiving training as a nurse's aide, and plans to further her education in the field of nursing.

At the employer - employe banquet at Chancellor's Restaurant, the guest speaker, Jim Smith of the Laurel Police Department Narcotics Bureau, spoke about the spreading drug abuse in Laurel and Jones County and what actions are being taken toward this.

7. Budget. The program was designed to involve each pupil in the school system and all costs (including the on-going vocational programs) concerned with career development were included in the budget. A total of $546,386 was budgeted for the second 12 months of operation. Of this total, $168,607 came from the Commissioner's share of exemplary funds, and $135,934 from the State Board's share. In addition, $82,386 of other State and Federal funds were utilized. Local funds contributed $159,459 to the budget.

Per-pupil cost is presented in this section in two different ways. First, the per-pupil cost is presented for the total program (total vocational costs, including career-development phase, of the system, divided by the number of students involved in the program). This cost amounted to $68.61 per pupil. Secondly, the per-pupil cost is presented as it concerns the career-centered exemplary project. The per-pupil cost of this phase of the program (total exemplary project costs divided by the number of students involved in the program) amounted to $38.23.

III. EVALUATION ANALYSIS

The evaluation section of the second interim report was devoted to a combination process and product evaluation. With the implementation of the exemplary project on the career-centered concept, it was felt that primary evaluation activities could make the greatest impact on the implementation phase of the program by focusing upon the process. Deficiencies in the process detected at early stages were corrected with the least amount of confusion when evaluative data concerning the process were continually fed back and incorporated into redirecting programmatic efforts during the first year of the project. Therefore, evaluation activities for the second year of operation became more diverse.

During the second year of the project's operation evaluation activities began to focus upon the "product" in greater detail. By the beginning of the second year of operation it became evident that the "process" had been refined to the point where it was functioning at a sufficiently stable level to allow some type of "product" measurement to commence. While much of the second interim evaluation report centers around the "product" some evaluation activities were devoted to the "process" to aid in its further refinement.

Before embarking upon the evaluation report for the second year of operation, the authors of the report felt that the recommendations brought forth in the First Interim Evaluation Report, and actions upon them, should be elaborated upon. The recommendations and a brief commentary on each are provided in the following:

> First Interim Evaluation Report Recommendation: Consumer education classes in the project should be incorporated into the occupational orientation classes.
>
> This recommendation was implemented before the 1971-72 school session began. Each of the three consumer education teachers (one at each of the three Junior-Senior High School Attendance Centers) became occupational orientation teachers. They played a role in the revamping of the entire occupational orientation program which is discussed in greater detail under the next recommendation.
>
> First Interim Evaluation Report Recommendation: Occupational orientation classes should be rotated between teachers with specific specialty areas to increase the exploratory experiences of the students.
>
> This recommendation was implemented before the 1971-72 school session began. Teachers with specialty areas (Home economics, agriculture, industrial arts, etc.) were utilized by rotating students

through their areas and facilities, thereby giving students maximum exposure to as many exploratory experiences under persons knowledgeable in that specific area. A sample rotation model (Figure VIIIe) utilized is depicted on the following page.

Each unit in the occupational orientation course was approximately six weeks in length. The students received instruction from their assigned teachers for twelve weeks (the Introductory Unit plus the teachers specialty area unit) at the beginning of the school year. At the end of the school year they returned to their original teacher for the final unit on evaluation and planning. During the year they spent six weeks each with three other teachers in other specialty areas.

First Interim Evaluation Report Recommendation: Additional "hands-on" occupational experiences should be provided for occupational orientation students.

During the 1971-72 school year some progress was made in providing additional "hands-on" experience for all students. This was mainly accomplished through allowing all students to rotate through areas (shops, laboratories, etc.) which had facilities designed to enhance "hands-on" experiences in occupations. However, all teachers did not place the same emphasis on providing "hands-on" experiences for students. It was observed that a few teachers, having sufficient laboratory facilities to provide a variety of "hands-on" experiences for students, did not take the maximum advantage of providing students with such experiences.

First Interim Evaluation Report Recommendation: Further development of career-centered media centers should continue in all attendance centers.

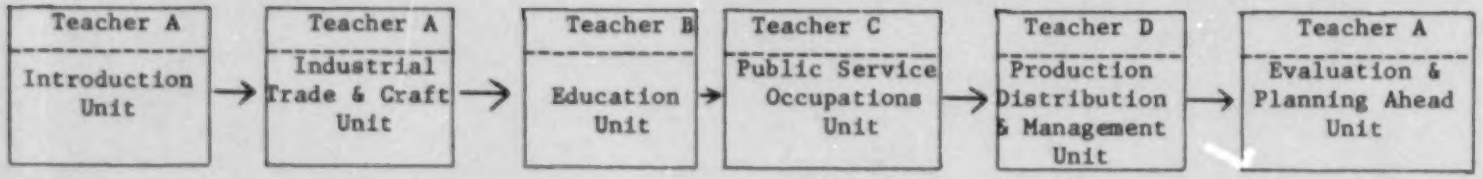
Further progress was made during the 1971-72 school session in developing more comprehensive career-centered media centers in each of the attendance centers. In addition, the centrally located media center (located at the vocational complex) was expanded. New equipment, materials, and supplies were added during the year.

First Interim Evaluation Report Recommendation: Additional student recruitment activities for cooperative education be conducted.

Additional student recruitment activities conducted by project personnel resulted in an increase in enrollment in the cooperative education part of the project. However, the cooperative education classes were not operating with the maximum enrollments during the 1971-72 school session.

Figure VIIIe

Example of an Occupational Orientation Rotation Model



First Interim Evaluation Report Recommendations: Continuation of public relations activities connected with the project.

During the second year of the project's operation several forms of public relations activities were utilized in keeping the public informed as to the objectives, development, and progress of the career education program. Special emphasis was given to keeping parents informed as to their children's progress in the program. Parents received individual communications designed to increase their knowledge and understanding of the program. In addition to letters sent to parents, individual conferences (both by phone and in person) were held with parents.

Mass media were utilized to keep the public informed as to the progress of the program. Several radio programs on WNSL-Laurel were utilized by project personnel to report the progress of the program. Several newspaper articles appeared in papers with local and statewide circulation. Programs were also presented to civic and professional organizations. Key project personnel presented programs at educational conferences in Jackson, Mississippi and Atlanta, Georgia concerning the project.

First Interim Evaluation Report Recommendation: Continuation of intensive in-service program for the project staff.

Professional growth activities of the program personnel was a continuous process. All staff members were affiliated with various professional organizations and participated in local and state meetings. Some staff members were enrolled in one or more graduate credit courses in their specialty areas during the second year of the program's operation. In-service training activities were conducted during the year. These sessions included presession workshops conducted prior to the opening of school for all program personnel. During the session monthly training sessions were held throughout the school year. In addition to the workshops conducted throughout the year, staff and/or committee meetings aided in total staff development. It appeared that the in-service activities which allowed the opportunity for the planning, development, and implementation of the program on a unified basis were chiefly responsible for its further development.

First Interim Evaluation Report Recommendation: Additional curriculum materials development should be undertaken.

During the second year of operation new curriculum materials were developed and/or adapted. Special emphasis was given to development of curriculum materials on the elementary level. Workshop and coordination activities aided in the development of these materials throughout the year.

First Interim Evaluation Report Recommendation: Curriculum guides for all phases of the program should be developed and distributed.

During the second year of operation special emphasis was given to the development and testing of an occupational orientation curriculum guide. A rough working copy was distributed to all personnel within the project. As the guide was utilized during the school session, deletions and additions were made. Emphasis was given to writing the guide in behaviorial terms. Consultants were utilized to assist in the development of the guide. Plans were made to finalize and print in quantity this guide for distribution during the next year of operation. Some progress was made in the development of a comprehensive elementary curriculum guide.

First Interim Evaluation Report Recommendation: A placement center to aid students in obtaining employment should be established.

Progress was made in establishing and operating placement centers in each of the Junior-Senior High School Attendance Centers. Detailed information concerning the operation of these centers is presented in greater detail in this section of the evaluation report.

First Interim Evaluation Report Recommendation: An intensive skill training program for students about to leave school without salable skills should be inaugurated.

During the second year of operation this objective of the program was implemented. Details of this objective implementation are found in the following section of the report.

Elementary Level

A concerted effort was made during the school year (1971-72) to make occupational awareness a force within the on-going elementary curriculum. This was accomplished by utilizing standard components (reading, science, etc.) as occupational vehicles. The regular classroom teachers were responsible for the activities.

The elementary staff of Jones County Schools, the coordinator of elementary project activities, and other staff personnel within the county, revised the old curriculum and/or developed a new curriculum guide for all courses in the elementary schools. These new curriculum guides provided ample flexibility and leeway in various areas for career education to be "fused" into the traditional curriculum. The coordinator of elementary project activities worked closely with the elementary teachers in the county. Appointments were scheduled with the school personnel and were followed up by the elementary coordinator. This assisted the elementary teachers in implementing new career

education experiences, as well as providing them with various occupational materials. Materials were interchanged among the various schools, at the appropriate levels. New materials were received for the project and were distributed to all elementary schools with suggestions as to use.

Local in-service activities included weekly workshops which were held for the purpose of planning and expediting future activities. Teachers were given new catalogs of available teaching materials. After reviewing these catalogs, lists of materials were compiled for future order and use.

The Course of Study Committees developed plans and courses of study for career education. Through these plans more effective utilization of career development materials was accomplished.

There was an observable increase in the number of occupational resource persons utilized in the elementary schools during the second year of operation. Parents, as well as other resource persons, have been utilized effectively in bringing the world of work into the classroom.

Subjective criterion referenced pre- and post-tests were constructed to assess the effectiveness of the program. The pre-test was administered to all elementary grades during the early part of the school year. Analysis of the pre-test results indicates little increase in career awareness with increase in grade level. This may indicate the need for a "stepped-up" or "crash program" for those about to leave the upper elementary grades. Further analysis revealed extreme variation in the knowledge of career information within each age group.

Career education during the 1971-72 session in the Jones County elementary schools was responsible for a visible change in the traditional image of elementary education as noted by the evaluation team. As a result of this change, a progressive attitude was observed in members of the staff, in parents, in the public, and in the students.

Occupational Orientation

In each attendance center occupational orientation personnel met on a weekly basis for planning, coordination, and implementation activities. These meetings, widely involving personnel, apparently enhanced all aspects of the program. They were especially important in bringing about change and redirection within the instructional program. In addition, they facilitated the implementation and the attainment of goals and objectives.

The Occupational Orientation resource centers in each of the attendance centers were further equipped with shelving, materials, and supplies during the second year of operation. This increased the overall effectiveness of the program. Evaluation personnel noted that last year's occupational orientation students were returning during their own free time to use resource center materials. These former occupational orientation students were observed investigating potential careers and/or making preliminary career plans. Based upon these and other observations, the second year of occupational orientation was successful in increasing the career-awareness and planning ability of participating students.

Evaluation personnel, along with project personnel, engaged in the development of instruments for assessment of the goals and objectives of this phase of the program. Four instruments were developed for pre- and post-testing of the rotation areas in the occupational orientation course. An overall instrument was developed for use with students within the program and control groups in other school systems. Prior to development of these instruments several batteries of standardized tests and/or questionnaires were utilized in an attempt to measure student progress. These standardized tests proved to be unsatisfactory with respect to measuring students' progress in relationship to the program goals. Field testing of the instruments and final revision took place during the year.

The progress of students' awareness and exploration was measured by four separate pre-test post-test instruments. One instrument was developed for each rotation area; namely (1) Industrial, Craft and Trade Occupations; (2) Consumer Education; (3) Public Service; and (4) Production, Distribution and Management Occupations.

Instruments were administered during the beginning and ending of the fifth six-week term. All students present in each of the rotation areas (clusters) on pre-test and post-test days completed instruments. Over the six-week period an increase in occupational knowledge of students ranged from approximately 24 percent in one rotation area to 52 percent in another (see Figure IXe). The public service area or cluster indicated a 23.97 percent increase in occupational knowledge; the production, distribution, and management area a 39.19 percent increase; the industry, craft and trade area a 44.73 percent increase; and the consumer education area a 52.40 percent increase in occupational knowledge.

In addition to the pre-test, post-test instruments, an instrument was developed to give an indication of students knowledge of the world of work. The instrument was field tested and refined before being administered. Each of the three attendance centers offering occupational orientation was paired with attendance centers not

Figure IXe

INCREASE IN STUDENTS' OCCUPATIONAL KNOWLEDGE
OVER A SIX-WEEK PERIOD
DURING 1971-72 SCHOOL YEAR

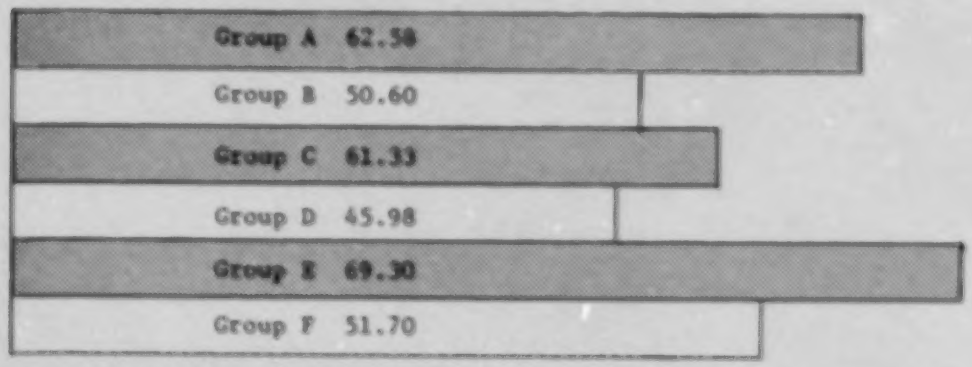
Mean Scores	Increase In Mean Score	Percentage Increase During Period
Industry, Trade and Craft Cluster		
46.52 N=167	20.81	44.73
67.33 N=254		
Production, Distribution & Management Cluster		
57.26 N=115	22.44	39.19
79.70 N=287		
Consumer Education Cluster		
50.74 N=81	26.59	52.40
77.33 N=138		
Public Service Cluster		
63.0 N=319	15.10	23.97
78.1 N=200		

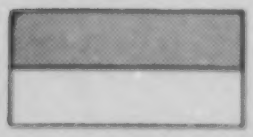
Key: Pre-Test
Post-Test

offering occupational orientation for comparisons. Those attendance centers selected as comparison groups exhibited similar achievement scores on the California Achievement Tests (1970 Edition), contained similar racial compositions, and were located in the same manpower and economic districts.

The instrument was administered to students during the fifth six-week term. Information collected indicated that the exemplary group scored consistently higher on occupational knowledge than did the comparison groups. (See Figure Xe below).

Figure Xe
Achievement of Students in Exemplary
and Comparison Groups on Occupational
Inventory Instrument in Mean Scores During 1971-72 School Year





Group Size

Group A-N=182 Group D-N=37
Group B-N=127 Group E-N=242
Group C-n=264 Group F-N=125

Occupational Guidance and Placement

The program made much progress toward meeting the guidance and placement objective during the second year of operation. Each of the three combination junior-senior high school attendance centers housed full-time vocational guidance personnel who counseled with students. In addition to the guidance personnel, each attendance center housed four occupational orientation teachers whose courses were designed to utilize group guidance techniques. The guidance personnel, occupational orientation teachers, and other vocational education teachers planned and implemented a testing program designed to aid in career exploration, self-analysis and counseling for students.

Group counseling centered around assisting students in appraisal of individual interests, abilities, aptitudes, and skills; development of characteristics such as ambition, honesty, perserverance, initiative, cheerfulness, loyalty, and dependability; acquainting students with sources of occupational information and use; assisting students in the beginning of early career planning; and assisting students in participating in the American Economic System. Special emphasis was placed on assisting students in learning proper ways to seek satisfying employment.

A placement office was established in each of the junior-senior high school attendance centers during the second year of the project's operation. A partial summary of activities are found in Table VIIe.

Vocational Offering

During the second year of operation 18.92 percent of the school districts entire enrollment (grades 1-12) were enrolled in the preparation phase of the program. Of the 1,507 students enrolled in preparation courses 60 were in cooperative education, 859 in home economics, 38 in industrial electricity, 42 in building trades, 42 in automotive repair, 380 in agriculture, 21 in business and office, 24 in drafting, and 41 in metal trades. Agriculture and home economics courses were offered in the three junior-senior high school attendance centers. The other vocational courses were offered at the centrally located vocational complex.

Remedial Education

The remedial education provided by the career-centered project has been of great value to the effectiveness of the program. Students in the career development project (usually those at the occupational orientation level or the preparation level) with difficulties were referred to the remedial class. While most students were deficient in several areas, reading and mathematics were the biggest stumbling blocks to the largest percentage of

TABLE VIIe

SUMMARY OF JONES COUNTY EXEMPLARY
PROGRAM PLACEMENT ACTIVITIES DURING 1971-72

Activities	Center A	Center B	Center C	Total
	No. Placed	No. Placed	No. Placed	
I. PLACEMENT ACTIVITIES WITHIN THE SCHOOL				
A. Remedial Education	40	98	63	201
B. Senior Placement L-III				
C. Special Education				
D. Testing:				
1. C.A.T.	250	200	250	700
2. C.T.M.M.	190	200	180	570
3. Kuder E.	300	375	500	1175
4. Kuder CH	50	22	80	152
5. P.M.A.	350	300	-	650
6. M.M.P.T.	-	-	-	-
7. Schonnel	40	15	60	115
8. Stanford	70	-	65	135
9. Dolch	20	-	60	80
10. Other (specify) VIP,CTBS				
E. Placement on Jobs within the School:				
1. Lunchroom	15	8	3	26
2. Maintenance (Custodian)	8	20	6	34

TABLE VII (Continued)

Activities	Center A	Center B	Center C	Total
	No. Placed	No. Placed	No. Placed	
3. Bus Drivers	10	12	4	26
4. Bus Flag (boy-girl)	80	55	29	164
5. Career Resource Center Librarian	10	8	-	18
6. Librarian assistants	25	6	14	45
7. Teacher assistants	10	25	25	60
8. Office assistants	15	1	-	16
9. Athletic managers	12	11	16	39
10. Vocational, trade, related	88	65	90	243
11. Student Nurse's aide	-	8	-	8
12. Audio-visual helpers	10	-	10	20
13. Student teacher's aide	-	-	15	15
14. Student secretary, clerk, rel.	25	25	10	60
15. Student receptionist	3	1	3	7
II. PLACEMENT ACTIVITIES OUTSIDE THE SCHOOL				
A. Vocational rehabilitation	-	9	1	10
B. Miss. Employment Service	420	150	435	1005
C. Private Employment Service	-	-	-	-
D. Psychologist - Psychiatrist	-	-	-	-
E. Doctors, Dentist, related	15	-	-	15
F. Health Department Service	-	-	-	-

TABLE VII (Continued)

Activities	Center A	Center B	Center C	Total
	No. Placed	No. Placed	No. Placed	
G. College - University	245	90	101	436
H. Vocational - trade & related	-	54	66	120
I. Seminaries	-	-	-	-
J. University Services	-	-	-	-
1. Speech & Hearing	-	-	7	7
2. Guidance & related	-	-	-	-
3. Psychology Clinic	-	-	3	3
K. Title Programs	-	-	2	2
L. Social Clubs	-	-	-	-
M. Ministers (counselor)	-	-	-	-
N. Legal Service (counselor)	-	-	-	-
O. Financial Service (counselor)	-	-	-	-
P. Ellisville State School	-	-	-	-
Q. On the Job				
1. Part time	330	188	350	868
2. Co-op	36	22	16	74
3. Summer	522	101	492	1115
4. Full time	22	-	1	23
5. Temporary	502	-	563	1065

students. If those students were to pursue their educational and occupational objectives, additional assistance had to be provided through remedial classes.

A total of 157 students were involved in the remedial reading phase of the program. Only 11, or seven percent, made little or no progress as indicated in Table VIIIe. Slightly over 62 percent of those students enrolled gained one year or more in reading.

Intensive and Short-Term Skill Training

During the second year of the program's operation the short-term intensive training portion of the project was implemented. This was designed for those students (both those about to drop out and those about to graduate) who had not previously been enrolled in one of the regular vocational programs and did not possess a salable skill. Problems were encountered in enrolling enough students with the same interest areas at one time to justify employment of additional personnel for instruction. This problem was overcome by making all vocational courses in the vocational complex "open-ended" and allowing students desiring specific skills to enter the classes and stay as long as feasible. In some instances dropout-prone students elected to stay in the vocational courses for the entire school day in order to develop specific skills. A total of 34 students took advantage of the program during the year. Of this number four developed skills in the metal trade area, six in drafting, one in auto mechanics, nine in building trades, and fourteen in electricity.

Table VIIIe
GAIN IN MEAN READING LEVEL OF STUDENTS
ENROLLED IN THE REMEDIAL PHASE OF
THE EXEMPLARY PROGRAM DURING 1971-72

Gain in Six Months In Years	(N=157) No.	Percent
0- .49	11*	7.00
.5- .99	48**	30.40
1.0-1.49	39	24.70
1.5-1.99	24	15.20
2.0-2.49	18	11.40
2.5-2.99	3	1.90
3.0-3.99	9	5.70
4.0 and above	5	3.20

*Five of these students were classified as special education students
**One student was classified as a special education student

IV. RECOMMENDATIONS

During the second year of operation numerous recommendations evolving from evaluative activities were fed back into the program through the state and/or local project directors. Most of these recommendations were implemented and will not be elaborated upon in this section. Consequently, only those recommendations given at the end of the second year of operation will be reported in this section. The authors of the second evaluation report recommended that:

*Funding should be continued for the third year of operation.

*Continued emphasis should be placed on providing remedial education classes for all students needing this service.

*Continued emphasis should be given to making the project an integral part of the on-going school system's activities.

*Curriculum guides (grades 1-12) should be refined and printed in sufficient quantities to distribute to other school systems.

*Additional student recruitment activities for <u>all</u> vocational courses should be conducted.

*A feasibility study on providing additional vocational offerings for the school districts should be conducted.

*Continued emphasis should be placed on providing intensive short-term skill training for dropout-prone students.

*Placement services should be continued and expanded.

*Intensive in-service training for project personnel should be continued.

*Public relations activities connected with the program should be continued.

*Plans should be finalized for the continuation of the program as Exemplary Funds are phased out.

V. SUMMARY

The goal of the project stated in its simplest form was to establish structural relationships which facilitated the implementation of the career-centered concept in the Jones County School System. The approximately 8,000 students in the school system were to be involved in the program in various ways. The program began with the elementary schools providing students with career information and counseling, access to resource persons, and field trips incorporated into the "regular" elementary curriculum. The program in the junior high school expanded and intensified career exploratory experiences through a specially designed course, occupational orientation, as well as counseling activities which assisted students in the occupational choice process. At the high school level students received assistance in planning for and attaining vocational goals and preferences through a variety of vocational programs.

The evaluation procedure centered around the use of the program's educational goal and objectives as a standard by which the outcome of the project was assessed. Evaluation activities for the first year of operation were centered around the "process." In addition, base-line data were collected on the "product." These activities continued during the second year of operation. The procedure included data collection; analysis of records and reports; judgments of qualified analysis of equipment and supplies, purchase and utilization; analysis of program activities; and analysis of opinions of program staff, State Division of Vocational and Technical Education personnel, consultants, school system faculty and administration, parents, and students.

Recommendations which originated from evaluation activities during the first year of operation were all implemented by the project staff during the second year of the project's operation. Many of the recommendations were of the type which required continuous efforts over several years. These were not repeated in the Second Interim Evaluation Report.

During the second year of operation, progress was made in "fusing" the career-centered concept into the ongoing curriculum at the elementary level. In-service activities continued at a high level for all project personnel. Changes were made in the occupational orientation course which provide for greater use of team teaching. This resulted in an increase in the number of "hands-on" occupational experiences students received. The use of pre-test and post-test instruments indicated approximately a 40 percent increase in occupational knowledge in a six weeks period. Exemplary program students consistently rated higher in occupation knowledge than did comparison groups.

Placement centers were established at each of the junior-senior high school attendance centers, and in-school and out-of-school placement

occurred. A total of 18.92 percent of the entire school population (grades 1-12) were enrolled in vocational preparation courses (regular vocational courses) during the second year of the program's operation. Remedial courses contained maximum enrollments. An intensive short-term skill training program for those about to leave school (both by graduation and dropping out) without occupational skills was implemented during the second year of the program's operation. Special emphasis was placed on dropout-prone students by this intensive skill training program.

Upon analysis of evaluative data it was concluded that the project was making progress toward the attainment of its goal and objectives and should be funded for the third year of operation. Specific recommendations resulting from the second evaluation effort included:

*Continued emphasis should be placed on providing remedial education classes for all students needing this service.

*Continued emphasis should be given to making the project an integral part of the ongoing school system's activities.

*Curriculum guides (grades 1-12) should be refined and printed in sufficient quantities to provide other school systems with these materials.

*Additional student recruitment activities for <u>all</u> vocational courses should be conducted.

*A feasibility study on providing additional vocational offerings for the school districts should be conducted.

*Continued emphasis should be placed on providing intensive short-term skill training for dropout-prone students.

*Placement services should be continued and expanded.

*Continuation of intensive in-service training for project personnel.

*Continuation of public relations activities connected with the program.

*Plans should be finalized for the continuation of the program as Exemplary Funds are phased out.

V-C. THIRD PARTY EVALUATION

Fiscal Year 1972-73

THIRD
INTERIM EVALUATION REPORT

Project No. 0-361-0067

Grant No. OEC-0-70-5177 (361)

THE CAREER-CENTERED CURRICULUM
FOR
VOCATIONAL COMPLEXES IN MISSISSIPPI

An Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

James F. Shill
James E. Wall
R. Glenn Shoemake

Mississippi State University
Mississippi State, Mississippi 39762

June 1973

I. INTRODUCTORY SECTION

A. LOCALE

1. Geographical Description.
   (See Section V-A page 55e)

2. Density and Population Trends.
   (See Section V-A page 55e)

3. Occupational Breakdown and Locale.
   (See Section V-A page 55e)

4. Unemployment Rate and Trend. The total work force in The Employment Security District in February, 1973 was reported to be 35,280 as compared to 34,680 for February, 1972. This indicated a general increase in employment of 1.7% for the current FY over FY 72. Employment in manufacturing jobs declined .9% during the same period while agricultural employment increased .3%. As of December 31, 1972, Jones County was no longer designated as a depressed county due to a low rate of unemployment and other factors.

5. Income of Residents. Data obtained from the 1970 Bureau of Census indicated that approximately 22% of all the families in Jones County had an annual income less than poverty level (below $3,000). The median family income (1970) was reported to be $6,630 while the average family income was $6,968. More than 16% of the families in the county have annual incomes in excess of $10,000. The economic index (state rank) placed Jones County in the top 10 of 82 counties as the state wealth contributed by the county was reported to be approximately 3%.

6. Families Receiving Welfare Assistance. Approximately 3,012 families in Jones County received some type of welfare assistance during 1972. The number of families receiving food stamps or commodities was not reported, however the number of families receiving assistance in other categories are shown in Table IIe.

B. THE SCHOOL SYSTEM

1. Facilities Description
   (See Section V-A page 58e)

2. Enrollment. There has been a trend towards a slight increase in the enrollment for the past ten years (1962-72) as a net gain of 175 students was reported for the period. A total of 4238 elementary students were enrolled during the third month of the 1972 school year. The Average Daily Attendance records indicated that approximately 95% of the elementary students attended school

Table IXe Area Employment by Occupational Categorizations During Exemplary Program Operation

Occupational Category	Employment February 1973	Employment January 1973	Employment February 1972	Percent Change (+ or -)
Agricultural (Production)	4,290	4,290	4,290	
Food Processing	1,290	1,290	1,270	
Agricultural Total	5,580	5,580	5,560	+ .3%
General Manufacturing (includes lumber and wood)	3,780	3,810	3,660	
Apparel	1,790	1,820	2,070	
Printing and Publishing	140	140	120	
Machinery	1,420	1,490	1,450	
Other Manufacturing (furniture, fixtures, paper, stone, clay, glass and metals)	600	610	500	
Manufacturing Total	7,730	7,870	7,800	- .9%
Construction	1,140	1,070	1,090	
Transportation and Utilities	1,310	1,300	1,260	
Wholesale and Retail Trade	4,530	4,560	4,240	
Finance, Ins., and Real Estate	700	700	650	
Service and Miscellaneous	4,030	4,070	4,070	
Government	5,930	5,940	5,680	
Other	4,330	4,330	4,330	
Nonmanufacturing Total	21,970	21,970	21,320	+ 3.0%
Employment - Grand Total	35,280	35,420	34,680	+ 1.7%

Table Xe

Number of Jones County

Families Receiving Welfare Assistance by Category

Category	No. Families June 1969	No. Families June 1971	No. Families June 1972	1969-72 Percent Change
Old Age Assistance	1427	1560	1707	+ 19.62
Aid to the Blind	41	36	50	+ 21.95
Aid to Dependent Children	413	563	676	+ 64.41
Aid to the Disabled	436	522	579	+ 32.80
Total Families	2317	2681	3012	+ 30.00

on a daily basis.

The three high schools reported a combined total of 3940 students enrolled during the third month of the school year. The Average Daily Attendance records indicated that approximately 97% of the high school students attended school on a daily basis. Table IIIe depicts the elementary and high school enrollment for the third month of the 1972-73 session.

3. School System Faculty. During the 1972-73 session there were 322 persons employed in the system as teachers, counselors, or administrators. Of this number, 70 possessed a master's degree, 247 possessed a bachelor's degree and five had not completed the bachelor's degree. The latter five persons were qualified trade instructors employed in the vocational complex. In addition, the system employed teacher aides, secretaries, custodians, and other service personnel.

4. School System Administrative Structure.
(See Section V-A page 62e)

5. School System Curriculum. Eighteen units (or credits) were required by the school system for graduation during the 1972-73 session. Specific requirements for graduation from the system are:

English	4 units
Mathematics	2 units
Social Studies	3 units
Science	2 units
Electives	7 units

The change from a requirement of 17 units for graduation to 18 units could impede the future vocational technical enrollment as those students meeting vocational classes one-half of the school day may have trouble meeting the graduation requirements in the time allocated.

6. Dropout and Transfer Trends. Based upon current data, approximately 70% of all students entering the first grade in the system will remain to graduate from high school. During the 1971-72 school year dropouts were reported to average .48% for each of the first six grades, 3.40% for grades 7 and 8 respectively and 5.88% for grades 9-12 respectively. The overall average dropout for grades 1-12 was reported to be 2.74%. A comparison of the 1972-73 dropout figures with an average of the last 5 years indicated that dropouts are slowly increasing each year, however they are still below the average for the state of Mississippi.

7. Financial Status of School System. From 1962-63 to 1971-72 revenue for the support of the county school system increased from $415,804 to $696,589 at the local level, from $1,157,189

Table XIe

Jones County School System Enrollment

During 1972-73 Session

(By Attendance Centers)

Attendance Centers	Enrollment 3rd. Mo.	A.D.A. (3rd. Mo.)
Junior-Senior High Schools (gr. 7-12)		
Northeast Jones	1238	1196.85
South Jones	1147	1117.05
West Jones	1555	1518.90
Jr. - Sr. High Totals	3940	3832.80
Elementary Schools (Gr. 1-6)		
Calhoun	537	510.90
Ellisville	854	808.20
Glade	497	474.80
Myrick	274	265.15
Pendorff	214	186.60
Powers	275	269.55
Sandersville	318	298.50
Shady Grove	601	576.80
Elementary Schools (gr. 1-7)		
Moselle	373	368.10
Soso	295	286.75
Elementary Totals	4238	4045.35
System Totals	8178	7878.15

to $2,561,138 at the state level and from $25,848 to $711,865 at the federal level (not including capital outlay). In addition, other sources of revenue for 1971-72 amounted to $10,393.

The expenditure per pupil increased from $191.50 to $410.00 during the same period with local and state revenue accounting for only a small portion of the increase as federal revenue increased twenty-seven fold. The tax levy for the school system is the maximum allowed under state law - 25.0 mills.

II. THE EXEMPLARY PROGRAM

A. BACKGROUND INFORMATION

1. Origination of Program
(See p. 66e)

2. Modification of Existing School Programs
(See p. 66e)

B. SCOPE OF THE PROGRAM

1. Participants Served. All of the Jones County School System's approximately 8,178 students were involved in the Exemplary Program in some manner during its three years of operation. Those students who were not directly involved in the program were indirectly influenced through such activities as poster contests, recruitment, counseling, assembly programs, parades, homecoming events, etc.

2. Objectives of the Program.
(See p. 67e)

C. PERSONNEL

1. Personnel Added by the Program. A total of 26 professional level staff positions were utilized in the implementation and continuation of the program at the local level. This number included positions in administration, coordination, counseling and instruction. In addition, one secretarial position and three teacher aide positions were utilized in the project implementation and through the continuation of the project. All 26 professional-level positions were filled with persons meeting the state certification requirements and having the minimum of a bachelor's or higher degree. The professional-level positions and administrative structure of the program are shown in Section V-A, page 67e.

2. Administrative Staff. The four persons employed to administer and coordinate all phases of the exemplary project had an average of 19 years of teaching and administrative experience. The staff possessed experience from the areas of vocational agriculture, home economics, guidance and counseling, history, and elementary education in addition to administrative and supervisory experiences. Several administrative staff members were employed from neighboring counties to serve in the project prior to its implementation. The entire administrative staff devoted full time to administrative and coordinative activities.

   The local project director had 22 years of vocational teaching and administrative experience prior to his employment in the

exemplary project. He assumed the responsibility for coordinating all phases of the program with the State Project Director and he participated in the recruitment, selection and supervision of all personnel. Additional duties included purchasing, arranging for consultants, conducting in-service training for the staff, public relations, evaluation, and preparation of the necessary reports.

The coordinator of placement, follow-up and evaluation also served in the capacity of coordinator of guidance and testing. His responsibilities included counseling with staff and students, obtaining and providing vocational guidance information, collecting, organizing, and analyzing materials, selecting and using measuring instruments, synchronization of the testing program, interpretation of test results, conducting follow-up of students and assisting in student placement.

The coordinator of occupational orientation had 27 years of vocational teaching and administrative experience. His responsibilities included coordination of equipment, supplies and materials and making recommendations on certain items to be purchased. He was also directly involved in material development, course guide preparation and utilization, staff development and overall assessment of the occupational orientation program.

The original administrative structure provided for a coordinator of cooperative education. This position was filled until the untimely death of the coordinator. Following the vacancy in the position, the recommendation was made to phase out this position and add a new position of elementary coordinator. This position was established in order to provide increased emphasis upon career development on the elementary level.

The elementary project coordinator's responsibilities include obtaining and distributing teaching aids, equipment, and supplies to elementary teachers; scheduling resource persons, films, etc.; assisting in the development of objectives, methods, and evaluation of the elementary activities; assisting in the survey of local resources; and conducting in-service programs on the elementary level. The coordinator also assists in the overall planning, implementation and evaluation of the entire exemplary project.

3. Student Service Personnel. The exemplary program added one vocational guidance counselor to each of the three combination junior-senior high school attendance centers. All persons employed in these positions held master's degrees and averaged 15 years of experience at the beginning of FY 73. Their responsibilities included collection, organization, and analysis of student information to be used in individual vocational and educational planning; providing counseling services, selecting students for vocational courses, referral of students to local,

state, and federal service agencies assessing counseling effectiveness and assisting in interpreting the aims and objectives of the exemplary project to students, faculty, parents, and the community.

4. Instructional Personnel. The exemplary program added three cooperative education teachers, nine occupational orientation teachers, four remedial education teachers, three consumer education teachers, and three teacher aides to the regular instructional staff. All of the teachers and teacher aides were assigned to the three combination junior-senior high school attendance centers with the exception of one remedial teacher who was assigned to the vocational complex. All instructional personnel meet State certification standards.

The three junior-senior high schools had cooperative education teachers assigned to them. All of the teachers held bachelor's degrees and averaged 4 years of teaching experience when employed. Their responsibilities include: working closely with guidance and counseling personnel; arranging for student training stations; providing for individualized study; developing training plans; promoting good public relations; and supervising students at on-the-job training stations.

Nine occupational orientation teachers were employed and all possessed a bachelor's degree and met state certification requirements. The teachers had an average of 9 years teaching experience prior to the implementation of the project. Their responsibilities include providing students with sound knowledge and experiences for making career choices; assisting students in self-assessment; assisting students in understanding the American economy and the world of work; and maintaining follow-up records.

Four remedial education teachers were employed in the project and they had an average of 9 years of teaching experience prior to the implementation of the project. Three of the teachers were assigned to the junior-senior high school attendance centers and one to the vocational complex. Their responsibilities included: developing an instructional program for dropout-prone students; developing a system for selecting students needing remedial assistance; adapting remedial subject matter to vocational choices of students; providing remedial instruction; and assisting the faculty in providing remedial instruction in specialty areas.

Each of the three junior-senior high school attendance centers was provided with one consumer education teacher. The three teachers had an average of 7 years teaching experience and their responsibilities included: planning, developing and utilizing units of instruction in consumer education for students; conducting a visitation program; surveying opportunities; utilizing

news media for consumer education activities; and assessing the consumer education program.

Two of the three teacher aides in the program had some college training. Each junior-senior high school attendance center was assigned one teacher aide to be utilized in duplicating materials; monitoring study activities of students; assisting in record keeping; assisting in the development of teaching aids; and operating audiovisual equipment.

5. Recruiting and Maintaining Personnel. A delay in the final approval of the project, in all probability, resulted in an inability to conduct an intensive pre-service training program for the staff. Difficulty was experienced in recruiting personnel for the various positions to be filled the first year and this was attributed to the approval delay also. The first year of operation resulted in only one position not being filled and this reportedly was due to the unavailability of a qualified cooperative education teacher. Two vacancies in the professional staff occurred during the first school year due to death or illness. One of the vacancies was filled while the unfilled position of cooperative education coordinator was phased out to create a new elementary coordinator. Two occupational orientation teachers and one counselor resigned at the end of the first year to accept employment with other school systems. The second year of operation (FY 72) was somewhat smoother as all staff positions were filled and a number of new applications were filed. At the end of FY 72 several positions became available due to maternity leaves, family relocation and securing jobs outside of the district. The third and final year of operation opened with the following new staff members: one guidance counselor; two consumer home economics teachers; two teacher aides; three occupational orientation teachers; and a new secretary. Although some turnover in personnel was evident during the 3 years of operation the recruiting of competent personnel did not appear to be a major problem.

D. PROCEDURES

(The Jones County Career-Centered Project was funded for a three-year period. This final report is an evaluation of all three years of operation.)

1. Physical Arrangements.
(See p. 71e)

2. Review and Planning. Several review and planning sessions were held prior to and throughout the duration of the project. The sessions usually involved local project personnel, the State Project Director, resource persons, R/CU personnel, and consultants. In addition, the State Advisory Council met with the project personnel in a review session at the beginning of

the third year of operation. Review and planning sessions for the first and second year of operation were generally involved with the implementation and continuation of the project. During the third and final year of operation, the review and planning sessions were concerned generally with the finalization and completion of the project, perfecting the curriculum guides and meeting the obligations and terms outlined in the project.

The local exemplary administrative staff engaged in weekly planning and review sessions at the vocational complex. The planning and review sessions generally involved the vocational counselors who served as liaison officers for the different junior-senior high schools. A team approach was utilized throughout the duration of the project in reference to evaluating teachers and their career related activities.

Daily planning and review sessions were held by teachers from the different attendance centers. These sessions were conducted during the school day and after normal school hours and they resulted in numerous beneficial modifications in the project's activities. After the first year of operation, the daily planning and review sessions gave the teachers an opportunity to develop summarized outlines of career-related activities that were adaptable to various grade levels and subject areas of each school. These outlines were distributed to local exemplary staff, the classroom teachers and to the local school administrators. The outlines provided the exemplary administrative staff additional insight into problem areas and also aided in the distribution of supplies and equipment. It was apparent that the planning and review sessions were not a panacea for all problems; however, they did serve in helping to establish a more uniform career education program.

3. In-service Training. A variety of activities were carried out by staff members and all local teachers involved in the exemplary project during the summer months of FY 73. The major objective accomplished was the updating of the curriculum guide for occupational orientation, Levels I and II. The guide was updated by making teaching guides (lesson plans) in the form of behavioral objectives and by building in an evaluation component consisting of pre-tests and post-tests for each unit. A self-evaluation form was included for the instructor which served as a tool to further revise the career-related instructional methods, techniques and activities.

Prior to the opening of school, a report form for use by occupational orientation teachers was developed by teachers, the coordinator, and outside evaluation personnel. The form was based on the instructional activities of the teachers. The instructional process or activities were divided into three major headings: (1) instructional objectives, (2) materials and/or resources utilized, and (3) evaluation. The reporting

form was developed around the curriculum guide currently in use. The purpose of the form was twofold. First, the form serves as a direct source of feedback for the administration and evaluation personnel. Second, an underlying purpose of the form was to utilize teachers' outlines for weekly planning and to budget instructional activities and resources. Thus, the form was utilized as a planning and feedback instrument.

During the preschool in-service activities, new teachers of occupational orientation were oriented to the career education concept as well as to the operational phase of the total program. Special emphasis was placed upon new personnel's becoming familiar with the objectives of occupational orientation phase of the program. In addition, in-service activities were designed to assist all personnel in increasing their knowledge of available opportunities in the world of work in the immediate area. Field trips (teachers only) to local industries were utilized extensively to gain first-hand knowledge. These field trips served the purpose of assisting teachers in understanding the barriers between school and skills required in the world of work for employment. The world of work areas visited included: newspapers, dairy farms, lumber by-product mills, textile mills, recreational vehicle manufacturers, bottling works, radio and television stations, vocational-technical programs located at various junior colleges, wholesale firms, retail establishments, employment agencies, and a host of local, state and federal offices.

During the period, several teachers were involved in professional improvement through credit courses at institutions of higher learning. These courses resulted in meeting state certification requirements.

The success of the third year of operation was attributed to a more enlightened staff as all teachers participated in the in-service training sessions and the field trips. Career-related instruction was more evident during the third year as the teachers placed into use the ideas and knowledge they had acquired through the in-service programs. The objectives of the occupational orientation phase and its activities appeared to be adequately covered during the third and final year of the project.

4. Activities. The exemplary project was based upon the assumption that all children should be assisted by the school in making realistic career decisions. Each year of operation was designed to increase student awareness to allow for broader career exploration and to prepare for the world of work on a higher plane than had been possible during the previous year or years. Several observable differences were evident as the project advanced timewise. During the first year the occupational orientation teachers and the guidance personnel administered the Ohio Vocational Interest Survey (OVIS) and the

Vocational Planning Inventory (VPI). The second year was even more test-oriented as the Kuder-E and Primary Mental Abilities tests were added to the above. During the third year, interests were focused on the proper handling of the data that had been obtained previously and on more efficient placement procedures for students in the preparation stages.

The basic structure of the occupational orientation course during the first year was based on the eight categories of Ann Roe's Schema. The second year of operation differed from the first year in that the eight categories were incorporated into six basic units of six week duration utilizing team teaching. During the third year project personnel adapted and refined the instruments, procedures and materials developed the second year. They also transformed career-centered lesson plans into behavioral objectives in order to facilitate their utilization in regular classroom situations.

The occupational orientation teacher-pupil ratio was 1-92 during the first year (based on 23 pupils per class average). This figure dropped to 1-86 for the second year and increased back to 1-90 for the third year of operation. There was no evidence that the slight fluctuation was due to anything other than annual enrollment differences.

The remedial teachers utilized the Stanford Diagnostic Reading Test, The Schonell Graded Work Reading Test, and several informal reading inventories to diagnose reading problems. The same instruments were utilized by the remedial teachers the second and third year, however, the Diagnostic Math Test was added for those students encountering difficulty in mathematics.

Many of the activities involving the elementary, junior-high and high school levels were nearly identical for each of the three years the project was in operation. These activities are listed in Section V-A, page 74e.

5. Instructional Equipment and Materials. The exemplary project utilized approximately the same instructional equipment and materials each year of operation until termination of the project. Some refinement in curriculum guides, commercially produced materials and other products was evident as the program continued. Four microfiche readers proved to be a valuable addition to the visual equipment during the third year of the project. One reader was placed in each of the junior-senior high schools and one was placed in the vocational-technical complex. The equipment was secured through the Mississippi Employment Security Commission and was utilized by the students in obtaining information on job openings throughout the state. The job information microfiche sheets were provided on a weekly basis by the Employment Security Commission.

Audio equipment, visual equipment, printed materials and miscellaneous equipment and materials utilized throughout all three years of the project are listed in section V-A, page 81e.

6. Parent-Community Involvement. Parents and community leaders were not utilized on a broad scale the first year of operation; however, they were informed of the project through several radio programs and newspaper articles. The project personnel also prepared individual information sheets that were delivered by school children at various times during the year to the parents in the community (see samples A-B).

   The second and third year of operation tended to involve the parents and community leaders in many of the career activities in practice. Parents and community leaders served as resource persons and as guides on field trips. Staff personnel made special efforts to engage parents in private conferences at the school and many conferences were held over the telephone when other arrangements failed. The local project director and Superintendent of Education held several short informal talk sessions over local radio stations and several newspaper articles depicted career activities at various grade levels. The most apparent feedback on community acceptance of the project was through programs presented to civic clubs, etc., by staff personnel. The attitudes most prevalent were "I think this is probably a good program" or "This program is an asset to the community." Samples A-D are examples of the types of activities that were prevalent throughout the career education project.

7. Budget. The program was designed to involve each pupil in the school system and all costs concerned directly with career-development were included in the budget (not including capital outlay). A total of $484,919 was budgeted for the third year (FY 72-73) of operation. Of this total, $258,009 came from the Commissioner's and State Board's share of exemplary funds and $71,821 from State and Federal funds. In addition, $155,089 in local funds were utilized in the project.

   Per-pupil costs were presented in a dicotamous fashion throughout the duration of the project. First, the per-pupil cost was presented for the total program and secondly, the per-pupil cost was presented for the career-centered exemplary project. The total per-pupil cost was $59.30 and the exemplary per-pupil cost was $31.55. A total of 8,178 students were served during school year 72-73.

   A comparison of the first and second year of operation with the third year revealed no major variation in budgetary trends. The state's share decreased moderately the third year while the exemplary project's share increased slightly. The cost to the local district increased at the average rate of 4.5% per annum.

The total per-pupil costs and exemplary per-pupil costs decreased each year the program was in progress.

Sample A

Leader-Call, Laurel, Miss., Tues., May 8, 1973

Eighty First Grade Pupils Give Program At Glade PTO

The Glade PTO met recently for the final meeting of the current school year. The business meeting was quickly disposed of in order to allow ample time for the program.

A large gathering composed of parents, grandparents, teachers and friends were delightfully entertained by eighty first grade boys and girls, who were responsible for the evening's program.

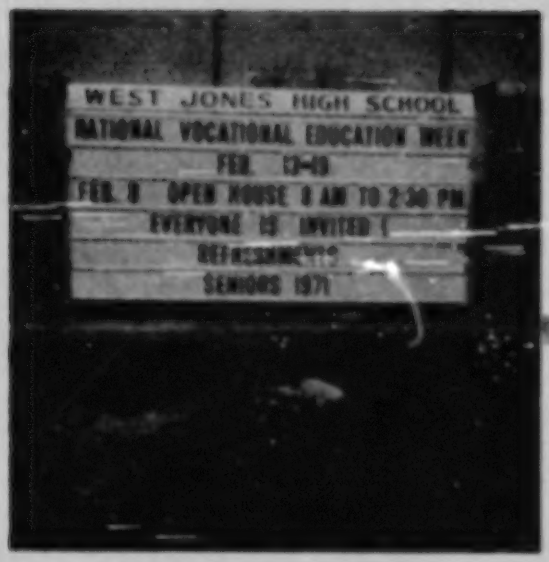
As the culmination of an extensive study of "Community Helpers", the students decided to give a program with the thought-provoking title, "What Will I Be When I Grow Up."

With many wearing bright red firemen hats because of the great interest shown in Laurel's newest fire truck, and others costumed as people of different occupations, the children told through narration and song what they might be when they grew up.

First grade teachers at Glade are: Mrs. Mary C. Renfro, Mrs. Jean Thrash, and Mrs. Elizabeth Keys. Teacher's Aide is Mrs. Sharon Harrison. Mrs. Renfro's room mothers served refreshments.

Elementary student involvement in career education was apparent throughout the school year. The above poster is one of the many classroom aids utilized in developing student awareness to the world of work.

Sample B

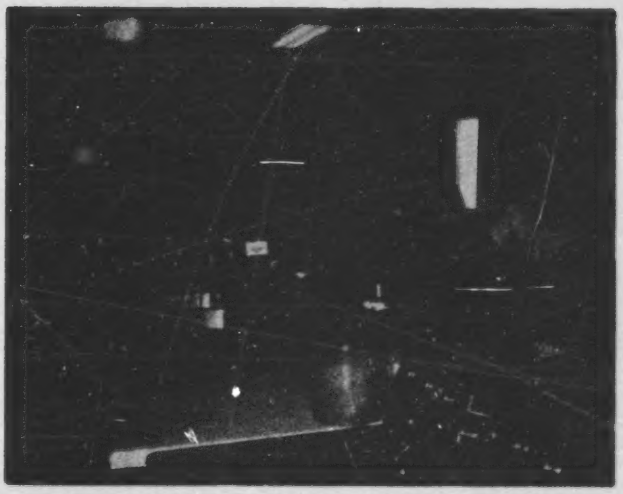


Parental and community involvement was solicited throughout the duration of the exemplary project. Open house proved to be an effective method for dissemination of career-related information.

A local resource person from South Central Bell demonstrates line and telephone repair techniques to students at one of the elementary schools in Jones County.

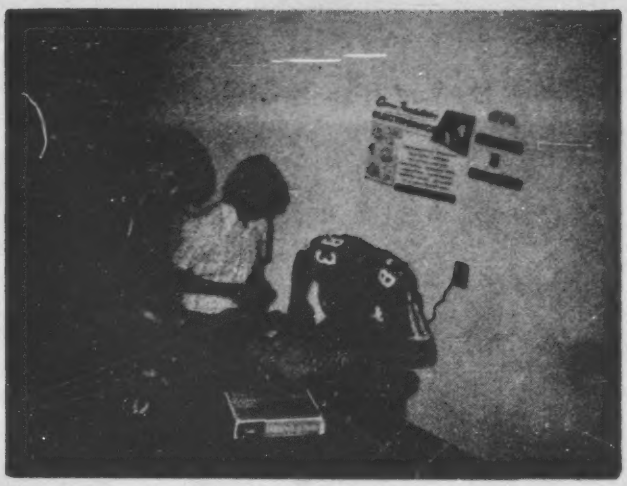
Sample C

Student participation in program activities was encouraged through varied teaching techniques designed to foster latent talent. "Don't Monkey Around With Your Future" was a slogan coined by a local seventh grade student in Jones County.

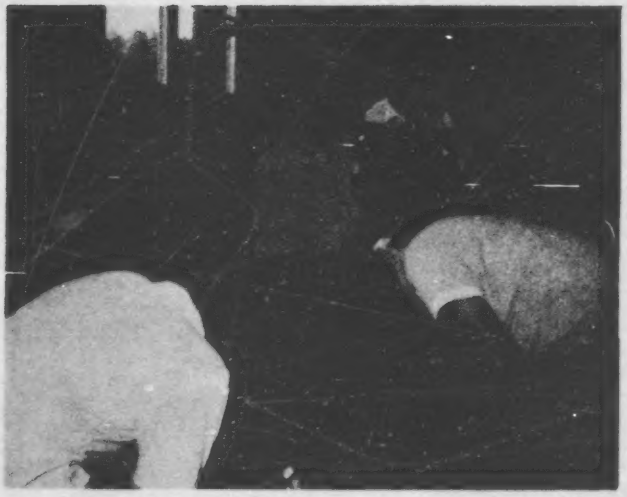


A consumer education class learns the basic tasks involved in food preparation. They also discovered that many careers are available in food trades and related areas.

Sample D



Junior-high students study electricity by assembling simple electrical components. Hands-on experiences were used to heighten reality and to provide for transfer of learning from the workshop to the classroom.



A shop teacher at West Jones supervises an electric welding class in which students receive hands-on experience. Students, in preparing for careers, have learned that reality in the classroom leads to better job satisfaction after graduation.

III. EVALUATION ANALYSIS

The evaluation sections of the final report were devoted to "process," and "product" evaluations. Both "process" and "product" were used to formulate evaluative methodology. Before proceeding to conclusions toward overall attainment of project objectives, a brief review of evaluation strategy for the first and second year is given.

At the onset of implementation of the career-centered concept, it was hypothesized that evaluation activities could make the most significant impact on the success of the implementation phase of the program by focusing on the process. It was felt deficiencies in the process detected at early stages could best be corrected with the least amount of confusion during the initial period of project operation. Evaluative data concerning the process was continually fed back and incorporated into the redirection of the program. Therefore, evaluation activities for the first year of operation were centered around the "process." (For details, conclusion and recommendations, see section V-A, p. 55-e.)

By the beginning of the second year of operation it became evident that the "process" had been refined to the point where it was functioning at a sufficiently stable level to allow some type of "product" evaluation to begin. During the second year of the project evaluation, activities began to focus on the "product" in a much greater detail. The second evaluation report was a combination of "process" and "product" evaluation. (For details, conclusions, and recommendations, see section V-B, p. 109-e.)

In the third and final evaluation report (FY 73) a general summary of both previous years was given. In addition to the preceding, specific details and conclusions were given concerning the activities of FY 73. As in previous evaluation reports, the evaluation team used the program's objectives as the basis by which the outcomes of the project were assessed. The writers utilized the project's objectives in the realm of an educational goal and developed specific evaluative objectives for the purpose of analysis. Specific details, procedures, activities, conclusions, and recommendations concerning the FY 71 and FY 72 evaluation reports are found in sections V-A and V-B of this report.

1. Evaluation objective: <u>To provide an administrative organization for efficient operation of the program</u>.

   The administrative structure designed to implement the program was utilized and provided for functional operation of the program the first year. However, modifications were made toward the conclusion of the first year in regard to the elementary phase of the

program. It was concluded that if the program was to have significant impact upon the entire school system in a three year period, a position with specific duties and responsibilities in relation to the elementary program should be created. This change in the administrative organization was implemented at the conclusion of the first year of operation.

Administrative personnel employed for the program were well qualified and averaged more than 16 years of teaching, counseling, and/or administrative experience at the onset of the project. This aided in the successful operation of the entire program. Problems were attacked by all members of the staff in a team effort.

Evaluative analysis indicated that the reporting and record keeping systems were adequate for the early phases of the program. Administrative duties were varied and sometimes hectic during implementation of the program. Methods of informing project personnel as well as receiving feedback from teaching personnel were varied. Group meetings, memos, conferences, workshops, etc. were all utilized. Some difficulties resulted from too many different solutions to the same problem being offered to project personnel at the same time by consultants and other persons with specific expertise who worked with the staff during implementation phase. Much time during the first year was spent in ordering equipment and supplies and in conducting curriculum development activities. Along with these tasks, there was the responsibility of supervision of personnel.

During the second year of operation, the project became more systematized. Additional procedures as well as an increased communication flow was established. Specific duties, responsibilities, and positions of personnel were further developed which resulted in increased program effectiveness.

One problem observed was that of reporting. Local written reports lacked detailed accounts of activities of all personnel, which made it difficult to assist school systems implementing career education programs. Increasing the reporting effectiveness became a prime focus area for FY 73 and is discussed later in the report.

The third year (FY 73) of operation proved to be of continued efficiency for the administrative structure. After two years of experience with the program, the administrative personnel's expertise increased to:

(1) plan for the up-coming school session; (2) plan in-service activities; (3) select and secure instructional aids and equipment; (4) provide relative supervision to program personnel; and (5) assess and utilize evaluative information for the increased effectiveness of the program.

During the year additional efforts were made to refine the flow of communications. This resulted in less reliance upon group meetings at the vocational complex. Teachers in the different areas of the program used a planning and summarization outline to record daily activities. In turn guidance counselors served as liaison personnel and met with administrative personnel to plan for the up-coming week and to review the previous week's activities. This provided additional time for teachers to work as a team at their respective schools in order that instructional activities could be further assessed and planned. This also aided in providing additional time for supervision and assisting personnel with individual needs.

Planned workshops (during the summer) assisted personnel in focusing upon project standardization. New personnel benefited greatly by workshop activities designed to orient them to the objectives and methods used in the program. During the workshops curriculum guides were updated and revised.

During the summer, an improved system for gathering and reporting activities was developed. This utilized the teachers' daily activities, time schedule, instructional materials, etc. as a basis from which to begin. Teachers utilized an outline for planning and summarizing weekly activities. These outlines were used to keep all interested parties informed about the activities being conducted by the project personnel.

Final analysis of the budget revealed funding sources as being regular Part B Vocational Funds, State Funds, Part G Vocational Funds, Local Funds, as well as Part D Exemplary Funds. Of the total amount approximately 38 percent were exemplary funds. Item analysis showed that approximately 83.2 percent was used for personnel salaries, and employee benefits as compared to 58.6 percent in the first year. This reflects primary cost of implementation plus the addition of the consumer home economics teachers. Of the remaining expenditures 3.9 percent was allotted for travel, 7.35 percent for supplies and materials, 1.85 percent for evaluation, and approximately 3.2 percent for other services (communications, etc). It was noted that less than one-tenth of one percent

was spent on equipment, during FY 73 as compared to 29 percent during initial implementation (first year).

In conclusion, the administrative structure was refined and sophisticated throughout the duration of the project. It proved to be a workable, efficient structure for such a project.

2. Evaluation objective: To provide adequate facilities for the operation of the program.

The project was implemented at the same time the school system opened under a unitary school plan. This provided some difficulty in the overcrowding of facilities in the different school plants. During the operation of the program additional space was provided either in the form of mobile classrooms or traditional classrooms.

Throughout the duration of the project, the administrative staff utilized the centrally located vocational complex for offices. This also afforded ample room for storage of instructional material, some equipment and served as a centrally located site for distribution of materials to be shared by all schools in the system. The vocational complex also provided ample space for large group meetings, workshops and other in-service activities.

Facilities at the individual school plants were, insofar as possible, equipped with materials and supplies that facilitated instruction in career education in the individual classrooms. Remedial teachers utilized well designed language laboratories for the instruction of students with special needs. These facilities were well equipped with listening labs and other supplementary audio equipment.

Occupational orientation teachers were provided with traditional type classrooms, consumer education equipped mobile classrooms, and industrial arts shops. These facilities were utilized for maximum attainment of instructional objectives through "hands-on" experiences and simulation.

Guidance personnel facilities were generally good. Each counselor was housed in a private office with ample guidance materials. In two schools the counselors were centrally housed in the administrative wing, while in the third school the counselor was housed closer to individual teachers. Counselors housed centrally apparently were utilized to a lesser degree by the career-centered project personnel than those housed closer to teachers.

These counselors seemed perhaps to be more of an integral part of the program and aided more students in both individual and group counseling sessions. The reasons for this may be varied. Personalities, individual initiative, etc. could have played a role, but it is believed that counselors were called on more frequently to perform small administrative details when housed close to administrative offices.

Cooperative vocational education classes used traditional styled classrooms. Over the three year period, enrollment in the classes increased, but facilities and equipment were adequate for the increased enrollment.

Overall utilization of facilities for the project was maximized. Facilities furnished for career-centered curriculum program had adequate lighting, heating, and acoustics. General appearance of all facilities was excellent at all times, with a thorough maintenance program in evidence.

3. Evaluation objective: To provide adequate equipment and supplies for the effective operation of the program.

The late implementation of the Exemplary Project during the first year of operation, in all probability, impeded the development of procedures and methods for procurement of needed supplies and equipment. However, a major portion of the supplies and equipment were listed as being received prior to the termination of the first year of operation. (See Table XII-e.) Additional supplies and equipment were added the second and third year as they became available and as a need for them arose. The only major items added were sound-on-slides and several microfiche readers. The equipment and supplies were all centrally located in the various schools while some major items were housed in the Jones County Vocational Complex. All major items were rotated between attendance centers and all teachers were provided with travel allowances to provide them an opportunity to visit the central storage point. During each visit staff personnel provided the teachers with inventory lists and allowed them to view the classroom aids which could be utilized in their respective classes. The teachers were encouraged to plan their lessons in advance to allow ample time for delivering of the desired classroom aids. In addition, all attendance centers were furnished certain supplies, materials and equipment for use solely by that center. The system was an apparent success as few complaints were noted from classroom teachers and local administrators.

Table XII-e

Annual Expenditures for Supplies and Equipment for the Exemplary Project

From July 1, 1970 til June 30, 1973

School Year	Expenditures for Supplies and Equipment
1970-71	$220,744
1971-72	$ 37,700
1972-73	$ 36,700
Total	$295,144

4. Evaluation objective: To provide adequate staff for the implementation and conducting of an effective program.

The research project added a total of 27 new professional positions to the Jones County School System. This number included administrators, teachers, coordinators, and counselors. In addition one secretarial position and three paraprofessionals (teacher aides) were utilized in the project. All professional level persons met at least minimum state certification requirements and possessed a bachelor's degree. During the second year two positions at the professional level were combined and the project used a total of 26 professional personnel during its third year of operation.

A review of records, resumés etc. revealed that beginning the third year of the project, personnel averaged 16.6 years educational experience. A total of six new teachers and counselors were required to fill vacated positions at the beginning of FY 73. Of this number there were three first year teachers. With the help of teachers experienced within the program, the new personnel became oriented to project purposes and processes. This resulted in their being able to perform their duties and responsibilities effectively. All teachers held valid teachers certificates issued by the State of Mississippi.

Selection and recruitment procedures throughout the operation of the project were handled in the traditional manner. Salaries paid by the program were comparable with those of other personnel in the system. Filling vacancies of the program was not a significant problem of the project except during the first year one position as cooperative education coordinator went unfilled.

Throughout the project, teaching personnel had excellent work loads with few exceptions. In most instances, teachers held class four or five periods per day and had at least one period vacant for planning and/or related activities. Both group and individual planning time apparently was utilized to the maximum degree by most teachers.

As mentioned in previous evaluation reports, professional growth activities were continuous throughout the project. Many types of activities were used. Graduate credit courses, workshops, small group sessions,

and school planning sessions, etc. were successful in orienting, up-dating, and presenting various processes of the project to personnel. Consultants, resource personnel, State Department personnel, and various local businesses and industries provided many learning experiences for teachers and counselors in the program. However, it seemed that the most significant experiences were those small group sessions in which teachers developed specific units for instructional purposes. This provided direction and insight for the teacher toward the instructional processes of the project while providing continuity of instruction. Planning of this type also increased the use of team teaching.

During the summer of 1972, occupational orientation and remedial teachers participated in a structured workshop designed for the production of more effective curriculum guides through utilization of a problem-solving approach. The workshop was housed in the Jones County Vocational Complex and a program evaluation was conducted to assess the value of such a workshop. Each participating teacher was urged to complete a questionnaire in reference to the effectiveness of the workshop and whether or not the materials developed by the group would be of use to them later in the classroom. (See Table XIII-e.)

It was deducted from the mean scores that a majority of the participants felt that the workshop was above average on all 15 categories listed. The weakest area, which was still above average, appeared to be the degree to which persons, other than the exemplary staff, helped in giving ideas or suggestions in materials developed. The strongest area listed was the degree to which the workshop dealt with problems encountered in the previous school session. In general, the workshop apparently fulfilled its objectives and provided the participants with adequate solutions to many of their current problems.

Another activity (in-service) that proved very helpful to the teachers was visits to local industries. Groups of teachers visited various businesses in the area to gain "first hand" information concerning particular jobs, skills, industrial processes, etc. There was an evident carry-over into the classroom from these activities. <u>These types of activities probably did more to increase the effectiveness of the program over the long run than any other single activity</u>.

Table XIII-e

Assessment of Occupational Orientation and Remedial Teachers' Attitudes and Opinions in Reference to the Effectiveness of a Workshop Held for the Production of Curriculum Guides

Statements	Mean Scores
Degree to which problems were diagnosed and defined.	5.23
Degree to which objectives of the workshop were problem-related.	4.77
Degree to which goals and objectives of the workshop were understood.	5.31
Degree to which outlined problem-solving procedures were used.	5.00
Degree to which teachers' inputs were utilized in establishing workshop priorities.	5.66
Degree to which the workshop dealt with problems encountered in the previous teaching term.	5.85
Degree to which the workshop stimulated interest of personnel to solve major problems.	5.15
Degree to which the workshop maintained interest.	5.23
Degree to which plausible solutions to current and emerging problems were formulated.	5.31
Degree to which the methodology used to accomplish workshop objectives was adequate.	5.08
Degree to which effective questioning and discussion among personnel were utilized.	5.31
Degree to which new and usable materials and/or other resources were available to the workshop personnel.	5.69
Degree to which overall workshop objectives were attained.	5.31
Degree to which persons, other than exemplary staff, helped in giving ideas or suggestions in materials revised or developed in the workshop.	4.54
Degree to which visits to industry helped you see and better understand the barriers between industry and education.	5.61

Note: "1" was the lowest rating, "4" was average, and "7" denoted the highest rating.

Overall, the project had well-qualified and dedicated personnel. However, in any situation there are those who lack initiative, self discipline, and certain inabilities are present. This was held to a minimum insofar as the career-centered curriculum program was concerned through supervision.

5. Evaluation objective: To provide an adequate curriculum for the implementation of the career-centered program.

It was deemed necessary for the career concept to span grades 1-12 and to include continuing education if it were to become an integral part of the Jones County educational processes. This meant that concerted efforts must be extended in the Elementary (Career Awareness), Junior High (Career Exploration), and Senior High (Career Preparation) phases of each student's educational experiences. In the three years of operation of the project, great strides were made in the development of curricular materials and activities that provide students with more meaningful and relevant information and experiences. However, it was not possible to conduct long range assessment in such a short period of time. Therefore, outcomes, conclusions, etc. are based solely on short term assessment. There is no evidence to verify whether the attitudes, opinions, progress, etc. which will be reported later in this document will be retained over a long period of time.

Elementary Level (grades 1-6)

The idea of implementing Career Awareness in the elementary school was for the use of standard components to infuse career-related activities into the curriculum. That is, reading, math, etc. were used as vehicles for providing occupational information and experiences. For grades one through three, a decision was made that subject areas and grade levels should be separated. In grades four through six only the subject areas were divided. Career information for elementary students was provided in the following broad areas:

Grade 1----------Career information centering around the home and school.

Grade 2----------Career information centering around the neighborhood and community.

Grade 3----------Career information centering around surrounding communities.

Grade 4----------Career information centering around the state.

Grade 5----------Career information centering around the United States.

Grade 6----------Career information centering around foreign countries.

Project personnel along with elementary personnel of the school system revised, up-dated, and/or developed new elementary curriculum guides throughout the duration of the project. This provided flexible and realistic career experiences that could be utilized by elementary teachers at their particular grade level. The elementary guide for Jones County, Career Centered-Curriculum for Vocational Complexes in Mississippi: An Introduction to Career Awareness, is an addenda to this report.

Also utilized throughout the elementary school was the use of resource persons. These were in the form of local businessmen, parents, etc. that visited the school and were successful in bringing the world of work to the classroom. It was concluded that the career concept had an impact on the traditional image of the elementary school in the Jones County School System.

Occupational Orientation (grades 7-9)

The Occupational orientation course as taught in the project intensified the exploration stage of the usual career education plan. Occupational orientation courses were divided into eight categories during the first year for study by the students. These were: (1) Service; (2) Business Contact; (3) Organization; (4) Technology; (5) Outdoors; (6) Science; (7) General Culture; and (8) Art and Entertainment. These courses were designed to facilitate exploration of the world of work and to provide students with an insight into the realities of the working world. The first year of occupational orientation apparently failed to measure up to the project staff's expectations as plans were made to restructure the program for the second year of operation.

The basic restructuring occurred prior to the opening of the second year of operation. The eight categories emphasized during the first year were incorporated into six basic units of six weeks duration each. In addition, each unit was composed of teachers with various specialty areas and team teaching was utilized in all units to enhance "hands-on" exploratory experiences.

In Unit I students were involved in appraising their individual interests, abilities, aptitudes, and skills as they explored a variety of vocational opportunities. Students developed occupational vocabularies, became acquainted with sources of information, became cognizant of a need for vocational planning, and acquired a limited knowledge of the American Economic System.

Unit II was devoted to industrial, trade, and craft occupations. Students became acquainted with a wide range of occupations within the cluster. Through the use of "hands-on" experiences, resource persons, and field trips, students learned about occupational settings, worker skills, and training needs and opportunities. The students reappraised their own interests, abilities, and potentials for industrial, trade and craft employment.

As students moved through Unit III which was devoted to consumer education they became acquainted with a wide range of occupations. Emphasis was placed on work, settings, opportunities, and worker skills. Training needs and opportunities were explored and students reappraised their interests, abilities, and potential for successful and satisfying employment within this area.

Unit IV was devoted to student explorations of public service occupations.

Unit V students explored production, distribution and management occupations. Both units' methods and procedures were similar to those in Units II and III.

The final unit (VI) was devoted to allowing students to evaluate their occupational exploratory experiences and plan ahead. Students placed emphasis upon educational planning as related to occupational exploration and/or choices. Personal development, independent study, methods of finding part-time employment, etc. were stressed.

Throughout the school year (1972) individual pre-tests and post-tests were developed for each of the aforementioned units. All students were rotated at six week intervals through the six units while the teachers remained at their respective stations. The progress of the student's awareness and the learning acquired from exploration of various jobs covered in each unit was measured by four separate pre-test and post-test instruments administered by teachers in units 2-5. (See Table XIV-e.) Since Unit I involved the students' introduction to occupational orientation and Unit 6 included their future plans, individual data was not included on these areas. An analysis of the

Table XIV-e

Increase In Students' Occupational Knowledge Over A Six-Week Period

Mean Scores	Total Possible Score	Increase in Mean Score	Percentage Increase
Industry and Related			
9.93 N=140			
13.0 N=140	20	3.07	30.92
Diversified Services			
8.54 N=260			
11.29 N=260	20	2.75	32.20
Public Service Occupations			
13.27 N=239			
15.76 N=239	20	2.49	18.76
Production, Distribution and Management			
12.18 N=255			
15.99 N=255	20	3.81	31.28

Key: Pre-Test
Post-Test

pre-test and post-test data for the four units (2-5) indicated that student gain was most evident in Unit III (Diversified Services) while the least gain was in Unit IV (Public Service Occupations). Validation of the testing instruments was not performed due to the limited time factors which were characteristic of the program.

At the beginning of the 1972 school year, a group of students were selected at random from the total population of the occupational orientation classes to serve as experimental subjects. A control group of students which did not receive occupational orientation training were also selected in random fashion from a neighboring school. The primary purpose of the study was to assess the achievement gains of students (experimental group) enrolled in occupational orientation classes versus students (control group) who were not enrolled in such classes.

At the end of the school year and after all students in the experimental group had been rotated through the six aforementioned units, a post-test utilizing standardized procedures was administered to both experimental and control groups. The results of this type of overall analysis (See Table XV-e) indicated that those students who participated in a one year course of occupational orientation exhibited a more thorough knowledge of the world of work than did the control group of students who received no training in occupational orientation. The experimental group also rated higher in such areas as social behavior and work attitudes than did the students in the control group.

Upon completion of an in-service workshop held during the summer, 1972, a questionnaire type instrument was administered to all participants. The purpose of such action was to assess each participant's opinion of the quality and usefulness of materials (curriculum guides) that were developed and refined during the workshop. As noted from the mean scores (See Table XVI-e) a majority of the participants rated each of the 15 statements above average. The assessment was by face validity evaluation of the materials as the data was gathered with the questionnaire prior to the materials being placed into actual classroom use.

Table XV-e

Overall Assessment of the Achievement of Students (Experimental Group) Receiving Training in Occupational Orientation as Compared to Students (Control Group) Not Receiving Such Training. (Post-test Only Control Group Design)

Group	Number in Group	Mean Score	% Difference
Experimental	250	67.82	46.96
Control	106	46.15	

Table XVI-e

Teacher Assessment of Materials Developed During Summer 1972 Workshop

Statements	(Rating 7 6 5 4 3 2 1) (Scale: High Average Low)	Mean Scores *
1.	Degree to which the materials developed in the workshop will help maximize or attain the instructional objectives of the career centered curriculum.	5.77
2.	Degree to which the materials developed in the workshop will make the students aware of the entire world of work.	5.46
3.	Degree to which the materials developed in the workshop will create and maintain interest of the student toward the world of work.	5.46
4.	Degree to which the materials developed in the workshop are relevant to the child's everyday world.	5.23
5.	Degree to which materials developed in the workshop can be adapted to solving student problems concerning careers.	5.46
6.	Degree to which the materials developed in the workshop will aid in developing decision making skills in each student.	5.69
7.	Degree to which the materials developed in the workshop are flexible enough for adaptation to group or class differences.	5.69
8.	Degree to which the materials developed in the workshop are flexible enough for adaptation to individual differences of students who are enrolled in the exemplary program.	5.69
9.	Degree to which the materials developed in the workshop can help students, teachers, and other interested persons better understand the barriers between the student and the work world.	5.50

10. Degree to which the materials developed in the workshop are detailed enough to provide students with an indepth study of an occupation from any of the clusters included in the career centered curriculum (if these materials are available). 5.50

11. Degree to which the materials developed in the workshop can serve as a basis from which students can make an occupational choice or objective. 5.83

12. Degree to which field trips and on-sight evaluations utilized in the workshop helped to outline the qualifications and/or specifications of jobs in local industries which provide careers for students. 5.46

13. Degree to which the materials developed in the workshop will familiarize the students with types of institutions or courses that can prepare them for the occupation they have chosen. 5.38

14. Degree to which the materials developed in the workshop will instill the need for continued education and/or upgrading of skills required in the occupations of today and the future. 5.75

15. Degree to which materials developed in the workshop outline the procedures for one to use when applying for, holding, and/or resigning from a job. 5.54

* (Note: "1" was the lowest rating possible, "4" was considered to be average and "7" denoted the highest rating possible.)

Several weeks prior to termination of the third year of operation, three highly correlated instruments were developed and administered to a randomly selected group of students, professional staff members and parents of students which participated in the Exemplary Project. The purpose of the study was to assess the attitudes and opinions of the three groups in reference to the overall career education program. The mean scores (See Table XVII-e) obtained from students, professional staff, and parents provided information on potential areas of difference between the three groups in reference to their attitudes towards the career concept. The following statements represent areas in which teachers', parents', and students' opinions and attitudes toward the overall career education concept differed noticeably:

Statement 2: Teachers and parents felt more strongly than students that career development was continuous through one's lifetime.

Statement 3: Teachers and parents felt more strongly than students that if the school curriculum were career oriented it would be relevant to more students.

Statement 12: Teachers felt more strongly than parents that learning experiences relating to careers were for those students who could not succeed in an academic program.

Statement 25: Teachers felt more strongly than parents that elementary school (grades 1-6) was too early for a student to start thinking about the world of work.

Statement 26: Parents and students felt more strongly than teachers that during the junior high school years children should be allowed to explore their various occupational interests.

Statement 27: Students felt more strongly than teachers or parents that career activities should be the starting point for instruction in school.

Statement 27: Parents and students felt more strongly than teachers that the major purpose of career education was to assist young people in evaluating their individual interests and abilities.

Table XVII-e

Assessment of School Personnel, Parents, and Student Attitudes and Opinions in Reference to the Overall Career Education Concept

Statements	*Mean Scores		
	School Personnel	Parents	Students
1. Choosing a career is one of the most important decisions a person makes during his lifetime.	4.77	4.80	4.67
2. Career development is a continuous process throughout the lifetime of an individual.	4.61	4.54	4.13
3. If the school curriculum were career oriented it would be relevant to more students.	4.39	4.51	3.85
4. A major purpose of education should be to help students develop sound career objectives.	3.96	4.48	4.14
5. Emphasis on jobs and work in the classroom may lead to a better quality educational program in our schools.	4.15	4.33	4.03
6. Instruction related to careers is as appropriate for males as for females.	3.94	3.72	3.58
7. Community residents are eager to visit the schools and discuss their jobs with students.	3.23	3.30	3.52
8. Local resource persons would make career related learning experiences more meaningful to the students.	4.14	4.04	4.05

Rating Scale: 5 (High) 4 3 (Avg.) 2 1 (Low)

Statements	Mean Scores		
	School Personnel	Parents	Students
9. The school curriculum should deal less with abstract ideas and more with people oriented problems.	4.00	4.16	3.91
10. Developing a positive attitude in students in reference to work should be a major concern of the schools.	4.24	4.43	4.25
11. School dropouts may be reduced through the introduction of career-related materials in the classroom.	4.19	4.14	3.95
12. Learning experiences relating to careers are for those students who can succeed in an academic program as well as in a vocational program.	3.70	3.30	N/A
13. Relating a student's learning experiences to the world of work should increase his motivation.	4.26	4.21	4.00
14. Career-related activities should be integrated into the regular school curriculum.	4.14	4.10	3.90
15. At present, students lack sufficient orientation pertaining to the world of work to make sound career choices.	3.45	3.15	N/A
16. In the elementary grades (1-6) children should be made aware of the various occupations within our society.	4.00	4.00	3.92

Statements	Mean Scores		
	School Personnel	Parents	Students
17. The elementary school curriculum should be concerned with helping each student develop a positive self-image.	4.33	4.31	N/A
18. The elementary school curriculum should enhance the social skills of the students.	4.23	4.10	N/A
19. At the elementary level, career-related instruction should utilize jobs of the family, community, state, nation, and the world.	3.94	3.71	N/A
20. Knowledge of various careers can be enhanced through occupational role playing by the students.	4.10	4.00	3.91
21. Elementary schools should have workmen representing various levels of occupations visit the school and explain to the students their jobs and contributions to society.	3.95	4.02	N/A
22. Elementary schools would be improved if the curriculum were centered around the world of work.	3.32	3.56	N/A
23. Good attitudes toward work can be developed more readily in elementary students.	3.87	3.96	N/A
24. Career-related activities are excellent for developing individual capabilities of young students.	4.04	4.08	3.96

Statements	Mean Scores		
	School Personnel	Parents	Students
25. Elementary school (grades 1-6) is approximately the right age level for a student to start thinking about the world of work.	3.71	3.32	3.49
26. During the junior high school years, children should be allowed to explore their various occupational interests.	3.23	4.35	4.08
27. Career activities should be the starting point for instruction in school.	3.11	3.38	3.77
28. The major purpose of career exploration is to assist young people in evaluating their individual interests and ability.	3.12	4.14	4.01
29. The transfer of learning from the abstract to the practical is enhanced through career exploration.	3.18	3.74	N/A
30. A major source of career information should be the classroom teacher.	3.49	3.54	3.80
31. Students should be familiar with the present economic system and its implications within the world of work.	4.23	4.16	4.10
32. Simple job activities or procedures (hands-on experiences) are essential to career learning experiences.	4.00	4.14	4.07
33. Both academically and vocationally oriented students should begin preparation for their careers in high school.	4.23	4.36	4.15

Statements	Mean Scores		
	School Personnel	Parents	Students
34. Learning experiences for each student should be related to his or her career plans.	3.85	4.00	4.13
35. Once a student makes a realistic career decision, he should be encouraged to pursue it.	4.15	4.22	4.00
36. Supervised work experience should be an integral part of a school curriculum.	3.91	4.16	3.96
37. Students who excel in social studies should be informed of jobs that are related to this field.	4.08	4.07	3.90
38. The relationship of mathematics to various occupations should be taught in all mathematics courses.	4.24	4.26	3.71
39. Interest in an English class could be stimulated by visits of a newspaper editor.	4.17	3.84	3.81
40. Courses such as physical education and music will be more effective if career-related activities are fused into them.	3.78	3.73	3.52
41. Upon graduation, few high school students have made definite career choices.	3.87	3.94	N/A
42. A center with materials providing detailed career information should be available for all students.	4.41	4.42	4.24
43. A placement system should be an integral part of any school program.	3.97	3.89	4.98

Statements		Mean Scores		
		School Personnel	Parents	Students
44.	Follow-up studies of former students should be performed on an annual basis.	3.78	3.69	N/A
45.	A person does not need a college degree to become a success in life.	4.49	3.96	3.82
	Total	177.95	180.26	135.31
	Mean	3.95	4.01	3.98

*Note: "1" was the lowest rating possible, "3" was considered to be average, and "5" denoted the highest rating possible.

Statement 29: Parents felt more strongly than teachers that the transfer of learning from the abstract to the practical could be enhanced through career exploration.

Statement 38: Parents and teachers felt more strongly than students that the relationship of mathematics to various occupations should be taught in all mathematics courses.

Statement 45: Teachers felt more strongly than parents and students that a person does not need a college degree to become a success in life.

As noted from the mean scores obtained for each of the 45 statements, all three groups had a positive attitude towards the career concept as all scores were above average. Grand mean scores (column) indicated that the most positive attitudes towards career education were exhibited by parents, students and teachers respectively.

Preparation (High School)

The Mississippi Education Finance Commission listed 8,079 students enrolled in the Jones County School System as of September 30, 1972. Elementary enrollments accounted for 4,153 students or 51% of the total enrollment while high school enrollments accounted for 3,926 students or 49% of the enrollment.

The Jones County Exemplary Project staff reported a total of 2,688 secondary students, which represented 68% of the total high school enrollment, being directly involved in vocational education during the 1972-73 school session. Of this 2,688 students, 1,088 or 40% of the students were listed as pre-vocational as they were in the junior high grades while 1,605 or 60% of the students were listed as regular vocational students in grades 9-12. Pre-vocational courses included: Occupational Orientation and Homemaking Remedial Courses were also offered to those needing assistance in pre-vocational courses. Regular vocational courses were divided between each respective high school and the vocational complex. The high schools offered Homemaking, Vocational Agriculture, and Remedial Courses, as part of the regular curriculum while the vocational complex offered Drafting, Building Trades, Electricity, Metal Trades, Business and Office, and Auto Mechanics as well as Remedial Courses. Areas of highest student enrollment were Homemaking and Vocational Agriculture whereas Business and Office and Drafting reflected the lowest student enrollment.

An Occupational Guidance and Placement Service was operational the second and third years of the project, however, a lack of records, follow-up data and other information made placement activities difficult to report for the program.

6. Evaluation objective: To establish the necessary relationships and rapport with local residents, businesses, and industries for providing understanding and acceptance of the career education concept utilized in the schools and to provide students with insights to realistic career-related experiences.

Data obtained from exemplary project reports indicated that during the first and second year of operation, limited success was evident in establishing the desired line of communications from the school to community residents, businesses and industries in reference to the career concept being implemented in the schools. Various efforts continued during the third year to establish a better relationship as project staff members served as speakers to civic clubs, conducted public tours of various career programs, sponsored field trips to local businesses and industry and promoted the career concept via limited radio and news releases. Community acceptance of the career concept was assessed prior to the end of the third year of operation. (See Table XVIII-e.) Resulting scores and data obtained from the assessment instruments suggested that students felt better informed about the career concept than did the teachers or parents. Students rated 12 of the 15 statements average or above while teachers rated only 1 of 15 statements average or above and parents rated all statements below average. In general, progress in the area of public relations was slow and the overall public relations program appeared not to have reached its optimum objective.

Table XVIII-e

Assessment of School Personnel, Parents, and Students Attitudes and Opinions in Reference to the Adequacy of Public Relations and News Dissemination Efforts by Staff Members of the Jones County Exemplary Project

Statements	*Mean Scores		
	School Personnel	Parents	Students
1. Degree to which you have heard or have been informed about the career-centered program for Jones County schools.	3.06	2.68	4.43
2. Degree to which you were provided information concerning the career program by the school administration (supt., principal, etc.).	2.64	1.84	3.24
3. Degree to which you were provided information concerning the career program by other teacher(s).	2.66	1.77	4.10
4. Degree to which you were provided information concerning the career program by the guidance counselor.	2.23	1.21	2.91
5. Degree to which you were provided information concerning the career program by career education project personnel.	2.65	1.37	3.33
6. Degree to which you were provided information by students concerning the career education program in Jones County.	2.48	2.42	3.04

Rating Scale: _5_ _4_ _3_ _2_ _1_
High Average Low

Statements	Mean Scores		
	School Personnel	Parents	Students
7. Degree to which you were provided information by the local newspapers concerning the career education program in Jones County.	2.28	1.96	1.98
8. Degree to which you were provided information by local radio stations concerning the career education program in Jones County.	1.66	1.53	1.92
9. Degree to which you were provided information by local TV stations concerning the career education program in Jones County.	1.49	1.46	1.98
10. Degree to which you were provided information concerning the career education program by neighbors or friends who know about the program.	1.74	1.51	2.42
11. Degree to which the information you received explained the career education concept.	2.83	2.11	3.49
12. Degree to which the information you received explained the purposes of the career program.	2.80	2.26	3.69
13. Degree to which the information you received explained the duties and responsibilities of career project personnel.	2.47	1.92	3.14

Statements	Mean Scores		
	School Personnel	Parents	Students
14. Degree to which the information you received explained the activities students would be exposed to or participate in.	2.72	2.35	3.57
15. Degree to which you understand why the career program was implemented in the Jones County Schools.	2.98	2.46	3.57
Total	36.69	28.85	46.81
Mean	2.45	1.92	3.12

*Note: "1" was the lowest rating possible, "3" was average, and "5" denoted the highest rating possible.

7. Evaluation objective: To provide intensive and short-term entry level skill training immediately prior to exit from the school, for those students who have not been previously enrolled in one of the regular vocational programs.

Short-term entry level skill training was implemented prior to the opening of the second year of the Jones County project. The skill training was designed for students who were not previously enrolled in vocational courses, for potential dropouts, for high school students near graduation and without salable skills and for students who had dropped out previously and wished to return to learn a trade. Many problems were encountered as too few of the short-term students selected the same skill areas. Open-ended classes were initiated and the short-term students were allowed to attend vocational classes with regular students. A total of 34 students completed various skill level training programs by the end of the second year. The program was continued throughout the third year, with enrollment in this phase of the program remaining approximately the same.

8. Evaluation objective: To establish an intensive program of guidance-counseling-placement, relating to activities in Objective 1, and including activities which will assure adequate post-training work adjustment for each student.

The guidance-counseling-placement phase of the program apparently operated successfully during the second year of the project. During the third year group guidance and individual counseling sessions were commonplace while remedial programs reported significant student gains in reading and mathematics. Vocational offerings were the same for the second and third year, while student placement records were not kept as effectively during the final year of operation. The most observable change the third year of operation was the action of having counselors serve as coordinators between the teachers and the administration. In general, most of the activities in progress the second year were continued into the third year with certain refinements being made that were designed to eliminate many of the previous problems encountered.

IV. CONCLUSIONS

The evaluation section of the Final Report for the Jones County Exemplary Project involved both a product and process type of evaluation performed over a three year period. The product evaluation was designed to indicate how effective the program actually was while the process evaluation was designed to point out areas of concern for program re-direction and/or change. The purpose of such an evaluation was for total improvement of program operation and effectiveness.

The following statements are based on the eight afore-mentioned objectives and the degree to which the exemplary program accomplished each of them.

* The administrative organization experienced limited administrative changes at the elementary levels during the first year of the program. In addition, many administrative problems arose due to the late implementation of the project. These included: developing and writing reports, ordering supplies and equipment, planning in-service training and securing qualified project personnel. The second and third years of operation reflected many changes which resulted in a more systematized and effective program through refinement of administrative procedures and problem solving techniques developed during the first year of operation. In general, one may conclude that the administrative structure appeared to be efficient and effective throughout the duration of the program.

* The quality of facilities utilized in housing the Exemplary Project's materials, equipment, and professional staff varied from fair to ultra-modern as one traveled from school to school. The administrative staff was centrally located along with selected supplies and equipment in the ultra-modern vocational complex. The guidance counselor in each school was provided a private office which in most instances, was centrally located. Occupational orientation teachers at the elementary, junior high and high school levels were housed in a traditional type classroom which also contained many of the supplies and other materials used in the career education program. Regular visits to the local schools by the evaluation team resulted in each team member concurring that facilities provided for the Jones County Exemplary Project were above average.

* Supplies and equipment were generally in short supply during the first several months of operation due to the late implementation of the project, however budgetary records indicated that most of the supplies and equipment had been received by the end of the first year as approximately 75% of the funds budgeted for those items during the 3-year period were expended at that time. A large bulk of the supplies and equipment were distributed according

to enrollments in the local schools while many of the larger and more expensive items were located in the storage facility of the vocational complex and rotated in the various schools. Equipment inventories were provided to each school and all teachers travel was reimbursed when they visited the complex to select items not available from their local school's supplies. Supply and equipment check-out cards indicated that a majority of the teachers were using the supplies and equipment on a daily basis throughout the school year. Few complaints were noted from teachers or local administrators, thus it was appropriate to assume that supplies and equipment were adequate in both quantity and availability.

* Recruiting and maintaining an adequately trained staff was a concern though not a major problem throughout the duration of the project. A Cooperative Education Coordinator position went unfilled the first year and competent teachers for several other positions were difficult to obtain. A loss of six staff members was noted at the end of the second year. Three of the vacant positions were filled with experienced teachers and three were filled by first year teachers. All teachers possessed a valid Class "A" teaching certificate and all were certified in the areas to which they were assigned.

* The career concept was fused into the on-going instruction in all grades (1-12) with the most apparent success being observed at the elementary and junior high levels. Curriculum guides were developed for each grade level and subject area in order to facilitate fusion of the career concept into the general classroom instructions. All teachers and administrators were provided with in-service training programs which were designed to: familiarize them with the career concept; help develop more effective classroom utilization of teaching aids; help teachers in requisitioning supplies and equipment; help teachers in the preparation of curriculum guides for their respective grade or subject areas.

  Pre and posttests were given to an experimental and a control group of randomly selected students prior to the introduction of the career concept into the classroom. Later posttest results obtained from the same groups indicated a sizeable gain in the students' knowledge of career education. Standardized testing procedures and acceptable research methods were adhered to, thus the scores obtained in the experiment, when compared to other evaluative data, suggested that the curriculum, as utilized, was an effective one.

* Efforts to establish suitable lines of communications between various schools and communities were not fully adequate during the first and second years of operation. A concentrated effort was made during the third year, however assessment data at the end of the year revealed that parents of students enrolled in the

program still rated their knowledge of the program as below average on a 5 point rating scale. Such findings suggested that the overall public relations program was not totally effective.

* A limited number of short-term entry level skills designed for dropouts, potential dropouts, and other students without salable skills were implemented the second year of the program. A total of 34 students registered for the different skill areas. Such small numbers in each skill area would have created financial and personnel problems which were alleviated by making regular vocational classes open-ended. This action allowed the short-term students the privilege of attending classes as long as they wished. The program continued into the third year and was considered adequate for the rather small number that enrolled to avail themselves of the opportunity to gain special skills.

* Guidance and counseling programs were intensive throughout the duration of the project. Student placement was least effective the first year. Counselor's duties increased the third year as they were assigned to serve as coordinators between administrators and teachers. In conclusion, guidance-counselor-placement programs, when considered over a three year period, were adequate, however certain activities designed to assure satisfactory post-training work adjustment appeared to be limited the third year.

V. SUMMARY

The goal of the Jones County Exemplary Project was to establish structural classroom relationships between the ongoing instruction and the world of work. Elementary grades 1-6 were designated as the awareness phase while the junior high and high school grades were designated as the occupational orientation and preparation phases respectively. The awareness phase provided elementary students with an opportunity to receive and utilize career information, counseling, field trips and resource persons as a part of their classroom instruction. The occupational orientation phase was structured so that junior high students would explore various career clusters by rotating through them on a six-week basis. High school students received special assistance in the preparation phase where planning vocations and attaining vocational goals became a reality due to a large variety of vocational offerings.

Progress made by the Exemplary Project during the third year was assessed through utilization of the program's eight educational objectives as standards by which to compare what was proposed in the project to what was actually produced. The objectives covered such topics as administrative organization, adequacy of facilities, adequacy of supplies and equipment, recruiting and maintaining a trained staff, career concept infusion, public relations, short-term entry level skills, and guidance-counseling-placement services.

The evaluation team reported that most of the findings, in reference to how well the objectives had been carried out, were satisfactory. Several areas of limited success noted the third year were public relations, short-term skill development and student placement. Evaluation procedures differed the first year as compared to the second and third years. The evaluation teams were concerned only with a process evaluation the first year whereas both a process and product evaluation was performed the second and third years.

Six comprehensive and well-planned assessments were made prior to the end of the third year. Data was obtained in reference to: the value of inservice workshops; students' knowledge of various career areas; students' knowledge of the overall career concept; the value of teacher prepared curriculum guides; teacher, parent, and student attitudes towards careers in general; and the effectiveness of a public relations program.

Data obtained from assessment instruments administered to participants in an inservice workshop devoted to problems in career education indicated that such workshops provided answers to many of their current problems. Informal meetings later in the school year verified that the workshop was an invaluable tool in promoting the career concept in the regular classroom.

Student knowledge of various occupational areas was measured by a series of pretests, administered prior to entrance into the units and by posttests administered upon termination of each unit. Four units utilized the testing procedures and these included Industry and Related Areas, Diversified Services, Production, Distribution and Management. A lesser gain was noted for Public Services, however this gain was still above local expectations.

A posttest control group experimental design was used to help differentiate between the overall achievement gains of an experimental group of students that had completed six units of occupational orientation training and a control group which did not receive the training. Resulting data analysis revealed that the experimental group demonstrated a 46.96% gain over the control group in reference to their knowledge of the overall career concept.

An assessment of the value of teacher prepared materials (curriculum guides) developed in an inservice workshop revealed a high degree of teacher satisfaction with the face validity of the materials. Later classroom use of the curriculum guides supported the attitudes expressed by the teachers.

Teacher, parent, and student attitudes and opinions were assessed in reference to their knowledge of the overall career concept. An analysis obtained for the three groups indicated that all three groups had a better than average understanding of the career concept, however, students and parents scored slightly higher than teachers.

The effectiveness of a public relations program for career education was determined by administering a questionnaire type instrument to teachers, students and parents of students involved in the career program. Parental and teacher scores suggested that public relations efforts were less than expected, however students rated the public relations efforts above average.

Several recommendations were made by the evaluation team at the end of the second year of operation. A vast majority of the recommendations were carried out, however such recommendations as: make feasibility studies for the addition of new and needed vocational courses; broaden and improve short-term skill development classes; provide better student placement services; and develop plans for continuing the program beyond the third year were not fully implemented.

It was concluded that significant progress was made during the duration of the project in meeting its stated objectives. Progress was made in assisting students in developing psychological and occupational skills which may serve as a base for continuous growth and advancement in chosen careers. Specific conclusions evolving over the three year period are discussed in the following:

* The administrative organization experienced limited administrative changes at the elementary levels during the first year of the program. In addition many administrative problems arose due to the late implementation of the project. These included such problems as developing and writing reports, ordering supplies and equipment, planning inservice training and securing qualified staff members. The second and third year of operation reflected many changes which resulted in a more systematized and effective program through refinement of administrative procedures and problem solving techniques developed during the first year of operation. In general, one may conclude that the administrative structure appeared to be efficient and effective throughout the duration of the program.

* The quality of facilities utilized in housing the Exemplary Project's materials, equipment, and professional staff varied from fair to ultra-modern as one traveled from school to school. The administrative staff was centrally located along with selected supplies and equipment in the ultra-modern vocational complex. The guidance counselor in each school was provided a private office which in most instances, was centrally located. Occupational orientation teachers at the elementary, junior high and high school levels were housed in a traditional type classroom which also contained many of the supplies and other materials used in the career education program. Regular visits to the local schools by the evaluation team resulted in each team member concurring that facilities provided for the Jones County Exemplary Project were above average.

* Supplies and equipment were generally in short supply during the first several months of operation due to the late implementation of the project, however budgetary records indicated that most of the supplies and equipment had been received by the end of the first year as approximately 75% of the funds budgeted for those items during the 3-year period were expended at that time. A large bulk of the supplies and equipment were distributed according to enrollments in the local schools while many of the larger and more expensive items were located in the storage facility of the vocational complex and rotated in the various schools. Equipment inventories were provided to each school and all teachers were reimbursed when they visited the complex to select items not available to them from the local school supplies. Supply and equipment check-out cards indicated that a majority of the teachers were using the supplies and equipment on a daily basis throughout the school year. Few complaints were noted from teachers or local administrators, thus it was appropriate to assume that supplies and equipment were adequate in both quantity and availability.

* Recruiting and maintaining an adequately trained staff was a concern though not a major problem throughout the duration of the project. A Cooperative Education Coordinator position went

unfilled the first year and competent teachers for several other positions were difficult to obtain. A loss of six staff members was noted at the end of the second year. Three of the vacant positions were filled with experienced teachers and three were filled by first year teachers. All teachers possessed a valid Class "A" teaching certificate and all were certified in the areas to which they were assigned.

* The career concept was fused into the on-going instruction in all grades (1-12) with the most apparent success being observed at the elementary and junior high levels. Curriculum guides were developed for each grade level and subject area in order to facilitate fusion of the career concept into the general classroom instructions. All teachers and administrators were provided with in-service training programs which were designed to: familiarize them with the career concept; help develop more effective classroom utilization of teaching aids; help teachers in requisitioning supplies and equipment; help teachers in the preparation of curriculum guides for their respective grade or subject areas.

  Pre and posttests were given to an experimental and a control group of randomly selected students prior to the introduction of the career concept into the classroom. Later post-test results obtained from the same groups indicated a sizeable gain in the students' knowledge of career education. Standardized testing procedures and acceptable research methods were adhered to, thus the scores obtained in the experiment, when compared to other evaluative data, suggested that the curriculum, as utilized, was an effective one.

* Efforts to establish suitable lines of communications between various schools and communities were not adequate during the first and second years of operation. A concentrated effort was made during the third year, however assessment data at the end of the year revealed that parents of students enrolled in the program still rated their knowledge of the program as below average on a 5 point rating scale. Such findings suggested that the overall public realtions program was not totally effective.

* A limited number of short-term entry level skills designed for dropouts, potential dropouts, and other students without salable skills were implemented the second year of the program. A total of 34 students registered for the different skill areas. Such small numbers in each skill area would have created financial and personnel problems which were alleviated by making regular vocational classes open-ended. This action allowed the short-term students the privilege of attending classes as long as they wished. The program continued into the third year and was considered adequate for the rather small number that enrolled to avail themselves of the opportunity to gain special skills.

* Guidance and counseling programs were intensive throughout the duration of the project. Student placement was least effective the first year. Counselor's duties increased the third year as they were assigned to serve as coordinators between administrators and teachers. In conclusion, guidance-counselor-placement programs, when considered over a three year period, were adequate, however certain activities designed to assure satisfactory post-training work adjustment appeared to be limited the third year.

VI. CONCLUSIONS AND RECOMMENDATIONS

By the end of the first year of the project's operation many insights into the operational feasibility of the career-centered concept had been gained. Sufficient information was produced by the project to provide a basis for a conclusion that the career-centered concept could be an important component in any school system for enhancing students' entry into and success in the world of work. It was further concluded that the apparently most successful components of the project should be implemented (in some form) into other selected schools within the State during the following school year.

It was concluded that important progress was made by the project during the year in assisting students in developing skills which would enable them to adjust to changes within the world of work. In addition, progress was made in assisting students in developing psychological and occupational skills which may serve as a base for continuous growth and advancement in chosen careers.

Satisfactory progress toward meeting the project objectives was determined in all but two areas during the first year. The implementation of the elementary component (that of relating occupational instruction and counseling to elementary students) was very effective even though implemented during the latter part of the school year on a somewhat limited basis. Progress was made in the establishment of an intensive program of occupational guidance and counseling and in the implementation of occupational orientation courses in the school system. Initial progress was made in providing work experiences for students in local businesses and industries. Two phases of the program objectives made only limited progress during the year. These were: the providing of intensive occupational training for those students about to leave school without salable skills and the providing of adequate placement services.

Recommendations resulting from the first year of project's operation are as follows:

* The career-centered curriculum should be extended to other school systems in the State on a demonstration basis.

* Funding should be continued for the second year of operation.

* Consumer education classes in the project should be incorporated into the occupational orientation classes.

* Occupational orientation classes should be rotated between teachers with specific specialty areas to increase the exploratory experiences of the students.

* Additional "hands-on" occupational experiences should be provided for occupational orientation students.

* Further development of career-centered media centers should continue in all attendance centers.

* Additional student recruitment activities for cooperative education be conducted.

* Continuation of the intensive inservice program for the project staff.

* Additional curriculum materials development should be undertaken.

* Curriculum guides for all phases of the program should be developed and distributed.

* A placement center to aid students in obtaining employment should be established.

* An intensive skill training program for students about to leave school without salable skills should be inaugurated.

* Continuation of public relations activities connected with the project.

By the end of the second year of the project's operation, additional insights into the operational facet of the career-centered concept had been gained. Information provided by the first and second year of operation provided for a smooth implementation of the career-centered concept in four additional school systems in the State. The most successful components of the project enhanced the immediate accomplishment of objectives established by the other school systems.

It was concluded that important progress was made by the project during the year in assisting students in developing skills which would enable them to adjust to changes within the world of work. In addition, progress was made in assisting students in developing psychological and occupational skills which may serve as a base for continuous growth and advancement in chosen careers.

Satisfactory progress was made during the second year of operation toward meeting the project's objectives. Two objectives, (1) implementation of short-term intensive skill training for students about to leave school without salable skills and (2) establishment of placement offices, which had not been implemented during the first year of operation were implemented during the second year. All phases of the project are in operation and making satisfactory progress toward fusing the career-centered concept into the school system.

Recommendations resulting from the second year's evaluation activities are as follows:

* Funding should be continued for the third year of operation.

* Continued emphasis should be placed on providing remedial education classes for all students needing this service.

* Continued emphasis should be given to making the project an integral part of the ongoing school system's activities.

* Curriculum guides (grades 1-12) should be refined and printed in sufficient quantities to provide copies for other school systems.

* Additional student recruitment activities for all vocational courses should be conducted.

* A feasibility study on providing additional vocational offerings for the school districts should be conducted.

* Continued emphasis should be placed on providing short-term intensive skill training for dropout-prone students.

* Placement services should be continued and expanded.

* Public relations activities connected with the program should be continued.

* Intensive inservice training for project personnel should be continued.

* Plans should be finalized for the continuation of the program as Exemplary Funds are phased out.

Some general conclusions evolving of the three year duration of the project are as follows:

* The second and third year of operation reflected many changes which resulted in a more systematized and effective program through refinement of administrative procedures and problem solving techniques developed during the first year of operation. In general, one may conclude that the administrative structure appeared to be efficient and effective throughout the duration of the program.

* The quality of facilities utilzed in housing the Exemplary Project's materials, equipment, and professional staff varied from fair to ultra-modern. It was concluded that facilities provided for the Jones County Exemplary Project were above average.

* Recruiting and maintaining an adequately trained staff was a concern though not a major problem throughout the duration of the project. All teachers possessed a valid Class "A" teaching certificate and all were certified in the areas to which they were assigned in the project.

* The career concept was fused into the on-going instruction in all grades (1-12) with the most apparent success being observed at the elementary and junior high levels.

* Efforts to establish suitable lines of communications between various schools and communities were not completely adequate during the operation of the project. Public relations activities were not as effective as planned.

* The short-term entry level skills program designed for dropouts, potential dropouts, and other students without salable skills was successful even though only relatively small numbers of students participated.

* Guidance and counseling programs were intensive throughout the duration of the project. Student placement was least effective of the guidance component. In conclusion, guidance-counselor-placement programs, when considered over a three year period, were adequate, however certain activities designed to assure satisfactory post-training work adjustment appeared to be limited the third year.

APPENDIX A

BIBLIOGRAPHY

Boykin, William C. Occupational and Educational Orientations of Negro Male High School Seniors in the Mississippi Delta (Final report of USDHEW Office of Education Grant No. OEG-4-8-070065-0004-057, Project No. 7-D-065, Alcorn Agricultural and Mechanical College, Lorman, Mississippi, September, 1968).

Campbell, Robert E., "Vocational Guidance in Secondary Education: Selected Findings of a National Survey Which Have Implications for State Program Development." Paper presented at the National Conference on Vocational Guidance: Development of State Programs, U. S. Office of Education, Washington, D.C., January 16-18, 1968.

Grant, Vance W., "Statistic of the Month," American Education, July-August 1965, Back cover.

Havighurst, Robert J. "Youth in Exploration and Man Emergent," Man in a World at Work. (Henry Borow, Ed.) Boston: Houghton-Mifflin Co., 1964. Chapter 10, pp. 215-236.

Roe, Anne. The Psychology of Occupations. New York: John Wiley and Sons, Inc., August, 1965.

Shill, James F. "Educational and Occupational Aspirations, Expectations, and Abilities of Rural Male High School Seniors in Mississippi," (unpublished doctoral dissertation at Louisiana State University, Baton Rouge, January, 1968-A.)

Shill, James F. Educational Aspirations, Expectations, and Abilities of Rural Male High School Seniors in Mississippi. (Report 24, Education Series 4, Social Science Research Center, Mississippi State University, May, 1968-B.)

Shill, James F. Careers of Rural Male High School Seniors in Mississippi: A Study of Occupational Interests, Aspirations, and Expectations. (Report 26, Education Series 5, Social Science Research Center, Mississippi State University, October, 1968-C).

Slocum, Walter L. and Bowles, Roy T. Educational and Occupational Aspirations and Expectations of High School Juniors and Seniors in the State of Washington. Vocational-Technical Research and Development Project No. 1. Pullman, Washington: Washington State University, 1967.

ACCESSION NUMBER: VT102122

TITLE: A SUMMARY OF THE PROCESS EVALUATION AND THE EVALUATION OF THE EFFECTS OF THE IMPLEMENTATION OF THE OCCUPATIONAL AWARENESS PROGRAM DURING THE 1972-73 SCHOOL YEAR.

DESCRIPTOR: *PROGRAM EVALUATION; CAREER AWARENESS; COMPARATIVE ANALYSIS

IDENTIFIER: HOUSTON; TEXAS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 90P.

ABSTRACT: THE RESEARCH HYPOTHESIS WAS THAT THE 36 EXPERIMENTAL SCHOOLS IN WHICH THE OCCUPATIONAL AWARENESS PROGRAM WAS IMPLEMENTED WOULD HAVE A SIGNIFICANT DIFFERENCE BETWEEN THE PRETESTING AND POSTTESTING AS MEASURED BY THE HOUSTON OCCUPATIONAL AWARENESS INVENTORY. THE EXPERIMENTAL RESULTS DID NOT SUPPORT THE RESEARCH HYPOTHESIS. THE PROCESS EVALUATION DATA REFLECTED AN EVOLVING AND DEVELOPING OCCUPATIONAL AWARENESS PROGRAM. WHAT WERE NEEDS AND CONCERNS DURING THE INITIATION OF THE PROGRAM GAVE WAY TO THOSE OF MAINTAINING THE THEN ONGOING PROGRAM AT AN INCREASINGLY HIGHER LEVEL OF IMPLEMENTATION. A SMALL NUMBER OF TEACHERS WERE HIGHLY RESISTANT TO IMPLEMENTATION, AND PROBABLY ACCOUNT FOR FAILURE, OVERALL, TO ACHIEVE COMPLETE IMPLEMENTATION. (AUTHOR/VA)

INSTITUTION NAME: HOUSTON INDEPENDENT SCHOOL DISTRICT, TEX. RESEARCH SERVICES.

VT 102 122

A SUMMARY OF THE PROCESS EVALUATION

AND THE EVALUATION OF THE EFFECTS OF THE IMPLEMENTATION

OF THE

OCCUPATIONAL AWARENESS PROGRAM

During the 1972-73 School Year

RESEARCH SERVICES

Houston Independent School District
3830 Richmond Avenue
Houston, Texas 77027

VT 102 122

CONTENTS

	Page
List of Tables	i,ii
Abstract	1
Overview of Evaluation	2
Program Description	2
Personnel	3
Process Evaluation	4
Objectives	4
Procedures	4
Results	6
Evaluation of Effects (Product Evaluation)	11
Problem	11
Subjects	11
Procedures	11
Results	12
Conclusions	22
Summary and Recommendations	28
Appendix A	31
Appendix B	39

TABLES

		Page
TABLE I	Occupational Awareness Schools Ranked by Level of Implementation December, 1972 (Low to High)	7
TABLE II	Occupational Awareness Schools Ranked by Level of Implementation May, 1973 (Low to High)	8
TABLE III	Comparison Between the Adjusted Group Means (Controlling for Pretest Differences) in Performance on the HOAI for the Experimental and Control Groups of Kindergarten Subjects	14
TABLE IV	Comparison Between the Adjusted Group Means (Controlling for Pretest Differences) in Performance on the HOAI for the Experimental and Control Groups of First Grade Subjects	15
TABLE V	Comparisons Between the Pretest-Posttest Mean Differences in Performance on the HOAI for the Experimental and Control Groups of Second Grade Subjects	16
TABLE VI	Comparisons Between the Pretest-Posttest Mean Differences in Performance on the HOAI for the Experimental and Control Groups of Third Grade Subjects	17
TABLE VII	Comparison Between the Adjusted Group Means (Controlling for Pretest Differences) in Performance on the HOAI for the Experimental and Control Groups of Fourth Grade Subjects	18
TABLE VIII	Comparisons Between the Pretest-Posttest Mean Differences in Performance on the HOAI for the Experimental and Control Groups of Fifth Grade Subjects	19
TABLE IX	Comparisons Between the Pretest-Posttest Mean Differences in Performance on the HOAI for the Experimental and Control Groups of Sixth Grade Subjects	20
TABLE X	A Nonstatistical Summary of Tables III Through IX Comparing the Adjusted Group Means or Pretest-Posttest Mean Differences in Performance on the HOAI for the Experimental and Control Groups of Grades K Through 6	21

TABLES

		Page
TABLE XI	Means Derived from the Normative Data and Means That Would be Expected by Chance on the Primary and Intermediate Levels of the HOAI for Grades K Through 6	25
TABLE XII	Pearson Product-Moment (Test-Retest) Reliability Correlation Coefficients for the Primary and Intermediate Levels of the HOAI	27
TABLE XIII	The Total Variance for Each Score Partitioned Into True Variance and Error Variance for the Primary and Intermediate Levels of the HOAI	27

A Summary of the Process Evaluation
and the Evaluation of the Effects of the Implementation
of the
OCCUPATIONAL AWARENESS PROGRAM
During the 1972-73 School Year

ABSTRACT

The research hypothesis was that the 36 experimental schools in which the Occupational Awareness Program was implemented would have a significant difference between the pretesting and posttesting as measured by the Houston Occupational Awareness Inventory (HOAI). The experimental design used was a pretest-posttest experimental group-control group design. The experimental results did not support the research hypothesis. However, there were several plausible explanations and methodological considerations in the experimental design and analysis that were addressed:

I. Intra session history effects,

II. Prior multiple-treatment interference, and

III. Error variance in the measuring instrument itself.

The process evaluation data reflected an evolving and developing Occupational Awareness Program. What were needs and concerns during the initiation of the program gave way to those of maintaining the then ongoing program at an increasingly higher level of implementation. A small number of teachers, however, were highly resistant to implementation, and probably account for a failure, overall, to achieve complete implementation. The most consistent concerns of teachers were in terms of the supplying and appropriateness of materials.

OVERVIEW OF EVALUATION

Evaluation relevant to Occupational Awareness (O.A.) was twofold: process evaluation and evaluation of effects (product evaluation). Process evaluation was designed to aid the management personnel implementing the program in detecting, during the ongoing implementation process, the strengths and weaknesses of the overall programmatical effort. The strengths and weaknesses were expressed in terms of the concerns and needs of the program by field personnel. The process evaluation, therefore, provided feedback, monitoring, and quality control data for the implementation process.

Evaluation of effects (product evaluation) was used to assess the overall effectiveness of the program. The paradigm was a pretest-posttest experimental group-control group design.

Program Description

Occupational Awareness (O.A.) is a career education program designed to promote interest in, and an awareness of the world of work among elementary age children. The program is not designed to be used as a separate entity, but interfaced with all subject areas. Activity inserts (Appendix A, for example) were prepared and integrated into the Social Studies Curriculum Guides to make implementation easier and more effective.

Personnel

The staff members who have had responsibility for the Occupational Awareness Program are as follows:

1) A Project Director devoted 10% of his time to the management of this program. No grant money was applied to his salary.
2) An Occupational Awareness Supervisor headed the elementary school component of the program and directed the activities of the Occupational Awareness consultants.
3) Fourteen Occupational Awareness Consultants were responsible for developing Occupational Awareness materials and relaying them to the 36 program schools.
4) A Research Associate coordinated the research component of the proposal. Monitoring and test data were used by the Research Associate as the basis for periodic program reports.
5) A Data Analyst prepared the data for the computer and made the analyses necessary for evaluation of the program.
6) Two Program Monitors collected data from the 36 program schools in order to provide knowledge of implementation variation.
7) A Project Coordinator was the overall coordinator of all phases of the Career Development Program. He spent 50% of his time with this project. No part of the grant was used for his salary.
8) The Program Evaluator and Analysis Officer directed the evaluation and research component of the project. No grant money was used for his salary.

PROCESS EVALUATION

In order to obtain systematic process data concerning the level and quality of program implementation, monitors visited and observed each of the 36 program schools at regular intervals throughout the school year.

Objectives

The objective of the observation technique was to provide management personnel with feedback data from each of the experimental schools. The following areas of concern were relevant to the kinds of information needed by the personnel implementing the program:

1. The degree of O.A. implementation at the classroom, resource center, and administrative level in each school.
2. The discovery of obstacles to O.A.'s systematic implementation.
3. The attitudes, needs, and problems existing within each building.
4. Successful materials, procedures, and activities.

Procedures

Monitors were trained in non-supervisory, observational techniques. Inter-rater reliability (between .95 and .99) was established during this training and maintained throughout the evaluation. The monitors, using a standardized format (list A, page 5), gathered numerical and anecdotal information relative to the declared objectives. Regular monthly reports were made by the monitors through the Research Officer to the Superintendent of Occupational and Continuing Education.

LIST A

OCCUPATIONAL AWARENESS MONITORING QUESTIONS

1. Are you using any Occupational Awareness Related Activities?
   a. If not, why not? Could you be more specific?
2. What is your opinion about Occupational Awareness Related Activities you have used?
   a. What activites suggested by the consultant have you found to be of particular value?
3. How do your children respond to Occupational Awareness Related Activities?
4. Do you feel you have enough materials on hand to implement the suggested Occupational Awareness Related Activities?
5. In what way has the consultant been helpful to you?
   a. Are there other things that you would have him do for you or other ways you would have him respond to your needs?
6. Do you have any suggestions for possible modifications of the program?
7. Do you have the inserts to go with the unit you are currently teaching?
8. Are the inserts helpful?
9. Do you feel that you fully understand the goals of the present Occupational Awareness Program?
10. Do you feel that the program is of value to Elementary School children?
11. What aspects of Occupational Awareness have increased the students' interest in career education?
12. Did the inservice provide an adequate introduction to Occupational Awareness?
13. What additional areas of emphasis do you feel a career education program should have that are lacking in Occupational Awareness now?

Each teacher and each school received a global rating on a scale of 1-5, with 1 indicating minimal implementation and evident interest. A mean teacher rating, a mean school rating and an overall mean rating (combining the mean teacher and mean school ratings) were computed for each of the 36 schools. A rank ordering of the schools according to the overall mean rating was made. The results at mid-term, December, 1972 , and the end of the year, May, 1973, are presented in Tables I and II, pages 7 and 8.

Although there were no formal changes in the monitors' questions (List A, page 5) during the implementation of the program, the teachers' responses to those questions did change. As the program evolved, the needs and concerns expressed by teachers changed. The needs and concerns during the initiation of the program gave way to those of maintaining the then ongoing program at an increasingly higher level of implementation (See Figure 1, page 9). For example, the majority of teacher comments at the beginning of the year were excuses for failure to implement or questions regarding the role of the O.A. consultants. Concerns of teachers rapidly changed to expressions of specific needs to obtain full implementation within the classroom.

Results

Progress in program implementation is clearly evident in the monitors' reports which show an increase in participation from 47% of teachers in the first report to 73% in the final one.

Significantly, though actual participation was increasing, the major complaint of teachers not implementing the program was the shortage of time. The percentage indicating time was a problem increased

TABLE I

OCCUPATIONAL AWARENESS SCHOOLS RANKED BY LEVEL OF IMPLEMENTATION

DECEMBER, 1972

(Low to High)

	School	Overall Mean	Mean-School Rating	Mean-Teacher Rating
1.	Clinton Park	1.55	1.00	2.09
2.	Emerson	1.72	1.75	1.72
3.	Richmond	1.75	1.50	2.00
4.	Carnegie	1.80	2.00	1.63
5.	Almeda	1.81	2.00	1.61
6.	McDade	1.85	1.25	2.45
7.	Berry	1.90	1.25	2.55
8.	Easter	1.91	1.33	2.50
9.	Golfcrest	1.95	2.00	1.90
10.	Kelso	2.00	1.50	2.50
11.	Rucker	2.00	2.00	2.00
12.	DeChaumes	2.00	1.00	3.00
13.	Fairchild	2.05	2.00	2.14
14.	Whittier	2.20	2.00	2.38
15.	Turner	2.23	2.66	1.80
16.	DeZavala	2.25	3.00	1.50
17.	Foerster	2.26	2.33	2.20
18.	Garden Villas	2.30	2.50	2.09
19.	Brock	2.31	2.00	2.62
20.	Sutton	2.40	3.00	1.83
21.	Roberts	2.41	2.33	2.50
22.	Wilson	2.50	2.33	2.70
23.	Bonham	2.62	3.25	2.00
24.	Wainwright	2.65	2.00	3.30
25.	Cornelius	2.70	3.00	2.42
26.	Concord	2.73	2.75	2.71
27.	Pilgrim	2.76	2.75	2.76
28.	Stevens	2.78	2.75	2.81
29.	Northline	2.79	3.33	2.25
30.	Windsor Village	2.95	2.66	3.17
31.	Field	2.98	3.66	2.30
32.	Pleasantville	3.00	3.00	3.00
33.	Piney Point	3.15	3.00	3.33
34.	Elrod	3.20	3.00	3.40
35.	Stevenson	3.36	3.66	3.06
36.	Love	3.77	3.66	3.89

TABLE II

OCCUPATIONAL AWARENESS SCHOOLS RANKED BY LEVEL OF IMPLEMENTATION

MAY, 1973

(Low to High)

	School	Overall Mean	Mean School Rating	Mean Teacher Rating
1.	Emerson	1.73	2.00	1.47
2.	DeZavala	1.79	1.66	1.92
3.	Rucker	2.10	1.67	2.53
4.	Bonham	2.23	1.75	2.71
5.	Fairchild	2.31	1.33	3.29
6.	Piney Point	2.33	2.25	2.41
7.	Windsor Village	2.35	2.00	2.71
8.	Foerster	2.35	2.50	2.19
9.	Richmond	2.35	2.00	2.69
10.	Cornelius	2.40	2.25	2.56
11.	Golfcrest	2.42	2.25	2.60
12.	Berry	2.45	2.00	2.90
13.	Clinton Park	2.47	2.23	2.62
14.	Carnegie	2.50	2.00	3.00
15.	Whittier	2.57	2.00	3.15
16.	Sutton	2.62	2.50	2.75
17.	Almeda	2.67	3.25	2.10
18.	Northline	2.67	3.00	2.33
19.	Pilgrim	2.70	2.00	3.40
20.	Love	2.73	2.33	3.13
21.	Garden Villas	2.75	2.00	3.50
22.	Turner	2.91	3.75	2.07
23.	Pleasantville	2.97	3.70	2.25
24.	Stevens	3.03	3.00	3.06
25.	Wilson	3.11	2.50	3.72
26.	Easter	3.21	3.50	2.91
27.	Brock	3.22	3.00	3.43
28.	DeChaumes	3.38	3.00	3.75
29.	McDade	3.46	4.00	2.92
30.	Roberts	3.50	4.00	3.00
31.	Stevenson	3.75	4.00	3.40
32.	Field	3.75	4.33	3.17
33.	Wainwright	4.00	4.00	4.00
34.	Concord	4.02	4.33	3.70
35.	Elrod	4.12	4.00	4.23
36.	Kelso	4.21	5.00	3.41

FIGURE 1

In Figure 1, the monitoring period in which the area of concern manifested itself is indicated by an X.

AREA OF CONCERN	MONITORING REPORT PERIOD				
	Oct 30 1972-- Nov 10 1972	Nov 13 1972-- Dec 1 1972	Dec 4 1972-- Jan 15 1973	Jan 16 1973-- Feb 2 1973	Feb 5 1973-- Mar 6 1973
School Personnel	x			x	
Curriculum	x	x		x	
Consultants	x	x	x	x	
Funds			x		
Time	x	x			
Training			x		
Materials, Supplies	x	x	x	x	x
Appropriateness	x			x	x
Interest	x				
AV's	x				
Display	x				
Activities			x		x
Space	x	x			
Equipment			x		
Timing				x	

from 26% in October 1972, to 57% in March, 1973. Of the teachers not implementing O.A. related activities, 27% in March, 1973, did not like the program as compared with 11% in October, 1972. These data suggest that some relatively small number of teachers consistently resisted implementation, and probably account for a failure, overall, to achieve complete implementation.

Identified problem areas, regardless of source of identification, numbered 29 in the first monitors' reports. These are gathered under major headings in Figure I, page 9) which illustrates the diminution of concerns through the duration of the program. Initially problems centered around the mechanics of implementation. In the final report, concerns were almost exclusively in the area of the appropriateness of specific activities and requests for supplies and materials needed to further integrate activities into curriculum areas.

EVALUATION OF EFFECTS

Problem

The research hypothesis was that experimental schools in which the Occupational Awareness Program was implemented would have a significant difference between pretesting and posttesting as measured by the Houston Occupational Awareness Inventory (HOAI). The experimental design used was a pretest-posttest experimental group-control group design.

Subjects

The experimental subjects were drawn from five of the 36 elementary schools in the Occupational Awareness Program. These five schools represented the five highest ranking schools in terms of level of program implementation. The schools were Kelso, Elrod, Concord, Wainwright, and Field. Five other elementary schools, not in the Occupational Awareness Program were selected as control schools. These schools were Braeburn, Briscoe, Brookline, Cunningham, and Whidby. Subjects were obtained from grades Kindergarten through sixth.

Procedures

All subjects were given the pretest Houston Occupational Awareness Inventory (HOAI) during September, 1972 and the posttest (HOAI) during May, 1973. Pretesting and posttesting was group administered, and subjects received the same instructions from trained personnel.

The HOAI was developed by the Houston Independent School District Research Services Department as a means of evaluating the level of awareness career education-based concepts in elementary school children. In

operational use, it was intended to be an evaluation instrument (pretest-posttest design) utilizing schools with Occupational Awareness programs in comparison with control schools where the program was not in effect. The HOAI purports to measure cognitive and affective changes brought about as a result of implementation of an Occupational Awareness Curriculum. There are two levels of the HOAI: The Primary Level (composed of 15 multiple choice items) for grades Kindergarten, first and second grades and the Intermediate Level (composed of 17 multiple choice items) for grades third, fourth, fifth and sixth. The HOAI in its present stage of development should be used for research purposes only (see Appendix B for a copy of the HOAI Manual, Page 39).

Results

At each grade level a comparison was made between the pretest differences for the control and experimental schools. A significant difference was obtained, at the .05 level of confidence, for the following grades: Kindergarten, first and fourth. No significant difference was obtained for the second, third, fifth and sixth grades. Where a significant difference between the experimental and control schools pretest scores existed (Kindergarten, first and fourth grades) an analysis of covariance was used to statistically control for pretest differences.

For the Kindergarten subjects, the adjusted group mean for the control group was significantly greater than the adjusted group mean for the experimental group (See Table III, page 14). There was, however, no significant difference between the adjusted group means for the

control and experimental groups of first and fourth grade subjects (Tables IV and VII, pages 15 and 18.

No significant difference between the pretest and posttest HOAI scores for the second, third and fifth grades was obtained for the experimental and control groups (see Tables V, VI and VIII, pages 16, 17 and 19.

A significant difference was obtained between the pretest and posttest scores for the experimental and control groups of sixth grade subjects. However, there was no significant difference between the posttest means for the experimental and control groups (t=.0722) (See Table IX, page 20). Table X, page 21, presents a non-statistical summary of Tables III through IX comparing the adjusted group means or pretest-posttest mean difference in performance on the HOAI for the experimental and control groups of grades Kindergarten through sixth.

TABLE III

Comparison Between the Adjusted Group Means (Controlling for Pretest Differences) in Performance on the H O A I for the Experimental and Control Groups of Kindergarten Subjects

	N	Adjusted Group Means	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group	56	6.52	-2.95 *	1.96
Experimental group	66	5.34		

* conclude that the adjusted group mean for the control group is significantly greater than the adjusted group mean for the experimental group at the .05 level of confidence

Reject $H_0: \mu_{\text{control group adj. group mean}} - \mu_{\text{experimental adj. group mean}} = 0$, at the .05 level of confidence

Conclude: $\mu_{\text{control group}} > \mu_{\text{experimental group}}$

TABLE IV

Comparison Between the Adjusted Group Means (Controlling for pretest differences) in Performance on the H O A I for the Experimental and Control Groups of First Grade Subjects

	N	Adjusted Group Means	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group	69	6.17	.709*	1.96
Experimental Group	76	5.34		

* Conclude that there is no significant difference between the adjusted group means for the experimental and control groups at the .05 level of confidence

Failed to reject $H_0: \mu_{\text{control group adj. group mean}} - \mu_{\text{experimental group adj. group mean}} = 0$, at the .05 level of confidence

onclude: $\mu_{\text{control group}} = \mu_{\text{experimental group}}$

TABLE V

COMPARISONS BETWEEN THE PRETEST-POSTTEST MEAN DIFFERENCES IN PERFORMANCE ON THE H O A I FOR THE EXPERIMENTAL AND CONTROL GROUPS OF SECOND GRADE SUBJECTS

	Mean Difference	S.E. Mean Difference	df	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group (N=67)	-.299	.265	66	-1.127 *	1.99
Experimental Group (N=70)	.629	.325	69	1.934 *	1.99

* There was no significant difference between the pretest and posttest scores for either the experimental or control groups at the .05 level of confidence.

Failed to reject $H_o: \mu_{D\,(\text{control group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{D\,(\text{control group})} = 0$

Failed to reject H_o $\mu_{D\,(\text{experimental group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{D\,(\text{experimental group})} = 0$

TABLE VI

COMPARISONS BETWEEN THE PRETEST-POSTTEST MEAN DIFFERENCES IN PERFORMANCE ON THE H O A I FOR THE EXPERIMENTAL AND CONTROL GROUPS OF THIRD GRADE SUBJECTS

	Mean Difference	S.E. Mean Difference	df	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group (N=54)	.315	.324	53	.973*	2.00
Experimental Group (N=109)	.257	.238	108	1.079*	1.98

* There was no significant difference between the pretest and posttest scores for either the experimental or control groups at the .05 level of confidence.

Failed to reject $H_0: \mu_{D\,(\text{control group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{D\,(\text{control group})} = 0$

Failed to reject $H_0: \mu_{D\,(\text{experimental group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{D\,(\text{experimental group})} = 0$

TABLE VII

Comparison Between the Adjusted Group Means
(Controlling for Pretest Differences) in Performance
on the H O A I for the Experimental and Control Groups of
Fourth Grade Subjects

	N	Adjusted Group Means	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group	71	6.37	1.89 *	1.96
Experimental Group	50	7.22		

* Conclude that there is no significant difference between the adjusted group means for the experimental and control groups at the .05 level of confidence

Failed to reject $H_0: \mu_{\text{control group adj. group mean}} - \mu_{\text{experimental group adj. group mean}} = 0$, at the .05 level of confidence

Conclude: $\mu_{\text{control group}} = \mu_{\text{experimental group}}$

TABLE VIII

COMPARISONS BETWEEN THE PRETEST-POSTTEST MEAN DIFFERENCES IN PERFORMANCE ON THE H O A I FOR THE EXPERIMENTAL AND CONTROL GROUPS OF FIFTH GRADE SUBJECTS

	Mean Difference	S.E. Mean Difference	df	Derived *t* value	Critical *t* value α=.05
Control Group (N=77)	.416	.276	76	1.532 *	1.96
Experimental Group (N=101)	.206	.249	100	.828 *	1.96

* There was no significant difference between the pretest and posttest scores for either the experimental or control groups at the .05 level of confidence.

Failed to reject H_o: $\mu_{D\,(control\ group)}$ =0, at the .05 level of confidence

Conclude: $\mu_{D\,(control\ group)}$=0

Failed to reject H_o: $\mu_{D\,(experimental\ group)}$ =0, at the .05 level of confidence

Conclude: $\mu_{D\,(experimental\ group)}$ =0

TABLE IX

COMPARISONS BETWEEN THE PRETEST-POSTTEST MEAN DIFFERENCES
IN PERFORMANCE ON THE H O A I FOR THE EXPERIMENTAL
AND CONTROL GROUPS OF
SIXTH GRADE SUBJECTS

	Mean Difference	S.E. Mean Difference	df	Derived *t* value	Critical *t* value $\alpha = .05$
Control Group (N=71)	.521	.238	70	2.189*	1.99
Experimental Group (N=85)	.529	.238	84	2.228*	1.99

* There was a significant difference between the pretest and posttest scores for both the experimental and control groups at the .05 level of confidence; however, there was no significant difference between the experimental and control groups posttest scores.

Reject H_0 $\mu_{D\,(\text{control group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{(\text{pretest control group})} < \mu_{(\text{posttest control group})}$

Reject H_0: $\mu_{D\,(\text{experimental group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{(\text{pretest experimental group})} < \mu_{(\text{posttest experimental group})}$

Failed to reject H_0: $\mu_{(\text{posttest control group})} - \mu_{(\text{posttest experimental group})} = 0$, at the .05 level of confidence

Conclude: $\mu_{(\text{posttest control group})} = \mu_{(\text{posttest experimental group})}$

TABLE X

A Nonstatistical Summary of Tables III Through IX
Comparing the Adjusted Group Means or Pretest-Posttest Mean Differences
in Performance on the HOAI for the Experimental
and Control Groups of Grades K Through 6

Grade	Significant
Kindergarten:	
Control group adjusted group mean greater than the Experimental group adjusted group mean	Yes *
First:	
Control and Experimental group adjusted group mean difference	No
Second:	
Control group pretest-posttest mean difference	No
Experimental group pretest-posttest mean difference	No
Third:	
Control group pretest-posttest mean difference	No
Experimental group pretest-posttest mean difference	No
Fourth:	
Control and Experimental group adjusted group mean difference	No
Fifth:	
Control group pretest-posttest mean difference	No
Experimental group pretest-posttest mean difference	No
Sixth:	
Control group pretest-posttest mean difference	Yes *
Experimental group pretest-posttest mean difference	Yes *
Control-experimental posttest mean difference	No

* Significant at the .05 level of confidence

CONCLUSIONS

Conclusions based upon the experimental results are that the implementation of the Occupational Awareness program did not effect changes in the affective and cognitive domains of occupational awareness in terms of the subjects' performance on the HOAI. Three plausible explanations and methodological considerations in the analysis of the results need to be considered:

I. Intra-session history effects,

II. Prior multiple-treatment interference, and

III. Error variance in the measuring instrument (HOAI) itself.

I. The longer the time lapse between pretesting and posttesting, the greater the possibility of intra-session history effects. In the present study nine months elapsed between the pretesting and posttesting. Likewise, in a naturalistic setting, experimental isolation of the control subject is impossible and experimental control of the "regular" curriculum is also impossible. In the control schools, the influence of teachers discussing and presenting activities related to the world of work and the role of community workers, especially in the primary grades would, at least in part, account for the significant gain in total HOAI scores, for the control group of Kindergarten subjects.

Additionally, all Houston Independent School District principals were evaluated in terms of the amount of emphasis given to Occupational Awareness in their schools.

II. Prior multiple-treatment interference is likely to occur, whenever multiple treatments are applied to the same respondents, because the effect of prior treatments usually cannot be controlled in a naturalistic setting. In the case of the experimental schools, some had had prior to the pretesting in September, 1972, a programmatical implementation of an occupational awareness program for one, two and three years. Not only is there a problem when prior conditions like this exist in obtaining baseline data with which to compare the posttesting data; but there is a confounding of treatment variables, such that certain effects cannot be distinguished for other effects. Again it is difficult in a naturalistic setting to experimentally isolate the subject, prior to the initiation of the study.

III. Another plausible explanation is the measuring instrument itself. The test developers sought to design items that would measure cognitions and affects which were emergent but not yet firmly established in young children. Therefore, an item was retained after field testing only if 50% or fewer of the subjects emitted a correct response to the item. The reasoning was that this difficulty level (50% or fewer responding correctly to an item) would allow sufficient ceiling for higher posttest scores even for those children who scored high on the pretest. In order to develop items of this difficulty level (50% or fewer responding correctly to an item) a large number of relevant cues had to be removed. Thus, the cues available for the subject to base his discriminations on and then formulate his response choice between the defined correct choice (correct foil) and the dis-

tractors (incorrect foild) are extremely subtle and ambiguous. Consequently, when there is an absence or ambiguity of cues available for the subject to base his discriminatory responses upon, random guessing will occur.

For example, the means obtained in the research schools and the normative data cited in the HOAI Test Manual in Table IV on page 51 are not functionally significantly different from what would be expected by chance. To illustrate, on the Primary Level test there are 15 items each with three pictures or foils to choose from. If a subject did not have questions (stems) presented or administered to him, but was asked to choose one picture from each group of three pictures, his total correct score that could be expected by chance would be five. Table XI page 25 presents the obtained norm means and the expected-by-chance means for each grade. The reader can discern from Table XI page 25 that the means presented for the first and second grades derived from the normative data are higher than those of the fourth grade. Likewise, the second grade's mean derived from the normative data is higher than that of the fifth grade. Conversely, in both cases the third, fourth and fifth grades' means that would be expected by chance are higher than the first and second grades. While there is not a one-to-one correspondence between the items for the first and second grades and the items for the third, fourth and fifth grades, the obtained results on the HOAI (Primary and Intermediate Levels) are functionally no better than what would be expected by chance.

Congruently, an expected-by-chance mean value for a correct response on each item is p=.33. An inspection by grade level indicates that the obtained mean value for each item and across items for each

TABLE XI

MEANS DERIVED FROM THE NORMATIVE DATA AND MEANS THAT WOULD BE EXPECTED BY CHANCE ON THE PRIMARY AND INTERMEDIATE LEVELS OF THE H O A I FOR GRADES K THROUGH 6

Grade	Means Derived From The Normative Data	Means That Would Be Expected By Chance
K	4.92	5.00
1	5.79	5.00
2	6.61	5.00
3	4.99	5.66
4	5.54	5.66
5	6.28	5.66
6	7.10	5.66

grade is not functionally significantly different from what would be expected by chance. For example, at the third grade level the theoretically expected-by-chance mean value, (based on a 1 in 3 chance of emitting a correct response) summed across items is p=.33, and the obtained mean value was p=.32 summed across all 17 items. The obtained mean values for each item are distributed not unlike a random variable.

Additionally, the reliability estimates for the total scores using a test-retest design with a lapse of two weeks between the first and second testing sessions yielded reliability correlation coefficients of .3528 for the Primary Level and .6230 for the Intermediate Level (See Table XII page 27. Each obtained score therefore, is composed of 35% true variance and 65% error variance for the Primary Level HOAI. Also for the Intermediate Level each obtained score is composed of 62% true variance and 38% error variance, (See Table XIII page 27). The experimental design did not allow for the partitioning of the error variance into its sources. Such a partitioning procedure would permit the analysis of error variance into its different components or sources, such as time sampling, content sampling, etc. The above procedure might have shed some light on the sources of the random error variance that was obtained. In summary, a large proportion of the total variance was error variance, due to a lack of test reliability, which increased the derived error terms and thus reduced the power of the test of significance and hence the likelihood of obtaining a significant difference.

Another index of the fact that obtained HOAI scores were not unlike what would be expected by chance, i.e., error variance, was the inter-item correlation coefficient matrix. The inter-item correlation matrix at each grade level was not unlike a correlation matrix derived

TABLE XII

PEARSON PRODUCT-MOMENT
(TEST-RETEST) RELIABILITY CORRELATION COEFFICIENTS
FOR THE PRIMARY AND INTERMEDIATE LEVELS
OF THE H O A I

LEVEL	N	r
Primary	278	.3528
Intermediate	414	.6230

TABLE XIII

FOR TOTAL VARIANCE FOR EACH SCORE PARTITIONED INTO
TRUE VARIANCE AND ERROR VARIANCE
FOR THE PRIMARY AND INTERMEDIATE LEVELS OF THE HOAI

Level	True Variance	Error Variance
Primary	35.28%	64.72%
Intermediate	62.30%	37.70%

from a bivariate random sample of error variance. For example, at the 5th grade level, based on the 17 item Intermediate Level HOAI, there are 136 possible correlation coefficients among items. On the basis of chance one would expect 1.4 correlation coefficients of .11 or greater at the .01 probability level (df-680). Three correlation coefficients of .11 or greater were obtained, which indicates that the obtained bivariate inter-item correlation coefficient matrix distribution was not significantly different from a bivariate random sample of error variance. Likewise, the inter-item correlation matrix for each grade level was distributed similarly to the above cited example.

In addition, factor analysis of the HOAI items at each grade level yielded for each factor a percent of total factor variance that was only nominal and thus of no functional value. Likewise, the percent of total variance that correlated or the index of communality (h^2) for each grade level ranged from 50.0 to 55.0.

Summary and Recommendations

The process evaluation data reflected an evolving and developing Occupational Awareness Program. The needs and concerns during the initiation of the program gave way to those of maintaining the ongoing program at an increasingly higher level of implementation. A small number of teachers that were consistently resistant to implementation, and probably account for an overall failure to achieve complete implementation. The most consistent concerns of teachers were in terms of the supply and appropriateness of materials.

The research hypothesis was that the 36 experimental schools in which the Occupational Awareness Program was implemented would have a

significant difference between the pretest and posttest scores as measured by the HOAI. The paradigm was a pretest-posttest experimental group-control group design. The experimental results did not support the research hypothesis. Three plausible explanations and methodological considerations in the experimental design and analysis were discussed.

The introduction of the presence of Occupational Awareness programs in the efficiency evaluation of all building principals in January precluded the probability of obtaining differences between experimental and control groups. For example, at the sixth grade level, both the experimental and control groups had a significant gain between the pretest and posttest scores, however there was no significant difference between the control and experimental groups in posttest scores. The effect on the experimental group in the January process report was an increase in implementation of approximately 25%. It is safe to assume that the same or greater effect occurred in all HISD schools. The immediate request by all HISD schools (including controls) for occupational awareness materials supports that thesis. As a result, even the most sensitive measure would probably not have detected any differences between experimental and control groups.

In the future, based upon the process data, an emphasis and high priority might be given to the appropriateness, timing and supply of materials. One of the frequently manifested concerns of teachers was the lack of time during the school day to implement the program. This may or may not be an index of the teachers' interest or motivation for the Occupational Awareness Program. However, the data indicate that

only a relatively small number of teachers were consistently resistant to implementation. In any case, it would probably be beneficial in the future to set up a procedure for desensitizing and then positively motivating resistant teachers. An alternative would be to drop these teachers from the Occupational Awareness Program and apply the resources more effectively with the more highly motivated teachers.

Additionally, more time and resources should be applied to the development of the measuring instrument used in the evaluation. The six-month period that was allowed for instrument development prior to the beginning of the research implementation (pretesting) was not a sufficient amount of time. A minimum of two or three years is usually required for instrument development in terms of item development and analysis, norming, reliability and validity estimates. Thus an increase in funds for instrument development would be necessary. Also, in the future, the research design for collecting the process data might be not unlike a quasi-experimental time-series design. This would permit a more thorough tracking of the program development and level of implementation.

APPENDIX A

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
	TO IDENTIFY SIMILARITIES AND DIFFERENCES IN MAN 3. (continued) I become angry when..... Most of the time I feel..... The thing I do best is..... One thing I can't do very well is..... Something I've learned from my friends is..... One thing I could teach someone else is..... Someday I would like to be..... NOTE: The above may be conducted in conjunction with a Language Arts creative writing activity. An art period may be devoted to the illustrations.	

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
	TO IDENTIFY SIMILARITIES AND DIFFERENCES OF MAN	
Cooperation is an important part of career success	1. Follow the activities suggested in Health,4, pp. 6-12. Discuss with the pupils the ideas in the Health Chapter that relate to the O.A. Generalizations.	Health,4 pp. 6-12
Individuals differ in their abilities, interests, aptitudes, and values	Have the pupils study pictures of different people working, and analyze their attitudes toward their jobs. (Pupils may bring pictures to class.) Ask: Does this worker seem interested in his or her job? Do you think that he or she enjoys the work? Why do you think a person might not enjoy his work? (Job may not suit his abilities, interests, aptitudes and values.) NOTE: It may be necessary here to discuss the meaning of these terms.	Newspaper or Magazine pictures of people working
	2. After viewing films, filmstrips and/or pictures, ask this additional question: What similarities or differences did you note in various work or workers?	
Each person is valuable and can be a worthwhile worker	3. Pupils will complete the suggested open-ended sentences and thoughts. These may be compiled into booklets, illustrated and displayed at an Open House to share with parents and guests. One way I am like everyone else is..... One way I am different from everyone else is.. The thing I like best about school is..... I would like to learn more about ..... When I am in a group I..... Being alone is..... One thing that makes me happy is..... One thing that makes me sad is..... I am afraid when.....	

O.A. 29 (continued)

SUGGESTED ACTIVITIES	MATERIALS
TO IDENTIFY SIMILARITIES AND DIFFERENCES IN MAN	
1. Inquire into similarities and differences of man.	Pictures: S. B., pp. 3-6 H. B., pp. 19-22, 29-30, 32-33, 63
Have the pupils study different pictures of people. Have them look for emotional as well as physical similarities.	
From these pictures have pupils prepare a list of similarities and differences. (This could be done in groups of two, by individuals, small groups, or with the class as a whole.)	Pictures of people
O. A. INSERT	
Have the pupils count the number of items in each list. (There will be more similarities than differences.)	
Have the pupils state a generalization about the similarities and differences of men.	
NOTE: If pupils seem to have a good background in similarities and differences, the teacher may wish to stop with this activity.	
2. Show films or filmstrips of different countries or have pupils look through *National Geographic*, *Life*, or magazines of this type for pictures of various cultures. (Pupils may need to make notes so that they can participate in the discussion.)	Films: M4979—Children of Korea L4822—Japan—Customs and Traditions L4734—Maya of Mysterious Ancient Mexico M4751—Navaho—A Study in Cultural Contrast
Ask: What similarities did you note? What differences do you see in appearance, customs, and behavior? How can you account for these differences?	
O. A. INSERT	
3. For further study, have the pupils write stories about themselves and compare them with the other pupils to find similarities and differences.	
Those who have difficulty in writing can draw comic-strip type characters, showing their life stories. Have them compare with other pupils to find similarities and differences.	
Have the pupils write a paragraph or make a chart to explain ways in which people are both alike and different.	
Suggested Evaluation:	
O. A. INSERT	
Make a display of pictures in following categories.	
People from different countries who are displaying similar emotions	

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
Each person is valuable and can be a worthwhile worker	TO CLARIFY THE PURPOSE AND FUNCTION OF GROUPS 2. The following are suggested games and activities that the pupils may use for their group activities MATH CLUB--------ASSEMBLY LINE Purpose: To impart knowledge of how production on an assembly line will speed up the process and therefore will be more efficient economically. Procedure: Have the pupil leader of the Math Club tell the class they will form an assembly line to make their Occupational Awareness Booklets for the year. Each pupil will be responsible for one job on every book. The materials will start at one end of the line and will be finished products at the end of the line. Place desks in a row with the necessary working materials in front of the workers. Pupils will stand at their desks and pass the materials to the right. (Note: Teacher may appoint certain pupils to do certain jobs according to their ability, or pupils may be "hired" for the job that suits him.) 1. page counter---13 for each booklet 2. numberer---to place numbers on each page excluding top page 3. contents letterer (1 or more)---to write or print "Table of Contents" on top page 4. stacker---to straighten pages 5. cover folder---to fold cardboard, tagboard or similar material for cover 6. arranger---to put pages inside cover 7. puncher--to punch 2 holes through book 8. fastener---to put paper fasteners through the holes 9. clincher---to fasten the fasteners tight 10. titlers (1 or more)---to letter the title Occupational Awareness on the cover 11. book stacker---to stack finished books in even stacks Jobs can be added in order to use more pupils	paper, covers (cardboard, tagboard, etc.) marking pens paper fasteners, (brads, etc.)

O.A. 30 (continued)

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
	TO CLARIFY THE PURPOSE AND [illegible]TION OF GROUPS	
	2. (continued) and/or two assembly [illegible] may work at the same time. Follow-Up: Pupils in the Math [illegible] will give a class report on decisions they have made regarding: Cooperation is a part of career success Specialization leads to interdependency Have them give specific examples from the Assembly Line activity.	
	SOCIAL STUDIES CLUB [illegible] OCCUPATIONS	
Careers are of a wide variety	Purpose: To analyze the kinds of occupations in an area. To help the pupils realize that education and training are important.	Newspapers from as many other areas of the state and country as possible
Individuals need training for careers	Procedure: Club member could be responsible for gathering as many different issues of newspapers as possible. They could write to relatives and friends in other parts of the state and country.	
School is part of the preparation for a career	Divide the class into groups (approx. 3 per group) A Social Studies Club memger could be the Group Leader. Each group will [illegible] the Want Ads and other items in their paper and list the variety of jobs that are open in that area. Check each job for the following: experience needed, special education or training skills necessary, hours, wages	
Jobs are determined by supply and demand, geographic location, and changing conditions	Have the pupils also list those jobs that are available for unskilled, inexperienced workers. When each group has their list prepared have them analyze it so that the group leader may report on their assigned area to the class regarding: variety of jobs, qualifications, wages, etc. Follow-Up: Bulletin board or posters done by the Social Studies Club locating each area on a map with illustrations (art activity), written reports, charts, etc., language arts and spelling.)	
Some workers produce goods, some provide services, and some do both	Note: An extension of the activity would be to classify the jobs as those that produced goods and those that provided services, or both.	

O.A. 30 a [illegible] (continued)

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
Career choice is a developmental process requiring much occupational information	TO CLARIFY THE PURPOSE AND FUNCTION OF GROUPS 2. (continued) SCIENCE CLUB---------CHALLENGE Purpose: To drill on famous inventors and their inventions. To have the pupils realize the contributions many people make to society, and that many people work to make life better for all. Procedure: Science Club members prepare a list of famous inventors and their inventions, scientists and their "discoveries" through library research. Club members conduct the game as follows: Give pupils time to study lists. Divide the class into 2 teams. One team will be the Challengers and will have the list.. The Challengers will give either the names of the person or the invention or discovery, and the team being challenged will have to give the correct answer or lose a point from their score. At the half time the teams will change place and a new set of questions given out. A point is given for each correct match. Suggestions to start list: Wireless — Marconi — 1896 Airplane — Wright Bros. — 1903 Piano — Cristoferi — 1709 Sewing Machine — Howe — 1846 Reaper — McCormick — 1834 Movie Machine — Edison — 1893 Rocket Engine — Goddard — 1929 Oxygen — Priestly — 1774 Smallpox vaccine — Jenner — 1796 X-rays — Roentgen — 1895 Variations: Dates may be asked. Pictures may be used. Countries of the famous person may be asked. Follow-Up: Arithmetic - Use the dates to determine how long the invention or discovery has been in existence. Science-Study Unit V, Section 1 on Machines in Science text to correlate with this activity.	Science 4 Unit V, Sec.1,pp. 184-195

O.A. 30 b. (continued)

O. A. GENERALIZATION	SUGGESTED ACTIVITIES	MATERIALS
	TO CLARIFY THE PURPOSE AND FUNCTION OF GROUPS 2. (continued) The Science Club members will organize and give a report to the class on the benefits mankind has received due to the work of these men.	
Cooperation is an important part of career success	3. Follow the activities suggested in Health 4, pp. 13 - 17. Discuss these pages in relation to the O.A. Generalization. Tell the pupils that approximately 90% of the people who lose their jobs do so because they cannot get along with their fellow workers.	Health 4 pp.13-17
Each person is valuable and can be a worthwhile worker	Refer to the story in their reader, "The Skating Party". Ask: What did Miss Howard to to help William feel part of the class? (Assigned him the responsibility for collecting firewood; a group of boys assisted.) How did this job and the group interaction affect William's attitude? (He became surer of himself.)	Roads to Everywhere "The Skating Party" pp.22-32

APPENDIX B

M A N U A L

for the use of the

HOUSTON OCCUPATIONAL AWARENESS INVENTORY

Distributed for Research

Use Only

Permission to reproduce this copyrighted material has been granted by
Dr. Michael W. Say - Prog. Planning Res.&Eval. Divis.
to AIM/ARM, ERIC, and organizations operating under agreements with the U.S. Office of Education and National Institute of Education. Further reproduction outside the AIM/ARM and ERIC systems requires permission of the copyright owner.

© RESEARCH SERVICES

Houston Independent School District

TABLE OF CONTENTS

	Page
List of Tables	ii
Qualifications	41
Overview	41
Rationale	42
Instrument Development	
Qualifications of Item Writers	46
Construction and Selection of Items	46
Field Testing Procedures	48
Results of Field Testing	49
Final Item Selection	49
Norms by Grades	51
Validity	52
Reliability	56
Directions for Administering	
Use of Test	56
Preparing for Testing	56
Schedule for Testing	57
Completing Student Information	57
General Directions: K-2	58
Specific Directions: K-2	59
General Directions: 3-6	60
Specific Directions: 3-6	61
Directions for Scoring	61

LIST OF TABLES

		Page
TABLE I:	Scope and Sequence	44
TABLE II:	Items Grouped According to Curriculum Scope and Sequence	45
TABLE III:	Consultants' Percent Agreement as to Concepts Being Measured	50
TABLE IV:	Means and Standard Deviations for Each Grade	51
TABLE V:	Independent Judges' Scores	52
TABLE VI:	Independent Judges' Ratings	53
TABLE VII:	Factor Analyses - Primary Level	54
TABLE VIII:	Factor Analyses - Intermediate Level . . .	55
TABLE IX:	Pearson Product-Moment Reliability Correlation Coefficients for Total Test Scores (Test-Retest)	56
TABLE X:	Scoring Key	63

M A N U A L

for the use of the

Houston Occupational Awareness Inventory

For Research Use Only

QUALIFICATIONS

Purpose: The Houston Occupational Awareness Inventory (HOAI) purports to measure the cognitive and affective domains of Occupational Awareness. The HOAI in its present stage of development should be used for research purposes only.

User Qualifications: The research personnel should have training and experience in research methodology as well as tests and measurements.

Examiner Qualifications: The examiner should be carefully instructed by the researcher and should read the directions in this manual for administration and scoring of the test, beginning on page

OVERVIEW

The HOAI was developed by the Houston Independent School District Research Services Department as a means of evaluating the level of awareness of career education-based concepts in elementary school

children. In operational use it is intended to be an evaluation instrument (pretest-posttest design) utilizing schools with Occupational Awareness programs in comparison with control schools where the program is not in effect. The evaluation of program objectives necessitated the development of a test which ultimately should be useful in general classroom testing. The HOAI Primary Level is for use with children in grades K-2. The Intermediate Level is for use with children in grades 3-6.

RATIONALE

The HOAI was developed in response to increasing interest and concentrated effort on the part of educators to broaden the scope of career information provided in public schools. Most recently, career related concepts and information have been introduced into the elementary school curriculum. Findings concerning the effectiveness of such programs were needed. In undertaking the evaluation of the Houston Occupational Awareness program it was recognized that no standardized evaluation instrument was yet available for measuring dimensions of awareness of the world of work at the elementary school level. Therefore, the development of a new experimental instrument was necessary to carry out the evaluation procedures.

The instrument purports to measure cognitive and affective changes brought about as a result of implementation of an Occupational Awareness Curriculum. The basis of this instrument is different from such theoretical concepts as the developmental expansion of the self-concept, maturational factors, or other theories which might be introduced as explanations of growing awareness of work. This instrument,

especially in its present stage of development, should be used in conjunction with other methods of assessment in evaluating changes brought about in students by implementation of elementary school-based career education.

The Curriculum Consultant staff with the assistance of the Research Team developed a set of fifteen Occupational Awareness Concepts and corresponding behavioral objectives relevant to the elementary age child. The introduction of related materials and emphasis of concepts at the various grade levels are sequenced as indicated in Table I on Page 44 Item writers inferred from curriculum activities the types of discriminations which would indicate "mastery" of a concept. The present version of the test does not have items which cover every curriculum concept. The concepts which are not covered by item content are designated by blank spaces in Table II on Page 45.

TABLE I

SCOPE AND SEQUENCE OF O.A. CONCEPTS BY GRADE LEVELS

Concept	Grade Level K	1	2	3	4	5	6
1. Each person is valuable and can be a worthwhile worker.	X	X	X				
2. Work merits respect and is important.	X	X	X				
3. Some workers produce goods, some provide services, and some do both.	X	X	X				
4. Cooperation is an important part of career success.	X	X	X	X			
5. Careers are of wide variety.	X	X	X	X			
6. Individuals need training for careers.	X	X	X	X	X	X	
7. School is part of the preparation for a career.		X	X	X	X	X	
8. People work for various rewards and satisfactions.			X	X	X	X	X
9. Careers can be grouped into occupational fields.			X	X	X	X	X
10. Specialization leads to interdependency				X	X	X	X
11. Jobs change due to supply and demand, geographic location and changing conditions.				X	X	X	X
12. Individuals differ in their abilities, interests, aptitudes and values.				X	X	X	X
13. Workers can adapt their skills to perform different jobs.					X	X	X
14. Career choice is a developmental process.						X	X
15. A planned educational program can provide effective career training.							X

TABLE II

HOAI ITEMS GROUPED ACCORDING TO
CURRICULUM SCOPE AND SEQUENCE

	Primary Level			Intermediate Level			
CONCEPT	K	1	2	3	4	5	6
1	3, 4, 5,		19, 21				
2	8, 7*			15*			
3	11, 9*		10*	4*			
4	12*, 13*			18,19			
5	14,	6*					
6	16, 17, 15*			7, 10, 12, 16*			
7		18		14, 8*, 17*			
8			1, 2 20*	20, 21, 24			
9			22, 23 24*	3			
10				23*			
11				1, 2, 6, 9, 22*			
12							
13					11, 13		
14							
15						5	

* Items omitted from scoring

INSTRUMENT DEVELOPMENT

Qualifications of Item Writers

The item writers had extensive training and experience in relevant areas of competence. One had expertise in communications and educational research, with several publications. Another was a psychologist with experience in vocational counseling and testing, and knowledge of resources of occupational information. A background in education characterized another who was a teacher with skills in group testing. All item writers had experience with elementary school age children either professionally or as parents.

Construction and Selection of Items

The Houston Occupational Awareness Inventory, Primary Level (K-2), is based on the first nine Occupational Awareness concepts and related behavioral objectives; the Intermediate Level (3-6) is based on all fifteen concepts (see Table II, Page 45.

The criteria for selection of items for instrument development included (1) items that purported to reflect one or more of the fifteen Occupational Awareness concepts presented earlier and bear as direct a relationship as possible to the behavioral objectives stated for each concept, (2) item content dealing with job descriptions or occupational knowledge should be accurate when compared with current vocational literature, (3) items should not penalize poor readers or non-readers, (4) there should be a broad coverage of the occupational spectrum, and (5) the occupation used in an item should be one which can be clearly depicted by a line drawing, with such clues as uniforms, tools, or work activity.

Information about occupations, training requirements, etc. used in pictorial and verbal item content was verified against such standard references as the Occupational Outlook Handbook, the Dictionary of Occupational Titles, and Vocational Education and Occupations.

Results of early item trials indicated that two forms, Primary (K-2) and Intermediate (3-6) would be necessary. Items with desirable distributions for kindergarten children proved too easy for children in the third grade. In order to minimize differences in reading level, each item consists of three pictures of workers or of activities or objects relevant to work. Each item question is read aloud by the examiner and the child is instructed to mark the "best" picture choice as his answer.

It is desirable that items reflect cognitions and affects which are emergent but not firmly established in young children. Therefore, items were retained after item trials only if 50% or fewer subjects passed the item, with each incorrect distractor being plausible enough to be chosen by around 25% of the subjects. It was also reasoned that a difficulty level of 50% or fewer passing an item would allow sufficient ceiling for higher posttest scores even for those children who scored high on the pretest. Fifteen items were selected for scoring from a pool of 153 for the Primary Level of the test, and seventeen were selected from a pool of 163 for the Intermediate level. Many items in the pools were modifications of items from earlier trials.

A series of three item trials was conducted for each Level of the test. A total of 819 subjects was tested with the three preliminary versions of the Primary Level, and a total of 768 was tested with the three preliminary versions of the Intermediate Level. These samples

of children were selected from eleven schools not in the Occupational Awareness program. The schools were located in the following socio-economic areas as designated by the census tract: upper middle, four; lower middle, four; and lower, three. Ethnic balance of the sample schools was as follows: 31% Negro-Americans, 9% Mexican-Americans, and 60% Others. The preliminary versions were administered in the spring of 1972, with the exception of the last Intermediate preliminary test, which was administered in the summer of 1972. These item trials yielded 24 items at each Level for field testing; 16 were retained for scoring at the Primary Level and 17 at the Intermediate Level.

Pictures on both levels of the test were validated by asking a sample of 20 children (ten per level) to describe them to be sure that the content of the illustrations was accurately perceived by children. The subjects were enrolled in a summer day care center in a middle class socio-economic area. Each picture was presented to each subject at the appropriate age level, and the child was asked to describe the pictures with the understanding that the picture was related to "work" in some way. HOAI pictures were validated in this way so that children's responses should reflect accurate awareness of the concept expressed in the picture, rather than logical misinterpretations of the pictures due to misleading cues.

FIELD TESTING PROCEDURE

A pool of 24 items obtained from item trials was field tested for the purpose of final item selection in terms of reliability, validity, and the establishment of group norms.

Results of Field Testing

Final Item Selection

Field testing yielded 15 items for the Primary Level of the test, and 17 items for the Intermediate Level of the test. Item analysis (N=6000) provided the basis for decisions on item retention. The sample was composed of five classes randomly selected from Occupational Awareness Program schools, and stratified by grade level. Thus, 25 were classes represented at each of the seven grade levels from kindergarten through the sixth grade. Criteria for retention of an item for scoring including (1) a symmetrical distribution of response choices and (2) a significant (p=.01) point-biserial correlation coefficient with the total score of the test. The criteria of symmetrical distributions and significant point-biserial correlations were met by all 15 items retained for the Primary Level and 17 items retained for the Intermediate Level.

Another criteria for the retention of an item was the degree to which Occupational Awareness Curriculum Consultants agreed that the item measured the Concept for which it was purported to measure. The agreements are expressed as percentages in Table III (p.50).

If the consultants expressed a strong feeling that a particular item measured something which was not taught at the intended age level, the item was dropped from scoring.

TABLE III

CONSULTANTS' PER CENT AGREEMENT
AS TO CONCEPTS BEING MEASURED

PRIMARY LEVEL			INTERMEDIATE LEVEL		
ITEM NO.	CONCEPT	% AGREEMENT	ITEM NO.	CONCEPT	% AGREEMENT
1. *	8	50%	1. *	11	100%
2. *	8	33%	2. *	9,11	70%
3. *	1	77%	3. *	9	100%
4. *	1,4	33%	4. *	15	44%
5. *	1	62%	5. *	11	78%
6. *	2,5	75%	6. *	6	56%
7. *	3	100%	7. *	11	100%
8. *	5	0%	8. *	6	56%
9. *	6	100%	9. *	13	89%
10. *	6	100%	10. *	6	75%
11. *	7	87%	11. *	13	100%
12. *	1	87%	12. *	7	78%
13. *	1	75%	13. *	4	89%
14. *	9	100%	14. *	4	78%
15. *	9	57%	15. *	8	36%
			16. *	8	67%
			17. *	8	75%
OVERALL AGREEMENT		70.2%	OVERALL AGREEMENT		76.2%

Norms by Grades

The means and standard deviations of total raw scores reported in Table IV were obtained for each grade level from a sample (N=4967).

TABLE IV

MEANS AND STANDARD DEVIATIONS FOR EACH GRADE

Primary Level				Intermediate Level			
Grade	N	MEAN	SD	Grade	N	MEAN	SD
K	595	4.92	1.80	3	804	4.99	1.99
1	664	5.79	2.13	4	767	5.54	2.08
2	654	6.61	2.27	5	736	6.28	2.27
				6	747	7.10	2.25

Information for reliability and validity description was partly obtained from the two median income schools (described earlier). Despite efforts to utilize two equivalent and representative schools, there was a significant difference in test performance between the two schools. When the data from the two schools was combined, item analysis results were virtually the same as for the large sample. Analysis of cariance revealed a significant F-ratio for between group variance. One of the schools scored significantly higher on the test than did the other. Thie finding indicates that there may be a systematic influence on test scores due to racial origin, but the degree of bias is not known, nor is it known whether or not factors such as socio-economic level, vocational level of parents, or income level of parents may be contributing. This finding indicates that caution should be used in interpreting test findings on groups of differing ethnic origins.

Validity

Content validity was assessed by asking judges with expertise in occupational education and elementary education to (1) indicate their own choices of best answers, and (2) rate test items according to the global notion of "awareness of the world of work."

Selections of 'best" answers by independent judges were scored; the total test score results are reported in Table V, together with percentages of their agreement with the test developers' correct response key. The judges felt the Primary Level items presented a more difficult discrimination task than did the Intermediate Level items, as indicated by their written comments.

TABLE V

INDEPENDENT JUDGES' SCORES

Level	Range	Mean	% Agreement with Key
Primary	9-14	10.81	70%
Intermediate Level	12-17	13.39	82%

The seven independent judges rated each item on a scale from 1 to 4 according to how well the judges felt the item measured the global notion of "awareness of the world of work." 1 = no correspondence, 2 = fair, 3 = good, and 4 = excellent. Ranges and mean ratings for each level of the test are given in Table VI. The results indicate that the judges considered the test adequate for the purpose intended--measuring "awareness of the world of work."

TABLE VI

INDEPENDENT JUDGES' RATINGS

Test Level	Range of Item Mean Ratings	Total Test Mean Ratings
Primary Level	2.29 - 3.14	2.79
Intermediate Level	2.29 - 3.29	2.87

Content validity is also indicated by the data in Table III, which gives the percentage of agreement between Occupational Awareness Curriculum Consultants and research staff intentions as to which concept an item measured. Agreement was good for any overall level of the test (from 70% to 76%), while agreement on individual items ranged from 0% to 100%.

The Curriculum Consultants rated each item's correspondence to its concept. Analysis by intraclass correlation indicated that, while the reliability of any one consultant's ratings for all items was very low (Primary r_{cc}=.32; Intermediate r_{cc}=.23), the reliability of the mean rating was significant (Primary r_{kk}=.81; Intermediate r_{kk}=.87). This means that if another group of judges similar to the group of consultants were to rate the items, similar results would be obtained.

The factor analysis indicated that some items clustered together in a meaningful fashion--the clusters or factors matched the Curriculum Concepts. Factors, items, and concepts are grouped for the Primary Level in Table VII and for the Intermediate Level in Table VIII. If a Varimax (rotated) factor loading for an item falls below .50, that item must be regarded as a weak or suspicious member of the factor. Ordinarily, such items would be dropped from scoring, but the experimental

nature of the instrument dictates that they be retained pending further test development. Even where factors do not reflect the concepts exactly, inspection reveals that many of the concepts overlap to a considerable degree in terms of their ultimate educational goals. Other reasons for a cluster to contain items from more than one concept would be the tendency of young children to react first to pictorial content, plus the different ways in which the verbal content of a question might influence different children.

TABLE VII

FACTOR ANALYSES - PRIMARY LEVEL

(N=278)

FACTOR NAME	ITEM	V. WT.	CONCEPT
I. Knowledge of Service Occupation	11	(-0.6891)	3
	8	(-0.6165)	5
	22	(-0.5138)	9
	18	(.4569)	7
II. Self-Concept as Independent Worker	19	(.7733)	1
	21	(.5368)	1
III. Rewards of Work	1	(.7809)	8
	4	(.6643)	1
IV. Importance of Training	16	(-0.7786)	6
	17	(-0.6229)	6
V. Unique Factor	14	(-0.7969)	5
VI. Knowledge of Occupational Fields	23	(.8217)	9
	2	(-0.4054)	8
VII. Self-Concept & Home Chores	5	(.8140)	1
	3	(.3956)	1

TABLE VIII

FACTOR ANALYSES - INTERMEDIATE LEVEL

(N=414)

FACTOR NAME	ITEM	V. WT.	CONCEPT
I. Economic Motivation	20	(.7190)	8
	13	(.6537)	13
	21	(.6110)	8
II. Importance of Training.	10	(.6380)	6
	12	(.5014)	8
	9	(-0.6894)	11
III. Adaptive Behavior	19	(.6695)	4
	18	(.5503)	4
	11	(.4910)	13
IV. Structured "School" Training	7	(.7276)	6
	14	(.6670)	7
V. Factors Determining Whether or Not One can Work	1	(.7577)	11
	6	(.6656)	11
VI. Unique Factor	3	(.8325)	9
VII. Verbal Comprehension Factor	2	(-0.3860)	11
	24	(-0.8019)	8
VIII. Unique Factor	5	(-0.8854)	15

Reliability

Total test reliability was established on the total test scores (test-retest paradigm) by means of the Pearson Product-Moment Correlation Coefficient (Primary N=278; Intermediate N=414). Both Pearson *r*'s were significant ($p < .01$).

TABLE IX

Pearson Product-Moment Reliability
Correlation Coefficients for Total Test Scores
(Test-Retest)

Primary Level	n=278	.3528
Intermediate Level	n=414	.6230

DIRECTIONS FOR ADMINISTERING THE HOUSTON OCCUPATIONAL AWARENESS INVENTORY

Use of Test

In its current stage of development the HOAI is an experimental instrument intended only for use in program evaluation. It is by no means intended to be a measure of teacher effectiveness, nor should it be used for such purposes as determining the grades of students. The user of the test should establish test norms in his own location, and any research design utilizing the HOAI should also include other assessment techniques.

Preparing for Testing

The examiner who actually gives the test should read this section of the manual and take the test himself before the testing session with

children. It is not necessary for the examiner to read the more technical material preceding.

Schedule for Testing

It is generally recognized that young children do their best work early in the day. For this reason, it is best to select an early morning hour for testing whenever possible.

There are no formal time limits for the Houston Occupational Awareness Inventory; however, it is estimated that each test should take about 25 minutes to administer. The examiner should proceed as rapidly as practical from item to item. If too much time is allowed for marking, some children will mark additional choices. The examiner should make certain that all children are keeping pace with him.

Completing Student Information

Teachers of grades K-2 should fill in information requested on the cover sheet of the test booklet prior to the testing period. The pink booklets are for girls, the yellow for boys. (2 items contain different pictures for boys and girls.) See pages 64 to 81.

Teachers of grades 3-6 should have the students fill in the information requested at the top of the answer sheet. Check each paper to be sure that all information has been given.

The test directions include two types of verbal material. The distinction between the two is important.

The "general directions" to the children is the more flexible of the two. They may be modified to make them clearer to the children,

to answer questions and to clarify any misunderstandings. They may be added to with additional explanation and assistance. It is only necessary to preserve the intent of the directions; that the child understands how to mark his answers.

The specific directions on the other hand, must be read word for word to the children. Changes of any kind are never to be made in the test questions. The examiner should try not to emphasize key words vocally. It is very important to read each item word for word, in a clear voice, without emphasis on key words. Unless specific directions are followed, the results obtained will not be valid.

General Directions for Administering Houston Occupational Awareness Inventory. K-2

Distribute to each child his test booklet and a large primer pencil/crayon, with the instructions not to touch either until told to do so. When all materials are on the desks, say: "Everyone, look at the book on your desk. At the bottom of the page you see a row of pictures. How many pictures are in the row? As you can see, there are three (3). I am going to ask you a question about these three pictures. The question is: Who is baking bread? Everyone point to the man who is baking bread. Now mark a big X over that man's picture. I will mark my book, too. I am going to ask you questions about other rows of pictures now. When you decide which picture shows the "best" answer, mark it with an X. Be sure you answer every question and only make one mark for every question. Does anyone have any question about how to take the test? Does everyone understand how to mark? Please ask questions now, because I will not be able to help you further during the test." Check each child's sample item to make sure each one has

been marked correctly.

If any of the children do ask questions during the test, be sympathetic, but adhere to standardized procedure. Inform the child that you cannot answer questions or that you are not allowed to do so. If any of the children make descriptive comments about the pictures, tell them in a kind way that they should not talk about the pictures.

Specific Directions for Administering the Houston Occupational Awareness Inventory: K-2

Read each of the following questions twice, pausing for a reasonable interval. Do not change the wording or explain any question or picture. Circulate among the students to make sure they are keeping pace. Say: "We are ready to begin. Turn the page. Look at the first row of pictures."

1. Which job could also be a hobby?

Say: "Now look at the second row of pictures." (Etc.)

2. Which job is both exciting and dangerous?
3. Which picture shows the way you feel?
4. Which kind of worker will you be?
5. Which picture shows the way you feel?
** 6. Who helps build every house?
** 7. Which worker does everyone need?
8. Who do you need every day at school?
** 9. Who gives a service?
**10. Who makes goods?
11. Who gives both goods and services?
**12. Which one cannot be built by one person?
**13. Which worker needs the most cooperation from others?
14. Which worker must come to your home to do his job?
**15. Who helps you stay healthy?
16. Who needs the most training?
17. Who needs the most training?
18. What does the ice cream man need to know?
19. Which one are you?
**20. Which person probably earns the most money?
21. Which one are you?

22. Who does not belong to the communication field?
23. Who does not work with the others?
**24. Who does not belong to the field of fine arts?

** Items not scored

General Directions for Administering Houston Occupational Awareness Inventory: 3-6

Distribute a test booklet, an answer sheet, and a pencil to each student. Instruct them not to mark on the test booklet. Assist the students in completing the student information requested.

Hold up the sample item, walking around the classroom so that all students may see it. Say, "As you can see, there are three pictures. The question is, Who is baking bread? When you decide which picture shows the best answer, raise your hand. All right, what is the best answer? Yes, that is right. The best answer is number one. I am going to mark the box under number one, and this is the way you should mark your answer sheets for each question. Mark an answer for every question, but no more than one answer for each question. Are there any questions about how to mark?" Following administration of item number one, the examiner should circulate among the students, checking to make sure they understand marking procedure, before going on to item number 2.

If any of the children ask questions during the test, adhere to standardized procedure. Inform the child that you cannot answer questions or that you are not allowed to do so. If any of the children make descriptive comments about the pictures, tell them they should not talk about the pictures.

Specific Directions for Administering Houston Occupational Awareness Inventory: 3-6

Begin:

1. Which job is most affected by changes in the weather?

Continue with Item 2. (Etc.)

2. Which worker's job depends most on natural resources?
3. Which person belongs to an occupational field different from the other two?
** 4. Which worker provides both goods and services?
5. Which worker would find a Junior High Speech course most helpful?
6. Which worker may find there is less demand for his work?
7. Which worker must attend a special school before being hired?
** 8. If you want to be an engineer, which school skill would help you most?
9. Which worker is least likely to be replaced by new technology?
10. Which worker needs special training after high school?
11. Which worker would have to adapt his work the most if he were confined to a wheelchair?
12. Which worker can only be trained on the job?
13. Which job would be difficult for a former teacher to do without retraining?
14. If you want to be a salesman, which school skill would help you most?
**15. Which worker does everyone need?
**16. Which worker must go to college?
**17. When should you begin thinking about choosing a career?
18. Why do most people lose their jobs?
19. Which worker needs the most cooperation from others?
20. Which worker probably earns the most money?
21. Who wants fame and chose his job for that reason?
**22. Which worker may find there is less demand for his work?
**23. Which project requires the greatest variety of workers?
24. Which person gets job satisfaction from adding to the world's knowledge?

** Items not scored

Directions for Scoring

1. The Scoring Keys for each Level of the test are shown in Table X. Multiple responses to any one item require that

the item be scored as incorrect.

2. For scoring each test level, count the number of wrong answers and subtract this number from the total number of items.

3. For ease in scoring 3-6 answer sheets, a template may be made by taking a blank answer sheet and cutting out the squares for the correct answers. If a template is used, the scorer must check for multiple responses to a single item and score any such item as incorrect.

TABLE X

SCORING KEY

Primary Level (K-2)			Intermediate Level (3-6)	
Item Number	Correct Answer		Item Number	Correct Answer
1	3		1	2
2	3		2	2
3	1		3	2
4	3		4	1
5	2		5	3
6	1		6	2
7	1		7	1
8	2		8	1
9	1		9	1
10	1		10	1
11	3		11	3
12	2		12	1
13	3		13	3
14	1		14	2
15	3		15	3
			16	2
			17	2

ame _____ _____ Grade _____

eacher _____ School _____ _____

irthdate: (Month) _____ (Year) _____

ex: (Circle one) Male Female

ace: (Circle one) AA NA LA Other

NAME _____ 1 GRADE _____

1

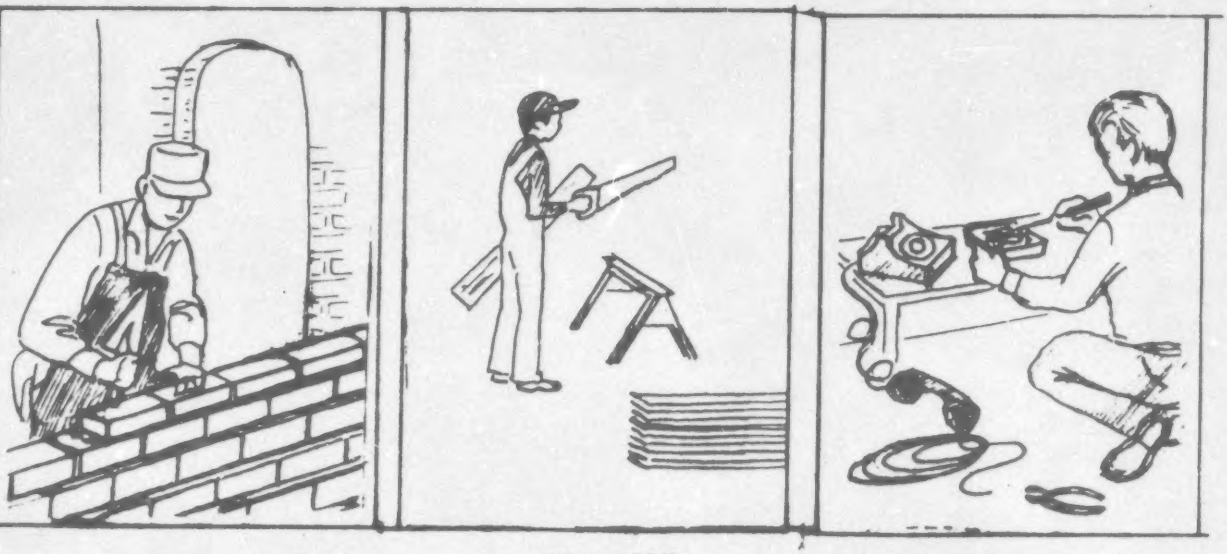
2

3

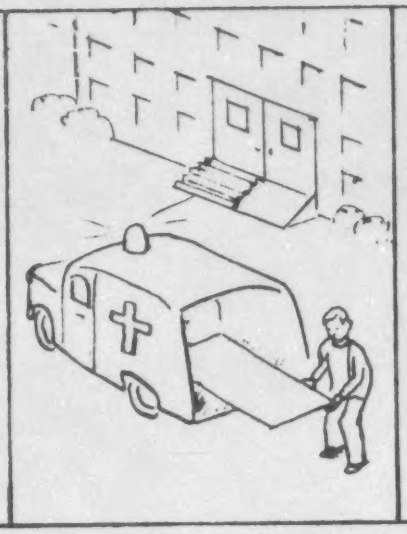
4

5

6



7



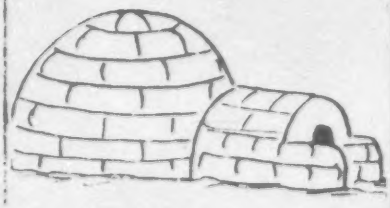
8

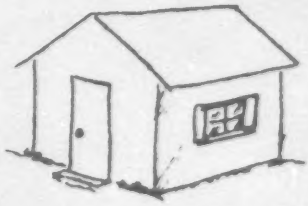
9

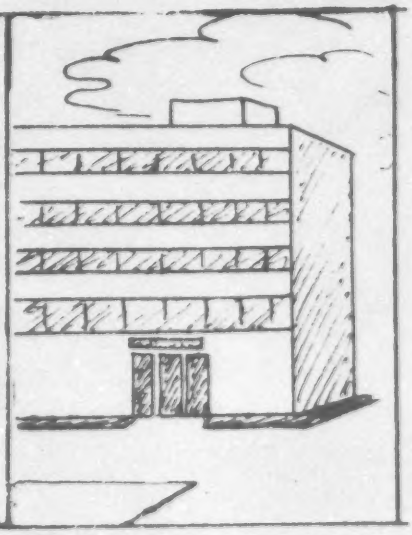
10

11

12

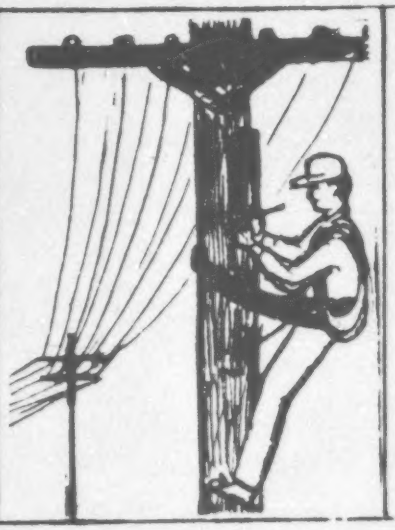






13

14

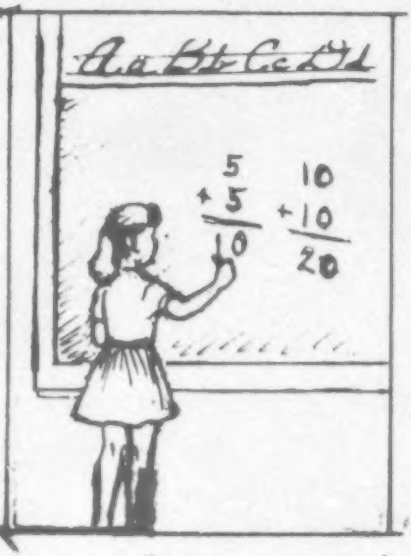


15

16

17

18



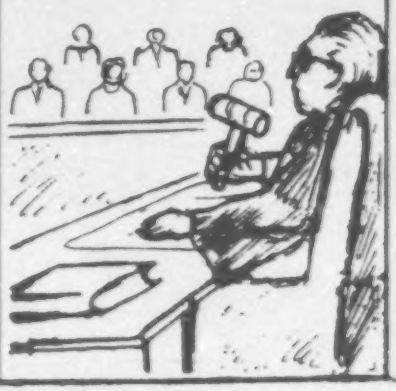
19

20

21

22

23



24

Name_____ Grade_____

Teacher_____ School_____

Birthdate: (Month) _____ (Year) _____

Sex: (Circle one) Male Female

Race: (Circle one) AA NA LA Other

NAME _____ 1 GRADE _____

1

2

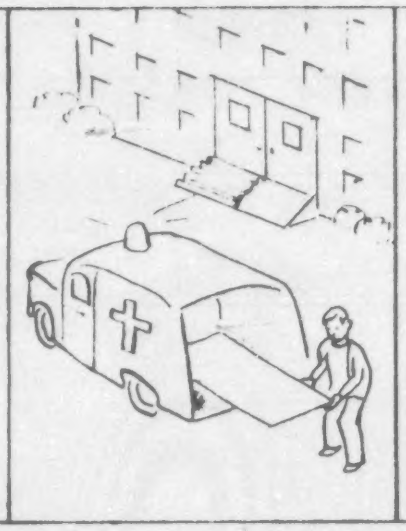
3

4

5

6

7



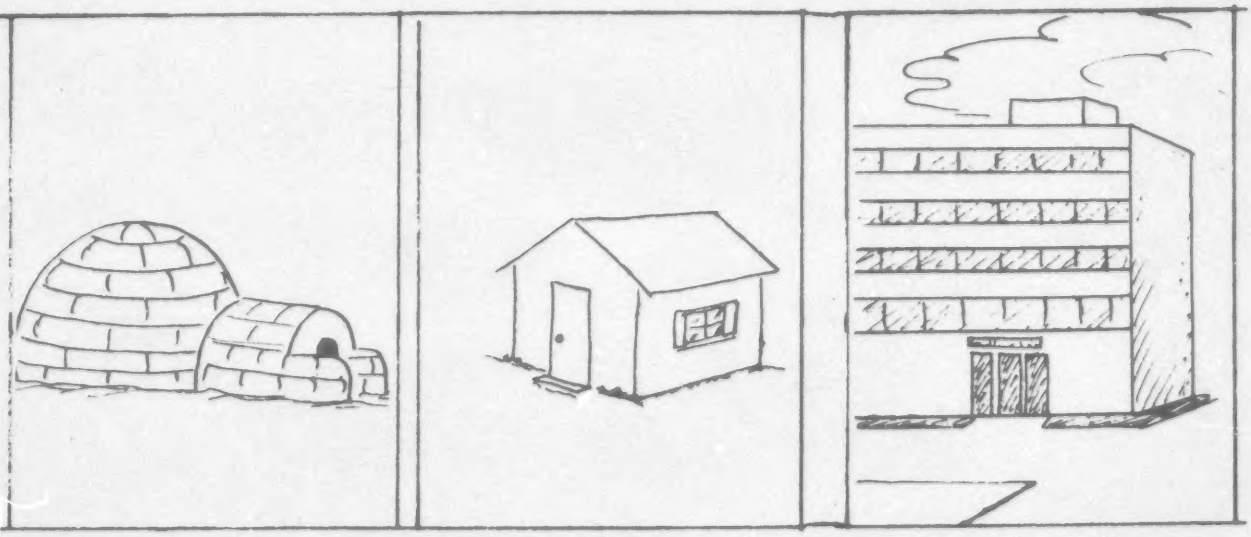
8

9

10

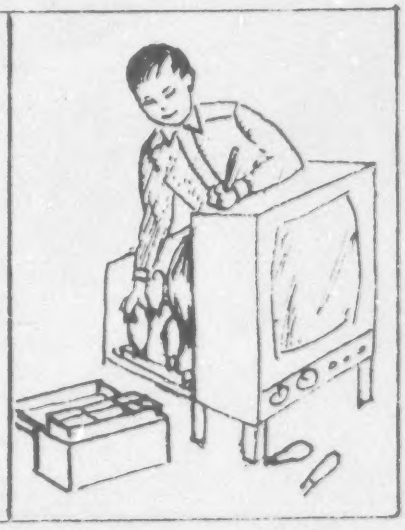
11

12



13

14

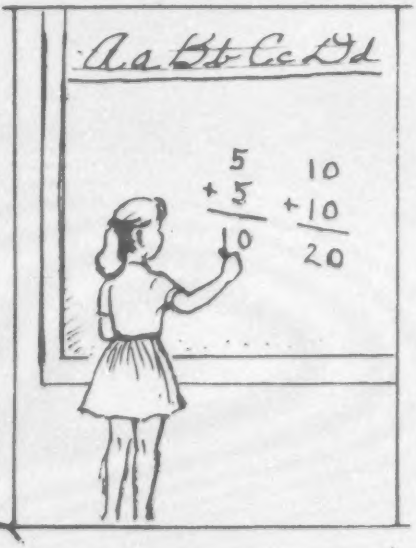


15

16

17

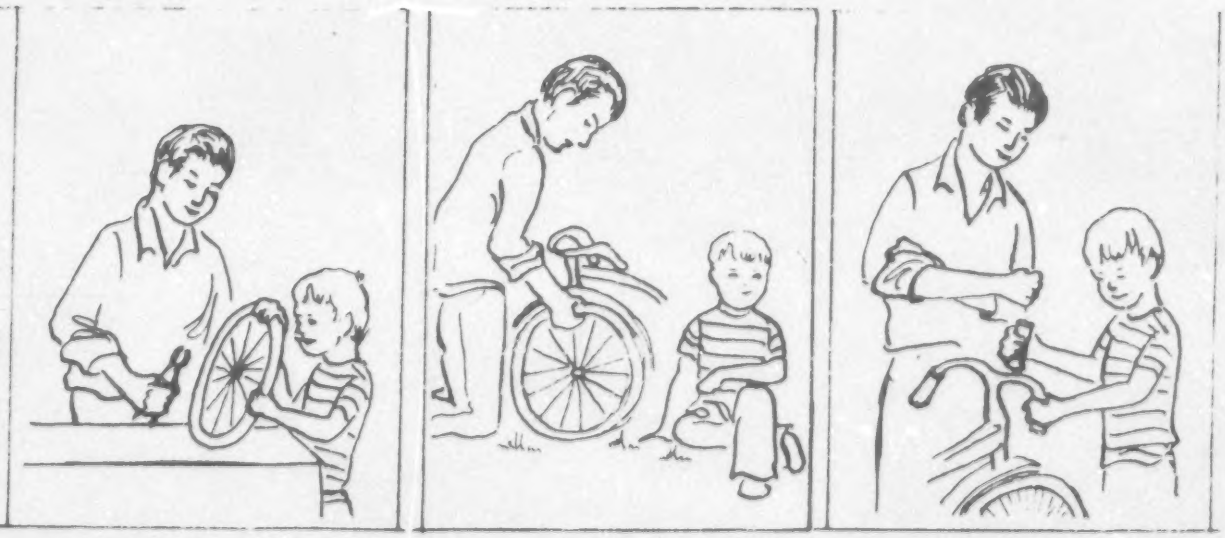
18



19

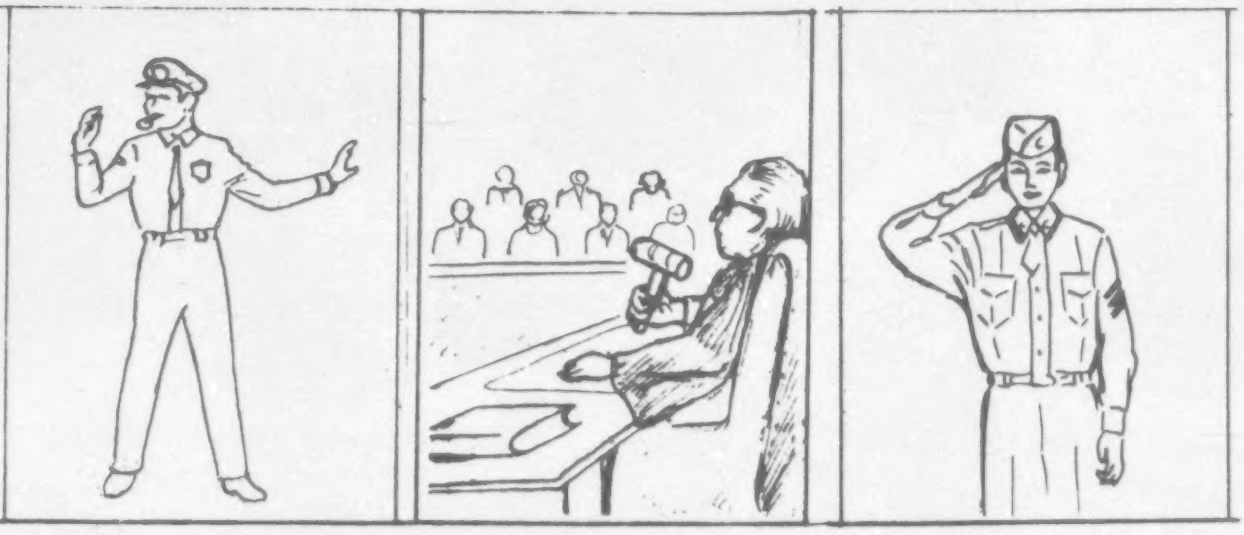
20

21

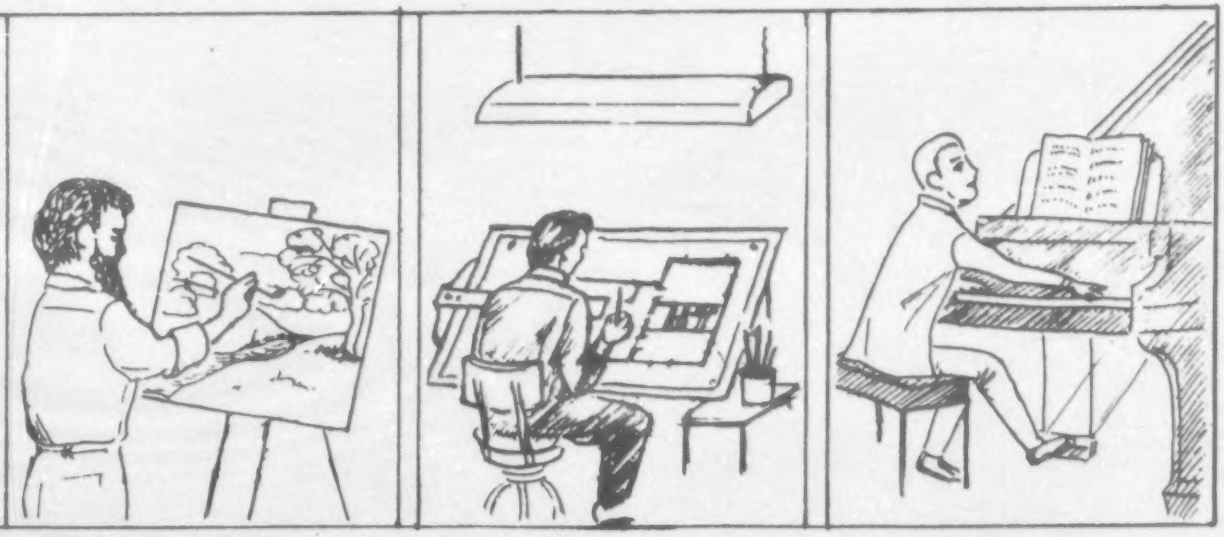


22

23



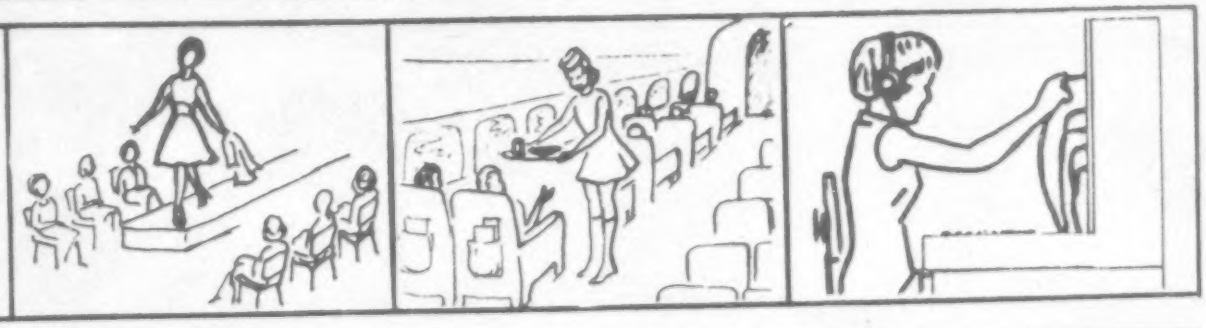
24



INTERMEDIATE LEVEL

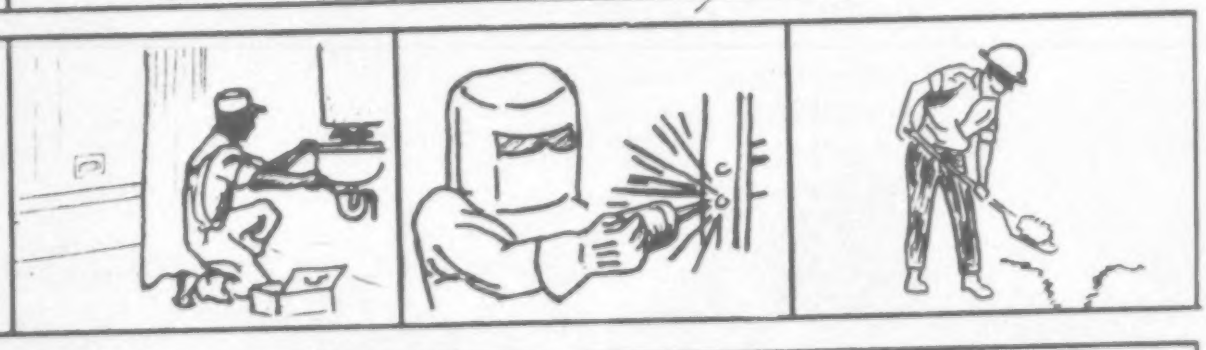
6

7

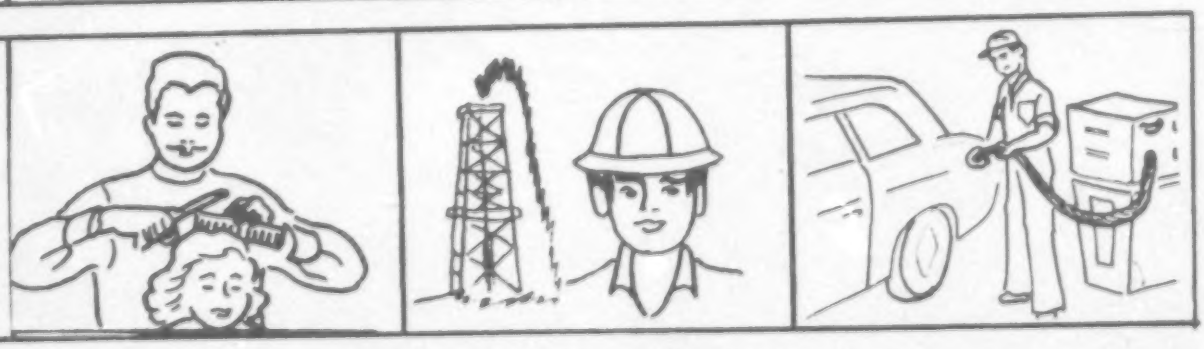


8

9



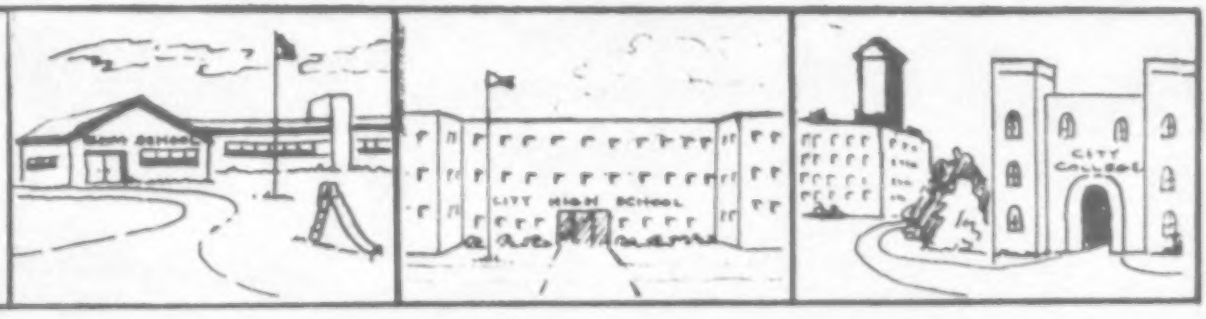
10



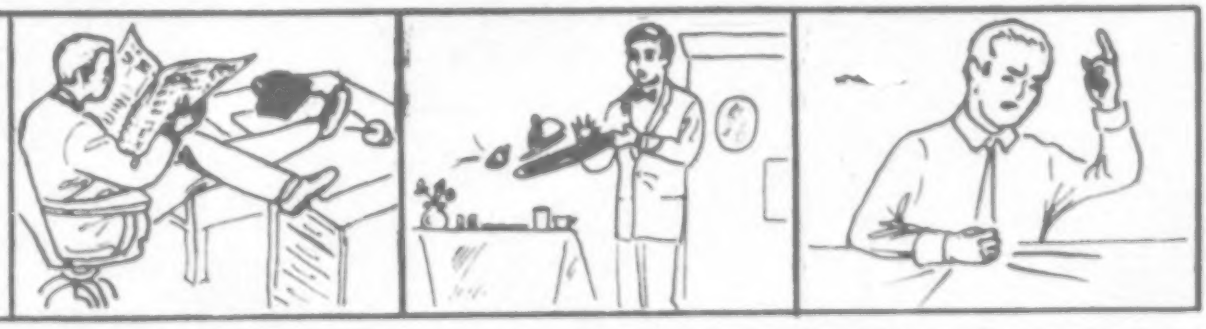
11
12
13
14
9x3=
Dogs
CC
BUG OFF

16

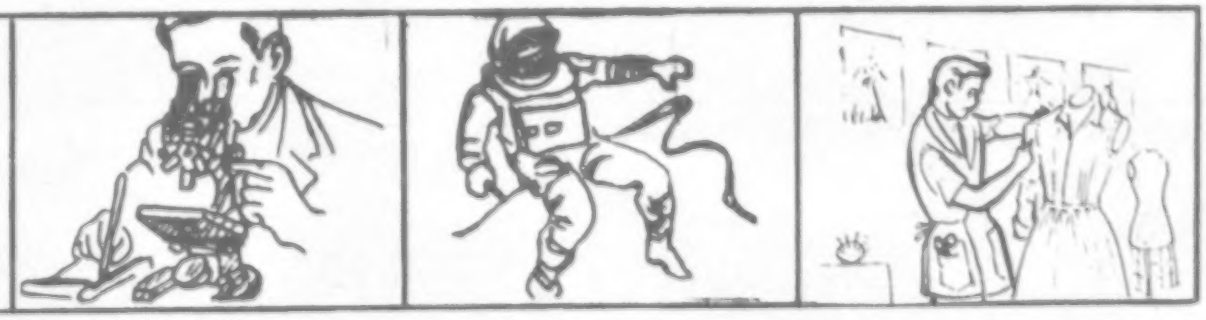
17



18

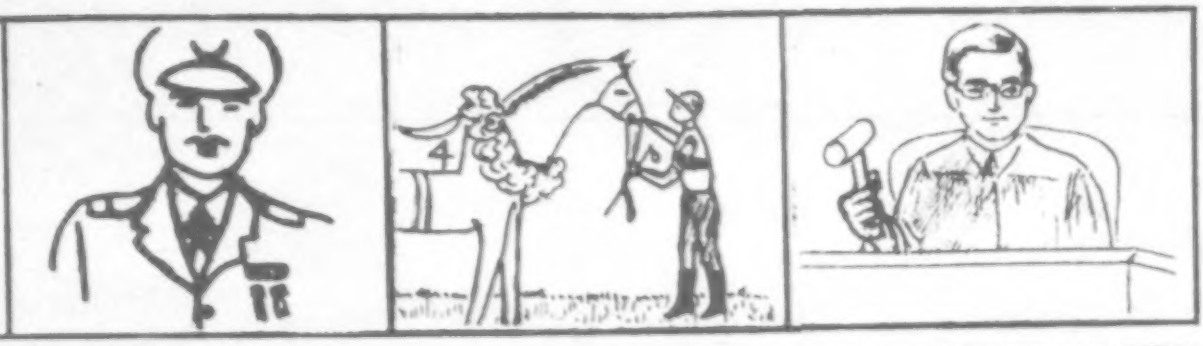


19



20

21



22

23

24

ACCESSION NUMBER: VT102127

PUBLICATION DATE: 15DEC74

TITLE: RESEARCH AND DEVELOPMENT PROJECT IN CAREER EDUCATION. FINAL REPORT.

DESCRIPTOR: *CAREER AWARENESS; *CAREER EDUCATION; *ELEMENTARY GRADES; *RURAL SCHOOLS; INSERVICE TEACHER EDUCATION; *RESOURCE MATERIALS; PROGRAM COORDINATION; PROGRAM EVALUATION

IDENTIFIER: CASCADE COUNTY; MONTANA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 164P.

ABSTRACT: THE PROJECT WAS DESIGNED TO OPERATE IN THE RURAL ELEMENTARY SCHOOL DISTRICTS OF CASCADE COUNTY, MONTANA AND TO ACCOMPLISH FOUR PRIMARY PURPOSES: (1) TO ESTABLISH PROGRAMS IN THE ELEMENTARY (K-6) LEVEL TO INCREASE CAREER AWARENESS, (2) TO DEVELOP MATERIALS TO EXPAND THE STUDENTS' AWARENESS ABOUT THE WORLD OF WORK, (3) TO DEVELOP MATERIALS TO HELP INSTRUCTORS PRESENT THE WORLD OF WORK TO STUDENTS, AND (4) TO PROVIDE INSERVICE TRAINING FOR PROFESSIONAL STAFF. A CAREER AWARENESS COORDINATOR WAS EMPLOYED BY THE GREAT FALLS VOCATIONAL CENTER TO FACILITATE THE ACCOMPLISHMENT OF THESE PURPOSES. TIME PERIOD COVERED BY THE REPORT IS JUNE 15, 1973 - DECEMBER 15, 1974. PROCEDURES AND PROGRAMS WERE DEVELOPED TO SUPPORT SPECIFIC GOALS AND OBJECTIVES. RESULTS INDICATE THAT SOME STAFF CHANGED TO HOLD MORE FAVORABLE ATTITUDES AFTER INSERVICE TRAINING AND EXPOSURE TO CAREER EDUCATION MATERIALS. A LONGER PROGRAM WITH MORE PLANNING AND COORDINATING STAFF AND ENOUGH FINANCIAL BACKING TO PERMIT MORE PROGRAM DEVELOPMENT WAS RECOMMENDED. APPENDIXES INCLUDE VARIOUS CAREER EDUCATION MATERIALS AND ACTIVITIES, A RESOURCE MATERIALS CATALOG, AND PROJECT EVALUATION BY THE BUREAU OF EDUCATIONAL SERVICES, MONTANA STATE UNIVERSITY. (MF)

CONTRACT NUMBER: OEG-0-73-2919

INSTITUTION NAME: MONTANA STATE DEPT. OF PUBLIC INSTRUCTION, HELENA.

SPONSORING AGENCY NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 127

FINAL REPORT

Project No. V361047L
Grant No. OEG-0-73-2919

Research and Development Project
in Career Education

Conducted Under
Part C of Public Law 90-576

Benjamin A. Ulmer
Vocational Skills
Office of the Superintendent
of Public Instruction
Helena, Montana 59601

December 15, 1974

VT 102 127

FINAL REPORT

Project No. V361047L
Grant No. OEG-0-73-2919

Research and Development Project
in Career Education

Conducted Under
Part C of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Bureau of Occupational and Adult Education, Office of Education, U.S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Benjamin A. Ulmer
Vocational Skills
Office of the Superintendent
of Public Instruction
Helena, Montana 59601

December 15, 1974

TABLE OF CONTENTS

Page

SUMMARY OF THE REPORT

Time Period Covered by the Report 1

Goals and Objectives of the Project 1

Procedures Followed 1

Results and Accomplishments 2

Evaluation 3

Conclusions and Recommendations 3

BODY OF THE REPORT

Problem Area Toward Which the Project Was Directed 5

Goals and Objectives of the Project 6

Description of the General Project Design 7

Results and Accomplishments of the Project 8

Evaluation 12

Conclusions, Implications and Recommendations 13

APPENDICES

Appendix A

Career Education Activity Book (Sampling)

Appendix B

Career Education Materials (Purchased)

Appendix C

Newspaper Articles of Career Education Project

Appendix D

Resource Catalog

Table of Contents--contd.

Appendix E

Community Resource Packet

Appendix F

Pre-Post Assessments of Teachers and Students

Appendix G

List of Potential Resource Personnel

Appendix H

Career Education Advisory Committee

Appendix I

Evaluation - Bureau of Educational Services

LIST OF TABLES AND ILLUSTRATIONS

Page

Table 1

Procedural Design Model 9

Table 2

Procedures and Activities 10

SUMMARY OF THE REPORT

Time Period Covered by the Report

June 15, 1973 - December 15, 1974

Goals and Objectives of the Project

1. To establish programs on the elementary (K-6) level that are designed to increase career awareness.

2. To develop materials that will expand the students' awareness about the "world of work" in grades 1-6.

3. To develop materials that will help teachers present the "world of work" in grades 1-6.

4. To provide inservice training for professional staff.

5. To continue Research and Development Project in Career Education, Grant No. OEG-0-72-0924.

Procedures Followed

The project coordinator:

1. Established a working relationship with the Cascade County Superintendent of Schools, superintendents of rural elementary schools, principals and teachers.

2. Became familiar with the career education concept and studied the many programs in existence.

3. Held a workshop on career education entitled, "An Introduction of Career Education" for all participating schools.

4. Distributed workshop packets to schools and staff members who were unable to attend the workshop.

5. Planned and developed a ten-week workshop for participating teachers to attend.

6. Developed a career education resource center at the Great Falls Vo-Tech Center.

7. Prepared newspaper articles and pictures and participated in a radio interview to give the community information about the rural career education program.

8. Visited with the third party evaluator in order to develop a pre-post assessment for both teachers and students.

9. Developed a career education resource catalog and bibliography for all rural schools and staffs.

10. Conducted a field trip to Helena so the teachers could observe and study an established career education program.

11. Scheduled a field trip for rural girls to observe careers for women.

12. Developed a packet informing the Great Falls community about our program and asking their involvement.

13. Hired prominent career education people to promote the career education concept; both local and out-of-state.

14. Promoted a Career Education Advisory Committee from each of the rural schools to help plan future events.

15. Developed a career education activity packet for each rural school to implement into their current curriculum.

16. Purchased career education materials for each school to promote the career education concept.

17. Initiated various assessment tools to sample community, parents, teachers and students as to their attitudes and knowledge of career education.

18. Encouraged each school to continue the career education program after completion of the project.

Procedures and programs listed above were developed to support specific program goals and/or objectives. The reader is invited to refer to the body of this report for a detailed description of procedural methodology.

Results and Accomplishments

School administrators, principals and teachers appear to hold favorable attitudes toward the career education concept once they have had some inservice training, exposure to hands-on materials, exposure to what other teachers are doing, and after developing career education activities to fit their curricula.

Increased interest was evidenced in most of the schools when materials were placed in the schools, when a career education course was offered, when resource specialists were brought in for inservice training, and when teachers and administrators had an opportunity to visit another town and observe their career education program. Because of this exposure to the career education concept, many of the schools did a "needs assessment" and started developing career education activities to enrich their present curriculum. Many of the teachers developed their own activities to support much of the commercial materials within their schools.

Many teachers that resisted earlier attempts at implementing the career education concept had changed their minds by the close (termination date) of the program and were taking a "second look". Some had decided that career education was not just a fad and saw merit in it since they stated that they would implement some career education activities.

The program was in existence eighteen months and served Cascade County rural elementary schools. After the eighteen months of service to these schools, many felt the program should be extended for at least two more years.

Evaluation

The Bureau of Educational Services, Dr. Eric Strohmeyer, Director, Montana State University, was awarded a contract to evaluate the project. His findings will be reported to the Vocational Skills component, Office of the Superintendent of Public Instruction, Helena, Montana.

Conclusions and Recommendations

The program has generated a good deal of interest in the career education concept within the participating schools. School personnel have contributed time and effort to the program and are responsible, to a large extent, for progress to date. It is recommended that a greater effort must be directed toward supervision and coordination of teachers' efforts as the teacher is the most important ingredient in developing the career education concept.

The following recommendations are offered for consideration:

1. Have a longer program--at least a three- or four-year program. Select only two or three schools the first year.

2. Involve schools that have administrative members committed to developing the career education concept.

3. If a project must involve 10-12 schools, hire more staff to help plan, organize and coordinate programs. More staff can only mean more time in the schools with staff.

4. Have enough financial backing to send teachers, administrators, board members or parents to observe established programs to see first hand other career education programs.

5. Give teachers/staff time off, with pay, to develop worthwhile programs. Teachers need time away from the classroom to plan, organize and establish "grass roots" career education concepts.

6. Have the schools match federal funds in order to induce more energy, time and effort from the participating schools in planning and organizing programs.

7. A needs assessment should be taken before federal monies are appropriated to determine the need for a particular program.

8. Have a follow-up study a year after termination of the program to study the outcome by determining what lasting service the program has had on teachers, students, parents and community.

BODY OF THE REPORT

Problem Area Toward Which the Project was Directed

The research and development project in career education was an attempt to develop the career education concept in participating rural elementary schools within Cascade County, State of Montana. The overall purpose of the program was to help students become aware of the world of work, give students an awareness of self and others, and to be a means of nurturing students in their academic achievements.

In the initial stages of the program reliance was made upon available career education publications. In the book Career Education and the Elementary School Teacher, authored by Kenneth B. Hoyt, et. al., Sidney P. Marland, Jr., is quoted as follows:[1]

> "What the term 'career education' means to me is basically a point of view, a concept--a concept that says three things: First, that career education will be a part of the curriculum for all students, not just some. Second, that it will continue throughout a youngster's stay in school, from the first grade through senior high and beyond, if he so elects. And third, that every student leaving school will possess the skills necessary to give him a start to making a livelihood for himself and his family, even if he leaves before completing high school."

Kenneth B. Hoyt, in the same book, had this to say about career education:[2]

> "Career education is...the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into the personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual."

This literature resource proved to be a great aid in developing the career awareness program in our rural schools.

---

[1]Hoyt, Kenneth B., et. al., Career Education and the Elementary School Teacher (Salt Lake City, Utah: Olympus Publishing Co., 1973) p. 17.
[2]Ibid., pp. 17-18.

The cluster concept offered by the U. S. Office of Education, Washington, D.C., was one of the initial concepts offered to our rural schools. Other career education literature was implemented during inservice training workshops and during a graduate course offered by our Montana University System, "Implementation of Career Education". Many pieces of literature helped establish the priorities and needs for our career education project.

Goals and Objectives of the Project

1. To establish a working relationship with each of the participating schools and the county superintendent.

2. To conduct a needs assessment in the participating rural schools.

3. To assist the schools in implementing career awareness programs based on their needs assessment.

4. To motivate teachers and help them inplement the career education program in their own schools.

5. To assist students in developing their career aspirations through the following objectives:

   a. Understanding and acceptance of self.
   b. Understanding and discipline of work.
   c. Understanding that the concept of work is a valued institution.
   d. Acquiring knowledge about work.
   e. Acquiring and developing interpersonal skills.
   f. Understanding that individuals differ in their interests, abilities, attitudes and values.
   g. Acquiring respect for people and the work they do.
   h. Developing better attitudes toward school subjects and school in general.

6. To develop techniques of presenting career education concepts in the participating schools.

7. To assure that outside consultant help will be made available.

8. To provide rural schools with a means of acquiring career education materials.

9. To develop a bibliography of career education materials that can be used by the school personnel.

10. To utilize the results of research and materials from other career education programs in Montana and other states.

11. To continue the research and development project in career education (Grant No. OEG-0-72-0924).

Description of the General Project Design

The project was designed to include all Cascade County rural elementary schools, grades 1-6. The schcols included, with number of students, were:

School	Number of Students
Armington	32
Belt	247
Centerville	179
Calvert	4
Cascade	253
Deep Creek	4
Fort Shaw-Simms	224
Mountain Valley	3
Portage	5
Sun River	117
Neihart	17
Ulm	107
Vaughn	160
Total	1,352

The project was to involve as many of the rural school staffs as possible and to introduce, plan, organize and implement career education concepts into their current school curricula.

The project was housed at the Great Falls Vocational-Technical Center with a project coordinator whose purpose was to assist the rural schools with the introduction, planning, organization and implementation of the career education concept into the current school curricula.

The project coordinator worked with the Great Falls career education staff and shared their concepts of career education with local and rural schools.

The project involved Northern Montana College, which offered a career education course (VT. 605) and Montana State University, which acted as a third party evaluator of the project.

The project involved expertise in career education from various parts of the country to provide inservice training, workshop materials and ideas for developing the career education concept in the rural schools.

The project included field trips for both staff and students to observe the "world of work" and other school districts involved with career education.

The project involved pre-post assessments of teachers, administrators and students to assess their knowledge and attitudes toward career education.

The project involved the purchase of many commercial career education materials which were used to introduce career education activities and inspire teachers to develop other career education activities.

The procedural design model shown in the following table was utilized in establishing the career education program (See Table 1).

The procedures and activities as outlined in Table 2 were developed to help establish the research and development project in career education (See Table 2).

Results and Accomplishments of the Project

1. Inservice training and workshops were held to provide school administrators, counselors and teachers with the concept of career education.

2. A graduate course, "Implementation of Career Education", was offered to participating schools to help them plan, organize and implement career education concepts into their present curricula. Appendix A contains a sampling of the Career Education Activity Book that was developed from this course.

3. Commercial career education materials were purchased for individual schools to provide activities and ideas for teachers to assist them in developing their own activities. Appendix B contains a list of these materials.

4. Newspaper articles were published in the local newspaper to publicize and inform the community of the career education project. Appendix C contains the various newspaper articles.

5. A resource catalog was published and revised for school personnel to use as an aid in assisting them in planning and developing career education activities. Appendix D contains the Resource Catalog.

6. An information "giving" and "receiving" packet was developed to provide information to local businesses regarding the career education project and solicit the services of business people as resource persons from the community. Appendix E contains the packet.

7. A pre-post assessment was developed for both students and teacher/administrators to seek their knowledge and attitudes toward career education. Appendix F contains these assessments.

TABLE 1

PROCEDURAL DESIGN MODEL

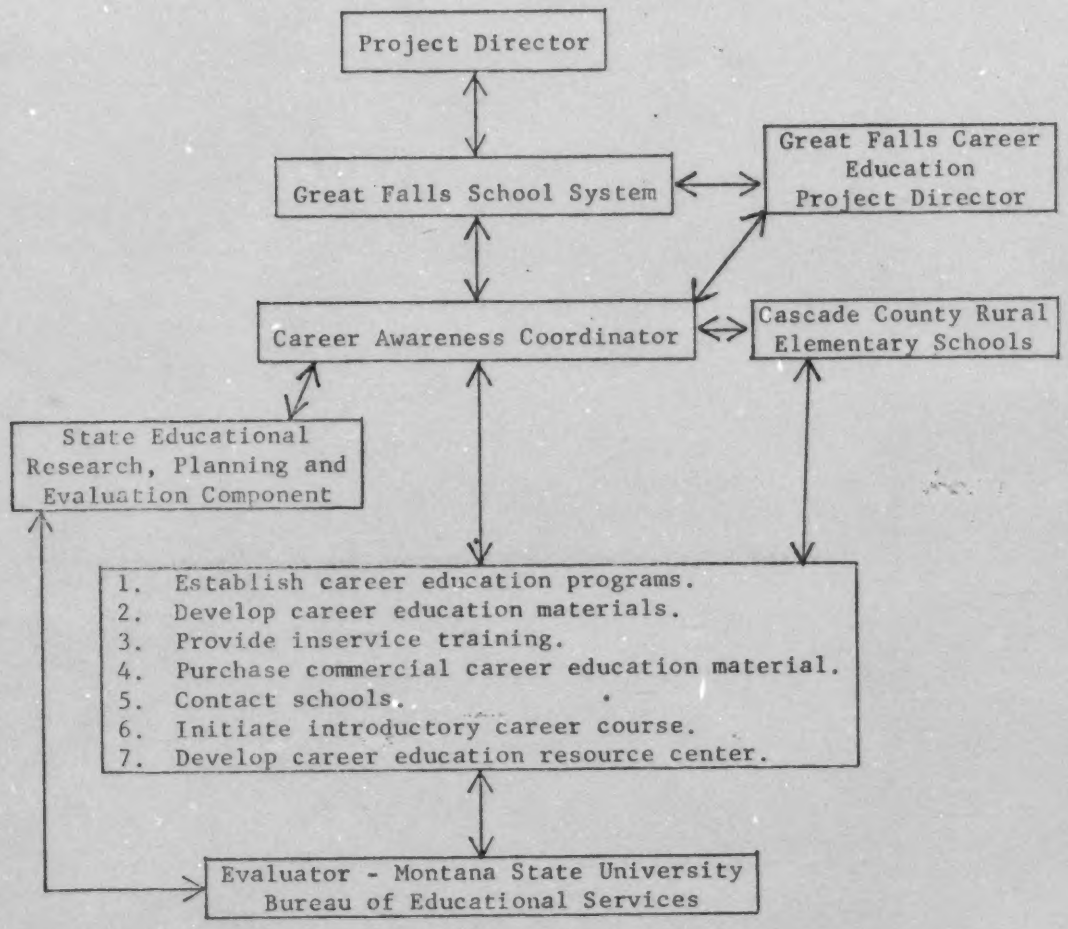


TABLE 2

PROCEDURES AND ACTIVITIES

Procedure 1: To establish programs on the elementary (K-6) level that are designed to increase career awareness.

Activities

1. To help the individual schools plan and adopt their own career education program.

2. To establish a working relationship with each of the participating schools and the county superintendent.

3. To assist the schools in implementing career awareness programs based on the needs assessment in relation to program objectives.

4. To insure that a needs assessment was done in the rural schools.

Procedure 2: To develop materials that will expand the students' awareness about the "world of work" in grades K-6.

Activities

1. To provide rural schools with the means of acquiring career education materials.

2. To develop a bibliography of career education materials that can be used by school personnel.

3. To assist students in development of their career aspirations through the following objectives:

   a. Understanding and acceptance of self.
   b. Understanding and discipline of work.
   c. Understanding that the concept of work is a valued institution.
   d. Acquiring knowledge about work.
   e. Acquiring and developing interpersonal skills.
   f. Understanding that individuals differ in their interests, abilities, attitudes and values.
   g. Acquiring respect for people and the work they do.

4. To develop better attitudes toward school subjects and schools in general.

Table 2--contd.

Procedure 3: To develop materials that will help instructors/teachers present the "world of work" in grades K-6.

Activities

1. To interest teachers and help them implement the program in their own schools.

2. To utilize the results of research and materials from other career education programs in Montana and other states.

3. To help rural schools develop and acquire career awareness materials.

Procedure 4: To provide inservice training for professional staff.

Activities

1. To develop techniques of presenting career education concepts in the participating schools.

2. To help the individual schools plan and adopt their own career education program.

3. To assure that outside consultant help be available.

4. To conduct or insure that inservice training is provided for staff in the rural elementary schools.

Procedure 5: To continue the Research and Development Project in Career Education (Grant No. OEG-0-72-0924).

Activities

1. Proposed list of questions to be answered by evaluation:

   a. What career awareness programs are implemented?
   b. Are the career awareness materials assembled usable by staff and students?
   c. Did students' attitudes toward school improve?

8. A list of potential resource personnel was developed for each school and teacher in that school. Appendix G contains that list.

9. A Career Education Advisory Committee was initiated from the participating schools. Appendix H contains a list of the members.

10. The participating schools did their own school curriculum assessments to determine what career education activities they would emphasize.

11. The coordinator made continuous trips to the participating schools to keep in close contact concerning the progress and development of the project.

12. The project's greatest accomplishments were:

    A. Gave exposure to rural schools as to what was happening across the nation with the career education concept.

    B. Assisted rural schools to reassess their current curricula.

    C. Assisted in the mutual exchange of curriculum activities from the local (Great Falls School District #1) school district to the rural school districts.

    D. Expert career education resource personnel were brought in for workshop and inservice training.

    E. Career materials were purchased and developed by the rural school staffs for implementation.

    F. Most important, the project provided a service to the rural teachers by assisting them to make school a more meaningful experience for their students by preparing them for the world of work and assisting them to have a better understanding of themselves, their peers and the world around them.

Evaluation of the Project

Montana State University's Bureau of Educational Services, Dr. Eric Strohmeyer, Director, was awarded a contract to evaluate the project. His findings were reported to the Vocational Skills component, Office of the Superintendent of Public Instruction, Helena, Montana. (See Appendix I).

Conclusions, Implications and Recommendations

The goals and objectives of this project appear to have been met with the exception of student changes and student outcome (student self-concept, self awareness, attitudes). Much of the success of this project was due to the unselfish efforts of those educators that wanted to become involved. It was through their efforts that the career education concept was developed and became a part of their school curricula.

If career education programs on the rural elementary level in Cascade County are to be more successful, the following recommendations should be given consideration.

1. A longer program should be conducted; at least a three year program. Ample opportunity would be afforded teachers to fully implement this educational concept. Only two or three schools should be selected for the first year.

2. Involve schools that have administrative staff committed to the career education concept--teachers need this impetus.

3. If a project must involve 10-12 rural schools, hire more staff to help plan, organize and coordinate the program. More staff can only mean more time with each school and staff.

4. Enough financial backing should be available to send teachers, administrators, board members and parents to observe established career education programs.

5. Give teachers/staff time off, with pay, to develop curricula. Teachers need time away from the classroom to plan, organize and establish a "grass roots" career education program.

6. Have each school match federal money in the promotion of the career education concept. If the schools matched federal funding, they would put forth more energy, time and effort in planning and developing a program.

7. Before any funds become available for any program, a needs assessment should be conducted. This needs assessment should be used to sample schools to find out how their staff feels about a new educational concept.

8. Conduct a follow-up study one year after the program has terminated. This follow-up could answer such questions as:

   a. Has the program helped students understand themselves and their peers better?
   b. Has the program helped to make more worthwhile citizens of students, more productive in school, on-the-job?

c. Has the program helped teachers to become more involved with curricula and students?

d. Has the home (parents) and community become more involved with school activities?

APPENDIX A

Career Education Activity Book
(Sampling)

CG 605

"Career Education - Activity Book"

Prepared by:
J. Budd Hovey
Charles Strand

Rationale: The purpose of this "activity Book" is to provide teachers in Grades K - 6 activities that they might use to introduce "Career Education Concepts" into current school curriculum.

There is growing criticism of American education and a growing concensus that part of the cure is to be found in something called Career Education. There is no need to reiterate all the shortcomings of American education; they are too well known to need repeating here. However, central among the inadequacies of our education system is the failure to prepare students relevantly and effectively for the world of work, the arena of endeavor where their most important life contributions - or lack of them will occur.

About one-third of all students pass through high school via what is known as the "general education curriculum" a type of education which leaves its graduates neither qualified for the world of work nor qualified to pursue higher education.

There is an undesirable and counter-productive separation of the vocational education, general education, and academic curricula in our schools, with the result that those in the vocational curriculum are seen as low status technicians, while those in the academic curriculum emerge with little contact, preparation toward, or qualification for the world of work.

Because of the widely held view that a BA degree is the only kind of respectable occupational preparation in our society, many high school students choose academic preparation. However, a significant number of these do not go on to college and far more begin college than complete it. In addition, the numbers who do complete college are increasingly out of proportion to the occupational opportunities in society. In a free society no system can guarantee an exact matching between individual needs and educational optiions, nor can any good educational system both provide the opportunity to change direction and eliminate dropouts entirely. Nevertheless, the magnitude of these discontinuities represents a major problem.

*Reprinted from a U.S. Office of Education discussion draft by the Office of the Superintendent of Public Instruction, Helena, Montana 59601.

The vocational offerings in our schools and those students who elect them, are relegated to second class status. Despite the importance and relevance this type of preparation has in modern industrial society, it has such far lower status than academic preparation that it does not constitute a real option for many students.

Our present system has insufficient flexibility which often results in premature tracking, and failure to offer individuals the option of changing direction during their years of preparation or of obtaining new training and shifting occupations later in life. A major deterrent to flexibility is the failure to provide educational credit for knowledge gained through actual job performance.

At all levels of the educational system and throughout society there is a growing discontent with the failure of school experiences to be relevant and useful to the lives which students must live when they graduate.

THE PURPOSE OF CAREER EDUCATION

The main purpose of Career Education is to prepare all students for a successful and rewarding life of work by: 1) making education more meaningful and more relevant to the aspirations of students; 2) improving the basis for occupational choice; 3) increasing the real choice and alternatives people have among occupations and the training avenues to them; and 4) facilitating the acquisition and transfer of occupational skills. Career Education would increase the opportunities and options available to all students. It is not focused explicitly on any particular group or segment of the society (although it may be necessary to use different approaches for different target groups), but is directed at changing the educational system to benefit the total population.

Career Education focuses on the critical decision points at which students must be prepared and equipped to pursue a job or further education or some complementary combination of both work and formal study. It embraces education experiences from early childhood throughout the productive life of an individual. Career Education does not lessen the value of the traditional disciplines and basic learning skills will continue to be required; but it calls for much more emphasis in the curricula of all levels on making better choices about, and becoming better prepared for, an occupational career. By making education more relevant to one's life work, Career Education should increase motivation and improve education performance. By providing students with genuine work experience while in school, Career Education should facilitate the development of the personal attributes that make for a successful and rewarding occupational life. In addition, student decision-making ability should be enhanced by the direct observation and involvement in activities which have real consequences for student actions and performance.

Vocational Education has similar purposes to Career Education, but there is a fundamental distinction. Vocational Education is targeted at producing specific job skills at the high school level and up to but not including the baccalaureate level, while Career Education seeks to make the entire curriculum more meaningful. It embraces all occupations and professions, both their respective technical skills and their associated peripheral work attitudes, and can include any individuals or work settings in or out of school.

BASIC OBJECTIVES OF CAREER EDUCATION

Provide students with a more unifying, relevant curriculum. Infuse academic and general curriculum course offerings with career relevance. End channeling of students into academic and vocational tracks.

Provide educational experiences to give students increasing knowledge of occupational alternatives and the world of work. This experience should begin in elementary school and continue through at least two years beyond high school.

Provide for greater involvement of employers in the educational experience of all students. Employers can make an important contribution through work-study and cooperative education programs, involvement in occupational guidance, career orientation, and placement activities, and in employer conducted alternatives to the "in school house" education.

Provide students with career counseling that begins early in the educational program and follows through to job placement or further education. While the system should be built on the principle of maximizing individual choice, students should be provided with options that are realistically related to labor market conditions. A job placement function should be located in the schools.

Provide opportunity for counseling, for reentry, and retraining for those who have exited the system -- both for those who have failed to gain employment and for those in the world of work. Individuals whose skills are no longer marketable, those in dead-end jobs, and those who want a career change for personal happiness should be able to reenter the system.

Provide its graduates from the secondary level (and each level thereafter) with either the skills to enter the world of work or to embark on additional education. Many career options will require education beyond the secondary level, and the system should provide this experience. The criterion should be that at the exit point for each career option the student is qualified to enter that career.

Provide students with some notion of what is wrong with the world of work particularly the way jobs are structured. Simply preparing students to accept the occupational system is insufficient.

Provide the consumers(students, parents, businessmen) of Career Education with a role in its design and implementation. If students are to gain greater self autonomy and control over their destiny, it is important they be involved in the planning and development of Career Education.

Provide students with credentials that overcome discriminating distinctions both in school and in the society at large. Give credits for vocational courses that are of equal value to those given for college preparatory courses. For those whose work performance qualifies them, give credentials of competitive value for educational or career options. This will require an active role in seeking to change the credentialing procedures for entry into the world of work.

Furthermore, we believe that by better matching individual needs to career preparation, we will increase the personal satisfaction individuals derive from their work and that this in turn will improve their self-esteem and satisfaction with life in general, on or off the job. In addition, we might expect that a better match between society's manpower needs and individuals career preparation would improve unemployment in certain shortage areas.

GOALS: The overall goad of the "activity" Booklet is to provide Career Education activities and experiences at the earliest school age (K-6) to (1) cultivate in each child an awareness that people are involved in and affected by the world of work; (2) to enhance learning about oneb self as a basis for future career decisions; (3) to provide opportunities to become aware of and explore potential occupational fields; and (4) to provide career preparation, based upon occupational clusters, leading to employment or further education in specialized occupational programs.

"Activity" Book - Point of View

This booklet was developed with the idea that career concept of education is built around the premise that each person during his lifetime assumes various careers as a citizen and parent, and in earning a living and utilizing leisure time.

CAREER GENERALIZATIONS - CONCEPTS

1. The preparation for a career begins in the school.
2. There is dignity in work.
3. Most careers require special training.
4. There are many and different types of careers.
5. Cooperation among workers in important in many careers.
6. Many employers regard punctuality, neatness, and loyalty to the company as being of vital importance.
7. The supply of workers and the demand for workers help determine one's career.
8. Abilities, interests, attitudes and values differ in each individual.
9. Positions are related within job families.
10. Careers are grouped by job families or clusters.
11. The choice of a career will affect the individual's total life.
12. Specializing in a specific area leads to interdependency among many people.
13. People work for a variety of rewards or satisfactions.
14. Individuals work to satisfy personal and social needs.
15. The technological changes in our society eliminate some jobs, create others.
16. Social changes bring about new jobs; eliminate old ones.
17. Individuals must be ready to perform in different occupations.
18. Certain kinds of work are limited to a few geographical locations.
19. Observing people at work helps improve one's knowledge about careers.
20. Observing people at work and understanding their role in the world of work helps develop proper attitudes.
21. An individual's value system will affect his career choice.
22. Interaction with workers in a variety of occupations helps improve one's knowledge of careers.
23. All individuals must be able to get information about careers when they need it.
24. Leisure time activities tend to affect one's career choice.
25. Vocational skill development should begin at an early age.
26. An individual's self concept will determine his life's work.

Growth of "Activity" Book

This activity book is by no means complete. The very purpose of this project was to give you - the "grass root" of the classroom, Some activities that might help you develop career education concepts at your grade level.

A second purpose of this activity book would be - to have you develop "activities: of your own to add to the activities presented in this activity book.

We hope that this activity book will help to generate career education concepts and philosophy.

ACTIVITIES

for Various

Grade Levels

DRAWING RELAY

Grades 1-6

Objective:

Communication through drawing

Materials:

Construction paper (several sheets)
Pencils
List of Tools, Products or jobs

Procedure:

1. Arrange the students in groups of five, having them sit on the floor in a circle.

2. Place one pencil and some paper in the center of each circle.

3. Number the students in each circle from 1 to 5. Seat yourself as far away from the circles of students as you can.

4. When the signal is given, the first student from each circle comes to you, he is to come without pencil or paper.

5. Tell each one the name of the first item on the list.

6. Each student returns to his respective circle, takes the pencil in the center and draws (without talking) the item until someone in the circle correctly identifies it.

7. The second person in the circle comes to you and tells you what the group has determined the drawing is.

8. You then give that student a new tool, product or job to draw.

9. A sample list of items or objects follows:

wrench	plywood
policeman	2 x 4
bread	logger
screwdriver	chain saw
waitress	log truck
can	axe
doctor	wedge

Generate a list of about twenty items.

10. Remind the students that if they yell out what is being drawn, others will hear.

Grade Level 1-6
Number of students
Whole Class

INQUIRY

Concept: The process of the Inquiry Approach produces, processes and applies data

Objectives: Students will be able to:

-Use the Inquiry process as one technique for obtaining data about occupations.

-Exhibit a change in skills of communication by improving their data collection and application.

-Peform questioning strategies to create new data about occupations; their traits, responsibilities and tools.

-List the type of questions that will give them large concepts contrasted with those that will give them specific facts.

-Listen, analyze and then respond to created questions.

Statement:

This activity can be adapted to any grade level. The process of the activity is the major focus and should be carried out, at least, three times a week. As students become more skillful, try colors, concepts, words that define concepts, tools, behaviors, feelings,etc,

Materials: 1 felt pen
35 3 x 5 cards

Activity:

Day 1

20 min.-Explain the rules of the simulation

Rules: You may ask questions

You may ask only 3 questions per person

If a person has identified their card then you take it off their back and put it on front of them

Questions can be answered with only yes or no

Place cards on backs of every one in the room and then allow them to ask their questions. If anyone identifies their occupation they are to continue to answer questions for the others.

15 min. After 20-30 minutes stop the activity and have them place their cards on the front and then have them group themselves according to similar services performed. Have each group define why they have grouped themselves in particular group.

10 min.-Discuss the large concept of how and why we group things such as occupations, services, people, society, etc.

5 min. - Finalize lesson by answering questions the students may have on how to ask questions to get data for new questions. Prepare them for the session the next day.

Day 2-3-4-5

60 min.- Continue to use various occupations until students have developed some sort of soohistaication in questioning strategy.

Be sure to use the same strategy as in Day One.

Have the students develop and hand in their jobs they have found, that are different, for the next days cards.

Day 6

60 min.- Implement the student cards. Use the same strategy as in Day One.

Day 7

Iniate new concepts and dimensions of the game. Try behaviors or people traits.

Comment:

Sometimes we should treat the program and not the child. The child is a product of the program. This approach should be used in a non-authoritarian manner. Structuring students natural questioning strategy too much creates un-natural communication. Children should have the opportunity to develop freely with personal guidance from the teacher. There should be no condition to right or wrong but should be considered a fact of human fraility.

Developed by
John Davies
Specialist, Career Awareness
State Board of Education

STATE DEPARTMENT OF EDUCATION
942 Lancaster Drive, NE
Salem, Oregon 97310

Instruction Services
Career Education

Grades 4-6

SIMULATION

EARTH

Concept: Decision-making can take on many forms and levels of thinking.

Objectives: Student will be able to:

- Solve problems through consensus
- Express the development of their group
- Identify factors that cause conflict
- List occupations necessary for their group to operate
- Write job descriptions for their group
- Question actions of other groups
- Develop and organize a representative body of students to carry out room government
- Diagram their room area
- Identify the economic structure of their country
- Recognize differences between individuals and groups

Materials needed:

- Bulletin Board
- Map of Island
- Yellow tape
- Play money
- Felt pens
- Large pieces of butcher paper
- Old Magazines
- Accounting system
- List of natural resources for each country on the Island

Note: This activity is intended to last at least four weeks. The longevity will be determined by the reaction of the students and the ability of the teacher to direct the traffic, both physically and mentally. Normally the activity would be written on a day-to-day basis; but since this activity will require intuition by the teacher, it is impossible to predict the outcomes. So, only the first five days have been defined and paragraphs have been used to explain the possible avenues of exploration for the student.

Activity: Day 1 (20 minutes)

Develop a bulletin board using the attached diagram for your focus. Discuss the bulletin board and the island's various aspects. Tell the students that they are the first people on this island and they need to form five countries. Each area for a country is designated on the map by boundaries and numbers. We will have a drawing on which area your group will be placed.

APPENDIX B

Career Education Materials
(Purchased)

MATERIALS PLACED IN SCHOOL(S)

1. Resource Catalog of Available Materials
2. Occupational Outlook Handbook
3. Vol. I, Career Education Programs (Mifflin)
4. Vol. II, Career Education Programs (Mifflin)
5. CG 605 - Career Education "Activity" Book
6. 1 copy to each school of - "Career Education and the Elementary Teacher"
7. Catalog of Career Education Materials from Helena Public School.
8. 500 - Names, Addresses, Places of Business, Retail, Electrical, etc., as Resources to draw from Community for awareness to World of Work
9. 500 - Letters, Questionnaires, etc., to solicit many of the 500 Resources - Ready to be mailed out when School(s) request certain Businesses (Resource to come to their school)
10. Pre-Post Evaluation Tool to help Evaluate our "Growth" and/or "Results" of Efforts put forth
11. A "Stock Market Simulation" - Game for 6th Grader (s)
12. A Synopses of Selected Career Education Programs
13. Grade 1 - 8 - National Standard Career Education Model - Awareness - Exploration
14. Various Catalogs of Commercial Career Education Materials available (Ex - SRA, Mifflin, etc.)
15. Career Information Packet from Workshop - containing the following materials:

15- 1 Rationale - purpose of Workshop
15- 2 Agenda
15- 3 Career Information Kit (Career Education)
15- 4 Checklist to Developing the Career Guidance Program
15- 5 An Example of a "Community Resources Questionnaire"
15- 6 A List of Suggested Resource Materials - which would supplement the Career Development Guidelines
15- 7 A List of Career Education Concepts
15- 8 Outline of "Research & Development" project, for Cascade County Schools - Rural
15- 9 Career Education - What is happening in Montana (State Department)
15-10 Career Education Program - One Way to Initiate
15-11 Career Education: A Concept (U.S.O.E.)
15-12 Questions we might Give Thought To: as far as implementing Career Education Concepts in Rural Schools
15-13 The World of Work - (State Department)

Materials Placed in School(s) (continued)

15-14 Role of the Classroom Teacher in Career Education
15-15 Why Career Education? The Facts
15-16 What we Know about the learner which might help us in Career Education
15-17 Increase your use of Community Career Consultants
15-18 Placement: The Ultimate Test of a School's Commitment to its Students
15-19 Organizational Information for Teachers
15-20 Occupations Kit Related to:
- 15-20-A Agriculture
- 15-20-B Art
- 15-20-C Biology
- 15-20-D Commercial and Distributive Education
- 15-20-E Chemistry
- 15-20-F English
- 15-20-G Foreign Language
- 15-20-H General Shop & Industrial Arts
- 15-20-I Health & Physical Education
- 15-20-J Home Economics
- 15-20-K Mathematics
- 15-20-L Music
- 15-20-M Physics
- 15-20-N Social Studies

15-21 "The Next Step" - A Comprehensive Program in Occupational Preparation and Placement, Helena Public Schools
15-22 The purposes of exemplary programs and projects
15-23 Research Report: Role Playing and Related Techniques
15-24 Role Playing - An Effective Teaching Method in Introductory Business
15-25 Evaluation form to fill out on Workshop

16. Duso I and Duso II Kits
17. Focus Kit Stages 1, 2, 3 - Self Development Awareness, Responding, and Involvement
18. O.E.K. Occupational Exploration Kits
19. Job Experience Kits
20. 6 - Ken Hoyts - "Career Educationa and the Elementary Teacher"
21. "Career Education f/Rural Administrators - Capital Publications

Materials Placed in School(s) (continued)

22. W.O.R.K. Kits - Widening Occupation Roles Kit
23. SRA - "Keys" Career Exploration
24. Eyegate - Career Education - programs
25. Behavioral Improvement programs
26. Singer - Career Education Materials - film strips & cassettes

APPRENDIX C

Newspaper Articles
of
Career Education Project

Career program planned

A career education program is being developed for 14 outlaying schools in Cascade County by the Great Falls Area Vocational-Technical Center. J. Budd Hovey is director.

Great Falls tradesmen, craftsmen and professional people will have the opportunity to help bring information about job and career opportunities to students in the smaller schools. This kind of community resource is not always available in depth to those youth, Hovey explained.

Schools cooperating in the program are Portage, Neihart, Mountain Valley, Armington, Belt, Centerville, Calvert, Vaugan, Elm, Deep Creek, Cascade, Simms, Fort Shaw and Sun River-Crow.

Local persons interested in assisting may contact Hovey in the Vo-Tech Center at Lincoln School.

Participants will be expected to be available for short periods during the day on a mutually agreeable time. Transportation to the schools will be provided and guide forms available in Hovey's office to assist in the preparation of classroom material.

Great educational potential

A remarkable educational experiment, taking advantage of our space program, will begin next autumn for students in isolated schools in Montana and other Rocky Mountain states.

A satellite, scheduled to be launched next spring, will beam educational television programs to classrooms in 56 rural communities in Montana, Arizona, Colorado, Idaho, Nevada, New Mexico, Utah and Wyoming.

Career education courses will be beamed from the satellite to the classrooms in a attempt to show the rural students the range of career choices opened to them. The experimental program will be directed mainly at junior high school students.

The project will be one of 23 varied experiments that will use the National Aeronautics and Space Administration's communications satellite to be launched next spring.

The educational television experiment has a highly promising potential. It promises to give thousands of rural students advantages they have been denied.

Great Falls Tribune 10-16-73

RESOURCE MATERIALS — J. Budd Hovey, career awareness coordinator for Great Falls Vo-Tech Center, displays teaching training materials being distributed this week to various schools throughout the county.

Schoolchildren learning of career opportunities

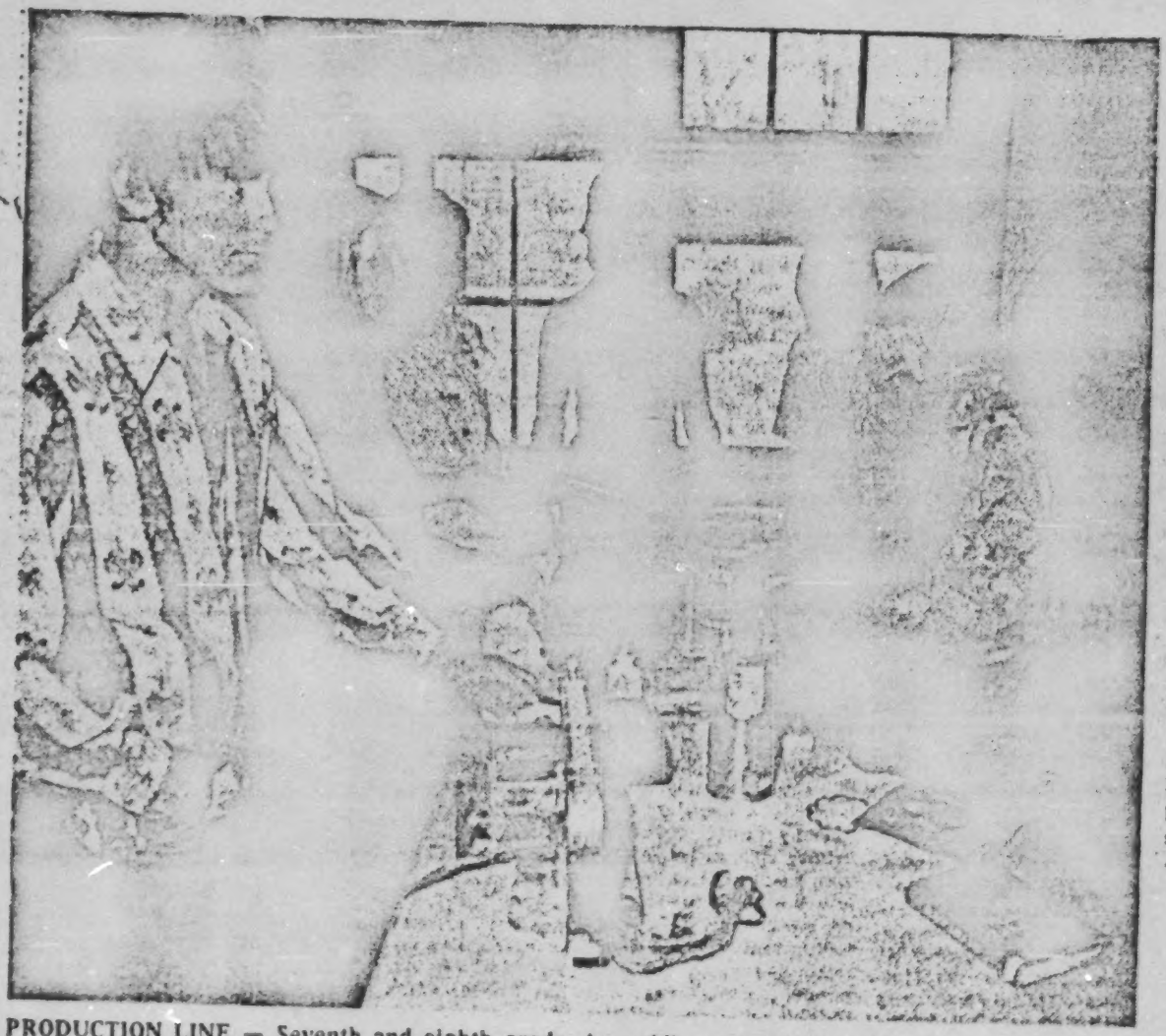
Children from kindergarten through sixth grade in 15 out-of-city schools of Cascade County are becoming made more aware of career opportunities through a new vo-tech program launched here.

J. Budd Hovey, who recently was appointed as career awareness coordinator for the Vocational-Technical program, is involved in extending the awareness to every section of the county. The former physical education instructor and counselor is attempting to make all youngsters more aware of the opportunities that are open to them.

Hovey said many youngsters do not know what their parents do for a living. "Through a program in career education we hope to make children more aware of the world of work," he said.

He recently conducted a workshop for county school representatives at the Largent School where he has his office. Additionally, he is making personal visits to the schools, providing them with books and educational materials and explaining availability of various people in the trades and professions who are available for special programs.

Hovey said he is pleased with response from trade, craft and professional people who have volunteered to assist with the program but added there is room for many more who might be able to explain the rudiments of their work to elementary pupils.



PRODUCTION LINE — Seventh and eighth grade students at the Fort Shaw-Simms Elementary School are learning the operations of a manufacturing business by making and retailing sconces this term. Assembling and finishing the pieces, from left, are Chuck Wilson, Kathy Chemel, Judi Reifer, Tana Brandt, Wade Barkshire, Jim Thoroughman and Mike Ivey. (Tribune photos by Pomnichowski)

Fort Shaw-Simms students study business — problems and all

By RALPH POMNICHOWSKI
Tribune Staff Writer

FORT SHAW — Would you trade a share of stock in a specialized home furnishings business for a snake?

Maybe, if your share was worth 50 cents and you were a youngster attending the Fort Shaw-Simms Elementary School.

Thirty-five shares were sold about six weeks ago by the 48 students in grades 7-8 for capital to start a manufacturing and retailing experiment.

Just as in real business however the students' business experienced a problem — materials availability.

After five directors were elected and the stock sold, materials were ordered to make pairs of sconces to sell at $6.50. Almost all the sconces are made now but the students face the problem of not having the glass chimneys to finish them for delivery.

Gambling on whether the chimneys will arrive before the end of the term so they can get a return on their investment, some students are selling off their shares to their fellows. Or, as in the one case, trading a share for a pet snake.

Conversely the students buying the stock are betting that the chimneys will arrive and that they will turn a profit on their extra shares.

There were labor problems too. It was apparent at the outset that not every student could do every job required in the assembly-line set-up. So decisions had to be made by the directors to place each student — in drafting, advertising, bookkeeping, saw operation, sanding, assembly or finishing.

Before they could get jobs, the students each had to submit an employment application and each had a personal interview with the directors. Afterward they were judged by work sheets as an effort toward production control.

Four student draftsmen got business started by developing three designs for the sconces. Then they made templates for students to follow when operating the jigsaw, purchased from a Great Falls department store on credit.

SCHOOL PRODUCT — Tana Brandt, eighth grader at the Fort Shaw-Simms Elementary School, is chairman of a five-student board of directors for a manufacturing company producing sconces for retail sale. The career education project to teach 48 students in grades 7-8 the operations of business is supervised by teachers John Meckler and Jim Conroy.

The students expended $74.95 for supplies and equipment against initial stock sales revenue of $17.50. The $57.45 debt before sales has been overcome by orders for 18 pairs of sconces which would bring in $117. Ideally the 35 shareholders would get a return of $1.21 on their investment — if the chimneys arrive and the products can be delivered.

Advising the students through their experience are John Meckler and Jim Conroy, teachers at the school.

Business, professional people help students peek into future

By LeROY STAHL

Great Falls' business and professional community is providing more and more educational services not only to the city's children but to those elsewhere in the county as well. It is all a part of the increasing emphasis on career education, a preparation of children for their life in a world of work.

In the spring especially children have traditionally spent days visiting various business places in a community but now it is becoming a part of the curriculum with a planned program before the visitation and a follow-up afterwards.

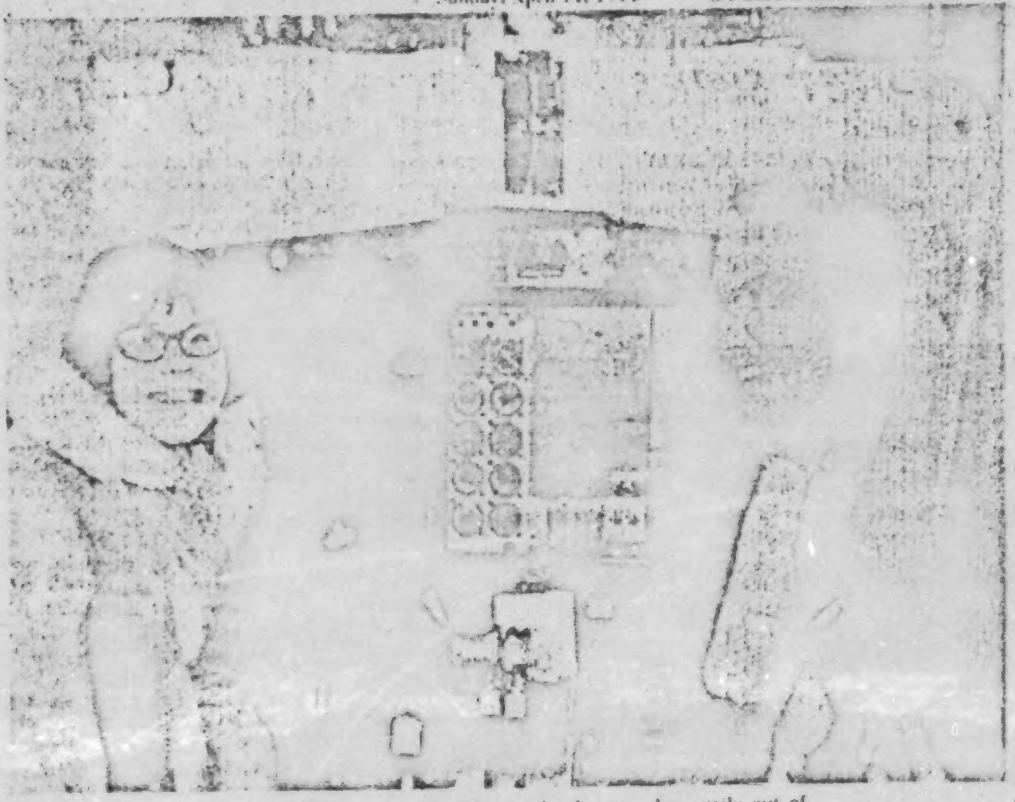
During the visit, a general routine is usually followed. Someone gives an overview of the particular business operation. There is a general tour and then the students divide themselves into smaller groups in which they have an opportunity to observe and question individual workers about their tasks.

This is the plan followed by Charles Strand, elementary consultant in career education for the local schools, and by Budd Hovey, career awareness coordinator at the Vo-Tech Center who has been organizing the program for 14 or 15 schools in the county which, it is hoped, will be eventually participate.

Both men agree that, in its earlier stages and with elementary-age school children, the objective should not be to teach particular skills but to make children aware of the job opportunities which exist for them.

As Frances Jackson, who is in general charge of career education in local schools, expresses it, "We found that too many college graduates in today's world were not really employable. Not only were the young people themselves disenchanted but educators found they had to change their approach to education.

"Not everyone had to be college-bound, that is why we have to make young people and children more aware of the opportunities that lie ahead of them in the world of business, the trades and the crafts and why we are grateful to the businesses and to the individuals in the community who have helped us in getting the program started."



AIRLINE THRILL—Brenda Pike of the Sun River school gets a big smile out of sitting in the pilot's seat of a Western Airlines plane stopping in Great Falls. Second officer Andy Anderson, with the rest of the crew, were very cooperative in showing the youngsters some of the highlights of airline travel. (Stahl photos)

Business, professional people help students peek into future

By LeROY STAHL

Great Falls' business and professional community is providing more and more educational services not only to the city's children but to those elsewhere in the county as well. It is all a part of the increasing emphasis on career education, a preparation of children for their life in a world of work.

In the spring especially children have traditionally spent days visiting various business places in a community but now it is becoming a part of the curriculum with a planned program before the visitation and a follow-up afterwards.

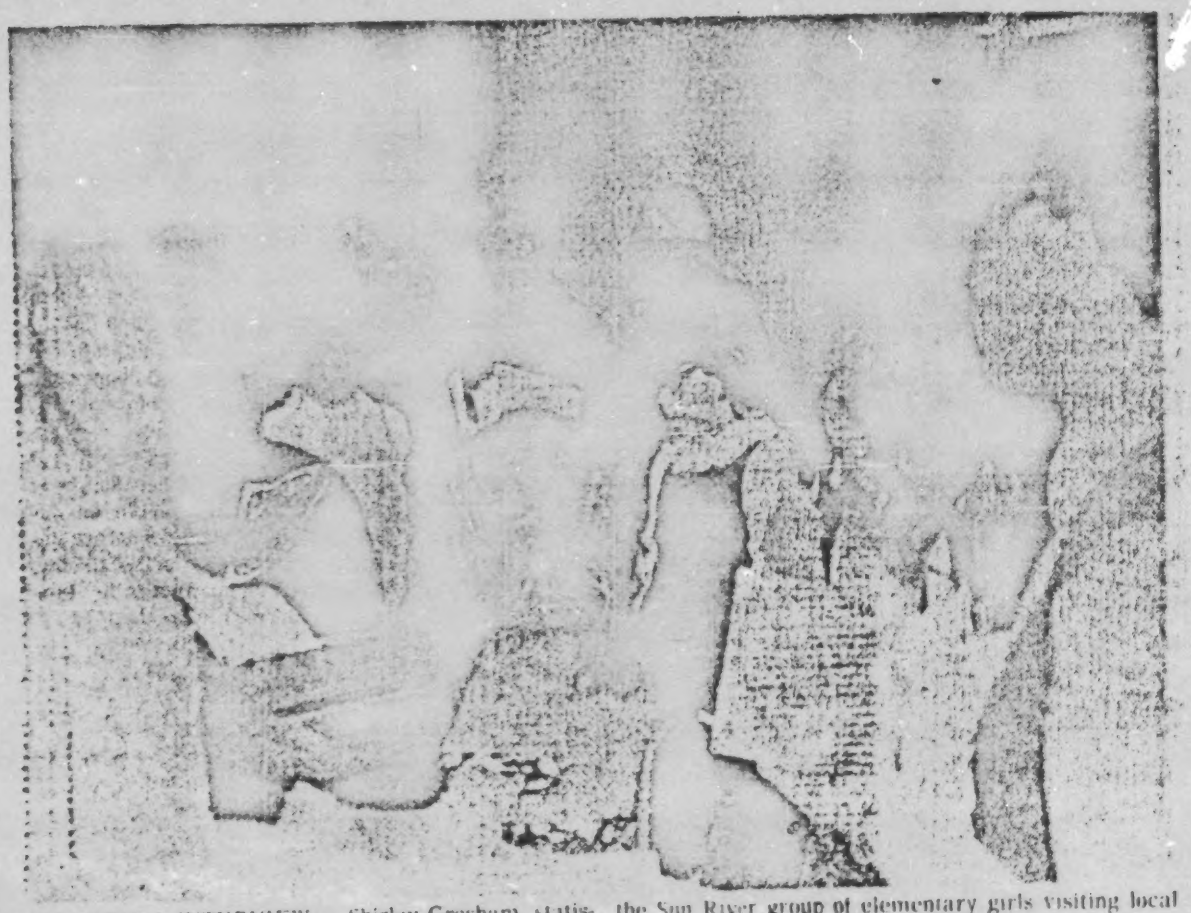
During the visit, a general routine is usually followed. Someone gives an overview of the particular business operation. There is a general tour and then the students divide themselves into smaller groups in which they have an opportunity to observe and question individual workers about their tasks.

This is the plan followed by Charles Strand, elementary consultant in career education for the local schools, and by Budd Hovey, career awareness coordinator at the Vo-Tech Center who has been organizing the program for 14 or 15 schools in the county which, it is hoped, will be eventually participate.

Both men agree that, in its earlier stages and with elementary-age school children, the objective should not be to teach particular skills but to make children aware of the job opportunities which exist for them.

As Frances Jackson, who is in general charge of career education in local schools, expresses it, "We found that too many college graduates in today's world were not really employable. Not only were the young people themselves disenchanted but educators found they had to change their approach to education.

"Not everyone had to be college-bound, that is why we have to make young people and children more aware of the opportunities that lie ahead of them in the world of business, the trades and the crafts and why we are grateful to the businesses and to the individuals in the community who have helped us in getting the program started."



INDIVIDUAL INTERVIEW — Shirley Gresham, statistical clerk in the Montana Blue Cross office, answers questions initiated by Sue Gilley, supervising teacher from the Sun River group of elementary girls visiting local businesses. Boys from the Sun River school had visited local businesses previously.

APPENDIX D

Resource Catalog

CAREER EDUCATION

RESOURCE MATERIALS

CATALOG

CAREER EDUCATION PROJECT
Grant No. OEG-0-73-2919

Career Education Resource Materials

Catalog

GREAT FALLS VO-TECH CENTER - LARGENT

Box 2428

915 First Avenue South

Great Falls, Montana 59403

January 29, 1974

Revised July 3, 1974

J. BUDD HOVEY, COORDINATOR

CAREER EDUCATION PROJECT MATERIALS

These materials were gathered during a federally financed Career Education program covering a period from June 15, 1973 to December 15, 1974.

The 15 schools involved were: Armington, Belt, Calvert, Cascade, Centerville, Deep Creek, Fort Shaw, Mountain Valley, Neihart, Portage, Simms, Sun River (Crow), Ulm, Vaughn.

Budd Hovey acted as the Career Awareness Coodinator for the project. The materials are available through the Great Falls Vo-Tech Center - Largent School. The materials may be ordered for two week periods by sending in an order blank or calling Budd Hovey, or the Secretary of the Vo-Tech Center - Largent School 761-5800, extension 378.

When this project terminates this December 15, 1974, these materials will be moved to the Cascade County Superintendent's Office and may be checked out through that office. Their phone number is: 761-6700.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-1	DARE TO BE DIFFERENT	Guidance Associates	6-9

The object of this series is to stimulate teenagers to think about the kind of person they want to be. Although the world pressures them to conform, the fast-moving technological age needs the ideas and work of creative nonconformists.

A-2	YOUR PERSONALITY: THE YOU OTHERS KNOW	G.A.	6-8

The objective of this program is to motivate student discussions of various facets of personality. It tells how teenagers need to achieve a sense of self-unique, growing, rewarding--the ultimate goal of personality development.

A-3	FAILURE: A STEP TOWARDS GROWTH	G.A.	6-9

A constructive approach to handling failure and for teaching your students specific ways to convert negative experiences into constructive ones.

A-4	JOBS AND GENDER	G.A.	6-9

This program encourages students to explore what they really would like to be and do rather than what they think society expects them to be.

A-5	JOB HUNTING: WHERE TO BEGIN	G.A.	6-9

This program provides the novice job-hunter with the basic information and skills needed for successfully seeking employment. It also focuses on the attitudes and problems frequently encountered during the job hunt.

A-6	ON THE JOB: FOUR TRAINEES	G.A.	6-9

Trainees themselves speak directly to the students about their lives, motivations, hopes, and successes. The focus is on what skill training means and how you can get it.

A-7	JOB ATTITUDES: LIKING YOUR JOB AND YOUR LIFE	G.A.	6-9

This program tries to counteract the overemphasis on white collar work and the consequent downgrading to which the manual arts (blue collar) in this country have been subjected.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-8	WHY WORK AT ALL?	Guidance Associates	6-12

This program deals with the value of work in a person's life, and the attitudes toward accomplishing something in your life.

A-9	JOB ATTITUDES: TROUBLE AT WORK	G.A.	10-12

The purpose of this filmstrip is to help create a better understanding of the typical on-the-job conflicts and, to better equip the student for entering the working world.

A-10	JOB ATTITUDES: A JOB THAT GOES SOMEPLACE	G.A.	8-12

The basic objective is to demonstrate that the only job worth having is a job that goes someplace. Only such a job can yield the prime reward of a satisfying life style, one with dignity and self-respect.

A-11	PREPARING FOR THE JOBS OF THE 70'S	G.A.	6-9

The purpose of this program is to give students a graphic appreciation of a computerized, automated technology, and what this means in the increase and different employment opportunities and the importance of career planning now.

A-12	FOUR WHO QUIT	G.A.	6-9

This program is about the ups and downs of school dropouts. It tries to inform students how important school really is.

A-13	WHAT YOU SHOULD KNOW BEFORE YOU GO TO WORK	G.A.	6-9

Part I explains ways to begin narrowing career choices; discusses positive work attitudes; considers union membership in some areas. Part II offers advice on finding a job, job interviews, and discusses the "don'ts" on the job.

A-14	DROPPING OUT: ROAD TO NOWHERE	G.A.	6-9

This program is structured to make all teenagers respond to situations of present dropouts. The program also acts as a catalyst in promoting a re-evaluation of educational and job goals and motivations.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-22	HIGH SCHOOL COURSE SELECTIONS AND YOUR CAREER	G.A.	10-12

This two-part program establishes the relationship between the student's secondary education and his future beyond high school. It explores practical values and the educational significance of the required subject areas.

A-23	HOW TO SUCCEED IN HIGH SCHOOL BY TRYING	G.A.	10-12

This program shows students that high school is a challenging experience. The attitudes developed and decisions made during high school can affect a person's entire future. This program is designed to show students that they are not expected to achieve success by themselves, but with the expert help of teachers, counselors, and administrators.

A-24	SHOULD YOU GO TO COLLEGE?	G.A.	10-12

This program deals with helping the students decide for themselves about their aims, goals, and careers, and then choosing the college after they have thought for themselves.

A-25	INTERPERSONAL RELATIONSHIPS	G.A.	6-9

This program is designed to help students become more aware of the importance of relationships with others in several ways: 1. By bringing out the influence of interpersonal relationships on one's self-concept; 2. By demonstrating the developmental task of achieving an appropriate dependance-independance pattern; 3. By encouraging them to learn to become more effective members of..., and 4. By suggesting effective patterns of communication.

A-26	SHAPING IDENTITY	G.A.	6-9

This program is based on the influence of identity, and helps you become more aware of yourself.

A 27	UNDERSTANDING EMOTIONS	G.A.	6-9

The program discusses and illustrates the physical, psychological, and motivational elements of emotions, emphasizing the uniqueness of individual reactions to an emotional experience.

A-28	SETTING GOALS	G.A.	6-9

It helps students identify the many elements involved in realizing adult potential in a way that emphasizes the individual nature of the process. The program consists of four profiles of different individuals in the theories of determining adult commitments and lifestyles.

A. CASSETTES AND FILMSTRIPS

Title	Publisher	Grade Level
A-15 JOBS FOR HIGH SCHOOL STUDENTS	G.A.	10-12

This program relates specific types of jobs to job objectives the high school students may have in mind for the future. It distinguishes between jobs that may provide special experience for subsequent employment and those that offer pocket money or good wages only.

A-16 PREPARING FOR THE WORLD OF WORK	G.A.	10-12

This program explores several ways in which you can begin to plan for an enjoyable and meaningful career.

A-17 CHOOSING YOUR CAREER	G.A.	6-9

This program exposes the student to the various career environments open to him and illustrates a systematic method for approaching this question of the future. The emphasis is placed upon self-evaluation, classification of information gleaned from this evaluation, and exposure to relevant career possibilities.

A-18 GETTING AND KEEPING YOUR FIRST JOB	G.A.	10-12

This program deals with the steps of finding a job, and then building the habits and reputation that will give a direction to your career.

A-19 IF YOU'RE NOT GOING TO COLLEGE	G.A.	10-12

Part I of this program exposes the wide variety of job families and occupations a student may qualify directly out of high school. Part II introduces career alternatives and procedures for career planning.

A-20 AN OVERVIEW OF TECHNICAL EDUCATION	G.A.	6-12

This program is about the career of being a technician. It is about what the technician is, what he does, and the need for him.

A-21 YOUR JOB INTERVIEW	G.A.	6-9

Part I shows students how to organize and write a resume, research the company, enlarge verbally on resume information, and emphasize experience relevant to each situation. Part II covers the things you should do and know for the actual job interview.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-29	DEVELOPING VALUES	Guidance Associates	6-9

This program is designed to help students become aware of factors which influence values, recognize that each individual can determine his own set of values, recognize the difference between one another is values, and analyze the process of making value choices.

A-30	FORMING BELIEFS	G.A.	6-9

The program is structured to involve the student by emphasizing the universality, as well as the personal relevance of forming beliefs.

A-31	REFLECTIONS OF MYSELF	G.A.	6-9

This program consists of the basic identity-seeking process and understanding others as an important factor in understanding ones-self.

A-32	BABYSITTING: THE JOB - THE KIDS	G.A.	6-9

The purpose of this program is to motivate and help prepare teenagers to be effective, knowledgeable babysitters through an awareness of the responsibilities of the job and a consciousness of several basic principles of child development.

A-33	JOBS FOR YOU: IT'S HAPPENING IN HOME ECONOMICS	G.A.	6-9

This program examines home economics-related jobs in the hospitality industry, community services, the textile and apparel industry, and the child care and child development services. Emphasis is given to the idea that jobs are available in many areas to young people who have less than four years of college.

A-34	COLLEGE? IT'S UP TO YOU.	G.A.	10-12

This program helps the student to clarify their own attitudes about college and to understand more fully the attitudes of others.

A-35	WHAT TO EXPECT AT COLLEGE	G.A.	10-12

This program offers a realistic picture of the college experience, both social and academic.

A. CASSETTES & FILMSTRIPS

Title	Publisher	Grade Level
A-36 WHICH COLLEGE FOR YOU?	Guidance Associates	10-12

This series describes the programs and atmosphere of many different types of institutions, and stresses the need for students to evaluate their own personal needs and motivations as well as their special aptitudes and interests, before choosing a college.

A-37 DIFFERENT WAYS TO GO TO COLLEGE — G.A. — 10-12

These are the different programs involved that are new to the systems of the colleges. Programs involved are work-study, independent-study domestic exchange programs, etc.

A-38 PEOPLE WHO WORK IN SCIENCE — G.A. — 5-9

This is one of the Career Discoveries series which establishes that a career choice is an expression of individual personality factors and interests. There are several series showing a variety of career choices and how people can relate to their work regardless of their work and their educational level.

1. People Who Work in Science
2. Recording Engineer
3. Lab Technician
4. Ocean Life Scientist

A-39 PEOPLE WHO HELP OTHERS — G.A. — 5-9

This program is about three individuals who had the desire of helping others, and resulted into three careers of commitment.

A-40 PEOPLE WHO CREATE ART — k-12

This program deals with creative people who want to express their ideas in their own special way. Three examples:
1. Puppeteer; 2. Musician; 3. Designer.

A-41 PEOPLE WHO ORGANIZE FACTS — G.A. — 5-9

This program introduces students to the job of the professional researcher, and three individuals who have made it their professions.

A-42 PEOPLE WHO INFLUENCE OTHERS — G.A. — 5-9

This program shows how people use their influence at many levels and in several categories to influence others through word, deed, or example.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-43	PEOPLE WHO MAKE THINGS	G.A.	5-9

This program shows different people in different careers who makes the things our society needs to function.

A-44	HIGH ON LIFE	G.A.	6-8

This program is an effort to channel discussion away from the area of drugs and toward alternative ways of getting "high" that are socially acceptable.

A-45	PARENTHOOD: MYTHS AND REALITIES	G.A.	6-9

This program is to help young people prepare for one of the most significant event of adulthood by providing an understanding of the realities of parenthood, the changes it will effect in their lives, and the importance of their emotional readiness to accept and raise children.

A-46	YOU AND THE LAW	G.A.	6-9

This is designed to stimulate its viewers to think beforehand about the dividing line between lawful and unlawful activities, and to consider the results of crossing the line, for whatever reason.

A-47	PERSONAL COMMITMENT: WHERE DO YOU STAND?	G.A.	Jr. & Sr.

This program is designed to stimulate discussion about the importance of commitment for today's young people.

A-48	SOMEBODY'S CHEATING	G.A.	6-8

The purpose of this program is to help each student who cheats to examine critically, perhaps for the first time, his reasons for cheating.

A-49	TESTING, TESTING, TESTING	G.A.	10-12

The purpose of this program is two-fold: first, to dispel some of the confusion and panic that many students experience when faced with the multitude of tests that are an intrinsic part of every secondary school program; second, to build confidence and skill in taking tests.

A-50	GROUP DISCUSSION TECHNIQUES IN GUIDANCE	G.A.	10-12

The purpose of this tape is to offer a few suggestions for running group discussion.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-51	THE ROLE OF THE COUNSELOR IN THE SECONDARY SCHOOL	G.A.	10-12

The purpose of this film is to let people be aware of the counselor and know what he or she is there for. This deals with the jobs of both the student and the counselor.

A-52	PLANNING BEYOND HIGH SCHOOL	Wilson Corporation	7-12

This series is designed to help the student to appreciate the need for continuous education--and to explore and to understand some of the alternatives available.

A-53	EXPLORING THE WORLD OF WORK	Wilson Corporation	7-12

This series is provided to aid you in developing a better understanding of the vastness of vocational opportunities, the need for planning, and an approach to the study of careers.

A-54	BUT WHAT CAN A GIRL DO	Westinghouse Learning Corp.	9-12

This film series is designed to show students the difficulties women in our society must overcome in order to obtain status positions. It shows the education and training required for women to break the traditional mold and achieve success in a man's world.

A-55	MAN HAS WINGS	Bowmar	7-12

This film series describes five different careers in Civil Aviation: 1. Aircraft Engine Mechanic, 2. Pilot/Flight Instructor, 3. Air Frame Mechanic, 4. Air Traffic Controller, 5. Passenger Service Agent; and the descriptions of duties, minimum qualifications, work-study experience, income level, career latice, employment outlook, negative aspects and finding the job.

A-56	COMPASSION FOR PEOPLE	Bowmar	6-12

This series deals with different career areas of medical specialization, such as: 1) Registered Nurse, 2) Mental Health Aid, 3) Licensed Practical Nurse, 4) Registered Orthotist, and 5) Inhalation Therapy Technician.

A-57	THE NATIONS BUILDERS	Bowmar	6-12

This series deals with an overview of the Construction industry, and involves a Heavy Equipment Operator, a Carpenter, an Electrician, a Civil Engineering Technician, and an Architectural Draftsman, and a Counselor's Handbook.

A. CASSETTES & FILMSTRIPS

	Title	Publisher	Grade Level
A-58 A-59	CAREER EXPLORATION "Keys"	(SRA)	6-12

Included in the kit are ten filmstrips with accompanying cassettes designed to introduce today's world of work and encourage career exploration. The inventory of jobs which are described include: outdoor, mechanical, scientific, computational, persuasive, artistic, literature, musical, social service and clerical.

A-60	CAREER EDUCATION--STEPS TO IMPLEMENTATION		Adult

This is a slide and tape presentation for steps to implement Career Education Concepts.

A-61 A-62 A-63	WONDERFUL WORLD OF WORK 60001, 60002, 60003	Denoyer-Geppert Audio-Visuals	4-6

This kit show children the importance of education in developing the skills needed for various occupations: electrical, gas & oil, telephone, technical & industrial, distributive, and office & health services.

A-64	CAREER DECISIONS	Pennys	Intermediate

The overall generalization that may be drawn from this unit is that vocational maturation is based upon understanding of one's self and upon possessing adequate up-to-date job information and an awareness of the opportunities possible in the world of work.

A-65	YOUR FUTURE THROUGH VOCATIONAL EDUCATION		9-12

A-66 through A-74	NEW CAREERS IN AGRICULTURE	Vocational Education Productions	7-12

66--Animal Industry
67--Crops
68--Farm Machinery
69--Farm Service
70--Farm Supplies
71--Government Services
72--Natural Resource Management
73--Ornamental Horticulture
74--The Poultry Industry

A-75	CAREER DEVELOPMENT FOR PRIMARY GRADES		

A multi-media interdisplinary learning package for students in primary grades. Materials and activities are directed toward social science, languages and art.

B. MOVIES

	Title	GRADE LEVEL
B-1	CAREERS IN PERSONAL SERVICE	6-12
B-2	CAREERS IN SALES	6-12
B-3	CAREERS IN TRANSPORTATION	6-12
B-4	HOW DO YOU GET THERE?	6-12

This film gives helpful examples of techniques of interviewing, looking for a job, testing, filling out applications, and applying for training, among others. The film is done in a fantasy setting that symbolizes the transition from the seeming unreality of the youth world to the actual reality or getting a job.

B-5 WORK, WHAT'S IT ALL ABOUT? 6-12

This film begins by using the voices and faces of students, parents, and workers who express their personal (and sometimes conflicting) opinions as to why people work, why they choose to do what they are doing, and how they feel about work. The film then shows and describes many career possibilities that do not require a four year baccalaureate degree for entry or for success.

B-6 CAREERS IN ALLIED HEALTH SERVICES 6-12

Career possibilities and training requirements in the allied health services are shown and described in this film. The presentation is built around the areas of patient care, laboratory careers, X-ray, surgery, inhalation therapy, dental care and eye care.

B-7 CAREERS IN BUILDING TRADES 6-12

This film describes the many and varied opportunities for a career in the building trades. Training opportunities include a vocational, technical, trade and apprenticeship education.

B-8 CAREERS IN BUSINESS AND OFFICE OCCUPATIONS (Color, 25 minutes) 6-12

This film discusses the many opportunities available for careers in business and office occupations. The importance of the work done by those in business and office occupations is stressed.

B-9 CAREERS IN SKILLED SERVICES 6-12

B. MOVIES

	Title	Grade Level
B-10	CAREERS IN COMMUNICATIONS	6-12
B-11	CAREERS IN INDUSTRY	6-12
B-12	CAREERS IN MACHINE TRADES	6-12
B-13	FOOD FOR THE WORLD - Wheat	6-12

C. KITS

	Title	Publisher	Grade Level
C-1-1 C-1-2 C-1-3	JOB EXPERIENCE KIT	(SRA)	6-14

This program is a work-simulation experience in 20 representative occupations, students solve problems typical of each occupation.

C-2-1 C-2-2	OCCUPATIONAL EXPLORATION KIT (O.E.K.)	(SRA)	9-12

This kit is a systematic, personalized approach to job investigation using OccuSan coding device and the Student Record Book. Each student uses terms of his own achievements and objectures and the interests the job satisfies for him.

C-3-1 C-3-2 C-3-3	LIFE CAREER GAME		7-12

A simulated game in which students are able to walk through a span of eight years in the future as the decision-maker for a fictitious person presented to them in the form of a Profile or case history. A whole class takes part in the game.

C-4	HUMAN RELATION KIT	McGraw Hill Book Company	7-12

A kit designed as a live-action program composed of visual aids and real, inter-personal problems that need solving. This kit can be used with secondary school courses.

C-5	CAREER INFORMATION KIT	(SRA)	7-12

This kit contains some 600 occupational careers and covers the following items: occupational information, fact-finding, experiences, job facts, an individual counseling service, and a resource service.

C-6-1 C-6-2	WORLD OF WORK	McGraw Hill Book Company	7-12

This kit contains fifty, four-page, illustrated fiction stories which dramatically acquaint the reader with job-worker situations influencing his success in getting, keeping and advancing on a job. Written at a fifth grade level, many of the stories are open-ended to prompt classroom discussions. Multiple choice, short-answer, and discussion questions are provided at the end of each story.

C. KITS

	Title	Publisher	Grade Level
C-7-1	DUSO KIT (DEVELOPING UNDERSTANDING OF SELF AND OTHERS)	American Guidance Associates	K-4

D-1 These kits are programs of activities designed to stimulate social and emotional development, and to achieve three basic goals:

1. Learn more words for feelings.
2. Learn that feelings, goals, and behavior are related.
3. Learn to talk more freely about feelings, goals, and behavior.

D-1 contains enough activities, approximately one week in length, contains a problem situation, a story, a role playing activity, a puppet activity, a list of supplementary activities, and supplementary reading.

D-2 The objectives of the D-2 kit are:

1. To develop understanding and positive valuing of one's self.
2. Interpersonal relationships.
3. The purposive nature of human behavior.
4. Of interrelationships among ideas, feelings, beliefs, and behavior in order to express one's feelings.
5. Of competence and the components of accomplishment.

The D-2 Manual contains enough activities for an entire year. Each cycle of activities contain a story, a problem situation, role playing activities, discussion picture, career awareness activity, supplementary activities, and supplementary reading.

C-5-1 C-8-5	MC KNIGHT - A HIGHWAY TO WORK AND PLAY	Mc Knight	1-6

C-8-1 Level 1 - first grade

Theme: Individuals become aware of their self-image through human activity.

This series helps individual children at a young age begin to recognize their own self, social, mental, emotional, and physical characteristics. As they advance through this program they will form their own self-image with information they know about themselves.

C-8-2 Level 2

Theme: Exploring human experience in work and play.

The primary goal of Level 2 is to have students explore their experience in work and play activities. By doing this they can learn about their interests, abilities, needs and emotions. By planning, organizing, and controlling their work and play activities, with a group, children improve their chances of having successful experiences and make new discoveries about themselves.

C-8-3 Level 3 -

Theme: Individuals begin to learn ways that people work and play together. In this series, children learn how responsibilities change with different activities and that people must depend on each other in work and play. They learn that they must cooperate with others to fulfill the purpose of an activity. From this knowledge, they learn to plan, organize, and control their personal behavior in work and play.

C. KITS

	Title	Publisher	Grade Level

C-8-4 Level Four (4th Grade)
Theme: Individuals begin to understand the changing world of work and leisure time activity. The activities in Level 4 are designed to assist children in recognizing that they remain the same and also change; that new knowledge and information, change in technology, and new environments change the way people work and play. By understanding the changes that are taking place around them, children can better accommodate themselves to the environment; and by understanding the changes that take place within them, they can better adjust to themselves.

C-8-5 Level Five (5th Grade)
Theme: Individuals begin to synthesize their knowledge of self-image and community environments to meet personal work and play needs. At this level children will be given an opportunity to identify their personal goals and to relate the purpose of work leisure and learning to their own individual purpose of life. He assumes responsibility and accommodates himself to physical and environmental change, and pulls together all the information resulting from this process.

C-8-6 Level Six (6th Grade)
Theme: Individuals begin to explore the relationship of self-image, educational environments, and the world of work. At Level 6 students are given the opportunity to explore experiences necessary for them to gain an understanding for work skills and work requirements. The activities at this level are designed to help students recognize that all work environments include the functions of managing, developing, producing and selling. By examining different work environments, students can begin to identify the work skills and knowledge required to function in a particular work environment.

C-9 FOCUS ON SELF-DEVELOPMENT — SRA — K-2
Stage One (1): Awareness
The program emphasizes development of awareness of self, others, and environment; twenty flexible units adaptable to needs of class. The topics include self-concept, development, awareness of the environment through senses, socialization, sharing and problem solving.

C-10 FOCUS ON SELF-DEVELOPMENT — SRA — 2-4
Stage Two (2): Responding
The program includes stories and activities to encourage a child's response to his personal, social, emotional, and intellectual life. Topics include self-concept, abilities, limitations, interests, concerns, communications, companionship, acceptance, and rejection.

C-11 FOCUS ON SELF-DEVELOPMENT — SRA — 4-6
Stage Three (3): Involvement
This program emphasizes involvement with self, others, and the environment. The program is designed to elicit children's ideas and feelings; to encourage him to think about his values and to act on them.

C. KITS

	Title	Publisher	Grade Level
C-12	CAREER EDUCATION PROGRAM		6-12

This kit explains the philosophy background and how to implement Career Education. The programs also contains 2" by 2" slides.

C-13	CAREER INSIGHT AND SELF AWARENESS GAMES		4-8

The CISAG program is designed to be a fun learning experience. The games offer an opportunity for thinking and discovering all about human knowing and feeling regarding interest areas or life goals.

D. TAPES AND SLIDES

	Title	Publisher	Grade Level
D-1	YOUTH OPPORTUNITY IN AGRIBUSINESS	BAM Productions	Jr. and Sr.
	Part One (1) - A Quick Look at Agribusiness		
D-2	YOUTH OPPORTUNITY IN AGRIBUSINESS	BAM Productions	Jr and Sr.
	Part Two (2) - The Grain, Farm Supply, and Milling Industries		
D-3	YOUTH OPPORTUNITY IN AGRIBUSINESS	BAM Productions	Jr. and Sr.
	Part Three (3) - The Training Required for Agribusiness		

G. BOOKS

G-1-1 WONDERFUL WORLD OF WORK
G-1-2
G-1-3 Part I of this text deals with the meaning of work and how to determine the occupational field which is most appropriate for you. Part II deals with managing money for successful spending. Part III discusses the way you can move through the stage of vocational development.

G-2 CAREER GUIDANCE FOR NEW AGE

This book explores the dramatic relationship which exists today between individual career needs and the demands of the economical, social, and political environments.

G-3 CAREER EXPLORATION AND PLANNING

This is a book written to be used by high school students as a textbook for courses or units that present information and involve students in educational and occupational orientation, exploration and planning.

G-4 CAREER EDUCATION - NEW APPROACHES TO HUMAN DEVELOPMENT

This book entails brief historical and thorough theoretical treatment of three interrelated matters: career development, the foundations and eveolution of career education, and models for career education and curriculum development.

G-5-1 CAREER EDUCATION: WHAT IT IS AND HOW TO DO IT
G-5-2

A book answering the following four questions:

1. What are the key concepts of career education?
2. Why is career education needed?
3. How is career education being implemented in practice?
4. What are the appropriate strategies of implementation for a school system interested in concept?

G-6-1 CAREER EDUCATION - HANDBOOK FOR IMPLEMENTATION
G-6-2
G-6-3 See G-5
G-6-4
G-6-5

G-7 CAREER EDUCATION - PROMISING PRACTICES IN SMALL SCHOOLS

This book is about 1) Diversified Occupations, 2) Hands on in School Vocational Training, 3) Career Exploration and Awareness, 4) Cooperative Mobile Units, and 5) Utilizing this Information.

G. BOOKS

G-8 THEORIES OF OCCUPATIONAL CHOICES AND VOCATIONAL DEVELOPMENT

The purpose of this monograph is to survey the field of occupational choice and vocational development theory and to appraise the usefulness of this theory as an aid to work of the practitioner.

G-9 OCCUPATIONAL INFORMATION AND GUIDANCE

This book provides an engaging perspective of the function of occupational information in guidance programs and the conditions under which it was used.

G-10 STUDENTS VACATIONAL CHOICES: A REVIEW AND CRITIQUE

The author of this book has reviewed and analyzed the research literature relevant to students' statements of vocational choice. He has set forth observations that will be helpful to guidance practitioners.

G-11 DECISION-MAKING AND VOCATIONAL DEVELOPMENT

This book examines the interrelationships of decision-making and vocational development; and to be able to identify specific effects upon decision-making and vocational development of different personal characteristics. Then it suggests ways in which guidance counselors can influence vocational development in students.

G-12 COLLEGE INFORMATION AND GUIDANCE

This monograph presents a sincere account of ideas and suggestions for implementation of those ideas for the counselor who is involved with the college-bound students and their parents in college planning.

G-13 THE THEORY AND PRACTICE OF COMMUNICATING EDUCATIONAL AND VOCATIONAL INFORMATION

This monograph describes the theory and practice of communicating educational and vocational information to students. The focus of both theory and practice is upon individuals as they interact with others and their environment.

G-14 PSYCHOLOGICAL INFLUENCE ON VACATIONAL DEVELOPMENT

This monograph discusses how individual psychological characteristics influence vocational development, and the relationship between the individual's psychological make-up and the characteristics pattern of traits demanded by occupations.

G. BOOKS

G-15 INNOVATION IN THE USE OF CAREER INFORMATION

The purpose of this monograph is to reflect on progress and new development in one area of the counseling profession: specifically, informative innovations in the use of career materials.

G-16 CAREER EXPLORATION AND PLANNING (Teacher's Manual)

This manual is designed to use with the text, which emphasizes school orientation, student self-study, and study of occupations and educational and vocational planning.

G-17 A GUIDE FOR DEVELOPMENTAL VOCATIONAL GUIDANCE

This book contains suggested activities for students who are faced with making an occupational choice(s).

G-18 INSTRUCTIONAL MATERIALS CENTER

This is an instruction catalog that is available through the Great Falls District # 1, of various media materials, etc.,..

G-19 YOUR FUTURE IN AGRICULTURE

This is a book designed to arouse interest in the thousands of careers in agriculture that are open to young people with enthusiasm for a stimulating career.

H. BOOKLETS AND PAMPHLETS

H-1 through H-18 WHAT JOB FOR ME? Series (Grade Level 7-12)

These dramatic short stories provide answers to questions about jobs usually held by non-college educated people, help the reader learn the importance of building self-confidence, of establishing good work habits and inter-personal relationships, of developing healthy attitudes, and setting and striving for realistic and worthwhile goals.

H-1 Pete the Service Station Attendant
H-2 Tom the Merchant Seaman
H-3 Joe the Retail Salesman
H-4 Charley the TV Repairman
H-5 Keep It Clean (Dry Cleaning Assistant)
H-6 Tim the Draftsman
H-7 Phil the File Clerk
H-8 Sandy the Lineman
H-9 Betty and Her Typewriter
H-10 Judy the Waitress
H-11 Burt the Policeman
H-12 Frank the Vending Machine Serviceman
H-13 Ginny the Office Assistant
H-14 Cool It, Man! (Refrigerator Repairman)
H-15 John the Second Best Cook in Town
H-16 Carmen the Beautician
H-17 Nick the Waiter
H-18 Ned the Taxi-Cab Driver

H-19 YOU AND YOUR CHILD'S CAREER

A handbook designed to help parents, teachers, and counselors, guide youth toward optional vocational choices.

H-20 WHAT HAT WILL YOUR CHILD WEAR?

A pamphlet describing a career education effort of the New Brunswick Schools in New Jersey.

H-21 through H-40 JOB FAMILY SERIES BOOKLETS Grade 9 to Adult

48 pages each

These booklets group jobs by common factors such as interest and skill to help broaden students occupational considerations. Highly informative, easy-to- grasp description of work situations from interviews with workers and observations. Wide range of jobs covered at all educational levels.

H-21 Jobs in Science
H-22 Jobs in Mechanical Work
H-23 Jobs in Outdoor Work
H-24 Jobs in Technical Work

JOB FAMILY SERIES BOOKLETS (Continued)

H-25 Jobs in Selling
H-26 Jobs in Clerical Work
H-27 Jobs in Engineering
H-28 Jobs in Mathematics
H-29 Jobs in Health
H-30 Jobs in Art
H-31 Jobs in Agriculture
H-32 Jobs in Publishing
H-33 Jobs in Performing Arts
H-34 Jobs in Psychology
H-35 Jobs in Unusual Occupations
H-36 Jobs in Professional Home Economics
H-37 Jobs in Education
H-38 Jobs in Building Construction Trades
H-39 Jobs in Social Work
H-40 Jobs in Electronic Data Processing

H-41-1 CENTER FOR OCCUPATIONAL EDUCATION
through
H-41-9 A series of nine booklets attempting the successful career education practices that are currently underway in the U.S. Each booklet deals with the following resources materials:

1. A Manual for Implementation and Administration of Career Education Programs
2. Elementary School Curriculum Guide
3. Middle School Curriculum Guide
4. High School Curriculum
5. Post-Secondary Career Education
6. Career Guidance
7. Placement and Follow-up in Career Education
8. Professional Development
9. Involving the Community in Career Education

H-42 . EMOTIONAL PROBLEMS OF GROWING UP

What are emotional problems?
Infancy and Early Childhood
Puberty and Emotional Problems
Challenges Every Adolescent Faces
Indications of Poor Adjustment
What can we do?

H. BOOKLETS AND PAMPHLETS

H-43 UNDERSTANDING DATING RELATIONSHIPS

Getting Started
Building Friendships
Guidelines for Developing Relationships
Living and Loving
Understanding Dating
Parents and Dating
You and Your Changing World

H-44 UNDERSTANDING THE OTHER SEX

Why do they act like that?
What causes the differences?
Family living causes differences also.
Feelings about dating.
Problems about sex.
First an Individual - Then Male and Female.
Understanding the Other Sex.

H-45 GROWING EMOTIONALLY

The Ability to Deal Constructively with Reality
The Ability to Adapt to Change
The Ability to Handle Tension and Anxiety
The Capacity to Give
Getting Along with Other People
Controlling our Hostile Feelings and Acts
The Capacity to Love

H-46-1 OUR WORLD OF WORK
H-46-2

You and the World of Work
The People We Are
Better Working - Better Living
The Industrial World
The Occupational World

H-47 STREAMLINE YOUR READING

What Reading Means to You
You Can Improve Your Reading
Studying Your Needs
How to Read Rapidly
Improving Your Vocabulary
Understanding What You Read
Finding the Books You Want

H. BOOKLETS AND PAMPHLETS

H-48 HOW TO LIVE WITH PARENTS

There's no place like home!
Severing the Apron Strings
Common or Garden Variety Problems
Parents are People
It Pays to Cooperate
Special Family Problems

H-49 GOWING UP SOCIALLY

What is social maturity?
How socially mature are you?
The Socially mature person
You Live in a Social World
Facing Life Squarely

H-50 SCHOOL SUBJECTS AND JOBS

Jobs: The Necessity for Choice
Setting Your Goal and Shooting for it
Learning How School Subjects Relate to Jobs
A chart of school subjects and jobs

H-51 HOW TO GET THE JOB

Planning Your Job Campaign
What do you have to offer?
The Job Market Today
How to Locate Job Openings
How to Get an Interview
Landing Your Job
Getting Ahead on the Job
Making Your Own Job

H-52 YOUR PERSONALITY AND YOUR JOB

Your Job and You
Exploring Your Own Personality
Jobs have personalities too!
Satisfactions of Work Situations
Dimensions of Personality

H. BOOKLETS AND PAMPHLETS

H-53 COLLEGE, CAREERS AND YOU

College and Your Career Preparation
Women and Career Planning
Opportunities for M.A.'s and Ph.D.'s

H-54 FINDING PART-TIME JOBS

What is a part-time job?
When you should look for part-time work
Looking for and getting part-time jobs
Different kinds of part-time jobs

H-55 THE PARENTS' ROLE IN CAREER DEVELOPMENT

Why career guidance?
When does career development begin?
Is home environment related to career development?
What are schools and employment agencies doing in this field?
How much education will a child need to succeed?
Should parents ever choose an occupation for their child?
Should parents encourage a child to work part-time during high school?
Do young people give sufficient thought to choice of an occupation?

H-56 PROJECT PEOPLE

The Project People Program provides a continuing experience which develops an awareness of the relationship of self to home, school, and community, through field observations and exploratory experiences intergrated with classroom instruction in academic skills.

H-57 SEVEN STEPS TO FINDING YOUR PLACE IN THE WORLD OF WORK

Communicate during the interview
Prepare for your employment interview
How to compose your resume
Learn to write the letter of application and complete an application form
Ask!
Find out where the jobs are
Find out what kind of job you are qualified for

H-58 POPEYE COMIC SERIES OF CAREER EDUCATION CLUSTERS - GRADES 4-9

These Popeye comics follow the 15 Career Education Clusters presented by the Office of Education, Washington, D. C. Each series presents various occupations within each Career Cluster.

H. BOOKLETS AND PAMPHLETS

H-59	Popeye Series - Transportation	30 copies
H-60	Popeye Series - Business & Office Occupations	"
H-61	Popeye Series - Marketing & Distribution Occupations	"
H-62	Popeye Series - Communications & Media Occupations	"
H-63	Popeye Series - Construction Occupations	"
H-64	Popeye Series - Manufacturing Occupations	"
H-65	Popeye Series - Agribusiness Occupations	"
H-66	Popeye Series - Marine Science	"
H-67	Popeye Series - Environmental Control	"
H-68	Popeye Series - Hospitality & Recreational Occupations	"
H-69	Popeye Series - Health Occupations	"
H-70	Popeye Series - Personal Service	"
H-71	Popeye Series - Fine Arts	"
H-72	Popeye Series - Consumer & Homemaker Related Occupations	"

H-73 AIR TRANSPORTATION

This booklet was prepared to expose students to the many jobs available in the Air Transportation field.

H-74 CAREERS IN AGRICULTURAL OCCUPATIONS

Suggested Teaching

H-75 YOUR WORLD OF WORK - How To Find Your Way In It

H-76 YOUR DAYS OF DECISION - What Do You Want To Do With Your Life?

This booklet was prepared to aid young people, age 13 to 17, to aid them to meet the growing complexity of tomorrow's world, when most must leave the farm to insure a living and a successful career.

H. BOOKLETS AND PAMPHLETS

H-77 SOCIAL WORK AS A CAREER

To develop in junior high students the awareness, knowledge and appreciation of social work and the career opportunities in this field.

H-78 CHOOSE YOUR CAREER IN AGRICULTURE

H-79 STUDENT COUNSELOR HEALTH CAREERS GUIDEBOOK

Career possiblities in health gives the students the potential to study and choose occupations requiring educational preparation ranging from minimum, on-the-job training to extensive programs in medicine.

I. CAREER EDUCATION PROJECTS AND ACTIVITIES

I-1 CAREER DEVELOPMENT K-12 (Bismarck, North Dakota)

A statewide program in developmental vocational guidance and occupational preparation for the changing world of work.

I-2 CAREER DEVELOPMENT LEARNING UNITS (Middle School)

Career Development Learning Units were produced using the triad concept of school, teacher, and community which has a curriculum design concept which uses career clusters as a data base for school activities.

I-3 AN ANALYSIS OF FIFTEEN OCCUPATIONAL CLUSTERS IDENTIFIED BY THE U.S. OFFICE OF EDUCATION (Texas)

A booklet that should prove helpful to superintendants, principals, supervisors, teachers, and counselors in their planning and implement- of new courses and activities in career education.

I-4 CAREER INFORMATION SERVICE

A report of one school system's effort to provide information and career guidance to its own pupils.

I-5 CAREER AWARENESS AND EXPLORATION

I-6 CAREER EXPLORATION AND PLANNING (Student's Workbook)

This workbook is designed to permit students to evaluate their knowledge of text material and to stimulate and broaden their thinking about themselves and their future.

I-7 PREPARING STUDENTS FOR NON-FARM AGRICULTURAL OCCUPATIONS

This book explores the training needs of those employed in non-farm agricultural occupations and develops programs for educating students for these occupations.

I-8 AN AGE GRADED MODEL FOR CAREER DEVELOPMENT EDUCATION (NEW JERSEY)

A booklet that describes a career development model for the Hockensach Public School System which set forth a rational approach for the development of and implementation of career education.

I-9 STUDY GUIDE FOR PLACEMENT EMPLOYMENT PROGRAMS IN AGRICULTURAL BUSINESS AND INDUSTRY

This project is designed to help the students and the teachers plan for and accomplish the in-school classroom part of courses in agriculture, which includes employment experiences.

I-10 K-12 GUIDE FOR INTEGRATING CAREER DEVELOPMENT INTO LOCAL CURRICULUM

(Wisconsin) This guide was prepared to assist local school personnel develop and implement a soundly based and well-cooridinated career development program in Wisconsin schools for all students.

I-11 OCCUPATIONAL WORK EXPERIENCE

This program was designed to help save money, get a job, keep the job you've got or prepare you for a better job by helping you obtain a diploma.

I-12 THE JOB-CLUSTER CONCEPT AND ITS CURRICULAR IMPLICATIONS

A collection of papers of scholars who are presently active in research on the problems of job-clustering.

I-13 AGRICULTURAL OCCUPATIONAL CLUSTER GUIDE (Oregon)

A curriculum guide for agriculture, outlining the basic knowledge and skills necessary for entry-level competencies in the broad field of agriculture, or for entrance into a post-high school program.

I-14 CAREER EDUCATION IN ARIZONA

A pamphlet describing the Career Education movement in Arizona.

I-15 VOCATIONAL EDUCATION AND CAREER BULLETIN BOARD IDEAS

A pamphlet describing bulletin board ideas for advancing Career Education concepts.

I-16 CAREER SIMULATION FOR SIXTH GRADE PUPILS

The Life Career Game is used to determine sixth grade pupil's attitudes toward education and the world of work.

I-17 CAREER DEVELOPMENT LEARNING UNITS - Elementary School Delaware

A booklet designed to be used as a guide for teachers interested in developing career education units.

I-18 VOCATIONAL EDUCATION: INNOVATIONS REVOLUTIONIZE CAREER TRAINING

A booklet outlining the development of a curriculum guide for orienting young people to the world of work.

I-19 CAPES (WASHINGTON)

A guideline for career awareness programs for the elementary schools in the state of Washington.

I-20 THE ST. LOUIS CAREER EDUCATION PLAN

This is a report by the Regional Industrial Development Corporation (RIDC) a non-governmental, non-profit civic organization, describing a career education plan that is working in the St. Louis area.

I-21 SUPPLEMENTARY PROGRAM FOR VOCATIONAL EDUCATION INTERIM REPORT

The general objective of this program is to formulate, implement, and evaluate supplementary programs designed to enable high school students to undertake and profit from vocational education.

I-22 VOCATIONAL INVESTIGATION AND PLANNING (FLORIDA)

A program designed to assist a student in seeking, obtaining, and maintaining employment that is commensurate with his abilities, interests and training.

I-23 CAREER EDUCATION IN THE ENVIRONMENT

A handbook designed to furnish counselors and teachers with a model for providing career information, development vocational guidance, and exploratory experience through the regular curriculum in subject matter areas.

I-24 HELENA CAREER EDUCATION PROGRAM

This project gives a summary of objectives toward broadening occupational opportunities.

I-25 VOCATIONAL GUIDANCE AND EMPLOYMENT (NEW JERSEY)

A handbook designed as a coordinated team program for orientation of the employment bound senior to the world of work.

I-26 CAREER GUIDANCE, COUNSELING, AND PLACEMENT

A report discussing a national conference relating to five special concern areas in career guidance.

I-27 JOB PLACEMENT AND FOLLOWING OF SECONDARY SCHOOL VOCATIONAL EDUCATION STUDENTS

This is a PREP Report #32 by the U.S. Department of Health, Education, and Welfare concerning the placement and following of vocational students.

I-28 TEAM APPROACH TO VOCATIONAL GUIDANCE THROUGH THE CURRICULUM

A booklet designed to furnish counselors and teachers with a model for providing career information, developmental vocational guidance, and exploratory experience through the regular curriculum in subject matter areas.

I-29 VOCATIONAL INSTRUCTIONAL MATERIALS FOR AGRICULTURE

A listing of vocational materials for agriculture that can be obtained from the various Federal Agencies.

I-30 CAREER EDUCATION - THE WORLD OF WORK K-12

A booklet designed to give school people a framework for developing a Career Education program for grades K-12.

I-31 CAREER EDUCATION: A HANDBOOK OF FUNDING RESOURCES

A handbook offering suggestion and guidelines to educators and other groups that seek outside funding for their career educationa programs.

I-32 CAREER EDUCATION IN OREGON

This project gives schools three objectives: 1) discover individual's interests and abilities, 2) explore avenues of productive activity, and 3) learn the wise exercise of responsibility.

I-33 SYNOPSES OF SELECTED CAREER EDUCATION PROGRAMS (NORTH CAROLINA)

A booklet containing a national overview of career education programs in the United States.

I-34 A PROGRAM OF CAREER DEVELOPMENT (Portland Public Schools)

This project's objectives are 1) to develop positive attitudes on the part of students, parents, and faculties toward Career Education, 2) to discuss the need for program planning and development, and 3) the need for financial support.

I-35 AGRI-INDUSTRY (Fort Benton)

The primary purpose is to create vocational technology curriculums in specific areas which will help each student develop into a constructive citizen.

I-36 OCCUPATIONAL MANPOWER AND TRAINING NEEDS

This project illustrates way to use information on projections of occupational requirements and supply, and training in planning education and training programs.

I-37 THE CLUSTER CONCEPT PROGRAM AS AN APPROACH TO VOCATIONAL EDUCATION AT THE SECONDARY SCHOOL LEVEL (Maryland)

A report of a four-year research and development project dealing with the cluster concept approach to vocational education.

I-38 CAREER EDUCATION PROGRAM Volume I K-6
I-39

The Career Education Program provides every child with an opportunity for occupational exploratory activities.

I-40 CAREER EDUCATION PROGRAM Volume II 7-9
I-41

Volume II has been designed to encourage young people to consider important work attitudes, invest gate the world of work learn about important career resources which are available, and actively personalize and retain information considered to be individually significant.

I-42 CURRICULUM GUIDE FOR CAREER EDUCATION grades 11 & 12

To enable each student to define and develop his process of choosing and finding a job and of properly conducting himself in the world of work.

I-43 YOUTH OPPORTUNITY IN AGRI-BUSINESS

The Youth Opportunity in Agribusiness was created for a definite purpose. The purpose is to inform the students with some important facts that high school students have not heard before: agribusiness has many career choices, agribusiness needs young people at all levels of education, and agribusiness offers great opportunity for reward and advancement.

I-44 NORTH DAKOTA STATE EXEMPLARY PROJECT IN CAREER EDUCATION

This project has Career Education concept activities for K-12 grades which deal with elementary curriculum and 7-12 grade math, science, English and social studies curriculum which was developed around Career Education concepts.

I-45 GUIDELINE FOR CAREER EDUCATION (Bismark Public Schools)

This is a state-wide program in developmental vocational guidance (K-12) and occupational preparation for the changing world of work. Preliminary draft compilation for field-testing purposes in the Bismark School District No. 1 and other selected schools in North Dakota. The materials researched and compiled by personnel in the Bismark Public Schools in conjunction with the State Board for Vocational Education.

I-46 AN OCCUPATIONAL VOCATIONAL EDUCATION MODEL FOR STATE OF DELAWARE

This project's objectives are for Broad Occupational Orientation at the Elementary and Secondary Levels to increase student awareness of the range of options open to them in the world of work and to provide provisions for work experience, cooperative education and similar programs making possible a wide variety of offerings in many occupational areas, to provide students not previously enrolled in vocational programs to receive specific training in job entry skill just prior to the time they leave school.

I-47 PLANNING AND CONDUCTING COOPERATIVE OCCUPATIONAL EXPERIENCE IN OFF-FARM AGRICULTURE Ohio State University

The major objective of this publication is the orientation of vocational agriculture teachers to the concepts of planning and conducting a cooperative occupational experience program for off-farm agriculture.

I-48 TEACHING OUTLINES ON COOPERATIVES

This teaching outline is intended to help teachers plan activities dealing with off-farm business, films on cooperative enterprises, careers in cooperatives, How to Organize Business in America, and Business in Our Communities.

J. BIBLIOGRAPHIES

J-1 MANPOWER AND ECONOMIC EDUCATION: OPPORTUNITIES IN AMERICAN ECONOMIC LIFE

This is an economic education course written from the viewpoint of the individual as a worker-income earner, and as a person. Its purpose is to provide the schools with a means for improving the preparation of young people for effective participation in the changing economy.

J-2 AGRI-BUSINESS JOB DESCRIPTION BOOKLET

This booklet describes a sample of jobs found mostly in the Agri-business community. These descriptions tell something about the jobs which should help you make decisions concerning your career choices.

J-3 VOCATIONAL INFORMATION PROGRAM

This program is a result of an experiment of the Vocational Guidance Institute. One of the project assignments was the development of a curriculum guide for orienting young people to the world of work.

J-4 PROJECT WERC (Why Not Explore Rewarding Careers) RESOURCE BOOK

Project WERC is designed to provide information to students which will enable them to make more intelligent decisions by broadening their understanding in the world of work.

J-5 BIBLIOGRAPHY ON CAREER EDUCATION

Four Sections -
I. Selected References on Career Education - deals with the career education concept.
II. Journal Articles - Articles on Career Education concept which have appeared in periodicals.
III. Background Reference Related to Career Education - lists documents related to Career Education concept, various components and aspects of Career Education.
IV. Continuing Sources of Information - Lists Career Education information sources.

J-6 QUARTERLY REPORT

J-7 A "STARTER" FILE OF FREE OCCUPATIONAL LITERATURE

The file contains "starter" leaflets which may be used as a reliable resource for the vast majority of career counseling needs. This book lists 103 pamphlets which can be used to explore 500 careers.

J. BIBLIOGRAPHIES

J-8 A GUIDE TO CAREERS RELATING TO AGRICULTURE

This book is to be used as a ready reference for students who have decided on their area of interest but want more information on the specifice jobs in a specialized field.

J-9 PROCEEDINGS - of the Coordination Conference of state-level and local-level Directors of Career Education Projects funded under Section 142(c) of Part D and Section 131(a) of Part C of Public Law 90-576.

J-10 SOURCES OF OCCUPATIONAL INFORMATION FOR COUNSELORS, TEACHERS, SCHOOL LIBRARIANS AND STUDENTS

This booklet is to assist in locating up-to-date occupational and related educational information.

APPENDIX E

Community Resource
Packet

March 18, 1974

To: _____

From: J. Budd Hovey, Career Awareness Coordinator

Re: To inform your business of Great Falls Vo-Tech Career Education Research and Development Project Grant No. OEG-0-72-0924.

Allow me the opportunity to introduce myself and our project to you. I'm Budd Hovey, Coordinator for a one year career education project for our 14 Cascade County Rural Schools. The purpose of this project is to bring to our rural communities and schools career education concepts and implement them into their current curriculums.

We hope that with career education concepts implemented in the school curriculum that we as educators and community will make our children, our students, and our future aware of the working world.

We hope to develop in our young students an awareness of: self, work, work ethics and values, why work is important, needed, wanted, necessary to life, and satisfying. We hope to develop in our young students an awareness of the 20,000 different types of job occupations, so that they will be better prepared to find their job(s) or occupation(s) by choice not by chance, as we want them to plan, study, and evaluate the various choices that will fit their needs, abilities, and interests. Many of our young people graduate from high school or drop out of school with no goals in mind concerning their productive work career.

One concept of career education is to involve the total community with the schools in helping our young students grow and develop into useful, self-satisifying, and self-dependent citizens. Therefore, we are attempting to solicit your resources, and staff employees to help our rural students become aware of the work world.

I do not wish to impose upon you and your company but I certainly appreciate any help and information you wish to give to this vitally important project to prepare our students' future. Please take the time to read all the information provided herein.

Respectfully,

J. Budd Hovey

J. Budd Hovey
Career Awareness Coordinator
Vo-Tech Center - Largent
915 First Avenue South
Great Falls, Montana 59405

Phone: 761 5800, ext. 378

JBH:bj

COMMUNITY RESOURCE

A SCHOOL COMMUNITY COORDINATION PROGRAM

FACT SHEET

WHAT IS A SCHOOL COMMUNITY COORDINATION PROGRAM?

A program which provides the means for students to use the wider community as an education resource.

A Career Education Coordinator acts as an agent to locate and gather information for schools where students can travel to or have a resource person or persons visit their particular school.

WHAT SCHOOL SYSTEMS ARE INVOLVED IN THIS PROGRAM?

Fourteen (14) rural school systems of Cascade County are involved in the program. These schools are: ARMINGTON, BELT, CALVERT, CASCADE, CENTERVILLE, DEEP CREEK, FORT SHAW, SIMMS, MOUNTAIN VALLEY, NEIHART, PORTAGE, SUN RIVER, ULM, AND VAUGHN.

WHO IS THE SPONSOR OF THE PROGRAM?

The project or program is a Federally-State supported program, with funding processed through the Vocational-Technical Skills, Office of the State Superintendent, Helena, Montana, then processed through the Great Falls Vo-Tech Center-Largent, Career Awareness Project, Budd Hovey, Coordinator.

WHAT IS A COMMUNITY RESOURCE?

Community resources can be .....

<u>People</u> with special talents: Artists, Musicians, Dancers, Sculptors, Writers, Bankers, Carpenters, Doctors, Lawyers, Teachers, Telephone personnel, Bakers, Service Station personnel, Sales personnel, etc.

<u>People</u> with specialized knowledge of a particular profession or vocation.

<u>People</u> with knowledge of the customs of ethnic and national groups.

<u>People</u> in government. <u>People</u> . . . . . etc.

<u>Places</u> where a student can observe and/or become involved in a learning experience which would make his school training more tied to the "real world of work". These could be any businesses that employ people or product goods.

I AM INTERESTED IN THIS PROGRAM, HOW MUCH TIME WOULD I HAVE TO ALLOW?

Time would be dependent on two factors, the amount of time that you would be willing to give and the type of assignment requested by the school. For instance several students may wish to visit your place of business, or you or your staff may be asked to visit a school to meet with a class who will be studying in an area in which you have special knowledge.

HOW DO I BECOME INVOLVED?

Write, call, and/or fill out EMPLOYER'S INVENTORY THAT IS ENCLOSED. My office is at the Great Falls Vo-Tech Center - Largent, at 915 First Avenue South, and my phone number is 761 5800, ext. 378.

Sincerely,

J. Budd Hovey
Career Awareness Coordinator
Great Falls Vo-Tech Center - Largent
915 First Avenue South
Great Falls, Montana 59403

JBH:bj

GREAT FALLS VOCATIONAL-TECHNICAL CENTER
915 First Avenue South
Great Falls, Montana 59405

From: J. Budd Hovey, Career Education Coordinator

Reason: Career Education - Great Falls Area
1974-75 Employer Resource Inventory

Dear Employer:

The purpose of this inventory is to locate and catalog the various resources that employers in the Great Falls area will make available to our schools in support of Career Education.

Career Education is a new concept designed to give students broad exposure to many possible careers, develop their interest in specific careers, guide their studies to qualify them for their chosen careers, and develop positive attitudes towards the world of work at whatever level they complete their education whether it be high school, vo-tech training, two-year or four year college or beyond.

The resource information gathered in this inventory will be centralized, so that teachers and counselors can make contacts whenever seeking the assistance of employers in such matters as classroom speakers, plant and office tours for students.

You, as an employer, will benefit at lease three ways.

First, you will specify in advance the type, amount, and timing of the assistance you will provide, so as not to disrupt your regular business operations.

Second, you will not be besiged by numerous unexpected requests from educators.

Third, you will be recognized and respected as an employer who makes concrete contributions to the education of our youth.

We enlist your cooperation.

Sincerely,

J. Budd Hovey
Career Awareness Coordinator
Great Falls Vo-Tech Center-Largent
915 First Avenue South
Great Falls, Montana 59405

phone: 761 5800, ext. 378

JBH:bj

CAREER EDUCATION

1974-75 Inventory of Employers Resources

Employer _____

Type of Business _____

Address _____

Contact Person _____ Phone _____

Could we use your name on a Human Resource Bank list? _____ yes _____ no

Would you or a member(s) of your staff be willing to talk to a group of Elementary grade school students in one or more of our 15 rural schools?

To discuss your job, showing tools of your profession or trade?

_____ yes _____ no

Could we bring students to your place of business for a career awareness field trip? _____ yes _____ no

If interested, how many students could you comfortably handle? _____

What age level or grade level could you work with? _____
(example: age: 6-12 years of age or 1st through 6th grades)

What are limitations for visit? _____

_____

_____

_____

PLEASE RETURN THE FORM TO:

J. BUDD HOVEY,
CAREER AWARENESS COORDINATOR
915 FIRST AVENUE SOUTH
GREAT FALLS, MONTANA 59405

A COMMUNITY RESOURCE GUIDE IS PROVIDED ON NEXT SHEET. THESE QUESTIONS ARE TYPICAL OF WHAT MIGHT BE ASKED OF YOU OR YOUR RESOURCE PERSON IF HE/SHE APPEARED AT A SCHOOL OR IF STUDENTS HAD PERMISSION TO VISIT YOUR ORGANIZATION. THE GUIDE COULD BE USED AS A GUIDELINE FOR YOUR STAFF TO FOLLOW IN A PRESENTATION AT A SCHOOL.

MY OFFICE WOULD PROVIDE TRANSPORTATION WHENEVER POSSIBLE.

THE FOLLOWING RURAL SCHOOLS ARE INVOLVED IN THIS CAREER AWARENESS PROJECT.

ARMINGTON, 23 miles, 46 round trip. Two (2) teachers, 32 students.

BELT, 22 miles, 44 round trip. Eleven (11) teachers, 246 students.

CALVERT, 37 miles, 74 round trip. One (1) teacher, 3 students.

CASCADE, 30 miles, 60 round trip. Thirteen (13) teachers, 197 students.

CENTERVILLE, 15 miles, 30 round trip. Eleven (11) teachers, 199 students.

DEEP CREEK, 30 miles, 60 round trip. One (1) teacher, 2 students.

FORT SHAW-SIMMS, 30-35 miles, 60-70 round trip. Eleven (11) teachers 152 students.

MOUNTAIN VALLEY, 38 miles, 76 round trip. One (1) teacher, 3 students.

NEIHART, 62 miles, 124 round trip. Two (2) teachers, 15 students.

PORTAGE, 16 miles, 32 round trip. One (1) teacher, 5 students.

SUN RIVER-CROWE, 21 miles, 42 round trip. Seven (7) teachers, 131 students.

ULM, 14 miles, 28 round trip. Seven (7) teachers, 83 students.

VAUGHN, 14 miles, 28 round trip. Seven (7) teachers, 152 students.

IDEAS THAT WOULD GENERATE QUESTIONS AND INTERACTIONS BETWEEN THE RESOURCE PERSON AND THE STUDENTS.

1.) TITLE OF JOB?

2.) DUTIES OF JOB?

3.) TRAINING REQUIRED FOR THIS JOB?

4.) DEMANDS FOR SUCH A JOB?

5.) PHYSICAL CHARACTERISTICS NEEDED FOR THIS JOB?

6.) SOCIAL CHARACTERISTICS NEEDED FOR THIS JOB?

7.) DO YOU WORK ALONE OR WITH OTHERS?

8.) WHAT SCHOOL SUBJECTS HELPED IN PREPARING YOU FOR THIS WORK ROLE?

9.) DISCUSS AND DISPLAY IF POSSIBLE ANY TOOLS AND EQUIPMENT NEEDED FOR THIS JOB?

10.) HOW DO YOU FEEL AFTER A DAYS WORK?

11.) WHY DO YOU WORK?

12.) WHAT ARE THE GOOD AND BAD POINTS ABOUT THIS JOB?

13.) DO YOU NEED TO GET ALONG AND COOPERATE WITH OTHER WORKERS? HOW AND WHY?

14.) ARE THERE ANY SAFETY PRECAUTIONS YOU MUST ABIDE BY IN YOUR LINE OF WORK?

15.) WITH YOUR PRESENT EXPERIENCE AND TRAINING WHAT OTHER TYPE OF JOBS COULD YOU STEP INTO?

16.) IF THESE QUESTIONS DID NOT COVER A CROSS-SECTION OF YOUR PRESENT OCCUPATION PLEASE FILL THE STUDENTS IN.

MAYBE AT THIS TIME THE STUDENTS MAY HAVE SOME QUESTIONS TO ASK YOU.

APPENDIX F

Pre-Post Assessments of Teachers and Students

NAME_____

GRADE_____

SCHOOL_____

STUDENT SELF-EVALUATION

Please circle the answer that you feel is correct.

1. I am an important person.

   a. yes
   b. no

2. Other people are more important than I am.

   a. yes
   b. no

3. Other people think I am important.

   a. yes
   b. no

4. I can do most things well.

   a. yes
   b. no

5. I am like most other people.

   a. yes
   b. no

6. I like myself most of the time.

   a. yes
   b. no

7. Do you have to go to college to get a good job?

   a. yes
   b. no

8. Do men do most of the work in our county?

   a. yes
   b. no

9. Are most jobs hard?

   a. yes
   b. no

10. Can an adult miss work whenever he wants to?

    a. yes
    b. no

11. People work mainly to make money.

    a. yes
    b. no

12. Do you know what job you want when you grow up?

    a. yes
    b. no

13. Are all jobs in our country important?

    a. yes
    b. no

14. Do we need the work that other people do?

    a. yes
    b. no

15. Would most people work if they didn't have to?

    a. yes
    b. no

16. Do people who work hard enjoy their job?

    a. yes
    b. no

17. Is it important to go to work when you are supposed to?

    a. yes
    b. no

18. Is doing a job well important to a persons success?

    a. yes
    b. no

19. Do you ever go on field trips to learn about different kinds of jobs?

    a. yes
    b. no

20. In school do you learn about jobs in the city?

    a. yes
    b. no

21. In school do you learn about jobs in your community?

    a. yes
    b. no

22. Do people ever come to your school to tell you about their jobs?

    a. yes
    b. no

23. Have you ever talked to anyone about a job you would like when you grow up?

    a. yes
    b. no

24. Do you want to find out about different kinds of jobs?

    a. yes
    b. no

25. Do you like to work alone?

    a. yes
    b. no

26. In school do you learn how to get along with others?

    a. yes
    b. no

27. Do you work together in class?

    a. yes
    b. no

28. Would you like a job where you could work with others?

    a. yes
    b. no

29. Is it important to work with others?

    a. yes
    b. no

30. Do people work alone in most jobs?

    a. yes
    b. no

31. Do most people like the things you do?

    a. yes
    b. no

32. If a person disagrees with you is he wrong?

    a. yes
    b. no

33. Would most people like to live in the city?

a. yes
b. no

34. A person who does a job well is a better person than one who doesn't do a job well?

a. yes
b. no

35. Would most people like a job working outside?

a. yes
b. no

36. Do you ever learn about different people and what they like?

a. yes
b. no

37. Does a doctor have an important job?

a. yes
b. no

38. Does a person need to go to college to get an important job?

a. yes
b. no

39. Does a farmer have an important job?

a. yes
b. no

40. Are some jobs more important than others?

a. yes
b. no

41. Does a garbage man have an important job?

a. yes
b. no

42. Are there good people working in all kinds of jobs?

a. yes
b. no

SELF-EVALUATION INVENTORY FOR TEACHERS K-12

Rate yourself on each item on a scale 1 through 5. Five is the highest rating. Circle most likely number.

1. I recognize advantages of career planning _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5

2. I realize that responsibility and decision making are part of career development _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5

3. I understand the total career education program of the district and have identified my role _ _ _ _ _ _ _ 1 2 3 4 5

4. I can identify:
   - A. The National, regional and local manpower trends and needs _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - B. Measuring devices that assess interests, attitudes and aptitudes as they relate to future career decisions _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - C. Career resource materials (A.V., games, briefs, kits, etc.) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - D. Community resources available for enriching career programs (IPAR, agencies, service clubs) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - E. Tests that measure the achievement of career objectives _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - F. Classroom guidance skills used in career education programs _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - G. Relationships between avocation and occupations _ 1 2 3 4 5

5. I can analyze:
   - A. Job family concept (cluster, people-data-things, etc. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - B. The direct relationship between competencies developed while in school and those needed in life roles (family, citizen, occupational and avocational) _ _ _ _ _ _ _ 1 2 3 4 5
   - C. The interdependence of occupations _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - D. How all work contributes to the well-being of society _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5
   - E. How people in various occupations also function in other life roles (family, citizen, avocational) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 1 2 3 4 5

SELF-EVALUATION INVENTORY FOR TEACHERS IN K-6

Rate yourself on each item on a scale 1 through 5. Five is the highest rating. Circle most likely number.

1. I utilize:
   - A. Vocational literature and data _____ 1 2 3 4 5
   - B. Individualized instruction material developed _____ 1 2 3 4 5
   - C. A.V. material, games, literature, etc. _____ 1 2 3 4 5
   - D. Selected resource people in class to present career information _____ 1 2 3 4 5
   - E. Developed career awareness teaching guides _____ 1 2 3 4 5
   - F. Parents of class members in presenting information on their career _____ 1 2 3 4 5

2. I direct students in:
   - A. Classroom projects simulating tasks of real workers _____ 1 2 3 4 5
   - B. Identifying career opportunities related to units _____ 1 2 3 4 5
   - C. Discussing their career aspirations _____ 1 2 3 4 5
   - D. Doing research on occupations that are of interest to them _____ 1 2 3 4 5
   - E. Using classified ads to identify and describe occupations _____ 1 2 3 4 5
   - F. Identify careers of their parents _____ 1 2 3 4 5
   - G. Developing a questionnaire for interviewing parents and others about their jobs _____ 1 2 3 4 5
   - H. Field trips for career awareness _____ 1 2 3 4 5
   - I. Studying occupations of day-to-day employees of local school system _____ 1 2 3 4 5
   - J. Identifying the type of tools, clothes, materials and equipment used in various occupations _____ 1 2 3 4 5

3. I have developed tests that measure the achievement of career awareness _____ 1 2 3 4 5

4. I utilize developed tests that measure achievement of career awareness _____ 1 2 3 4 5

SELF-EVALUATION INVENTORY FOR TEACHERS IN 7-10

Rate yourself on each item on a scale 1 through 5. Five is the highest rating. Circle most likely number.

1. I can identify:
   - A. Tasks performed by people in various occupations _____ 1 2 3 4 5
   - B. Salary levels and working conditions of occupations _____ 1 2 3 4 5
   - C. Educationa requirements of occupations _____ 1 2 3 4 5
   - D. Physical and intelectual requirements of occupations _____ 1 2 3 4 5
   - E. Student interests and abilities with compatable occupations _____ 1 2 3 4 5
   - F. Vocations that can become avocations and avocations that can become vocations _____ 1 2 3 4 5
   - G. Life styles associated with occupations _____ 1 2 3 4 5

2. I utilize:
   - A. Activities fostering wholesome attitudes of work _____ 1 2 3 4 5
   - B. Measuring devices to guide student understanding of self-interests, attitudes, aptitudes _____ 1 2 3 4 5
   - C. Information on manpower from employment services _____ 1 2 3 4 5

3. I have developed and/or utilized:
   - A. Tests that measure achievement of career exploratory objectives _____ 1 2 3 4 5
   - B. Vocational literature, individualized instructional material, career exploratory teaching guides, community resources _____ 1 2 3 4 5
   - C. Classroom activities
     - 1. Field trips for career exploration _____ 1 2 3 4 5
     - 2. Discuss career aspirations with students _____ 1 2 3 4 5
     - 3. Identify careers related to subject matter _____ 1 2 3 4 5
     - 4. Develop a questionnaire to interview workers _____ 1 2 3 4 5
     - 5. Projects to simulate tasks of real workers _____ 1 2 3 4 5
     - 6. Make a task analysis of special interest occupations _____ 1 2 3 4 5
     - 7. Dictionary of Occupational Titles to identify and describe occupations _____ 1 2 3 4 5
     - 8. Direct students in doing research on occupations using the D.O.T., classified ads, Occupational Outlook Handbook, etc. _____ 1 2 3 4 5
   - D. Job family concept _____ 1 2 3 4 5
   - E. Guidance skills to assist in career exploration _____ 1 2 3 4 5

APPENDIX G

List of Potential Resource Personnel

GREAT FALLS VO-TECH CENTER
CAREER AWARENESS PROJECT
1974

A & A Carriers (see Yellow Cab)

453-1606	ABBCO, Inc.	Box 2147	John Abbey
761-3028	Acme Instant Printer	Suite 105, 600 Central Plaza	Craig Barber
761-3024	Acme Personnel Service	Suite 11, 600 Central Plaza	Craig Barber
452-8545	Accounts Management Corp.	Eklund Building	George Fleming Ben Coates
761-8945	ACRO, Inc.	325-2nd Ave. North	Emery J. Johnson
453-4314	A & I Distributors	Box 1187	Donald Lord
761-7731	A & W Drive In	705 Central West	Al Verploegen
761-8915	Airway Motel	S.W. on U.S. 91	Merril Bates
453-5000	Alber-Mon Publishing Co.	513-31st St. N.W.	Nancy Golberg
452-3467	Alberta Motel	1101 Central West	George Stafford
453-3266	Alexander, Kueinning & Miller	Box 1744	Edward C. Alexander
761-7510	All-States Leasing Co.	Box 2707	Dale R. Pugh
761-2400	American Appliance Co.	2924-10th Ave. S.	Robert Oswald
761-5020	American Furniture	4700-10th Ave. S.	L. F. Borchers
761-7908	American Ideal Homes	3006-10th Ave. S.	Arnold F. Kruse
761-1530	American-International, Inc.	4908-10th Ave. S.	C. F. Sorenson
453-1418	American Linen Supply Co.	411-3rd Ave. S.	Henry T. Topel
452-6486	American Red Cross Cascade Co.	Box 2406	William J. Bailey
761-3150	Amundson, Beer & Lund	Box 1163	John Beer
453-3211	Anaconda Company	Box 151	Wm. J. Roberts Howard Bardwell
	Frank Bozlik	Eldon J. McNicol	James L. Owings
	Harry C. Brown	Geo. A. Morris	Geo. E. Severson
	Thomas G. Calvert	Daniel J. Murphy	Walter L. Titus
	Richard L. Dana	Arthur C. Nelson	Walter C. Dunn
	Jack R. Davis	Don R. Peterson	James F. Garvey

452-9546	Anderson, Dr. Hugh V.	2301-6th St. N.W.	M.D. (personal)
761-0700	Anderson-Elerding Travel Service	309-1st Ave. N.	Marge Elerding
454-1391	Anderson Office Machines	Box 2583	R. A. McClure
453-6789	Anderson Ranch Co.	Box 2004	Roy Anderson
453-4341	Anderson Wholesale	1119-24th St. S.	Joseph Anderson
453-4395	Andy's, Inc.	Box 1647	R. W. Eklund Richard C. Eklund
761-3430	Andy's, Inc.	1225-10th Ave. S.	Wm. Buerkle, Jr.
761-2350	Anthonys	1807-3rd St. N.W.	Frank Youngdale
761-1366	Artz, Clark & Stevens	600 Central Plaza	Maurice Clark
727-2509	Avon Products, Inc.	Box 1663	Clarice Hammer
453-0389	Ayrshire Dairy	Box 2387	Harry Mitchell
452-8672	Barnes, W. H., Jeweler	307 Central Avenue	Earl Planteen
453-4301	Barnes Buick	Box 2433	Robert D. Barnes Richard L. Grieb
454-0197	Barney's Alignment	405 Central Ave. W.	Byron D. Posey
452-9519	B & C Realty, Inc.	1100-14th St. S.	H. L. Castleman Lee Lux
761-4800	Baucus, Corontzos, Iwen & Walsh	Box 1723	R. William Walsh
761-6915	Bearing Sales	511-4th Ave. S.	Stanley Jorgensen
453-4337	Beatrice Foods Co.	Box 1749	Dick Walrack
453-6571	Beckman Brothers, Inc.	Box 1648	Al Beckman Al Hoen Lu Salina
452-6446	Roy Bell (State Farm Ins.)	Holiday Village	Roy Bell
727-2100	Bennett Pontiac Motors	Box 2267	Dick Bennett Carroll Bennett
727-2266	Bicsak & Sons Ambulance Service	526-2nd Ave. S.W.	Charles L. Bicsak
453-4270	Big Bear Store	517 Central Ave.	Joe Scott
454-2111	Bison Motor Co.	Box 1548	Lester A. Olson Robert Solberg

761-4110	Bjornson, Darrell L.	Box 311	Insurance
727-3450	B. L. M. Tires	521-10th Ave. S.	Chuck Patrick
452-2311	Black Eagle Paving, Inc.	Box 366, B. E. 59414	Ray Sweeney
454-3466	Blend's Copy Shop	111-5th St. N.	Carroll C. Blend
761-7310	Blue Cross of Montana	3360-10th Ave. S.	Virgil Miller
761-0300	Borries	Black Eagle, 59414	Ernest Grasseschi
453-3869	Bovey, Charles	Box 1653	Rancher
731-3428	Bowlen, Dr. B. J.	99 Devonshire	University of Mont.
452-0951	Boyd's Burgermaster	2101-10th Ave. S.	Robert C. Boyd Morty J. Boyd
452-0200	Jim Brown Insurance Agency	1505 Meadowlark Drive	JimBrown
454-1001	Budget Rent-a-Car	Route 1, Box 235-D	Carlton Hamilton
761-7530	Builders Supply Co.	2300-9th Ave. N.	Robert M. Pope
761-0250	Burlington Northern Inc.	Box 2525	Walter L. Curtis (761-1150)
		B. N. Building	Lee Richardson
		J. W. Miller	(761-1150)
		H. O. Olson	Norman E. Sande
		S. J. Warner	
		A. D. Michel	
452-6464	F. A. Buttrey Co.	Box 1589	Paul Wagner
761-3401	Buttrey Foods, Inc.	Box 2008	Phil Palm, Jr.
		Carl Walters (1st A.N.)	Vernon C. Hyberg
		John Cefro (Westgate)	Earl Carlson (26th)
		Al Schubert	Robert Foole
453-5466	Cargill, Inc.	Box 1584	Kent Norby
453-1971	Carlson Music	716 Central	Dwight L. Carlson
453-3055	Carlson Shoe Co.	Box 2245	Martin Kuntz
453-0317	Carpenter Paper Co.	Box 2187	Wes Brennan Albert Mosley
761-3991	Carriage House	Box 1145	Grant R. Williams
727-2300	Cascade Coach Co., Inc.	Box 261	Robert L. Gordon
453-9077	Cascade County Soil & Water Conservation District	(home phone: 866-3259, Milligan) 4930-9th Ave. S.	Dale Marxer

453-3285	Cascade Electric Co.	Box 2669	Rob Wilson
761-7741	Cascade Opticians	600 Central Plaza	J. L. Pennington
761-4520	Casey-Blumfield, Inc.	1116 Central Avenue	Don Blumfield
454-3456	Central Bank	Box 2308	Charles W. Rubie Herb Caraway Dean H. Albert T. F. Corbally, Jr.
761-1160	Century Agency	Box 1746	Allen Rognaldson
452-4141 452-4463	Chief Distributors	Box 1165	Terry Haverlandt
452-1891	Chateris Hardware	121 Central Ave.	
453-6501	Chase-Jursnick & Associates	Box 3067	W. H. Chase
452-9503	Checker Motel	626 Central West	Henry E. Dupis
761-4452	Circle K Food Stores	815-10th Ave. N.W.	Dave Barker
761-4900	City Motor Co.	Box 1706	Robert Oakland
452-8428	Clark's Orthopedic	513-1st Ave. S.	Ralph W. Clark
727-3500	Clary, R. F., Jr.	Box 342	Attorney
453-8295	Clinic Pharmacy	Box 2034	E. S. Thoreson
761-4400	Coast to Coast Stores	721 Central Ave.	Lance Swanson
761-5000	Cogswell Agency	Box 1628	E. B. Cogswell Jack Cogswell
761-8210	College of Great Falls	1301-20th St. S.	John Farley
727-3333	Columbus Hospital	1601-2nd Ave. N.	Tom Gillespie, Mgr. Frank Stewart. Adm. Don Sessions
453-4321	ConAgra-Montana	Box 7548	Harry C. Johnson C. E. Wright Dr. Harley Jordan
761-8151	Connolly, Guy W.	1004-1st Ave. S.	Globe Life Ins.
452-2362	Connor, Brig. Gen. John P.	510-1st Ave. N.	Mont. Heart Assn.
452-3827	Conrad's, Inc.	Holiday Village	Mrs. Eunice Cheesebrough
453-4388	Consolidated Freightways	Box 1689	Charles S. Crane Donald McCann

761-6694	Conwell Employment Agency	1824-10th Ave. S.	Lee Conwell
761-0800	Coroutzos, Robert	Box 1725	Attorney
761-9283	Country Club Standard	Country Club Addn.	George Wald, Jr.
453-2461	Craft, Dick	Albertson's	(Personal)
453-4334	Crane Supply Co.	Box 751	D. Fred Hannula Don Wilmont Clyde Sowell
453-1661	Credit Bureau of Great Falls	Box 2627	Barney Murphy John D. Houghton
453-7633	Credit Service Co.	Box 2284	Hugh M. Spall
453-0315	Croxford & Sons	1307 Central Ave.	Lloyd M. Croxford
761-3111	Cain, Kalman & Quail, Inc.	Box 3069	Wayne Chestnut
453-1625	D. A. Davidson & Co.	Box 2527	Ian Davidson W. S. McFadden, Jr.
761-2277	Davidson & Kuhr	Box 417	William H. Kuhr David S. Davidson
761-7355	Davis-Martin Animal Clinic	316 Central West	Dr. Wayne H. Martin Dr. Elmer G. Davis
453-6756	Davis, C. E. Jewelry Co.	Box 2667	William R. Davis
761-6700	Dean, Milo F.	Courthouse	County Commissioner
453-7394	Designers Unlimited	2315-12th Ave. S.	Roger Hanson Joseph Lopach
453-5457	Devine, Asselstine, Inc.	124-2nd Ave. S.	G. H. Asselstine, Jr.
453-8310	Diana-Hughes	403 Central Ave.	Mrs. Alice Dietz
452-0333	Dick's Trailer Park	S.W. of City	Samuel Dick, Jr.
761-4394	Dille, Richard	2205 Grape Court	Postmaster
452-9595	Don Plaza Motel	1225-10th Ave. S. 1404-34th St. S. (home Address)	Robert Cuon
453-4318	Don Rebal Lincoln-Mercury	Box 2466	Don Rebal
453-2437	Don Ryan Olds	Box 2927	Don Ryan
761-7773	Duddy's Inc.	Box 5001	Tom Roberts
452-4840	Duncan Sign Shop	Box 65	Joe Duncan

453-5493	Dunlap Office Supply	514 Central Ave.	Roger L. Donzy Woodford Matlock, Jr.
453-3552	Dustin, L. L.	Thisted Center	Optician
453-6504	Duvall's, Inc.	521 Central Ave.	Frank J. Duval Walter J. Johnson
453-6521	Eaglen Manor Retirement Residences	9th St. & 15th Ave. S.	Gene D. Todd
452-4492	East Shore Motel	300 River Drive N.	Don Kinnison
761-5630	Eastside Bank of Montana	Box 1111	Bruce Miller Robert D. Schwartz
453-6564	Eddy Bakeries Co.	900-2nd Ave. N.	Clarence Fishbough
452-6691	Eidol Ranch, Inc.	Route 1 West	Jack Eidel
453-4683	Eigoman, Frank	4200-3rd Ave. N.	(personal)
761-0444	El Comedor	1800-3rd St. N.W.	Mrs. Claire D. Weber
453-1621	Electric City Conservatory	Box 748	John J. Kennedy
453-1673	Electic City Printing Co.	Box 2069	Robert Bennette
452-6236	Electric City Radio Supply	2315-10th Ave. S.	Frank Anderson
761-9525	El Ranchito Inn	5305-2nd Ave. N.	Author Orvantis
452-8595	Elmore Motel	6-6th St. S.	Darlene Graham
761-3830	Enterprise Electric	1001 Central	Howard Snyder
453-6577	Epcon, Inc.	Box 1134	F. E. Van DenBos
452-8528	European Health Spa	2506-6th Ave. S.	Dan Anderson
452-5524	Evans, L. E.	Moreny Route	(personal)
453-1752	Falls Barber Salon	924-5th Ave. N.W.	C. E. Gruter
454-0712	Falls Mobile Home Center	3434-10th Ave. S.	Albert Lawson
453-1471	Falls Supply Co., Inc.	209-2nd St. S.	Robert D. Rowe
453-1453	Farm & Ranch Equipment	Box 1252	Lee Johnson
453-2483	Farmers Union Central Exchange	Box 1664 (G.F.) Box 817 (Conrad)	Robert Wandke Henry Dosing
453-0381	Farmers Union C.T.A.	Box 671	George Boos Gary Pistoria
453-7476	" " "	Box 2322	Wayne Sterline

453-5455	Feiden's Flower Shop	Box 2194	Tom Allison
452-6435	Fergus Motel	301-3rd St. N.W.	Dick Arehart
453-0387	Fidelity Savings & Loan	510-1st Ave. N.	Dewey Guenthner
761-3750	Finlay, Kenman & Misfeldt	1st Nat'l Bank Bldg.	Clarence Misfeldt Stone Paulson, Jr. Robert J. Carnett
453-6555	Firestone Store	400-1st Ave. N.	Walt O'Fallon
761-2600	First Builders	Box 945	Jerry Hagfeldt Robert E. Miller
761-2200	First Federal Savings & Loan	Box 2547 Roger Arnston G. W. Musselman Don Jaspers P. C. Bulen (453-4614, 400-5th St. N.)	Paul A. Johnson John C. Bulen Don Ninneman Clarence H. Hewitt
453-2421	First Montana Finance Co.	Box 1586	Bill Filler
761-7224	First Montana Title Co.	17-5th St. N.	Ronald D. Bricks
761-7200	First National Bank Jack Giesler Scott B. Stratton Tom Quilling Gary Sethre Lyle Sundine Robert Henry	Box 2088 Vic Weible J.C. Wells Fred Joyce E..F. Galt W. J. Pledge Delos Core	Adrian O. McLellan Malcolm Adams N. O. Bolstad James Huber Clayton Jacobs John Misfeldt
761-2650	First Trust Co. of Montana	Box 2088	Forrest Henderson Don Short
454-2161	First Westside National Bank	Box 2508 Robert A. Wanago Duane Voeller	J. W. Connelly John Blink L. R. Zins
761-1451	Fleet Wholesale Supply	Box 411	Dale Soderman
452-9321	Flynn, Dr. Edward J.	1125-2nd Ave. N.	(personal)
453-1460	Flynn Insurance Agency	Box 3007	Frank Flynn Leo P. McMeel, Jr.
453-5811	Foods, Inc.	Box 1396	Andrew Prower
452-9533	Forzley Sales, Inc.	Box 2870	Joe Forzley
761-8650	Frontier Airlines	G.F. International Airport	Larry Scofielde Neil Averett(Billings)
761-6300	Frontier Dodge	10th & 10th S.	James Wilson Art Skiftum
761-2941	4-B's Cafeteria	Holiday Village	Mike Smith

761-0544	4-Most Photo	1308-10th Ave. S.	Richard Stenske Thomas Jenkins
453-8808	Gabe's Auto Sales	1414-10th Ave. S.	L. C. Gabriel
453-1451	Gallagher Security Service	Box 2705	Allen C. Gallager
761-8600	Gamble-Robinson Co.	Box 2045	Arnold Skoge
453-0379	General Electric Supply Co.	911-4th St. S. Box 2629	Sam Coleman
761-6252	General Mills, Inc.	Box 111 R. Darrel Evans Robert Collins	Fred Page Pat Kluempke A. M. Thomas
452-6457	General Motors Acceptance Corporation	Box 391	James Knoll
453-4404	George Company, The	Box 1713	C. Ray Fisher
453-5471	Georgia Pacific Corporation	901 River Drive S.	Arthur Flood
452-6012	Giannini & Son Distributing	115-1st St. S.W.	Gary Giannini
761-4220	Glacier State Electric Supply	Box 2207	Kenneth Parsons
453-6076	Glacier Transportation Co.	2919-6th Ave. N.	Robert B. Steel
452-9515	Goggans & Pennie	1106 Central Ave.	Henry L. Enochson
761-5330	Gomer's Diesel & Electric	308-2nd Ave. S.	Vernon Gomer
454-1393	Gordon Realty, Inc.	Box 1445	Glenn Gordon
452-3810	Gordon's Restaurant	616-10th Ave. S.	Costas Billinis Pete Cladaches
453-6591	Graham & Ross	Box 2306	John D. Ross, Jr. John Ross III Gil Halverson
	Grassell, Dr. E. Milton	371 California, Oakdale, CA 95361	
727-2722	Great Falls Advertiser and Shoppers Guide	Box 3067	C. Jeanne Ingram
453-6517	Great Falls Auto Parts	1215-10th Ave. S.	Edward J. Randash
	Great Falls Clearing House Association (See banks - listed alphabetically)		
761-4444	Great Falls Cleaning Service	813-6th St. S.W.	Robert M. Martin
454-2171	Great Falls Clinic Dr. F. J. Allaire Dr. R. E. [illegible] Dr. A. K. Atkinson Dr. J. W. Brinkley	1220 Central Ave. Dr. G.K. Phillips Dr. J. A. Curtis Dr. H. W. Feller Dr. J. R. Halseth	Robert Schuster Dr. J. A. [illegible] Dr. H. N. [illegible] Dr. L. H. [illegible] Dr. J. C. [illegible]

761-3794	Great Falls Coca-Cola Bottling Co.	1117-7th St. S.	Jim Wylder
761-6610	Great Falls Commercial College	Box 1404	Dennis Wingen
454-3743	G. F. Federal Savings & Loan	Box 2327	Ray Wirth A. C. Boucher
761-7100	Great Falls Gas Co.	Box 2229 Clover Fanette H. M. Saubert (retired)	Earle E. Garrison Charles F. Clifton R. W. Creek
761-8200	G. F. Implement Co.	420-3rd St. S.	L. D. Porter
453-4348	G. F. Livestock Market Center	Box 991	Don Hogan
453-0341	Great Falls Meat Co.	Box 1526	H. P. Brown
727-3000	Great Falls National Bank H. A. Hermanson B. P. McGarraugh Robert E. Lee	Box 711 Edwin H. Jasmin Jack Tonkovich John M. Davis	Forrest C. Hedger A. W. Dickhoff James M. Ross John W. Pierson
453-7671	Great Falls Paper Co.	Box 271	James J. Flaherty, J. J. Flaherty, Jr.
453-0363	G. F. Production Credit Assn.	Box 1750	Clair A. Willits, Jr.
453-2931	Great Falls Redi-Mix	925 River Drive S.	Paul M. Janetski
452-1489	G. F. Shipping Association	Box 2165 600 Central Plaza 318-5th Ave. N.	Walter V. Hicks Leo F. Walsh
453-5050 452-3923	Great Falls Speedway	Box 1651	Arthur B. Jensen
452-1629	G. F. Veterinary Service	3700-2nd Ave. N.	Dr. M. P. Doran
453-5443	Crogan-Robinson Lumber Co. Arlo Nicholls	Box 1419 Eldon Loomis R. H. Harms	J. Brooks Robinson David H. Robinson B. L. McCrory
452-0511	Gusto Distributing Co.	Box 1213	Bruce L. Watkins
452-0953	H Bar O Saddlery	608 Central Ave.	Earl Haggerty Orland Oakland
452-7821	HCL Equipment Co., Inc.	Box 1662	Robert F. Wallace
761-5475	H & R Cobbs	524 Central	Don Harris
453-1420	H-C Auto Supply Co.	700-1st Ave. S.	[illegible] Livingston
761-5107	Hedford, Marshall	2708 Benita	[illegible]

761-1250	Haggarty Motors	Box 2324	George Smartt Phil Nordtvedt
453-2454	Hagfeldt, Jerry	2321-10th Ave. S.	(personal)
452-7751	Hamilton, Henry	209 Montana Bldg.	(personal)
453-1881	Hanley, Dr. J. C.	600 Central Plaza	Physician-Surgeon
761-8630	Hannah Realty	1500-9th Ave. S.	Larry Hannah
453-6566	Hansen's All Star Dairy	1204-7th St. S.	J. R. Hansen
453-6663	Happy House	Holiday Village	Paul Guynn
761-8422	Harriette's Interiors and Gifts	510-1st Ave. N.	Harriette Hatley
761-8232	Hayes, Bud Union Service	1301-10th Ave. S.	E. L. Hayes
453-1541	Hearing Aid Institute	8-5th St. N.	Mrs. Mildred Genest
761-1900	Heritage Inn	Box 2810	Don Young
761-6641	Hertz Rent-a-Car	Box 2307	John Rice
454-3489	Hess, Gillis & Vigesaa	603 Strain Bldg.	Wm. J. Hess
761-3620	Hested's	Holiday Village	Joe DeSmet
453-8205	Heule, E. W.	2900-4th Ave. N.	(personal)
453-5976	Hilde Construction Co.	Box 2287	David Hilde
453-7867	Hilgard News Agency	Box 2073	Julius E. Hilgard
761-9545	Highlander Center	3021-10th Ave. S.	
452-8836	Highwoods	601-38th St. N.	John Greyak
454-1345	Hines Motor Supply	Box 2268	William E. Day
761-2700	Hodges Plumbing, Inc.	316-20th St. N.	J. Wade Hodges
452-6911	Hoglund's Western Wear	306-1st Ave. S.	Stewart L. Hoglund
761-6805	Holiday Housewares	2409-11th Ave. S.	Bob Zadick
761-4600	Holiday Inn of Great Falls	Box 1504	Duane Brown
761-8580	Holiday Record Center	Holiday Village	Irene E. Newman
453-7613	Holman Aviation Co.	Box 2228	H. L. Holman
761-2420	Holm-James Distributors, Inc.	Box 2487	R. E. Holm
453-6092	Holtz, M. E.	2625-4th Ave. N.	Rancher
761-7600	Home & Ranch Realty, Inc.	Box 2789	Gerald Primmer

761-8541	Ho-Tai Supper Club	Black Eagle 59414	Tom Grasseschi
454-1371	House of Glass, The	811-1st Ave. N.	Kenneth B. Clark
452-6439	Houseman & Co., Inc.	2123 Vaughn Road	Roy Houseman
453-1212	Howard's Pizza Villa	713-1st Ave. N.	Greg Deffe
454-1396	Hughes Airwest	Int'l Airport	W. E. (Bud) Moss
761-0850	Hulett, Dr. N.P.	311 Davidson Bldg.	Optometrist
453-1371	Imperial Image	Box 825	Jerry R. Lane
452-9581	Imperial 400 Motel	601-2nd Ave. N.	John Gazzero
761-8864	Import Depot	9 - 1st Ave. N.	Dan Snyder
761-5700	Industrial Air Products Co.	555-6th St. S.W.	Stanley Meagher
452-1092	Institute of Mixology	313 Central Ave.	Joseph J. A. Quijano
453-2428	Insurance Services Office of Montana	308 Strain Bldg.	J. J. O'Leary
453-1541	Intermountain Transportation	Anaconda	Flyd H. Capps
	Robert E. or Dwayne R. Kaurin	- Union Bus Terminal - Box 1019	
761-0400	International Business Machines Corporation	325-2nd Ave. N.	Roger Sherman
761-0500	Irene's Craft Center	811 Central Ave.	Mrs. Irene Russell
761-9471	Irish's Big Sky Standard	1200 Central West	Donason Irish
761-9350	It'l Do Bar	Westgate Shopping Center	Tom Heisler
761-5100	ITT Grinnell Co.	Box 2604	Joe Yerger
761-7132	J. B.'s Big Boy	1322-10th Ave. S.	Mike Memmott
452-2207	Jack Club	217-18th Ave. N.W.	Jack Foster Rudy Carney
761-6421	Jack's Meadowlark 66	1608 Fox Farm Road	John J. Laabs
761-7340	C. W. Jacobsen & Co.	Box 428	C. W. Jacobsen
761-0800	Jardine, Stephenson, Blewett & Weaver	Box 1725 John Weaver	Jack Stephenson Art Jardine Alex Blewett
453-8002	JaVee's Bootery	522 Central Ave.	Fred Javid
452-4332	Jensen Sales Co.	Box 2643	Leonard Vetsch

452-9171	Johnson, E. B. Co.	Box 1416	
453-6662	Johson Distributing	Box 1541	C. M. Henderson
453-3249	Johnson-Madison Lumber Co.	Box 2372	William Madison, Jr.
761-3720	Judge Moving & Storage	1204-7th St. S. Box 22	Dennis Wavra, MGR.
761-2820	Junkermier & Campanella	G.F.N.B. Bldg.	Ward F. Junkermier George Campanella
452-2453	KARR - KOPR FM	Box 2204	Pat M. Goodover
761-1310	KEIN	Box 2624	Brad Baker
453-4377	KFBB - TV	Box 1139	Jack Fisher Don E. McClintock
453-0336	KMON	Box 2285	Al Donohue Frank Lanky
453-2433	KRTV	Box 1331	Cliff Ewing Norma Ashby
761-2800	KUDI	Box 2888	Joe Fisher
727-2132	K-G Men's Store	Holiday Village	Bill Law
454-1675	Kaiser Cement & Gypsum	Central Plaza 515 N. Sanders - Helena, Mont.	Gary Eathorne D. S. Ashton
761-5010	Kaufman's	Box 1226	Ira Kaufman Ike Kaufman
453-7676	Keenan & Allred, Drs.	Montana Bldg.	Dr. Tom M. Keenan Dr. Ivan Allred
453- 5447	Kentucky Fried Chicken	1915-10th Ave. S.	Gerald Leavitt
453-4363	Killon-Moore, Inc.	116 Central Ave. W.	H. W. Moore
452-9542	Klemens & Son, A. T.	814-12th St. N. A. T. Anderson	J. R. Klemens J. J. Slemberger Robert Patterson
761-0613	Knight & Company	Suite 3-Holiday Village	Kenneth Knight
761-4141	Kranz House of Flowers	1305-3rd Ave. S.	Charles M. Kranz
453-0368	Krsul, John	County Jail	Cascade Co. Sheriff
453-1901	LMH Company	Box 2405	T. C. Hatsko Lura L. Leahy

453-7623	Land Title Guaranty Co.	Box 1455	E. Bob Grown
453-4383	Lanouette, Hamilton & Ammondson	Box 1605	L. A. Lanouette M. J. Hamilton
453-1675	Lee, Robert E.	Box 1730	N.W. Nat'l Life Ins.
452-7392	Liberty Theater	Box 2249	Reed Larsen
452-0353	Lindquist Decorating Co.	Box 1352	Elmer Lindquist
761-7300	Long & Co., Inc. J. B.	Box 3028	Fred A. Johnston
453-7796	Lorentz, Dr. Henry	501-1st Ave. N.	Dentist
453-6311	Louttit Sales	3300-10th Ave. S.	Charles A. Louttit
452-3948	Loy Ranch	51 Prospect Drive	John R. Loy
453-0356	Lumber Yard Supply (Grogan-Robinson)	Box 1419	Viril Wright
453-2426	Madden Construction Co.	Box 1533	Earl Knight
453-1459	Mailing Shop & Office Supply	Box 31	Marshall Messelt
452-8575	Malmberg Travel Agency	Box 2506	Victor Malmberg

<u>Malmstrom Air Force Base</u>

731-3700 Brig. Gen. Lawrence J. Fleming - Commander, 24th N. Am. Air Defense Comm.

731-3411 Col. Ralph D. Scott - Commander, 341st Strategic Missile Wing

731-3019 Col. John Kelly - Base Commander, 341st Combat Support Group

454-1335	Mather & Associates	Box 1724 (761-8902)	Tom Mather Gary Jenkins
452-9521	Mathews Telephone Service	Box 1476	Mrs. Bertha Mathews
761-0800	McCabe, George N.	Box 1725	Attorney
761-7755	McDonalds	1721-10th Ave. S.	Glenn Child
453-3255	McGregor Medical Services	1217 Adobe G.F.N.B.Bldg.	John Miller Dr. Robert J. McGregor Dr. John F. McGregor
453-5017	McIntosh's Mens Store	622 Central	John McIntosh O. W. McIntyre
453-7602	McLaughlin, Inc.	Box 2206	J. L. McLaughlin O. W. McIntyre
453-5341	McNair Realty Co.	Box 249	Harvey Appersen

453-6531	Meadowlark Country Club	Box 2384	
453-7618	Midland Implement Co.	Box 2244	George Erickson
453-2411	Mid-Town Motel	Box 1244	Mr. & Mrs. Gordon Twedt
452-6433	Milwaukee Road, The	Box 1707	Francis J. Calvin G. A. Stuckey
453-1489	C. E. Mitchell & Sons	Box 2523	Edwin R. Mitchell
453-4711	Moderne Cabinet Shop	2804 River Drive	Ray Shanahan
761-3230	Modern Equipment Co.	4025-10th Ave. S.	Harold McCollum Willard Hochhalter
453-3291	Montana Air National Guard 120th Fighter Group	Box 2269	Col. Emmett J. Whalen Commander
454-1521	Montana Associated Utilities	Box 1306	Riley W. Childers
761-7550	Montana Auto College	918-1st Ave. N.	Darryl Meyer
454-0476	Montana Automobile Assn.	1818-10th Ave. S.	Mrs. Helen Matteucci
761-1750	Montana Bank	Box 1159 Roger Kornder Vic Hoxsey Vern Hendershott	Lee Sheckley Elwood Nelson Walter C. Bock Len Mair
453-5418	Montana Checker Sales	20-7th St. S.	Charles MacCharles
761-5220	Montana Credits	Box 3046	David T. Scotson Don Vankoten
761-1200	Mont. Deaconess Hospital	1101-26th St. S.	Fred K. Holbrook
453-4321	Montana Elevator Co.	(included in ConAgra-Montana, Inc.)	
453-7696	Montana Farmer-Stockman	Box 1529	Leland P. Cade James H. Burns
452-6406	Montana Farmers Union	Box 2447	Clyde Jarvis
452-6408	Montana Farmers Union Ins.	Box 2168	Robert A. Kudrna Tom Sparby
452-8129	Montana Granite Industries	1010-1st Ave. S.	Jack Rummel
453-3268	Montana Hardware Co.	Box 1219	Jim Cawley
453-6833	Montana Hatcheries, Inc.	400-4th St. S.	Orrin E. Paulson

761-2305	Montana Lands, Inc.	1111-14th St. S. Suite B	Con Coffing
761-5764	Montana Merchandising, Inc.	Box 2354	Eugene B. Thayer
761-4530	Montana Mustard Seed, Inc.	2815-10th Ave. S.	Tom McDonnell
453-8307	Montana Oil Journal (complimentary)	Box 2385	A. H. Raymond
452-2731	Montana Photo	Box 2826	Nolen A. Mathieu
453-3208	Montana Plumbing Supply	Box 2346	Donald L. Price
453-0321	Montana Power Company	Box 591 William Marnin James L. Cereck James A. Warner	Louis G. Brewer Loren L. Seaver John A. Palmquist Leonard D. Regan
	H. K. Dickinson (retired) 3104-3rd Ave. N.		Willims C. Jones
453-0421	Montana Vegetable Oil Co.	Box 1511	John Noble
761-7731	Montana Wheal Research Mktg.	Box 3024	Robert Brastrup
761-5950	Montgomery Ward Company	Box 1179 John Hall	Clifford R. Lawrence Terry Cummings Fred Berg
452-5372	Moore's Mobil Service	800-1st Ave. N.	Ray Z. Moore
761-1420	Morgen & Oswood Construction	Box 3009	Al Young
727-3702	Mountain Bell	Box 2048	W. C. Bermingham James Cassun(771-3816)
		Roy P. Lester Cutis O. Zook W. E. Samson	Jack Thibeaudeau A. J. Giezen E. L. Gilmore R. L. Doty
W. E. Samson			
453-2800	Murphy, Dr. Joseph J.	3511-1st Ave. N.	Dentist
452-4073	Myhre Advertising	Box 1067	Eric Myhre
453-1684	National Laundry Co.	1000-1st Ave. N.	H. H. Topel D. H. Topel
453-4365	Nelson Tire Co.	500-2nd Ave. S.	John F. Nelson
761-7010	Bruce Nelson Homes, Inc.	1401-11th Ave. S.	Bruce Nelson
761-5700	Nelson, R. J.	Courthouse	District Court Judge
453-5596	New Villa Motel	726-10th Ave. S.	John Swedberg
761-4954	New York Life Insurance Co.	Box 2830	Loy C. Maycock

453-2404	Nilson-Smith Construction Co.	Box 2367	George Nilson Clifford Craig Lyman Threet
452-8558	Norby & Watson, Inc.	107-5th St. N.	Jan Norby Robert A. Watson
453-0091	Normont Equipment Co.	Box 369, Black Eagle	Donald B. Beatty
453-4374	Northern School Supply	Box 431	C. P. Ryan R. Pierre Taylor
453-1641	Northern Testing Laboratories	Box 1561	Leland J. Walker
761-8101	Northwest Airlines, Inc.	International Airport 303 N. Broadway - Billings	George Teslovick Bruce E. Vanica
761-0843	NOVCO	711-10th Ave. S. E. F. Novis	
761-1471	Nyquist Financial Services	Box 1479	Irving Nyquist Morris Nyquist
761-1550	Oakland's TV & Appliance	Box 1532	Terry Anderson
453-7257	O'Connor Co., T. F.	Box 2374	Tom O'Connor
453-2471	Odell Agency, Joseph C.	Box 1071	Joseph C. Odell
454-2141	O'Haire Manor	Box 1667	Russell Ahlberg
453-5020	Ojala Oil Co.	Box 2522	H. W. Ojala
452-0955	One Hour Xtra Clean	16-5th St. S.	Gordon Brohaugh
453-1476	Osburn Kemical Co.	Box 1217	D. I. Osburn
761-7420 761-8420	Osco Drug "	Holiday Village Westgate Center	John Daly Dale Schmidt
	Other Place, The	Holiday Village	Don Robinson
453-0334	Pacific Hide & Fur Depot	Box 1684	John Thiebes
453-7689	Page-Werner & Partners	Box 3005	George C. Page Vincent Werner
453-1484	Palmer Bros. Auto Supply	810-1st Ave. N.	Russell Palmer
453-1421	Paris of Montana, The	Box 2388	Don C. Linford
453-1494	Peavey Company	Box 1528	O. S. Thorvilson
454-3421	Penney Co., J. C.	Box 2166	Virgil L. Howry

453-7628	Pennington's, Inc.	Box 2546	C. L. Pennington
453-2516	Pepsi-Cola Bottling Co.	420-3rd Ave. S.	Russell E. Lassey
453-1155	Periodical Publishers Serivce Bureau, Inc.	600 Central Plaza	T. R. Noe
452-4760	Peters, Les (complimentary)	1526 Meadowlark Drive	
761-8282	Peterson Veterinary Center	Box 2905	Dr. John Peterson
453-4361	Petrolane Steegles, Inc.	Box 2283	W. E. Kieckbusch
761-4100	Phillips Petroleum Co. (Sales No. 761-4100) (Plant No. 453-4371)	Box 191 (sales) Box 1239 (refinery) Tom Robitaille M. C. Tramelli	E. D. McFaul J. P. Frellick Owen Anglum John Mansfield R. H. Erdman
453-6575	Pin Cushion	313 Central Ave.	Walter Dudra
453-7644	Pinski Brothers	Box 2485	Ted Kline
761-3500	Piper, Jaffray & Hopwood	Box 231	Joe Heimes J. E. Snow
453-3768	Polly's Dress Shoppe	527 Central Ave.	Rod Boyer
761-2300	Poulsen's	615-2nd St. S.	Harold Poulson
761-3410	Ponderosa Inn	220 Central Ave.	Dorothy McRae
761-6082	Preferred Applicance Center	Box 2625	Fred Jones
761-2500	Prudential Insurance Co.	1909-10th Ave. S.	Robert Lygott Norman Smith
453-1497	Publice Drug Co.	600 Central Ave.	James R. Donohue
761-3211	QuickcatPrinter in Town	21-5th St. N.	Robert E. Morgan
452-0091	R. Ladies' Closet	18-5th St. S.	Alice V. Baehler
453-1416	Rainbow Electric Co.	2220 River Drive	Don J. Morrison
453-0100	Rainbow Christian Supply	9-6th St. S.	John R. Fishbaugh
453-3281	Rand's Western Motel	2420-10th Ave. S.	Jesse E. Rand
761-4550	Red Lion Supper Club	3800-10th Ave. S.	Harry Opsahl
453-1691	Rice Motors	712 Central West	Peter Rice
761-3300	Roberts & Erwin	Box 2126	William B. Roberts

761-7160	Robbies Restaurant, Inc.	Holiday Village	Roger Anderson
761-8550	Robbins & Associates	1514-10th Ave. S.	Bud Robbins
453-6094	Roberts Hearing Aid Serivce	310-18th St. N.	D. A. Roberts
453-6493	Robinson Rrothers	Box 1248	George H. Robinson
453-1291	Robinson Insulation Co.	Box 1419	Floyd Gerbert
761-8593	Rosauer's Super Markets, Inc.	4800-10th Ave. S.	Lee Mullen
761-6060	George F. Roskic	3440-6th Ave. S.	(personal)
761-5550	Ryan Mercantile Co.	Box 831	Edward R. Warzeka
452-1969	Safeway Stores, Inc.	Box 2145	Geral Floyd Richard Pfeifle Marlyn Madson
761-6150	Sahara Motel	3500-10th Ave. S.	Clinton S. Schnee'
761-6700	St. Jermain, John	Courthouse	County Commissioner
453-2121	Sambo's	2001-10th Ave. S.	Jim Armstrong
761-4330	Sambo's Dowtown	220 Central Ave.	Jerry Lanham
761-3541	Schell's Townhouse	417 Central Ave.	Robert Schell
453-9389	Schuster, E. B., Rev.	Box 1399	Holy Family Church
727-2200	Scott, Linnell & Neill	Box 1484	William M. Scott
727-4200	Seeley Lake Pleasure Lands	1100-14th St. S.	Earl Smith
761-1700	Sears Roebuck & Company	Box 2589 Dave Lewis John Nygard	Ray C. Cornish John Watne Noel Spangelo Albin Johnson
452-5150	Selstad Soil Service	W. on Vaughn Road	Tom Selstad
761-3700	Shakey's Pizza Parlor	1868-10th Ave. S.	Patrick Mahon
452-7357	Shanley, Frank D.	Country Club Towers	(personal)
452-7357	New Shasta Motel	4009-10th Ave. S.	W. F. Morin
761-6700	Shubat, Edward L.	Courthouse	County Commissioner
727-2515	Ski Hut, The	Holiday Village	Jim Hasterlick

454-1152	Skinner, Dr. Robert M. & Brannon, Dr. D. R.	Thisted Center	Physician/Surgeon Physician/Surgeon
761-7520	Sletten Construction Co.	Box 2467	Owen Murphy Victor Baker Mrs. John Sletten J. Robert Sletten
453-4346	Small, Dr. J. M.	Montana Building	Dentist
761-5650	Smith, Raleigh R., Realtor	Box 1424	Raleigh R. Smith Louis A. Larson
761-3030	Spencers	Box 808	Rod Spencer
761-1851	Sports Motors	Route 1 South	Larry Houck
453-1681	Stanley, H. H., Co.	Box 1172	Scott Stanley
761-4711	Stanley Aluminum Products	1101-13th St. S.	Stanley M. Ray
454-3443	Stapp's For Fashion	Holiday Village	Dale Stapp
452-6401	State Fair	Box 1524	Bill Chiesa
452-8525	State Lumber Co.	Box 1572	Paul Olsen
452-8502	"Steelco" Metal Buildings	Box 1363	Joe Goott
761-6673	Stevens, John	1017-4th Ave. S.	(personal)
453-4629	Strain Properties	Box 351	Sanford A. Lerum
453-4381	Stovel's Rentals	3220-10th Ave. S.	Reuben Strobel
761-2805 761-1361	Stromberg Enterprises (home)	2500-10th Ave. S.	E. C. Stromberg
453-6063	Style Shop, The	427 Central Ave.	George Matule
727-3200	Suhr Transport	Box 1727	F. C. Weber
452-8561	Sullivan, Tom	600-1st Ave. S. W.	(personal)
453-3251	Super Save Drugs	Box 2007	Paul Matteucci Ed Matteucci Wm. J. Fitzgerald
761-7506	Super Save IGA Food Markets	2500-6th Ave. N.	Herb Kent
761-7509 761-7591	Superamerica, Division of Refining Company	1020-15th St. N. 1700-10th Ave. S.	Stan Schopp Val Marquart
453-4393	Superior Moving & Storage	216-8th Ave. S.	Lawrence S
761-1440	Sutherland Jewelry	18-4th St. N.	Gary Fre

452-6417	Swanberg, Koby & Swanberg	Box 2567	Randall Swanberg Gorham Swanberg Ray Koby
453-2524	Team Electronics	613 Central Ave.	Hilbert Schulte
454-3438	Tele-Prompter Cable TV	Box 2885	Bob Anderson
452-6016	Temperature Supply Co.	Box 2421	F. W. Pond
761-2859	Terrace Motel	1120 Central West	Betty Galloway
453-3760	Terry's Manufacturing	625-8th Ave. N.	Douglas R. Terry
453-9693	Texaco, Inc.	Box 1585	Tim Powers
453-2118	Thisted Co., Inc.	325-2nd Ave. N.	Mels Thisted
761-3010	Thomas, Dean & Hoskins	1200-25th St. S.	T. H. Thomas Wayne W. Dean
452-8561	Thomas, Richard	Box 1609	(personal)
761-2511	Thompson Poultry & Meat, Inc.	Box 2121	James E. Thompson
761-8040	Town & Country Dress Shop	3 - 6th St. S.	Harry Nisbet
454-1317	Town & Ranch Self-Service Furniture	Box 2067	Harold Patten
453-2424	Tracy Co., George L.	Box 1687	S. J. Maronick
453-6108	Tracy's Fine Food	127 Central Ave.	Tracy Redeau
761-5692	Travel Center	Box 1144	
761-7970	Travelers Insurance	Box 2649	Joe Beason
453-1434	Triangle Tire Co.	Box "D", Black Eagle	Jim Normandeau
761-6666	Tribune, Great Falls James Young (Wayne Croskrey - Newsletter Only)	Box 2468 Terry Dwyer Edward Furlong William D. James Walt Valacich	William A. Cordingley Joel Koppang Bob Lathrop Norman Monson Jay Egan
454-3771	Tucker Electric & Sheet Metal	1419-3rd Ave. S.	Earl E. Tucker, Jr.
452-4577	Twi-Lite Theater	Box 608	George Buzzas
452-3181	Uglum, Robert L.	2214-4th Ave. S.	(personal)
452-8541	Uke's Sports	Box 1583	Russ Corn
452-8541	United Building Centers	Box 551	Paul F. Lund Claude Briggs(retired)

	U. S. Chamber of Commerce	Seattle	Ray Kraatz
	U. S. Forest Service	Federal Building	George Engler
761-5450	Utility Builders, Inc.	Box 1154	Robert H. Blakeslee
453-6557	Valley Motor Supply Co.	Box 2104	C. A. Bomberling
761-5800 Ext. 267	Student Council of Great Falls Vo-Tech Center	1015-1st Ave. N.	Carl Spinti
452-5551	Vallie, Dr. Floyd W.	College Park Medical Center	Dentist
727-3600	Victor's, Inc.	Box 1671	Victor L. Bersch
761-5335	Village Bank	Box 3029	Everett C. Joslyn, Jr. Larry Bestwina
452-8221	Vita Rich Dairy, Inc.	309-6th St. S.	Rose Brodock
453-7376	William Volker & Co.	Box 2225	Paul Peterson
761-1300	Wagon Wheel Motel	2626-10th Ave. S.	Gordon Nisbet
761-6500	Walsh-Anderson Co.	Box 1728	Roger W. Walsh
452-0161	Wells Realty Co.	Box 1447	Gilbert A. Wells
761-5800	Wenaas, Dr. Harold	Box 2669	Supt., School Dist. No. 1
452-8581	Wendt Advertising Agency	Box 1291 Stan Meyert	Mrs. Zelma Schroeder Bill Wright Bob Lindborg
453-5478	Wenzel & Co.	Box 2091	Wm. J. Wenzel Al Jensen
453-5404	Western Airlines	Box 1743	Robert K. Vernon W. G. Baker
453-1455	Western Credit Co.	Box 2143	Joe H. Irwin Tony Irwin
453-5506	Western Credit Co.	522 G.F. Nat'l Bank Building	Ken Brandvold
453-1405	Western Equipment	2322 River Drive N.	Bob Doolen A. John Birkholz
452-8443	Western Steno Printing	Box 1493	Pat Allen
761-2160	Western Ranch Supply Co.	Box 542	Del Pasha
761-1114	Western Sign Corp.	Box 2669	G. A. Lewis

452-7541 761-3191	Western Village & The Patio	Holiday Village	George Smith
453-5112	Western Warehouse Foods	833 Smelter	Charles Fisher
453-5420	Wilson Cole Furniture	1004 Central Ave.	Bill Cole
453-4307	White Refrigeration Co.	9th & 9th Ave. S.	Richard Nitschke
453-7684	Douglas Wilson Co.	Box 1498	Howard Gaare Harlan E. Timboe Norman Wilson
453-1618	Wilson-Starr Properties	600 Central Plaza Suite 15	Murdo Wilson Lee Starr
452-1108	Woolworth, F. W. Co.	500 Central	Mike Melneck
761-2504	Wrangler Restaurant, The	1626-10th Ave. S.	Mike Loch
452-2656	Wright, George N. Jr.	Box 1199	Northern Life Ins.
761-4662	Woodcock, John	Box 3044	Real Estate Appraiser
452-4131	Wulf, Thaine R..	Box 747	(personal)
452-6419	Yaw-Kinney Co., Inc.	Box 1203	L. K. Miller
453-6535	Yellow Cab Co.	Box 1224	Richard Hyland
761-8500	Yellow Front Stores	Westgate Center	Bob Montgomery
761-3550	Zellerbach Paper Co.	1st Ave. N. & BN Tracks - Box 2005	George Knee

MANUFACTURERS - PROCESSORS - FABRICATORS

Great Falls, Montana

BAKERIES/FOOD PRODUCTS/MEAT PACKERS:

Buttreys - 3 Locations - Bakery Products	(20-30)
Albertson's Food Center, Holdiay Village, 1210-10th Ave. S., Bakery Products	(4-10)
Interstate Bakeries (Sweetheart Bread), 327-9th St. S. - Bakery Products	(11-20)
Eddy Bakeries Co., Inc., 900-2nd Ave. N. - Bakery Products	(21-50)
Hempl's Bakery, 16-6th St. S.W. - Specialty Breads, party cakes, pastries.	(4-10)
Teddy's Cookies, 404-1st Ave. SW. - Cookies, etc.	(2-5)
Sugar & Spice Bakery, 511-1st Ave. N. - Bakery Products	(2-5)
Rosauers Super Market, 4800-10th Ave. S. - Bakery Products	(2-5)
Spudnut Co., 1100-10th Ave. N. - Baked Goods	(1-3)
Big Stack Chip & Food Co., 721-6th St. SW. - Potato Products	(10-25)
Great Falls Meat Co., Box 1526 - Beef & Pork Products	(50-100)
Sperry's Market, 600-3rd Ave. S. - Meat Processing	(5-10)
Great Montana Foods, S.E. Great Falls - Beef Products	(5-15)
Mickey's Packing Plant, Gibson Flats - Beef Products	(5-10)
M & P Meat Co., 605-3rd Ave. S. - Meat Processing	(3-5)
Hickory Kitchen, 2400-9th Ave. N. - Meat Processing	(5-10)

BUILDING MATERIALS/CONSTUUCTION SUPPLIES/FABRICATION

Lumber Yard Supply, 1300 N. River Drive - Componentized Buildings	(15-25)
Custom Corrugating, 325-2nd Ave. S. - Roll Form Metal & Aluminum	(2-5)
Forzley Sales, 930 S. River Drive - Brick & Stone Products	(4-10)
Montana Block Co., Vaughn Highway, Box 2750 - Concrete Block	(15-20)
Montana Concret Pipe, Vaughn Highway - Concrete& Pipe	(10-20)
Fagenstrom Cp., 925 S. River Drive - Pre-Cast Concrete Products	(2-5)
Elk Rive Concrete Products, 300-5th Ave. SW. - Pre-cast Concrete & Plastics	(4-10)
Norhtern Materials, 2100-9th AVe. N. - Ready-Mixed Concrete, Asphalt	(5-15)
Concrete Service Co., 1000-11th Ave. N. - Ready-Mixed Concrete	(21-50)
Treasure State Industries, Bootlegger Trail - Aggregate, Concrete Products	(4-10)
Great Falls Redi-Mix, 925 S. River Drive - Ready Mixed Concrete	(4-10)
Formicove, 1205-3rd St. NW. - Laminated Plastic Counters	(11-20)
Black Eagle Paving, Black Eagle - Asphalt Products	(3-10)
Moderne Cabinet Shop, 2304 N. River Drive - Counters, Cabinets	(4-10)
Montana Granite Industries, 1010-1st Ave. S. - Stone, Glass	(1-3)
Koenings Remodeling, 1023-4th Ave. S. - Cabinets	(1-3)
Kitchen Krafters, 814-25th St. N. - Kitchen & Bath Cabinets	(1-5)

MISCELLANEOUS FABRICATORS, ETC.

Clarks Orthopedic Supply, 513-1st Ave. S. - Orthopedic Appliances	(4-10)
J. G. Svenson, 104-4th St. N. - Jewelry	(1-3)
Montana Lapidary Supply, Havre Highway - Jewelry	(1-3)
Fiberglass Industries, Vaughn Road - Fiberglass Products	(3-5)
Terry Manufacturing, 625-8th Ave. N. - Mattresses, pillows, etc.	(3-5)
Great Falls Tent & Awning, 611-8th Ave. N. - Tarps, Tents & Canvas	(3-5)
Northwest Canvas, Black Eagle - Tarps, Tents, Canvas	(1-3)
Chief Distributing Co., 5825-3rd Ave. S. - Engine Rebuilding	(10-20)
Poitevin Plastics, Vaughn Road - Plastics, Extrusions	(1-3)
Gold BondIndustries, 312-4th St. S. - Floor Care Machines	(5-10)
House of Glass, 811-1st Ave. N. - Mirrors, Mosiacs	(5-10)
Imperial Image, 206 Central Ave. - Manufacture Trophies, Awards	(3-5)
EPCON Sign Co., 2400 N. River Drive - Signs	(10-20)
Western Sign Co., 1024-11th Ave. N. - Signs	(5-10)
Designers Unlimited, 2315-12th Ave. S. - Signs	(5-10)
Tarpeze, 2400 N. River Drive - Tarps	(1-3)
Selstad Soil Service, W. on Vaughn Road - Manufacture Sprayers	(5-10)
Myre Sign Co., 1625-27 th Ave. S. - Signs	(5-10)

FABRICATORS/MACHINING - METAL/ALUMINUM

Great Falls Iron Works, 1315-8th Ave. N. - Steel Fabrication	(21-50)
B & K Ornamental Iron, Gibson Flats - Iron Fabrication	(1-3)
Stanley Aluminum, 1101-13th St. S. - Aluminum Buildings & Accessories	(4-10)
Commercial Welding, Havre Highway - Livestock Handling Equipment	(12-30)
Riverside Automotive & Machine, 814-1st Ave. N. - Fabrication, Metal Work	(4-10)
Liffring Machine Shop, 911-13th St. N. - Machine Work, Welding	(3-10)
Gomers Service Co., 308-2nd Ave. S. - Machine Work, Welding	(4-10)
Wiley Welding & Machine, 5525-2nd Ave. N. - Machine Wrok, Welding	(1-3)
H - O Auto Supply, 706-1st Ave. S. - Machine Work, Welding	(20-30)
Falls Sheet Metal Works, 109-1st Ave. S. - Sheet Metal	(4-10)
Bill O'Neill Sheet Metal, 1112-24th St. S. - Sheet Metal	(1-3)
Hendrick's Sheet Metal, 517-2nd Ave. N. - Sheet Metal	(1-3)
Greens's Sheet Metal, 19-2nd St. S. - Sheet Metal	(1-3)
Van Tighem Sheet Metal, 214-5th St. S. - Sheet Metal	(1-3)
TuckerElectric & Sheet Metal, 1419-3rd Ave. S. - Sheet Metal	(4-10)
Steve's Sheet Metal Shop, 1106-9th Ave. N. - Sheet Metal	(1-3)
Klemencic Sheet, 220-9th Ave. N. - Sheet Metal	(4-10)
A. T. Klemens & Son, 814-12 th St. N. - Sheet Metal	(11-20)
Edwin Johnson Plumbing & Heating, 117 Central Ave. - Sheet Metal	(11-20)
Hodges Plumbing & Sheet Metal, 816-20th St. N. - Sheet Metal	(10-12)
Empire Steel Mfg. Co., 807-3rd St. NW. - Tanks, Steel Fabrication	(5-10)
Montana Steel & Supply, 1107 Central Ave. W. - Steel Fabrication	(3-8)
Superior Welding, 1012-9th Ave. S. - Light Fabrication	(1-3)
Talcott Tank & Building Co., 711-3rd St. NW. - Tanks, Steel Fabrication	(3-8)

COPPER

Rhe Anaconda Co., Black Eagle - Copper Wire, Ingots	(750-1000)

REFINERIES

Caribou Four Corners, Inc., Havre Highway - Gas, Oil, Products	(4-10)
Phillips Petroleum, Box 1239, Black Eagle - Gas, Oil Products	(50-100)

CAMPERS/RECREATIONAL

Rocky Mountain Capers, 700 S. River Drive - Pickup Campers	(20-30)
Cascade Coach, 1620-12th Ave. N. - Pickup Campers, Recreational Vehicles	(50-100)

LEATHERWORK/FURS

Beckmans, 309 Central - Fur Clothing & Leather Products	(20-50)
Arios, 617 Central - Leather Goods	(1-3)
H-O Saddlery, 608 Central - Saddles, Riding Accessories	(3-5)
Tandy Leather, 16-6th St. S. - Leather Goods, Tools	(3-5)
Pacific Hide & Fur, 211-2nd Ave. S. - Leather Gloves, Moccasins	(10-20)

BOTTLERS/CANNERS

Coca Cola Bottling Co., 1117-7th St. S. - Soft Drinks	(21-50)
Liquid Assets, Inc., 420-3rd Ave. S. - Soft Drinks	(11-20)

PRINTING & PUBLISHING/ENGRAVING/GRAPHIC ARTS

Electric City Printing, 115 Central Ave. - Commercial Printing	(11-20)
A-A Printers & Lithographers, 701-13th St. S. - Commercial Printing	(4-10)
Great Falls Tribune Printing, 1001-8th Ave. N. - Lithographing, Binding, Job Printing	(11-20)
Great Falls Engraving, 401-3rd Ave. N. - Engraving Plates	(4-10)
Great Falls Tribune, 4th St. & 2nd Ave. N. - Newspaper Publishers	(251-500)
Western Steno Printing, 12-3rd St. S. - Advertising, Comm. Art, Printing	(1-4)
Montana Farmer-Stockman, Inc., 510-1st Ave. N. - Farm Publication	(3-5)
Erick's Print Shop, Inc., 113-4th St. S. - Printing	(4-10)
Advanced Litho Printing, 514-4th St. S. - Commercial Printing	(1-3)
Blue Print & Letter Co., 113 Central Ave. - Printing	(5-10)

APPENDIX H

Career Education Advisory Committee

ADVISORY COMMITTEE

Robert Rust - Vaughn
Hallie Olson - Vaughn

James Conroy - Fort Shaw-Simms
John Mechler - Fort Shaw-Simms

Elizabeth Gessner - Cascade

Sue Gilley - Sun River

Joe Taylor - Ulm
John Spurzem - Ulm

Mrs. Urick - Belt

Pauline Marn - Mountain Valley

Miss Albertini - Centerville

Mrs. Tolliver - Portage

Mrs. Teterud - Deep Creek

APPENDIX I

Bureau of Educational Services
Montana State University
Dr. Eric Strohmeyer, Director

EVALUATION OF THE

RESEARCH AND DEVELOPMENT

PROJECT IN CAREER EDUCATION

BUREAU OF EDUCATIONAL SERVICES

MONTANA STATE UNIVERSITY

BOZEMAN, MONTANA

INTRODUCTION

The Research and Development Project in Career Education was designed to operate in the rural elementary school districts of Cascade County, Montana and accomplish four primary purposes:

1. To establish programs in the elementary (K-6) level that were designed to increase career awareness.

2. To develop materials that will expand the students' awareness about the world of work in grades K-6.

3. To develop materials that will help instructors present the world of work to students.

4. To provide in-service training for professional staff.

To facilitate the accomplishment of these purposes the Great Falls Vocational Center employed Mr. Budd Hovey as the Career Awareness Coordinator. Mr. Hovey was responsible for the coordination of the entire effort of the project.

The four purposes of the project were translated into seven program objectives:

1. To assist students in developing their career aspirations through:

   a) understanding and acceptance of self.

   b) understanding and acceptance of work.

   c) understanding that the concept of work is a valued institution.

   d) acquiring knowledge about work.

   e) acquiring and developing interpersonal skills.

f) understanding that individuals differ in their interests, abilities, attitudes and values.

g) acquiring respect for people and the work they do.

2. To provide rural schools with a means of acquiring career awareness materials.

3. To develop techniques of presenting career education concepts in the participating schools.

4. To interest teachers and help them implement the program in their schools.

5. To help the individual schools plan and adopt their own Career Education program.

6. To develop better attitudes toward school subjects and school in general.

7. To develop a bibliography of Career Education materials that can be used by the school personnel.

The duration of the project was from June 15, 1973, to December 15, 1974. The evaluators were contracted December 10, 1973.

The evaluation report addresses itself to project effectiveness in terms of the above stated program objectives.

THE POPULATION

The Research and Development Project in Career Education was designed to work with all rural elementary school districts in Cascade County, Montana. The population of individuals involved in the project included all teachers working in grades K-6 and their students in the following schools:

School District #3, Cascade

School District #5, Stockett-Sand Coulee

School District #6, Fort Shaw - Simms

School District #29, Belt

School District #74, Vaughn

School District #85, Ulm

School District #97, Sun River

School District #10, Armington

School District #35, Heihart

School District #53, Calvert

School District #72, Portage

School District #95, Deep Creek

School District #96, Mountain Valley

PRELIMINARY STATEMENT CONCERNING OBJECTIVES

Although the objectives of the project speak of important concepts and implimentation efforts of Career Education they were not stated in an evaluation framework. The objectives were stated as general goal statements and in some cases as project activities. It is an initial recommendation, therefore, that the objectives be re-written and revised to better reflect the intended outcomes of the project and that an attempt be made to include the following components in each:

1. Who is being evaluated?
2. The behavior being evaluated.
3. The expected level of behavior.
4. The time parameters.
5. Instruments to be used to measure the behavior.

PROJECT EVALUATION

Subsequent sections of the evaluation report will deal with the evaluation of the seven program objectives. Each objective will be stated and followed by a description of the evaluation procedures and conclusions.

OBJECTIVE 1

1. To assist students in developing their career aspirations through:
   a) understanding and acceptance of self.
   b) understanding and acceptance of work.
   c) understanding that the concept of work is a valued institution.
   d) acquiring knowledge about work.
   e) acquiring and developing interpersonal skills.
   f) understanding that individuals differ in their interests, abilities, attitudes and values.
   g) acquiring respect for people and the work they do.

Objective 1 is a very broad and encompassing objective - an objective including many very important student characteristics as they pertain to the project. What was necessary, from an evaluation standpoint, was a more definitive explanation of expected levels of student behavior to be eshibited.

An assumption was made that the expected behaviors were - that a result of project participation postive shifts of attitude on the characteristics stated in parts a-g would be indicative of successful accomplishment of the objective.

Ideally, in order to thoroughly measure this objective it would have been necessary to either locate or develop a separate and complete instrument for the measurement of student attitude shifts of each part a-g. Practical constraints involved with the administration of seven separate instruments forced the decision to develop a shorter (less time consuming) comprehensive instrument.

In consultation with Mr. Hovey and after a review of available instruments the evaluator and Mr. Norm Milliken, Career Education Specialist at Montana State University, developed a forty-two item instrument to measure the seven parts of objective 1. A complete copy of the instrument may be found in Appendix A. Six items were written for measurement of each part a-g, i.e., items 1-6 for part a, 7-12 for part b.

In an attempt to establish validity the instrument was submitted to a group of individuals knowledgable in the areas to be measured. Appropriate revisions based upon their recommendations were made prior to administration. The instrument was also field tested with a small group of elementary aged children in Bozeman, Montana to insure item comprehension and readability.

During February, 1974, a random sample of twenty classes of students were selected to participate in the assessment of objective 1. The instrument was administered as a pre-test during January, 1974, and the post test was administered during October, 1974. (A complete list of the twenty classes of students sampled may be found in Appendix B.

Although the objective is directed to all students it was felt that more meaningful data could be collected and could be provided if comparisons could be made for grades 1-4 and five and above separately.

The chi-square statistic was employed in an attempt to statistically identify any shifts in student response from the pre-test to the post-test. Since separate comparisons were made for grades 1-4 and 5-8 and since the instrument contained forty-two items, eighty-four chi-square values were computed. The data collected were summarized in 2 x 2 contingency tables. Figure 1 depicts a sample table.

FIGURE 1

		Post Test	
		No	Yes
Pre-Test	Yes	a	b
	No	c	d

Item 1

Grades 1-4

where:

a represents the number of students in grades 1-4 who responded yes on the pre and no on the post.

b represents the number of students responding yes on both pre and post.

c represents the number of students responding no on both the pre and post.

d represents the number of students responding no on the pre and yes on the post.

Eighth-four such tables were constructed. Appendix C shows the actual responses made by two groups of students to the forty-two items.

It should be noted that although the original proposal called for involving students K-6 actual students involved were in grades 1-8.

The chi-square values were computed by means of the following formula:

$$\chi^2 = \frac{(a-d)^2}{a+d}$$

Since all calculations were made on 2 x 2 tables the critical value of χ^2 remained constant. All calculated values of χ^2 were compared to the critical value of 3.84. The 3.84 value represents a critical value of X^2 at $\alpha = .05$, df = 1. Any calculated value of χ^2 exceedubg 3.84 were deemed indicative of a significant shift on the part of students as they pertain to the seven parts of objective 1.

Table 1 shows the results of the χ^2 analysis.

TABLE 1

Chi-square values for grades 1-4 and 5-8
on the forty-two items measuring objective 1

	Item	Computed χ^2 Grade 1-4	Computed χ^2 Grade 5-8
Objective 1 - Part a Understanding and acceptance of self	1	.33	1.65
	2	.02	.27
	3	8.33*	7.67*
	4	1.88	0.00
	5	0.00	.75
	6	1.81	.27
Objective 1 - Part b Understanding and discipline of work	7	.89	.20
	8	.02	.47
	9	.61	3.88*
	10	.18	.69
	11	3.2	2.61
	12	.55	.80
Objective 1 - Part c Understanding that the concept of work is a valued institution	13	6.4*	6.74*
	14	3.56	5.07*
	15	.17	2.68
	16	2.31	.96
	17	Cell frequency would not allow computation	
	18	.6	.82

	Item	Computed X^2 Grade 1-4	Computed X^2 Grade 5-8
Objective 1 - Part d Acquiring knowledge about work	19	.03	.09
	20	3.57	1.14
	21	2.94	.92
	22	.27	4.07*
	23	.20	.06
	24	.07	.60
Objective 1 - Part e Acquiring and developing interpersonal skills	25	.90	.07
	26	Cell frequency would not permit computation	.22
	27	2.00	.11
	28	.05	1.12
	29	.09	3.19
	30	.33	1.19
Objective 1 - Part f Understanding that individuals differ in their interests, abilities, attitudes and values	31	2.37	2.12
	32	.56	.14
	33	0.00	1.21
	34	.28	2.52
	35	4.08*	4.93*
	36	.27	1.26
Objective 1 - Part g Acquiring respect for people and the work they do	37	Cell frequency would not permit computation	0.00
	38	3.59	.78
	39	.07	.11
	40	6.76*	.64
	41	.21	9.53*
	42	.69	.15

* Significant at $\alpha = .05$, df = 1

As Table I indicates, significant differences between pre and post measures were found to exist on eleven items for grades 1-4 and 5-8. No pattern appears evident, i.e., not one part of objective 1 seems to have a real preponderance of the significant shifts. Only one part, e, had none and part c had the most with three, every other part fell in-between. Significant differences in pre and post responses were found for both grades 1-4 and 5-8 on items 3, 13 and 35. The findings for items 35 should be interpreted more in light of the testing schedule then in terms

of project outcomes. Item 35 reads: Would most people like a job working outside? The pre test, administered during January (the heart of our Montana winter) attracted few yes responses. The post test was administered during very nice autumn weather and many more students responded favorably.

The shift in response, therefore, was probably due to actual weather conditions rather than project outcomes.

Project personnel should carefully scrutinize the actual responses to the items. From this examination it can be found that a large number of items attracted an extremely high yes response on the pre test. The phenomenon not only reduces the chances for creating a more positive student attitude on the variable under question but should also suggest areas where project efforts may be reduced. This type of activity, to allow appropriate planning of project activities and resources should be accomplished prior to project implementation.

On basis of this analysis it is the evaluators judgment that objective 1 was not accomplished.

OBJECTIVE 2: Provide rural schools with a means of acquiring career awareness materials.

A number of major activities related to this objective were carried on by Mr. Hovey, Career Awareness Coordinator (CAC) for the project. Major activities and accomplishment in this area were:

1. A large number of resource materials were purchased.
2. A resource materials library was established. The library is presently being housed in the Great Falls Vo-Tech Center. The materials are available to all rural schools in Cascade County. When the project terminates the materials will be relocated in the County Superintendents Office.

3. A resource catalog was developed and two were sent to each participating school. This catalog was revised summer 1974 and during September, 1974, a revised copy was distributed to every rural elementary teacher in Cascade County. A copy of this catalog is attached to this report.

4. The CAC periodically visited the rural schools. Career Awareness materials were delivered to the schools in an attempt to interest teachers in their use.

Rural teachers in Cascade County were provided a means by which they could acquire career awareness materials. Objective 2 has been accomplished.

In an attempt to determine the effectiveness of the means a log of all materials checked out by teachers was maintained.

Of the 290 sources available to teachers, 153 or 53% of them were checked out at least once. The 153 sources were checked out a total of 261 times by the rural teachers of Cascade County. Table II breaks this information into eight separate categories of materials.

TABLE II

Category	Number Available	Number Checked Out	Total Number of Times Checked Out
Bibliographies of Career Education Materials	10	0	0
Career Education Projects	48	6	7
Books	26	3	3
Tapes and Slides	3	3	3
16 mm Movies	13	6	10
Booklets	80	64	89
Kits	27	23	41
Cassettes & Filmstrips	83	48	108
TOTAL	290	153	261

It appears that certain types of materials had a greater face appeal to teachers than others. Booklets, kits, 16 mm movies, cassettes and filmstrips and tapes and slides appear checked out at a higher proportion to the total numbers available than were bibliographies, projects and books. This information should prove helpful in making future decisions concerning allocation of funds for the purchase of materials.

OBJECTIVE 3: To develop techniques of presenting Career Education concepts in the participating schools.

OBJECTIVE 4: To interest teachers and help them implement the program in their own schools.

OBJECTIVE 5: To help the individual schools plan and adopt their own Career Education programs.

Due to the interrelative nature of objectives 3, 4 and 5, a separate discussion of each would prove to be fragmented. They will, therefore, be discussed concurrently.

The major thrust of project activity was focused on these objectives. For if teachers are not interested, do not know how to plan and implement programs the project could not be successful.

Log of major project activities designed to achieve objectives 3, 4, and 5 were:

1. The CAC conducted a workshop on Career Awareness materials. The purpose of the workshop was to:
   a) to familiarize personnel from the 15 rural schools with the Career Awareness Coordinator and vice-versa.
   b) to familiarize school personnel with various materials available to them in Career Education. To familiarize school personnel

with the importance of Career Education and the world of work - through filmstrips, slides, materials available, group discussion, critique materials and information given.

c) to familiarize school personnel with the broad, general Career Education Objectives from both state and federal (OE) levels.

d) to receive "feedback" of ideas, thoughts, and perhaps enter into a "Brainstorming" period; and perhaps gather information that will develop and implement Career Education in the schools.

e) to allow the school personnel to utilize their experiences, knowledge, and "interactions" to make possible a successful workshop.

The CAC worked many hours designing the workshop during the summer of 1973. The workshop was conducted on October 24, 1973. Of the sixty-three individuals invited only five attended. At this point interest was obviously low. Since attendance was so low the CAC visited all the schools that were not represented and delivered Career Education materials.

2. A graduate level continuing education course was designed and implemented for rural teachers - to help them develop a Career Education program within their own school curriculum. The purposes of the course were to:

a) to help establish Career Education programs within the grades K-8 in our 15 Rural Schools of Cascade County, to increase Career Awareness and the world of work.

b) to develop materials that will expand the teachers effectiveness and awareness of the world of work, and how they relate to her/his classroom and subject matter. This should strengthen

course work and make students become more aware to the world of work.

c) to provide opportunity for various school(s) and staff(s) to exchange curriculum ideas, processes, and planning-development programs using career education concepts.

d) to identify several career education approaches (concepts) techniques, and materials.

e) to satisfy the need for in-service meetings on career education development curriculum.

f) to allow participants, to develop a workable, and meaningful career education program developed to use in their particular school and classroom, and will implement such concepts.

g) allow participants to:

1) Assess current curriculum in their own school.

2) Learn about current career education concepts in various parts of the United States.

3) Develop career education curriculum for their particular school and classroom.

4) Implement the concepts and curriculum that they developed.

5) Evaluate their program at the end of the school year. (This evaluation could/should be done by our third party evaluator. Maybe have a baseline of attitudes/knowledge inventory of teachers and students involved, or participants may want to develop their own instrument for evaluation. Open for suggestions here . . . . .

Only eleven rural teachers enrolled in the course.

3. The Great Falls Career Education Newsletter was sent to each of the rural schools in an attempt to keep them abreast of events in District #1's project.

4. A number of Career Education materials were purchased and placed in the rural schools.

5. The CAC organized a Career Information Field Trip for thirty girls from the Sun River Elementary School. The girls visited Western Airlines, Blue Cross and the Deaconess Hospital in Great Falls.

6. An in-service trip to Helena was organized for the rural teachers of Cascade County to help them develop a positive attitude toward Career Education concepts and help them understand the importance of those concepts.

7. A Career Education - Activities Packet, citing those activities suitable for implementation in a K-6 curriculum was developed.

In an attempt to determine if teachers felt more competent in certain areas of Career Education after participating in the project a pre-post assessment was administered. A copy of the K-6 instrument may be found in Appendix D. The pre-test was administered through the mail in January, 1974, and the post during early October, 1974. Of all participating teachers only 18 responded to both the post and pre. This very poor return must be taken into account in all interpretations. Of the 18 respondents seven also participated in the graduate level continuing education course referred to earlier in this report. Table III provides a comparision of pre and post test means broken down by whether or not the teacher was involved in the course. No statistical analysis was performed. The data is provided to describe the responses of 18 teachers.

TABLE III

APPENDIX D	Teachers who participated in Career Ed Course (N=7)			Teachers who did not participate in Career Ed Course (N-11)		
	PreTest Mean	Post Mean	Diff.	PreTest Mean	Post Mean	Diff.
Question 1						
Part A	2.14	4.67	2.53	1.91	3.00	1.09
" B	2.71	4.33	1.62	2.18	2.60	.42
" C	2.85	4.60	1.75	2.00	3.60	1.60
" D	1.85	4.16	2.32	1.82	2.40	.58
" E	1.86	4.50	2.64	1.60	2.60	1.00
" F	1.86	4.33	2.47	2.09	2.20	.11
Question 2						
Part A	2.43	4.50	2.08	2.27	2.90	.63
" B	2.43	4.50	2.08	3.80	3.30	-.50
" C	2.71	4.83	2.12	3.36	3.00	-.36
" D	2.14	4.50	2.36	2.36	2.70	.64
" E	1.57	3.83	2.26	1.64	2.30	.66
" F	2.67	4.67	2.00	3.64	3.90	.26
" G	1.33	4.50	3.17	1.36	1.80	.44
" H	2.14	4.33	2.10	2.82	2.30	-.52
" I	2.14	4.00	1.86	2.18	2.50	.32
" J	2.57	4.50	1.93	3.18	3.10	.68
Question 3	1.57	2.83	1.26	1.27	1.70	.43
Question 4	1.57	4.66	3.09	1.36	1.90	.54

All questions in the instruments required a response on a 1-5 scale, 1 low, 5 high. By inspection of the data one might be tempted to conclude that in general all teachers feel more competent in the area after participation in the project. This might in fact be a valid conclusion but as previously mentioned caution must be taken due to the poor response. Of the 11 teachers who enrolled in the continuing education course seven responded to the pre-post assessment. This type of return (64%) does allow a judgment as to the effectiveness of the course. From the gains experienced by those teachers who enrolled in the course all indications suggest that this was a valuable experience and serious consideration should be given to a

continuation of this type of activity where more of the rural teachers can be encouraged to participate.

The poor return might suggest upon initial scrutiny, that this in itself might suggest low interest on the part of the teachers. This would be unfair. Serious errors were made in the cover letter which probably precipitated the low return. The errors were:

1. Teachers were told that their pre and post would be compared and analysed by the third party evaluator.

2. The teachers were asked to respond to the instrument and return them, signed, to the school principal.

The evaluator takes full responsibility for these inappropriate procedures.

In addition to the pre-post assessment of perceived competencies Mr. Hovey requested that each school prepare a needs assessment of current school curricula and what they planned to develop for the 1974-75 school year in the areas of career education concepts and materials. The request was made in an attempt to identify competencies concerning implementation and adoption of Career Education materials as well as to gather information concerning teacher interest. Eight schools honored the request. Their plans are attached.

Although the information gathered for the assessment of these objectives is more subjective than objective much progress has been made in the rural schools in the areas addressed by the objectives. It is the evaluators opinion that the three objectives have been achieved.

OBJECTIVE 7: To develop a bibliography of Career Education materials that can be used by the school personnel.

A bibliography of materials has been developed in the form of a resource catalog. The catalog is more functional than a bibliography as it provides a mechanism for materials acquisition. As stated previously, material was checked out and used by school personnel. When a logistical problem arose that prevented school personnel from personally picking up the material Mr. Hovey provided a delivery service.

CONCLUDING STATEMENT

It appears that little opportunity was given to the rural schools to provide input into project design. In fact, most schools were unaware of the fact that a project had been funded to help them:

1. establish programs on the elementary (K-6) level that are designed to increase self awareness.

2. develop materials that will expand the student's awareness about the world of work in grades K-6.

3. develop materials that will help instructors present the world of work to students.

4. provide in-service training to professional staff.

Due to this lack of pre-project information a committment on the part of the rural schools and the teachers was not evident. Therefore, instead of being initially concerned with project implementation the CAC was required to spend a great deal of time and energy in informing teachers of the projects goals and purposes and try to gain a committment toward the project. For if a committment could not be achieved the project could not fulfill its intended purpose. Little by little, one by one, interest was generated. Mr. Hovey, acting upon the evaluators request shared his opinions concerning progress made in the schools. His statements, paraphrased, reflect the problem of not involving affected parties from the onset.

SCHOOL 1 - Initially there was no administrative committee. However, due to the involvement of one teacher, who acted as a catalyst the staff is now attempting to implement Career Education concepts in the curriculum.

SCHOOL 2 - There was initial committment from two teachers. Their interest has spread to the rest of the staff.

SCHOOL 3 - This school did not want any part of the project until one teacher enrolled in the continuing education class. Now the principal is interested in the ideas and the school is about to make a 180 degree turn toward Career Education concepts.

SCHOOL 4 - Little accomplished in this school. A verbal committment to work "at it" next year has been given.

SCHOOL 5 - No administrative support for the project was achieved during 1973-74. Three teachers, however, became actively involved and as of this fall the principal is attempting to implement certain concepts in his class.

SCHOOL 6 - Good support for the program from the beginning. Three teachers from this school enrolled in the continuing education course.

SCHOOL 7 - Closed

SCHOOL 8 - The teacher did not want to get involved with Career Education. This school has since closed.

SCHOOL 9 - The teacher in this school became involved with the project. School location (isolation) was a major problem. This school has also closed.

SCHOOL 10 - The school staff decided not to get involved with the project.

SCHOOL 11 - Initial committment of one teacher whose efforts have since stimulated other teachers. Two teachers enrolled in the continuing education course. An assessment of the curriculum was accomplished.

SCHOOL 12 - Only superficial involvement was achieved.

SCHOOL 13 - Needs assessment was completed and activities for the 1974-75 year in Career Education were planned.

Problems arising from situations where intended participants are not given the opportunity to be involved in the planning are readily apparent. These problems coupled with a set of comprehensive objectives made the CAC job extremely difficult.

But despite these problems a great deal of progress has been made. Through the effort of the CAC some schools are now thinking Career Education. Many teachers have attempted using the materials in their classes. Maybe, as was evidence in some schools a catalyst for Career Education has been

found for the rural schools of Cascade County. Only time will tell if the ideas the project attempted to promote will continue to thrive without the concerted effort of an individual like the CAC.

Project objectives dealing with student outcomes were not achieved. But changes in students self concept, self awareness, attitudes, etc., cannot be achieved in one year's time with a project of this type. Only after teachers are committed to the concept of Career Education and have acquired the necessary knowledge and skills to design a curriculum using the concepts can an effect on student behaviors be anticipated.

APPENDIX A

NAME _____

GRADE _____

SCHOOL _____

STUDENT SELF-EVALUATION

Please circle the answer that you feel is correct.

1. I am an important person.

   a. yes
   b. no

2. Other people are more important than I am.

   a. yes
   b. no

3. Other people think I am important.

   a. yes
   b. no

4. I can do most things well.

   a. yes
   b. no

5. I am like most other people.

   a. yes
   b. no

6. I like myself most of the time.

   a. yes
   b. no

7. Do you have to go to college to get a good job?

   a. yes
   b. no

8. Do men do most of the work in our county?

   a. yes
   b. no

9. Are most jobs hard?

   a. yes
   b. no

10. Can an adult miss work whenever he wants to?

    a. yes
    b. no

11. People work mainly to make money.

    a. yes
    b. no

12. Do you know what job you want when you grow up?

    a. yes
    b. no

13. Are all jobs in our country important?

    a. yes
    b. no

14. Do we need the work that other people do?

    a. yes
    b. no

15. Would most people work if they didn't have to?

    a. yes
    b. no

16. Do people who work hard enjoy their job?

    a. yes
    b. no

17. Is it important to go to work when you are supposed to?

    a. yes
    b. no

18. Is doing a job well important to a persons success?

    a. yes
    b. no

19. Do you ever go on field trips to learn about different kinds of jobs?

    a. yes
    b. no

20. In school do you learn about jobs in the city?

    a. yes
    b. no

21. In school do you learn about jobs in your community?

    a. yes
    b. no

22. Do people ever come to your school to tell you about their jobs?

    a. yes
    b. no

23. Have you ever talked to anyone about a job you would like when you grow up?

    a. yes
    b. no

24. Do you want to find out about different kinds of jobs?

    a. yes
    b. no

25. Do you like to work alone?

    a. yes
    b. no

26. In school do you learn how to get along with others?

    a. yes
    b. no

27. Do you work together in class?

    a. yes
    b. no

28. Would you like a job where you could work with others?

    a. yes
    b. no

29. Is it important to work with others?

    a. yes
    b. no

30. Do people work alone in most jobs?

    a. yes
    b. no

31. Do most people like the things you do?

    a. yes
    b. no

32. If a person disagrees with you is he wrong?

    a. yes
    b. no

33. Would most people like to live in the city?

    a. yes
    b. no

34. A person who does a job well is a better person than one who doesn't do a job well?

    a. yes
    b. no

35. Would most people like a job working outside?

    a. yes
    b. no

36. Do you ever learn about different people and what they like?

    a. yes
    b. no

37. Does a doctor have an important job?

    a. yes
    b. no

38. Does a person need to go to college to get an important job?

    a. yes
    b. no

39. Does a farmer have an important job?

    a. yes
    b. no

40. Are some jobs more important than others?

    a. yes
    b. no

41. Does a garbage man have an important job?

    a. yes
    b. no

42. Are there good people working in all kinds of jobs?

    a. yes
    b. no

APPENDIX B

PRE-POST CLASSES

School District	Teacher	Grade
Number 3, Cascade (59421)	Mrs. Doris Reissing	3
	Mrs. Mavis Darko	5
	Mrs. Elizabeth Gessner	6
Number 5, Stockett-Sand Coulee (59472)	Miss Virginia Albertini	3
	Mr. Robert Lix	6
Number 6, Fort Shaw-Simms (59443) (59477)	Mr. John E. Meckler	7-8
	Mr. James Conroy	7-8
	Mrs. Erma Johnston	5
	Mrs. Kathleen Ann Enneberg	2
Number 29, Belt (59412)	Mrs. Marilyn L. Servoss	2
	Mrs. Edna Urick	3
	Mrs. Bertha V. L. Gray	3
	Mr. Edward W. Spragg	6
Number 74, Vaughn (59487)	Mrs. Marilyn Before	6
	Mrs. Hallie Olson	4
Number 85, Ulm (59485)	Mr. John Spurzem	7
	Mrs. Betty L. Payne	5
Number 97, Sun River (59483)	Mrs. Ruth Andrew	5-6
	Mrs. Beverly Townsend	4
	Mrs. Kathy Jenkins	2-3

APPENDIX C

GRADES 1-4

Item			POST NO	POST YES
1	Pre	Yes	12	106
	Pre	No	5	15
2	Pre	Yes	23	72
	Pre	No	22	24
3	Pre	Yes	14	78
	Pre	No	16	34
4	Pre	Yes	13	99
	Pre	No	10	21
5	Pre	Yes	26	68
	Pre	No	22	26
6	Pre	Yes	10	112
	Pre	No	5	17
7	Pre	Yes	24	49
	Pre	No	39	31
8	Pre	Yes	30	55
	Pre	No	28	29
9	Pre	Yes	23	73
	Pre	No	29	18
10	Pre	Yes	12	3
	Pre	No	120	10

Item			POST NO	POST YES
11	Pre	Yes	6	122
	Pre	No	2	14
12	Pre	Yes	25	76
	Pre	No	20	20
13	Pre	Yes	12	96
	Pre	No	8	28
14	Pre	Yes	28	43
	Pre	No	27	44
15	Pre	Yes	27	22
	Pre	No	68	24
16	Pre	Yes	22	89
	Pre	No	18	13
17	Pre	Yes	0	136
	Pre	No	0	6
18	Pre	Yes	6	124
	Pre	No	3	9
19	Pre	Yes	15	90
	Pre	No	22	16
20	Pre	Yes	9	105
	Pre	No	5	19
21	Pre	Yes	12	104
	Pre	No	5	22

GRADES 1-4

Item			POST NO	POST YES
22	Pre	Yes	18	86
	Pre	No	24	15
23	Pre	Yes	24	72
	Pre	No	25	21
24	Pre	Yes	6	123
	Pre	No	5	7
25	Pre	Yes	23	28
	Pre	No	73	17
26	Pre	Yes	2	137
	Pre	No	0	3
27	Pre	Yes	12	105
	Pre	No	6	20
28	Pre	Yes	10	113
	Pre	No	7	9
29	Pre	Yes	22	84
	Pre	No	12	24
30	Pre	Yes	12	14
	Pre	No	102	15
31	Pre	Yes	20	81
	Pre	No	11	31
32	Pre	Yes	25	13
	Pre	No	81	20

Item			POST NO	POST YES
33	Pre	Yes	22	25
	Pre	No	72	22
34	Pre	Yes	27	34
	Pre	No	48	31
35	Pre	Yes	17	47
	Pre	No	44	31
36	Pre	Yes	15	101
	Pre	No	5	18
37	Pre	Yes	3	135
	Pre	No	0	1
38	Pre	Yes	17	66
	Pre	No	27	30
39	Pre	Yes	7	123
	Pre	No	2	8
40	Pre	Yes	6	113
	Pre	No	2	19
41	Pre	Yes	23	91
	Pre	No	6	20
42	Pre	Yes	5	123
	Pre	No	0	8

GRADES 5-8

Item			POST NO	POST YES
1	Pre	Yes	20	138
	Pre	No	25	29
2	Pre	Yes	28	124
	Pre	No	28	32
3	Pre	Yes	23	102
	Pre	No	41	46
4	Pre	Yes	18	142
	Pre	No	10	18
5	Pre	Yes	21	124
	Pre	No	32	27
6	Pre	Yes	15	173
	Pre	No	6	18
7	Pre	Yes	42	58
	Pre	No	74	38
8	Pre	Yes	41	78
	Pre	No	62	35
9	Pre	Yes	42	76
	Pre	No	63	26
10	Pre	Yes	8	4
	Pre	No	176	5

Item			POST NO	POST YES
11	Pre	Yes	20	164
	Pre	No	6	11
12	Pre	Yes	34	97
	Pre	No	52	27
13	Pre	Yes	11	159
	Pre	No	13	27
14	Pre	Yes	20	130
	Pre	No	21	37
15	Pre	Yes	25	35
	Pre	No	110	38
16	Pre	Yes	29	148
	Pre	No	16	22
17	Pre	Yes	3	203
	Pre	No	0	2
18	Pre	Yes	4	199
	Pre	No	0	7
19	Pre	Yes	20	142
	Pre	No	27	22
20	Pre	Yes	18	158
	Pre	No	13	25
21	Pre	Yes	23	132
	Pre	No	25	30

GRADES 5-8

Item		POST NO	POST YES
22	Pre Yes	27	83
	Pre No	55	44
23	Pre Yes	34	101
	Pre No	40	36
34	Pre Yes	6	174
	Pre No	5	9
25	Pre Yes	27	33
	Pre No	121	29
26	Pre Yes	8	189
	Pre No	0	10
27	Pre Yes	17	162
	Pre No	4	19
28	Pre Yes	19	166
	Pre No	12	13
29	Pre Yes	33	128
	Pre No	20	20
30	Pre Yes	17	5
	Pre No	149	24
31	Pre Yes	23	114
	Pre No	22	34
32	Pre Yes	15	2
	Pre No	171	13

Item		POST NO	POST YES
33	Pre Yes	29	19
	Pre No	121	38
34	Pre Yes	40	41
	Pre No	102	27
35	Pre Yes	27	78
	Pre No	60	46
36	Pre Yes	23	156
	Pre No	11	16
37	Pre Yes	2	181
	Pre No	0	2
38	Pre Yes	35	80
	Pre No	67	28
39	Pre Yes	4	200
	Pre No	1	5
40	Pre Yes	22	155
	Pre No	12	17
41	Pre Yes	8	167
	Pre No	11	26
42	Pre Yes	12	178
	Pre No	4	14

APPENDIX D

SELF-EVALUATION INVENTORY FOR TEACHERS IN K-6

Rate yourself on each item on a scale 1 through 5. Five is the highest rating. Circle most likely number.

1. I utilize:
   - A. Vocational literature and data - - - - - - - - - - - - 1 2 3 4 5
   - B. Individualized instruction material developed - 1 2 3 4 5
   - C. A. V. material, games, literature, etc. - - - - - - - 1 2 3 4 5
   - D. Selected resource people in class to present career information - - - - - - - - - - - - - - 1 2 3 4 5
   - E. Developed career awareness teaching guides- 1 2 3 4 5
   - F. Parents of class members in presenting information on their career - - - - - - - - - - - - - - 1 2 3 4 5

2. I direct students in:
   - A. Classroom projects simulating tasks of real workers- 1 2 3 4 5
   - B. Identifying career opportunities related to units- 1 2 3 4 5
   - C. Discussing their career aspirations - - - - - - - - - 1 2 3 4 5
   - D. Doing research on occupations that are of interest to them - - - - - - - - - - - - - - - - - - 1 2 3 4 5
   - E. Using classified ads to identify and describe occupations- - - - - - - - - - - - - - - - - - 1 2 3 4 5
   - F. Identify careers of their parents - - - - - - - - - - 1 2 3 4 5
   - G. Developing a questionnaire for interviewing parents and others about their jobs - - - - 1 2 3 4 5
   - H. Field trips for career awareness - - - - - - - - - - 1 2 3 4 5
   - I. Studying occupations of day-to-day employees of local school system - - - - - - - - - - 1 2 3 4 5
   - J. Identifying the type of tools, clothes, materials and equipment used in various occupations - 1 2 3 4 5

3. I have developed tests that measure the achievement of career awareness - - - - - - - - - - - - - - 1 2 3 4 5

4. I utilize developed tests that measure achievement of career awareness - - - - - - - - - - - - - - 1 2 3 4 5

ACCESSION NUMBER: VT102131

PUBLICATION DATE: APR73

TITLE: A REVIEW OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AS RELATED TO THE HANDICAPPED.

PERSONAL AUTHOR: SINGLETARY, ERNEST E.

DESCRIPTOR: *FEDERAL LEGISLATION; *HANDICAPPED; *SPECIAL EDUCATION; VOCATIONAL EDUCATION; SPECIAL EDUCATION TEACHERS; *SPECIAL PROGRAMS; COOPERATIVE PROGRAMS; INTERAGENCY COOPERATION

IDENTIFIER: *VOCATIONAL EDUCATION AMENDMENTS OF 1968

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 22P.

ABSTRACT: FOR BETTER UNDERSTANDING AND APPRECIATION OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 A BRIEF REVIEW OF THE LEGISLATIVE DEVELOPMENT OF VOCATIONAL EDUCATION IS PRESENTED, WITH EMPHASIS ON THE 10 PERCENT FUNDING ALLOCATED FOR THE HANDICAPPED. THE TERM "HANDICAPPED" IS DEFINED, GUIDELINES FOR VOCATIONAL EDUCATION TEACHERS OF THE HANDICAPPED ARE PRESENTED, INTERAGENCY COOPERATION FOR DELIVERY OF QUALITY SERVICE IS EXPLORED, AND SOME OF THE PROGRAMS SERVING THE HANDICAPPED ARE LOOKED AT. A MODEL COOPERATIVE AGREEMENT IS EXAMINED ALONG WITH TRAINING OF PERSONNEL AND OTHER SERVICES AVAILABLE UNDER THE AMENDMENTS. (AUTHOR/MF)

VT 102131

A REVIEW OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AS RELATED TO THE HANDICAPPED

by

Ernest E. Singletary
Graduate Fellow, Special Education Administration
Department of Special Education
University of Florida
Gainesville, Florida

April, 1973

VT 102 131

INTRODUCTION

In order to develope a greater degree of understanding and appreciation of the Vocational Education Amendments of 1968, a brief presentation of the legislation development of Vocational Education will be reviewed, and emphasis on the ten percent set aside for the handicapped will be studied in some detail.

The "handicapped" will be defined, guidelines for vocational education teachers of the handicapped will be reviewed, goals of the three primary agencies serving the handicapped in school programs will be presented, interagency cooperation for delivery of quality service will be explored, and mention will be made of some of the better programs serving the handicapped found in the literature. A model cooperative agreement will be explored, training of personnel and other possible services available under the amendments will be reviewed and specific impact of the Vocational Education Amendments of 1968 will be briefed.

VOCATIONAL EDUCATION LEGISLATIVE DEVELOPMENT

The Smith-Hughes Act of 1917 and the George-Barden Act of 1948 serve as landmark cases in Vocational Education which made possible tremendous development of programs. By 1958, the Vocational Education budget was up to $57 million, and the Vocational Education Act of 1963 raised funding to $225 million. The 1963 act was important for several reasons: (1) The Act freed Vocational Education from thinking in terms of specific categories of occupational areas like home economics, office occupations, distributive education, trade and industrial education, and agriculture to planning for six specific purposes:

(1) Vocational education for persons attending high school;
(2) Vocational education for persons who have completed or left high school and are available for full-time study;
(3) Vocational education for persons who are already in the labor market;
(4) Vocational education for persons who have academic, socio-economic handicaps that prevent them from succeeding in regular programs;
(5) Construction of vocational schools;
(6) Ancillary services to assure quality programs. (31 , p.20)

For the first time money could be shifted from one category to another. Unfortunately, the Act of 1963 did not tie funds to performance. Lacking this tie, there was no particular emphasis placed on co-ordinated planning between local, state, and Federal agencies. (8 , p.1) This was particularily true in terms of vocational services to "persons who have academic, socioeconomic, or other handicaps that prevent them from succeding in the regular vocational educational program."

Nationally, only 79 such programs had been established according to a study entitled, "A National Survey of Vocational Education Programs for Students with Special Needs", published in May, 1966 (11 , p. 751).

As a result of such minimal results, President Johnson signed Public Law 90-576, the Vocational Education Amendments of 1968 on October 16, 1968. This law reemphasized Congressional intent that handicapped youth should receive training in vocational education. Specifically, the law has worded "handicapped persons who because of their handicapping condition cannot succeed in the regular vocational education program without special education assistance or who require a modified vocational education program" (11 , p. 752).

HANDICAPPED DEFINED

The definition of the handicapped is cited by Weintraub (11, p. 752), Gordan (14, p. 2), Gaar (12, p.7), and U.S.O.E. (29 ,p. 3), but all relate to the terminology used in the amendments as

> "Handicapped persons" means mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason of their handicapping condition cannot succeed in a vocational or consumer and homemaking education program designed for persons without such handicaps, and who for that reason require special educational assistance or a modified vocational or consumer and homemaking education program (Federal Register, Vol. 35, No. 4, Part II, Jan. 7, 1970, S 102.3 (o)).

GUIDELINES AND CHARACTERISTICS OF THE HANDICAPPED TO CONSIDER IN VE PROGRAMS

Some guidelines which the vocational educator should consider when training a handicapped youth for employment include:

1. Train for the acquisition of basic employability characteristics.

2. Provide the academic teachers with information about the needs in academic skills as they relate to a specific vocational training area.
3. Train at a level of competency which matches the youth's potential.
4. Train in an area where the student can master a skill which is saleable.
5. Where possible, combine training in the school with on-the-job training.
6. Be prepared to provide for shorter instructional periods and for longer total time of course completion.
7. Be prepared to repeat segments of instruction, particularly for those students who possess learning handicaps.
8. Make provision for individualized instruction.
9. Utilize demonstration lessons and manipulative endeavor in the case of handicapped students with learning disabilities.
10. Provide for frequent reinforcements of student's progress in learning situations.
11. Make certain to treat all aspects of a learning situation; never take for granted the occurrence of incidental learning.
12. Place great emphasis upon safety procedures and caution in the use of tools and equipment.
13. Ensure an emotionally stable and predictable training environment.
14. Make copious use of the prevocational evaluation and the vocational counselor's support. (30 , p.50).

Whether the handicapped are served through a self-contained unit, resource conept, or integrated with regular students, one should maintain flexibility of thought when developing and operating a program. One should be cautious in developing a "set" in thinking that the handicapped should be locked into a rigid, unyielding program of study. Contributory factors change, which in return alter learning rates and tolerance points. Yet -- there are certain characteristics which the program planner needs to be cognizant of. The handicapped person:

1. may fail to possess feelings of personal adequacy, self-worth, and personal dignity; he may have failed so often in school that he is provided with a feeling of hopelessness. He may also be unable to accept the disability which has been reinforced by society's negative stereo-typing.

2. may frequently be a disabled learner limited in his capacity to master basic communication and computational-quantitative skills.
3. may have limited mobility within his community and thus have little knowledge of not only the mechanics of getting about, of how to use public transportation, but will lack important information regarding the community's geography, institutions, and places of commerce and industry. As a result, he may not view himself as a part of his community.
4. may possess personal-social characteristics which interfere with his ability to function satisfactorily in a competitive work setting.
5. may be affected by chronic illnesses and by sensory-motor defects which reduce his effective response to training and placement.
6. may possess physical characteristics which can elicit rejection and can be viewed by peers, teachers, and employers as unpleasant.
7. may lack goal orientation and particularly that which relates to selection of an occupational training area and the anticipation of fulfillment in that area.
8. may have unrealistic notions as to what occupational area would be most appropriate.
9. may lack exposure to worker models. This is particularly true of the large number of handicapped youth whose families receive public assistance or who are plagued by chronic unemployment.(30, p. 41)

ELIGIBLE PROGRAMS UNDER VEA'S, 1963

Specific mandates outlined by the 1968 Vocational Education Amendments stipulates that at least 15 percent of each State's basic annual vocational allotment be spent for the disadvantaged, 10 percent for the handicapped, and 15 for postsecondary programs. Economically depressed and high drop out regions were given additional breaks in that up to one third of a state's allotment may go for funding consumer and homemaking education for up to 90 percent of the total cost and a minimum of $200,000 was alloted each state for cooperative vocational education programs. Up to 100 percent of the program cost may come from Federal funds. (29, p. 4-5)

Other areas funded include work-study programs, exemplary programs and projects, residential schools, research and training, curriculum development, and personnel training. The above mentioned areas had expiration dates indicated and were funded primarily "to stimulate innovative or developmental efforts in vocational education" (29, p. 7).

For clarification, it may prove benefical to define cooperative program and work-study as used in reference to vocational education. A vocational educational cooperative program indicates a program organized so that a student works part-time on a job directly related to his course of study in school. The Co-op Program, when in reference to to a Cooperative Special Education - Vocational Education - Vocational Rehabilitition Program is an abbreviation which is descriptive of a contractual relationship. Work-study used in vocational education or in a Co-op Program setting is synonymous. The student is employed up to 15 hours per week, but not necessarily in a job related to his curriculum. Summer employment does not limit the students work eligibility during the academic school year (29, p. 7).

Often times program planners indicate that work-study is justified in that it aides in the development of a saleable skill or employability. Chaffin, et al, maintain that

> it would appear that the goal of the work-study program <u>is not to make students employable</u>; rather the goal is to <u>enhance the employability which already exists</u> for most of the students in the program (7, p.737).

<u>PRIMARY STATE AGENCIES SERVING THE HANDICAPPED</u>

The three primary state agencies responsbile for the education, training, and placement of handicapped youth may be outlined as follows:

A- Vocational Education: Traditionally responsibility for training within specific job areas. The more usual categories which have proved successful with the mentally retarded include welding, autobody and fender repair, watch repair, sheet metal, cosmetology, and commerical cooking.

B- Vocational Rehabilitation: Concerned with eventual job placement and follow-up of clients. While clients are listed in work adjustment training "status 18" or extended evaluation "status 06", Rehabilitation may purchase training and/or supplies for training purposes. Said training may be secondary, post secondary, private, trade or business school, or on-the-job. The above mentioned services may be done on an individual basis, via services to groups of individuals, or through the establishment of a Rehabilitation facility (4, p. 92-95).

C- Special Education: Responsible for coordinating public school activities which have the objective of personnel, social, and vocational competency development and/or improvement for the handicapped.

INTERAGENCY COOPERATION FOR QUALITY SERVICE WITH SPECIFIC EXAMPLES

In serving the handicapped, the primary reason for cooperation is to maximize utilization of available resourses through the avoidance of duplication of effort and fragmentation of services delivered.

No one agency can effectively deliver the total scope of services needed to guide, educate, train, counsel, and place handicapped youth in self-satisfying employment. Each agency currently involved in rendering services to the handicapped has their own unique goals and objectives, yet, enough of said objectives overlap that cooperatively an effective program of services may be provided the handicapped.

At the 1968 NRA Conference, James J. Gallagher indicated that

> Cooperation is a lot easier to talk about than to achieve. We need the feeling of security and mutual respect, so that as someone has said, there will not be the feeling that we are "coing" while the other group is "operating". To attain this elusive goal, we must fight off the most negative of human emotions -- that is, suspicion of other professional groups, concern for our own insecurities, and worries about potential loss of status and prestige (13, p. 30).

As late as July 29, 1970 at the Regional Training Conference on Vocational Education and Rehabilitation of the Disabled and Disadvantaged at the University of Florida, Glenn Calmes , Assistant Regional SRS Representative, and Tom Irvin, BEH Region 4 Representative, indicated that much energy is being expended on the old concepts of "coordination" and "cooperation" (6, p. 77-83).

One of the most quoted examples of a voluntary Cooperative Program involving Special Education, Vocational Education and Vocational Rehabilitation in the Southeast prior to the 1968 Amendments is Manatee County, Florida. In 1964, a "Special Disadvantaged Projected" was designed to "Bridge the gap between education and remunerative employment" (30, p. 23). In reviewing the "Special Disadvantaged Project" (19, p. 1-80) and discussing it with Mr. Joe Leatherman, project director, it becomes evident that although the majority of students involved in the project may have been "disadvantaged", the primary disabling condition utilized for selection and placement was "mental or functional retardation" (19, p. 13). This project appears to be excellent in an endeavour of cooperation to serve handicapped youth.

More recently, three high schools in Duval County, Florida, (Forrest, Ribault, and Englewood) and the Dixie Beggs Center in

Pensacola have received recognition for effectiveness. (20, P. 41, 42, 45). Frank Harris, State Coordinator, Public School Programs, North Carolina Division of Vocational Rehabilitation reported at the Regional Council of Cooperative VR- Public School Programs (15, p. 1) that North Carolina plans to have a representative of Special Education, Vocational Rehabilitation, and Vocational Education assigned to each LEA and high school with the objectives of implementation to find better ways of serving the handicapped while preventing unwarranted duplication. J. Johnson, Assistant Superintendent, Hamilton County, Tennessee indicated at the 1971 NRA Convention in Memphis that the Hamilton County Occupational Center was effectively utilizing the aforementioned three agencies plus business and industry to compose a more effective program for the handicapped (18, p.2).

The states of Alabama, Kentucky, and Mississippi have placed a good majority of their Vocational Educational units in Rehabilitation workshops or evaluation centers (6, p. 78).

It is interesting to note the emphasis which trade schools place on certain categories of individuals as a result of the influence of the philosophy of the local administration. Jerry Olson related at the National Conference on Vocational Education of Handicapped Persons that

> .....school districts often build area vocational technical schools for the intellectually capable, special skill centers for the mentally subnormal, scholars programs for the intellectually gifted and programs with great ambiguity and little direction for the majority of students. It is interesting to note that all of the programs function as if they were housed in separate agencies and dealing with different species of human beings (22, p. 40).

A case in point is Oklahoma State Tech, Okmulgee, which reports that special considerations are made for the "socio-economically physically and educationally handicapped student" (26, p.39) in their residential vocational school. On careful review of the "Consultant's Working Papers", Project No. 9-7003, only two of ninety-two pages are devoted to the handicapped with the disadvantaged making up the remainder. Of the variety of handicapping conditions cited as participating residents, the vast majority were physically handicapped -- no mentally retarded.

Dr. Jim Selman, former Interim Division Director of Vocational Education in Alabama, related at the Conference of VE and VR of the Disabled and Disadvantaged 1970, that if one were to view a vocational education class for the handicapped that nothing significantly different would be occurring than that taking place in the regular vocational education unit across the hall. The no significant difference was attributed to no differences in teacher training programs, preparation of supervisory staff, or in curricular offering. Individualized programmed instruction (IPI) was offered as a plausible solution at the local level. Dr. Selman advocated program planning on the basis of the job that needs to be done as opposed to first looking at the budget. Cooperative team effort among agencies in serving the handicapped as well as evaluation of said programs was proported (24, p. 31-33).

A lack of agency coordination was shown to some extent by participant evaluation in a training program entitled "Institute for Vocational Education Teachers on Understanding and Teaching Handicapped Youth". This project was planned by representatives of the Special Education Department, University of Alabama and the Vocational Education Department, Miles College in Birmingham. Vocational Education teachers projected

for assignment to handicapped units were invited to the Institute which was taught by the Special Education Department in Tuscaloosa. "The major focus of the Institute was to give each participant an understanding of the emotional, social, and educational problems they may encounter in teaching and working with handicapped youth" (32, p. 1). Specific recommendations for furture institutes include:

SPECIFIC RECOMMENDATIONS FOR FUTURE INSTITUTES

RECOMMENDATIONS I. Institutes of this type should be geared up to dealing with the handicapped youth and adult, ages 16 to 65.

RECOMMENDATIONS 2. That more time be devoted to observation and actual teaching experiences with handicapped youth.

RECOMMENDATION 3. Institutes of this type should be at least six (6) weeks long compared to 3 weeks.

RECOMMENDATION 4. More time is needed to adequately develop addenduns to the Vocational Education Study Guides for various handicapping conditons.

RECOMMENDATION 5. More involvement is needed between Vocational Education, Vocational Rehabilitation, and Special Education, in developing institutes of this type.

RECOMMENDATION 6. More time is needed to look at and use various types of teaching materials and techniques for the handicapped.

RECOMMENDATION 7. The group discussions be structured more and definite aims and purposes of these discussion groups be clearly defined.

RECOMMENDATION 8. More personnel from Vocational Education and Vocational Rehabilitation be utilized on the teaching staff. (32, p. 3-4).

In summarizing "Problems and Issues in VE of the Disabled From the Frame - of - Reference of the Special Educator", 1970, Harvey indicated that

> basically, each of the three agencies or disciplines has worked within differing frameworks and even with different stated goals for those with whom we work. Each of us will have to make compromises and still not feel compromised if a youth is to receive the kinds of services each of us is capable of affording him and which ultimately are required if he is to become optimumly effective in relation to his handicap (16, 26).

COOPERATIVE AGREEMENTS

Three and four party agreement contracts have evolved with significant incidence since the Vocational Education Amendments of 1968 and usually involve a local education agency (LEA), Special Education, Vocational Education, and Vocational Rehabilitation. (See Appendix page A1 for copy of Alabama Co-op Agreement with Voc. Ed. and page B1 without Voc. Ed.) Such contracts or agreements usually outline the responsibility of each party in general terms, but often leave room for misunderstanding and error.

One of the more comprehensive statewide cooperative agreements researched by this writer is the "Vocational Education and Vocational Rehabilitation Partnership in Secondary School Programming for Educationally Handicapped Youth, Project Series #8, prepared by the Indiana Department of Public Instruction, Division of Special Education, Division of Vocational Rehabilitation, and Division of Vocational Education (30, p. 29-38) (See Appendix, pages C1-6).

The Indiana Model is unique in that it is organized under the major headings of (I) Purposes of the Agreement, (II) Eligibility, (III) Preemployment Vocational Experience Program (PVE), (IV) Implementation, (V) Fair Labor - Standards (VI) Civil Rights Clause, (VII) Effective Date and Duration of Agreement, and (VIII) Approval . (30, p. 29-38).

Under "Purposes of the Agreement" is outlined the principle phases through which student - clients should be channeled: a vocationally oriented curriculum, preemployment guidance and counseling, inschool work adjustment training, job exploration, vocational evaluation, community work experience, post-school training, plus placement and followup (30, p. 30).

The program is further broken down with specific goals for grades 10, 11, and 12. A necessary component for enhanced understanding is the inclusion of a student and parent orientation to the PVE program. One area not included which deserves consideration is that of driver education for those who qualify. Even if the Co-op Program is successful in raising the level of a youth's employability, he may be significantly hampered if he has no transportation when placed on a job. Experience with "Driver and Safety Education for Educable Mentally Retarded", Alabama three year Project # DE- 69-901-(001) (23). proves that the majority of EMR's in high school exceptional units can become successful drivers.

Two considerations which occasionally causes misunderstanding between LEA and state agency representatives revolves around the questions of whether all students in a Co-op Program have to be handicapped and/or clients of Vocational Rehabilitation. The Florida Vocational Education Program Guidelines (10, p. 4) indicate that "vocational education classes in which half or more of the enrollees are handicapped qualify as special classes for the handicapped." The Alabama Cooperative Agreement with VE, VRS, and SPE avoids the issue of total class screening and referral, and mentions only that it is the duty of VRS to "identify and locate persons properly classified as handicapped..." (2, p.1) and that SPE has the responsibility "to identify and screen all Exceptional Children and Youth students who are to be placed in an Exceptional Children and Youth class ...." (2, p. 2) . Although not written in the Alabama Agreement, it is established policy that the majority of students enrolled in VE special needs units must be handicapped. The Indiana Model Agreement stipulates that "individuals not considered eligible by the Indiana VRD may participate in the program at school expense" (30, p. 31).

Another point often misconstrued relates to the wording of the 10% portion of VE funds to be expended on the handicapped. The ten percent set aside under the VE Amendments of 1968, section 122 (C) 3 stipulates that at least 10 percent of each State's allotment of funds appropriated under section 102 (A) for any fiscal year beginning after June 30, 1969, shall be used only for the purpose set forth in paragraph 4 (B) of subsection (a)". (28, p.10) The emphasis here is on each State's allotment and not each LEA's allotment. Some local Coordinators of Special Education feel that they are due 10 percent of their local vocational education budget. This is in error. Based on statewide needs and resources, some of the State's alloted 10 percent may or may not be expended in any one system.

TRAINING OF PERSONNEL

Training of personnel is a significant problem when consideration is given to develop a program for the handicap. Three primary sources are evident, and perhaps to a lesser extent several others. The act authorizes $35 million beginning for fiscal year 1970 for personnel training under Part F - Training and Development Programs for Vocational Educational Personnel - of the Education Professions Development Act. The above mentioned funds are for institutions of higher learning which offer graduate vocational education programs. Experienced vocational educators may enroll for three years of full - time study. Said funds may also be expended for special institutes (29, p. 12).

One-tenth of the amount authorized for the "permanent" program of vocational education is reserved for training and research. These funds are distributed on the basis of population and per capita income (29, p.11).

The third major source of training funds are available through the Division of Training Programs, Bureau of Education for the Handicapped, Office of Education. These funds are available in the form of fellowships, assistantships, traineeships, and special study institutes (25, p. 17-19).

Provided the LEA includes training of personnel who work with the handicapped in their Title I annual plan and budget submitted by August 15 of each year to the State Education Agency, such funds may be legitimately utilized for said purpose. Involved in this case is the individual commitment of the LEA administration that training is a priority.

Titles III and VI to a lesser extent could be utilized in some states for teacher training in the area of the handicapped.

SUGGESTED SERVICES AVAILABLE FOR FUNDING UNDER VEA OF 1968

Dr. Malcom C. Gaar, Program Officer, Vocational, and Technical Education, U.S.O.E., Region IV, Atlanta presented the following outline of possible services and program components at the Conference on Vocational Education and Rehabilitation of the Disabled and Disadvantaged at the University of Florida, 1970:

1. Survey by contract or by staff members to identify:
   a. Handicapped population.
   b. Methods, materials, equipment, and techniques utilized in providing vocational education programs for handicapped persons.
   c. Occupational opportunities available to the handicapped.
   d. Other agencies, organizations, and individuals who are concerned with, and knowledgeable about, education of handicapped persons.
   e. Extent of vocational preparation being provided by other agencies and organizations.
   f. Areas in which programs are needed ....(geographic, population groups, manpower needs, etc.)
2. Recruitment and promotional activities designed to reach handicapped persons, potential employers and potential teachers, and to develop community participation and support.

a. Advertising, speaking engagements, working with citizen groups.
b. TV announcements, posters, and other visual presentations.

3. Scheduling modifications.
   a. Individual scheduling which required additional faculty time.
   b. Extended school day, week, or year, which requires additional faculty time and other related expenses.
   c. Individual instruction which required additional faculty time.
   d. Flexible scheduling permitting individual student to enter and/or leave program when student, teachers, and counselors, feel is appropriate to student's progress.
4. Formation and servicing of Advisory Committee for the Handicapped, similar to activities which are preformed for occupational advisory committees.
5. Formation of, and participation in, activities of coordinating committees..... State and local.
   a. Travel expenses.
   b. Additional time of assigned faculty member.
   c. Additional clerical expenses.
6. Modifications of regular program.
   a. Special equipment necessary for handicapped persons if they are to succeed in vocational program.
   Examples:
   (1) Visually handicapped--
      (a) Instructions in Braille.
      (b) Large print materials.
      (c) Signals which use sound rather than sight (bell rather than light).
      (d) Special safety devices such as additional guard rails around moving parts of a machine.
   (2) Deaf and Hard of Hearing --
      (a) Printed rather than verbal instructions.
      (b) Signals which use sight rather than sound (lights rather than bells).
      (c) Sound amplification devices.....Hearing aids for individual students are not an allowable item but desks and work stations can be equipped with ear-phones and amplification systems.
   (3) Crippled --
      (a) Adaptations of regular equipment such as adding hand controls to machines which regularly have foot controls.
      (b) Special desks and work tables for students who are in wheel chairs.
      (c) Ramps for students who cannot use stairs.
   (4) Mentally Retarded --
      (a) Simplified equipment.
      (b) Simplified instruction guides and manuals.
   (5) Cardiac and other physically impaired persons --
      (a) Additional facilities for rest periods.
      (b) Handrails in washroom and corridors. (12, p. 7, 8, 9).

SPECIFIC IMPACT OF VEA OF 1968

Since the VEA of 1968 tied funds to performance, vocational educators have begun shifting from their 1917 orientation based on the Smith- Hughes Act, with priorities on occupation and land-grant colleges, and the 1963 orientation which established a "special needs" category, to a position of emphasis on people (8, p.1) and (29).

Mr. G.E. Wallace, Director of Adult, Vocational, & Technical Education, Region IV, Atlanta, indicates that "lack of relevance" in some areas was due to shortage of funds. This was possibly true until 1963 when Congress raised the 1958 funding of $57 million to $225 million. Although the "special needs" category was established by the 1963 VE Act for services to the handicapped, only "two percent of all vocational education money was utilized for the special needs category" (31, p. 19-21).

With the VEA's of 1968, two Regional IV Conferences have been held cooperatively involving Special Education, Vocational Education and Vocational Rehabilitation. These conferences are: (1) A Roundtable on How to Implement Instructional Programs for the Disadvantaged and Handicapped in Region IV, April 28-29, Atlanta, and Education and Rehabilitation of the Disabled and Disadvantaged, July 26-29, 1970, University of Florida, Gainesville.

Ten percent of most State's allotment has been expended on programs termed "for the handicapped". For 1971, that should have amounted to $56.5 million. By reviewing a U.S.O.E. publication entitled Mental Retardation Activities, 1970, VEA (Part B) is given credit for the expenditure of $11.5 million on the handicap of mental retardation alone in the category of services. In the category of

training, EPDA was projected for $1.04 million for F.Y. 1971 (27, p. 78). For Alabama, vocational education's total allotment was $716,827 for 1971-72 (3, p. 1).

Cooperative state education agency planning is occuring with more regularity prodded by necessary agreements, State Advisory Councils, and planning via Projected Activities for Title VI. The above mentioned agreements and plans require "sign offs" and mutual "inputs" (17, p. 86). The VEA's of 1968 stipulate the formation of National and State Advisory Councils with categories of representative membership and functions. In only one instance has this writer found duties of a Local Council, that being in the State of Florida (See Appendix, P.D-1).

SUMMARY

In summary, through coordination and cooperation, the three primary agencies working with handicapped youth in an educational and rehabilitation framework can deliver more effective service. Perhaps vocational education can share special education's "interest and proven expertise" (12, p. 9), but vocational education has much more to contribute than money. The handicapped youth of this country need their sincere interest and expertise also to assist in elevating levels of employability.

BIBLOGRAPHY

1- Alabama Agreement of Cooperation Between the Div. of VR and PECY of State Dept. of Educ. and Indep. School Districts Within the State, 1971.

2- Alabama Cooperative Agreement with VE, VR and Crippled Children Service, and the Program for Exceptional Children and Youth in the Coordination of Services to the Handicapped, July 1, 1971.

3- Alabama Description of Projected Activities For Fiscal Year 1972 For the Education of Handicapped Children, Title VI.

4- Alabama VRS Operation and Procedure Manual, December 1, 1966.

5- Calmes, Glenn B., Introduction and Purpose of the Conference, Conf. on VE and Rehab of the Disabled and Disadvantaged, U of Fla., July 26-29, 1970.

6- Calmes, Glenn B., Report of the Conference, Summary and Conclusions, Conf. on VE and Rehab of the Disabled and Disadvantaged, U of Fla., July 26-29, 1970.

7- Chaffin, Jerry D. , et al, Two Followup Studies of Former Educable Mentally Retarded Students from the Kansas Work-Study Project, J. of Exceptional Children, Summer, 1971.

8- Evans, R.N. and others, Education for Employment, The Background and Potential of the 1968 VEA's Policy papers in Human Resources and Industrial Relations No. 14, May, 1969.

9- Federal Register, Vol. 35, No. 4, Part II, Jan. 7, 1970, S 102.3 (0).

10- Florida Dept. of Education, Guidelines and Criteria For Implementing Vocational Educ. Programs For the Handicapped.

11- Forsythe, John S., and Weintraub, Fred J., The VE Amendments of 1968, P.L. 90-576, J. of Exceptional Children, May, 1969.

12- Gaar, Malcom C., Introduction and Purpose of the Conference, Conf. on VE and Rehab of the Disabled and Disadvantaged, University of Florida, July 26-29, 1970.

13- Gallagher, James J., Cooperation for Service, J. of Rehabilitation, Proceeding of the 1969 NRA Conf., March - April, 1969.

14- Gordon, Irving, VE Admendments - 1968, P.L. 90-576, Programs for the Handicapped, HEW 69-3, April 4, 1969.

15- Harris, Frank, Impact of VE on Co-op Programs in North Carolina, Paper presented at Reg. NRA, Memphis, April 19-22, 1971.

16- Harvey, Jasper, Problems and Issues in VE of the Disabled From the Frame of Reference of Special Education, Conf. on VE & Rehab of the Disabled and Disadvantaged, U of F July 26-29, 1970.

17- Irvin, Tom, Report of the Conference - Summary and Conclusions, Conf. on VE and Rehab of the Disabled and Disadvantaged, U of F, July 26-29, 1970.

18- Johnson, J. Local Education Agency's Utilization of VE, VRS, and SPE, Hamilton Co., Tenn. Paper presented at Conf. of Reg. NRA, Memphis, April 19-22, 1971.

19- Leatherman, Joe, Special Disadvantaged Project, Manatee Co., Fla., 1964.

20- Neubauer, C.W., VE and Issues, Problems, Resource and Services Needed, and Joint Agency Planning and Programming For the Disabled and Mentally and/or Physically Handicapped Persons, Conf.

21- Office of Education, Report # OE - 80064, The Vocational Education Admendments of 1968, 13 p., Bureau of Adult, Voc., and Library Programs.

22- Olson, Jerry, "Implementing Programs to Serve the Handicapped: Some Concerns and Considerations", Paper read during the Nat. Conf. on VE of Handicapped Persons, Pittsburg, Pa., Feb., 1969.

23- Program for Exceptional Children and Youth, SDE Alabama, "Driver and Safety Education for Educable Mentally Retarded", Project No. DE - 69-901 - (001), 1969 - 71.

24- Selman, James, Problems and issues in the Vocational Education of the Disabled -- Vocational Ed., Conf. on VE and Rehab of the Disabled and Disadvantaged U of F, July 26-29, 1970.

25- U.S. Dept. HEW, Career Opportunities In Service To The Disadvantaged and Handicapped, Catalog No. FS 5.237: 37059, Dec., 1969.

26- U.S. Dept. HEW, OE, Consultant's Summary Papers, Proj. No. 9-7003, Nat. Conf. for Residential VE, Oklahoma State Tech., Okmulgee, March, 28, 1969.

27- U.S. Dept. HEW, Sec. Com. on MR, Mental Retardation Activities, Jan., 1970.

28- U.S. Dept. HEW, OE, SURGE, Suggested Utilization of Resources and Guides for Expenditures, GSA DC 70-10206, Feb., 1970.

29- U.S. Dept. HEW, The Vocational Education Amendments of 1968, OE-80064, June, 1969.

30- U.S. Government Printing Office: 1971 0-397-403, Vocational Education for Handicapped Persons, Handbook for Program Implementation.

31- Wallace, Geo. C., Legislative Basic for VE of the Disabled and Disadvantaged, Conf. on VE and Rehab of Disabled and Disadvantaged, U of Fla., July 26-29, 1970.

32- Wamzyniak, Alex S., Institute for Vocational Education Teachers on Understanding and Teaching Handicapped Youth, Summary Evaluation, University of Alabama, June-August, 1970.

ACCESSION NUMBER: VT102132

PUBLICATION DATE: AUG73

TITLE: ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS.

PERSONAL AUTHOR: LOUDERMILK, WALTER B.; WEBB, EARL S.

DESCRIPTOR: *VOCATIONAL DIRECTORS; *ROLE PERCEPTION; *PRINCIPALS; *ADMINISTRATOR ROLE; RELATIONSHIP; *SCHOOL DISTRICTS; SURVEYS

IDENTIFIER: TEXAS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 22P.

ABSTRACT: THE TEXAS EDUCATION AGENCY HAS BEEN ALLOCATING THE VOCATIONAL DIRECTOR UNIT TO LOCAL SCHOOL DISTRICTS SINCE 1969 IN ORDER TO PROVIDE ADMINISTRATIVE AND SUPERVISORY SERVICES TO THE VARIOUS VOCATIONAL PROGRAMS. TRADITIONALLY, THE HIGH SCHOOL PRINCIPAL HAS BEEN RESPONSIBLE FOR MOST OF THESE SERVICES. THEREFORE, DUE TO THE NEWNESS OF THE POSITION NEITHER THE ROLE OF THE DIRECTOR NOR HIS RELATIONSHIP WITH OTHER ADMINISTRATIVE PERSONNEL HAS BEEN CLEARLY DELINEATED. THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY THE DIRECTOR AND BY THE HIGH SCHOOL PRINCIPAL. QUESTIONNAIRES WERE SENT TO THE 133 VOCATIONAL DIRECTORS IN THE STATE OF TEXAS AS OF APRIL 1, 1973 AND TO 133 HIGH SCHOOL PRINCIPALS IN SCHOOL DISTRICTS EMPLOYING A VOCATIONAL DIRECTOR. DATA FROM RESPONDENTS, 121 DIRECTORS AND 121 PRINCIPALS, WERE ANALYZED BY PAIRED COMPARISONS OF DIRECTORS AND PRINCIPALS IN THE SAME SCHOOL DISTRICTS. RESPONSES, CONCLUSIONS, AND RECOMMENDATIONS ARE DETAILED IN THE REPORT. (AUTHOR/MF)

INSTITUTION NAME: TEXAS A AND M UNIV., COLLEGE STATION. DEPT. OF AGRICULTURAL EDUCATION.

SPONSORING AGENCY NAME: TEXAS EDUCATION AGENCY, AUSTIN. DEPT. OF OCCUPATIONAL EDUCATION AND TECHNOLOGY.; TEXAS A AND M UNIV., COLLEGE STATION. TEXAS AGRICULTURAL EXPERIMENT STATION.

VT 102 132

A REPORT OF RESEARCH

ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS

BY

WALTER B. LOUDERMILK AND EARL S. WEBB

SPONSORED COOPERATIVELY

DIVISION OF OCCUPATIONAL RESEARCH AND DEVELOPMENT
DEPARTMENT OF OCCUPATIONAL EDUCATION AND TECHNOLOGY
TEXAS EDUCATION AGENCY
RAY BARBER, DIRECTOR

AND

TEXAS AGRICULTURAL EXPERIMENT STATION
TEXAS A&M UNIVERSITY
JARVIS E. MILLER, DIRECTOR

AUGUST 1973

VT 102 132

ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED BY VOCATIONAL DIRECTORS AND HIGH SCHOOL PRINCIPALS

The research described herein was performed
in cooperation with the

Division of Occupational Research and Development
Department of Occupational Education and Technology
Texas Education Agency
Ray Barber, Director

and the

Texas Agricultural Experiment Station
Texas A&M University
Jarvis E. Miller, Director

by

Walter B. Loudermilk
Research Associate

and

Earl S. Webb
Professor

Department of Agricultural Education
Texas A&M University
College Station, Texas

August 1973

FOREWORD

The Texas Education Agency has been allocating the vocational director unit to local school districts since 1969. This unit is allocated to provide administrative and supervisory services to the various vocational programs. Traditionally, the high school principal has been responsible for most of these services. Therefore, due to the newness of this position neither the role of the director nor his relationship with other administrative personnel has been clearly delineated.

The purpose of this study was to determine the role of the vocational director as perceived by the vocational director and the high school principal. The major portion of the investigation was conducted by Dr. Walter B. Loudermilk, Research Associate, Texas A&M University, College Station, Texas.

Earl S. Webb, Professor
Agricultural Education Department
Texas A&M University
College Station Texas
August, 1973

ROLE OF THE VOCATIONAL DIRECTOR AS PERCEIVED
BY VOCATIONAL DIRECTORS AND HIGH
SCHOOL PRINCIPALS

The purpose of this study was to determine the perceptions of vocational directors and high school principals regarding the role of the vocational director to determine if programs need to be developed to provide for optimum relationships between the vocational director and high school principal. The following objectives were developed to aid in accomplishing this purpose:

1. To determine the role of the vocational director as perceived by the vocational director and high school principal.
2. To determine areas of agreement and disagreement between the vocational director and high school principal about the role of the vocational director.
3. To determine the relationship between selected variables (type of school district and position of the vocational director within the administrative structure of the local school) and opinions of vocational directors and high school principals.
4. To develop a list of recommendations to enhance the program of vocational education at State and local levels.

Definition of Terms

Director, Vocational Director, Vocational Supervisor, and Vocational Administrator are used interchangeably and refer to the person who manages the total vocational program.

Single school district is a local school district that: (1) employs a vocational director, (2) has more than one high school in the district that includes the twelfth grade, and (3) includes vocational courses in its curriculum.

Multi-school district is a local school district that: (1) employs a vocational director, (2) has more than one high school in the district that includes the twelfth grade, and (3) has more than one high school that includes vocational courses .

Administrative structure refers to the line and staff relationship of the vocational director to the high school principal.

Office of the superintendent refers to personnel within the office of the superintendent who were identified as the direct supervisor of the vocational director.

Undetermined position refers to the situation in which the direct supervisor of the vocational director could not be determined. In other words, a principal identified a person as the direct supervisor of the vocational director, however, the director in that same school district identified another person as his direct supervisor.

Research Procedure

Possible respondents for the research consisted of 133 vocational directors and 133 high school principals. The 133 vocational directors represent the total population of directors within the State of Texas as of April 1, 1973. The 133 principals were selected from a stratified population. One high school principal from each of the 133 school districts that employed a vocational director was included in the

sample. There were 38 of the 133 school districts that employed a vocational director that had more than one high school principal within the school district (multi-school district). A principal from each of the multi-school districts was randomly selected.

Data for this study were obtained by mailed questionnaires. One hundred twenty six or 94.7 percent of the vocational directors and 127 or 95.5 percent of the high school principals returned the completed questionnaire. Data were analyzed by paired comparisons of directors and principals located in the same school districts. Therefore, this study was based upon the paired perceptions of 121 directors and 121 principals.

The questionnaire was developed with assistance from Texas A&M University faculty advisors, personnel from the Texas Education Agency, and from a review of the literature. The questionnaire was divided into two sections. Section I obtained data about selected characteristics of the vocational directors by type of school districts. This section was designed to obtain responses from directors in regard to: (1) age, (2) highest degree earned, (3) employment in a field other than education, and location of office. This section was also designed to obtain perceptions and opinions of directors and principals about (1) title of the vocational director, and (2) immediate supervisor of the vocational director.

Section II of the questionnaire obtained data from directors and principals regarding their perceptions of the role of the vocational director. This section was designed to obtain responses from both

groups to statements in the following categories: (1) planning vocational programs, (2) financing vocational programs, (3) supervising vocational facilities, equipment and supplies, (4) staffing vocational programs, (5) managing in-service training programs, (6) supervising vocational staff, (7) supervising vocational programs, (8) disciplining vocational students, (9) supervising vocational guidance and counseling, (10) encouraging vocational youth organizations, (11) encouraging school and community relationships, (12) supervising vocational research and development, (13) supervising vocational advisory committees, and (14) managing vocational out-of-school youth and adult programs.

Each of the 61 statements within this section was developed so that numerical values could be assigned for all possible responses as follows: 5 - Strongly Agree; 4 - Agree; 3 - Neither Agree nor Disagree; 2 - Disagree; and 1 - Strongly Disagree. The mean responses of directors and principals to each statement were used to determine the extent to which each group agreed that a statement described a function of the vocational director.

Analysis of variance was used to determine the differences between responses of the directors and principals. It was the method used, also, to test the level of association between responses and (1) type of school district, and (2) position of the vocational director within the administrative structure. The confidence level was set at .05 for each test of significance.

Summary of the Findings

1. The median age of all directors was 45.5 years; however, directors located in multi-school districts were, by median ages, two years older than those located in single school districts.
2. Almost 90 percent of directors held the master's degree; whereas, 8.3 percent held the bachelor's degree and 2.4 percent the doctorate.
3. Most directors, 84.3 percent, had had some type of employment in a field other than education since high school. The median years of non-educational employment of directors in multi-school districts were greater than those of single school districts, 5.8 and 2.9 years, respectively.
4. The median years of employment of all directors in public school education was about 18.0.
5. Less than one-half of the directors, 46.3 percent, had had administrative experience prior to their present position. Almost three-fourths, 71.5 percent, of directors in multi-school districts had this type of prior experience compared to 36.0 percent of the directors in single school districts.
6. The median number of years directors had been vocational teachers was 8.6. Directors in single school districts

had been vocational teachers about two and one-half times longer than directors in multi-school districts.

7. Directors located in multi-school districts had been employed in their present position a median of 2.9 years compared to 2.0 years for directors in single-school districts.

8. A large majority, 74.2 percent, of directors located in multi-school districts had their offices within the central administrative complex; however, 72.1 percent, of those located in single school districts had their offices either in vocational technical centers or in the same building with the high school principal.

9. Almost two-thirds of all directors indicated that their present title was vocational director. The majority of directors located in single school districts felt that vocational director should be their title, however, almost 43 percent of those in multi-school districts felt their title should be assistant superintendent of vocational programs.

10. The majority of principals in both types of school districts felt the title of the director should be vocational director.

11. Fifty percent of directors located in single school districts indicated that they were supervised directly by the superintendent, however 62.8 percent of those located in multi-school districts indicated they were supervised directly by the assistant superintendent.

12. Almost 56 percent of the principals located in single school districts indicated that the high school principal was the immediate supervisor of the vocational director and the most frequently identified immediate supervisor of the vocational director by principals located in multi-school districts was the assistant superintendent.

13. Approximately 56 percent of the comparisons of responses between paired directors and principals in regard to the immediate supervisor of the vocational director were in conflict with each other.

14. The majority of directors regardless of type of school felt that they should report directly to the superintendent. However, 67.4 percent of principals in single school districts perceived themselves to be the immediate supervisor of the director and 48.6 percent of the principals in multi-school districts felt that the assistant superintendent should be the immediate supervisor of the vocational director.

15. The following statements describe a function within the role of the vocational director as perceived by both

directors and principals. Significantly different responses are reported where they occurred.

A. Directors agreed at a significantly higher level than did principals that the following statements describe functions of the vocational director.

(1) Identify the purposes and objectives of the vocational program.

(2) Prepare the long-range plan for vocational education. Directors located in multi-school districts agreed at a significantly higher level than did those in single school districts.

(3) Determine the occupations for which vocational training is to be offered. Principals located in multi-school districts agreed at a significantly higher level than did those located in single school districts.

(4) Specify long-range needs for facilities, equipment, and supplies for the vocational program. Directors located in multi-school districts agreed at a significantly higher level than did those located in single school districts. Directors supervised directly by the office of the superintendent agreed at the highest level followed by those whose position within the

administrative structure was undetermined. Directors who report directly to the high school principal agreed at the lowest level.

(5) Work with appropriate state agency for approval and financial support of new vocational programs. Directors located in multi-school districts agreed at a significantly higher level than did those located in single school districts. Directors supervised directly by the office of the superintendent agreed at the highest level followed by those whose position within the administrative structure was undetermined. Those whose immediate supervisor was the high school principal agreed at the lowest level.

(6) Determine the local policies to satisfy state requirements regarding purchase and reimbursement procedures.

(7) Plan an annual budget for the operation of the vocational program.

(8) Develop specifications for equipment to be purchased.

(9) Schedule vocational facilities for maximum utilization by teachers.

(10) Establish a policy for use of vocational facilities by groups not involved with the vocational

program.

(11) Arrange for additional facilities and equipment needed to accomodate expanded enrollments and technological advancements in vocational courses.

(12) Maintain an inventory of tools, supplies and equipment assigned to vocational programs. Principals located in single school districts agreed at a significantly higher level than did those located in multi-school districts.

(13) Design a procedure to be used by vocational teachers for acquiring consumable supplies and materials needed in vocational programs.

(14) Administer the day-by-day details of problems involving vocational equipment and supplies. Principals located in single school districts agreed at a significantly higher level than did those located in multi-school districts.

(15) Interview personnel applying for vocational staff positions.

(16) Recommend personnel to the superintendent for staffing the instructional program.

(17) Recommend salary increments above state schedules for the vocational staff.

(18) Assign instructors to teach vocational courses.

(19) Organize and promote in-service training programs for vocational staff.

(20) Assist new vocational teachers to understand the policies of the school. Principals located in single school districts agreed at a significantly higher level than did those in multi-school districts.

(21) Encourage teachers to apply innovative ideas in teaching. Directors located in multi-school districts agreed at a significantly higher level than did those in single school districts.

(22) Counsel with vocational teachers concerning their achievements.

(23) Confer with staff on instructional plans, methods and problems.

(24) Require vocational teachers to acquire new occupational skills needed to keep pace with technological advancement in their skills.

(25) Encourage vocational teachers to support professional organizations through membership.

(26) Handle vocational staff complaints.

(27) Encourage high standards of teacher behavior in vocational classrooms and laboratories. Principals located in single school districts agreed

at a significantly higher level than did those located in multi-school districts.

(28) Appraise teachers' performance in relation to instructional goals.

(29) Develop handbook of policies concerning the vocational program.

(30) Establish criteria for admission of students into vocational programs.

(31) Evaluate courses of study, course outlines and other instructional materials developed by vocational teachers.

(32) Encourage the development of youth organizations for vocational students.

(33) Encourage participation by vocational students in contests sponsored for vocational students.

(34) Inform school and community groups about the vocational program.

(35) Prepare vocational course descriptions for distribution to the school and community.

(36) Conduct occupational surveys to develop the vocational program.

(37) Conduct opinion surveys in the school and community to determine attitudes toward the vocational program. Directors supervised directly by the office of the superintendent

agreed at the highest level followed by those whose position within the administrative structure was undetermined. Those whose immediate supervisor was the high school principal agreed at the lowest level.

(38) Prepare proposals for new vocational programs. Directors located in multi-school districts agreed at a significantly higher level than did those located in single school districts.

(39) Establish criteria for the selection of advisory committee members.

(40) Recommend the appointement of advisory committee members to the superintendent.

(41) Involve an advisory committee in developing plans for vocational programs.

(42) Work with an advisory committee to determine the need for, and the extent of, training for available employment opportunities.

(43) Develop vocational programs for out-of-school youth and adults.

(44) Make financial arrangements for conducting out-of-school youth and adult programs.

(45) Administer out-of-school youth and adult programs.

B. Principals agreed at a significantly higher level than did directors that the following statement describes a function of the vocational director.

Provide information to vocational students about post-high school training and educational opportunities available to them. Directors located in single school districts agreed at a significantly higher level than did those located in multi-school districts.

C. Directors and principals agreed at the same level that the following statements describe functions of the vocational director.

(1) Prepare purchase orders for vocational equipment and supplies approved for purchase. Directors located in single school districts agreed at a significantly higher level than did those of multi-school districts. Principals located in single school districts agreed at a significantly higher level than did those in multi-school districts.

(2) Assist in writing objectives for courses offered in the vocational program.

(3) Conduct a program for recruitment of vocational students. Directors located in single school districts agreed at a significantly higher

level than did those located in multi-school districts.

(4) Develop criteria for the selection of training stations for the vocational cooperative programs.

(5) Arrange with the counselor for administration and interpretation of appropriate vocational tests.

(6) Supervise the placement of vocational graduates. Directors located in single school districts agreed at a significantly higher level than did those in multi-school districts. Principals located in single school districts agreed at a significantly higher level than did those located in multi-school districts.

(7) Prepare news releases on activities of the vocational program for news media.

(8) Maintain follow-up records on all vocational students. Principals located in single school districts agreed at a significantly higher level than did those located in multi-school districts.

(9) Maintain records of all aspects of the vocational program.

16. The following statements describe functions within the role of the vocational director as perceived by

vocational directors, however they do not describe a function within the role of the vocational director as perceived by high school principals. Significantly different responses are reported where they occurred.

(1) Discharge vocational staff members when warranted. A significant difference between responses of directors and principals was obtained.

(2) Schedule vocational courses. A significant difference between responses of directors and principals was obtained. Principals located in single school districts disagreed at a significantly higher level than did those located in multi-school districts.

17. The following statements do not describe functions within the role of the vocational director as perceived by both directors and principals. Significantly different responses are reported where they occurred.

(1) Administer discipline to vocational students.

(2) Expel vocational students from school when warranted.

(3) Participate in non-administrative duties, such as, cafeteria duty, homeroom duty, hall duty, chaperoning, etcetera. Directors disagreed

at a significantly higher level than did principals.

(4) Utilize an advisory committee in evaluation of teachers.

Conclusions

Due to the findings of this study, the following conclusions seem appropriate:

1. The role of the vocational director is understood by both directors and principals. Therefore, the underlying hypothesis of this study that stated that conflicts exist between vocational directors and high school principals in their perceived role of the vocational director cannot be supported. The differences between responses of the two groups represented a difference in the level at which they agreed rather than disagreed. Both groups perceived the role of the vocational director to include 55 functions stated within the questionnaire. They perceived that four statements did not describe a function of the director and disagreed with each other about the remaining two.
2. Little association exists between the perceived role of directors and the line and staff relationships utilized by local school districts for administrative purposes.

There seemed to be little difference between responses whether the director was supervised by the principal or by personnel in the superintendent's office.

3. An association exists between the perceived role of directors and type of school district. Directors in single school districts seemed to be more concerned with day to day operations of the program; whereas directors in multi-school districts showed more concern for overall planning and program development.
4. A lack of understanding exists between directors and principals as to the line and staff relationship of these two persons within the administrative structure of many local school districts. In more than half of the cases directors and principals disagreed as to the person to whom the director is responsible.
5. Type of school district is associated with the preferred title of directors. Directors in multi-school districts prefer the title of assistant superintendent for vocational programs; whereas directors in single school districts prefer the title of vocational director.

Recommendations

Based upon the findings of this study the following recommendations seem to be appropriate:

1. Although the directors and principals agreed as to the

role of the vocational director, it is felt that due to differences in level of agreement that efforts should be made to further the understanding of the high school principal about the role of the vocational director.

2. The line and staff relationship between directors and principals should be clarified at the local level.
3. In-service educational programs should be developed for directors according to the type of school district in which they are employed.
4. Consideration should be given to determine if it would be feasible to standardize the title of the director.
5. The functions identified in this research should be made available to persons preparing to be vocational directors and high school principals. Likewise they should be made available to those employed in these two positions.
6. Additional research should be conducted to determine the procedure by which vocational directors perform their functions.

ACCESSION NUMBER: VT102134

TITLE: REPORT OF THE CAREER EXPLORATION PROGRAM FOR JUNIOR HIGH SCHOOLS IN NEW BRITAIN.

PERSONAL AUTHOR: KEVORKIAN, ARTHUR H., AND OTHERS

DESCRIPTOR: PROGRAM DEVELOPMENT; *CAREER EDUCATION; JUNIOR HIGH SCHOOLS; *SCHOOL COMMUNITY PROGRAMS; OCCUPATIONAL CLUSTERS; *OCCUPATIONAL GUIDANCE; *GUIDANCE CENTERS; UNITS OF STUDY (SUBJECT FIELDS)

IDENTIFIER: *CAREER EXPLORATION

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 185P.

ABSTRACT: THE CAREER EXPLORATION PROGRAM, INVOLVING FOUR JUNIOR HIGH SCHOOLS IN NEW BRITAIN, CONNECTICUT, IS DESIGNED TO UTILIZE TEACHERS, COUNSELORS AND THE COMMUNITY TO PROVIDE AN INTEGRATED CLASSROOM WORK-ROLE PLACEMENT PROGRAM. THIS REPORT PRESENTS PLANS FOR THE IMPLEMENTATION OF THE PROGRAM, SCHEDULED FOR SEPTEMBER, 1972. THE FACULTIES OF THE PARTICIPATING SCHOOLS, REPRESENTING FIVE AREAS--SCIENCE AND MATH, SOCIAL STUDIES, COMMUNICATIONS, GUIDANCE AND SPECIAL AREAS REPORT THEIR RECOMMENDATIONS AND THE RESULTS OF THEIR INVESTIGATIONS OF COMMUNITY REACTION. THE ROLE OF THE TEACHER IS TO GENERATE UNITS OF STUDY, BASED ON THE OCCUPATIONAL CLUSTERS CONCEPT, RELATING DISCIPLINE AREAS DIRECTLY WITH OCCUPATIONS. THE GUIDANCE DEPARTMENT IS TO PROVIDE VOCATIONAL MATERIALS AND COORDINATE STUDENT INTERESTS WITH PLACEMENT IN THE COMMUNITY. INCLUDED IN THE REPORT ARE SAMPLE UNITS OF STUDY RELATING TO MANY PUBLIC SERVICE OCCUPATIONS, LISTS OF VOCATIONAL MATERIALS, MINUTES OF THE VARIOUS MEETINGS, AND FORMS AND FORM LETTERS GENERATED IN THE COURSE OF THE PROJECT. (NJ)

INSTITUTION NAME: NEW BRITAIN BOARD OF EDUCATION, CONN.

SPONSORING AGENCY NAME: CONNECTICUT STATE DEPT. OF EDUCATION, HARTFORD. DIV. OF VOCATIONAL EDUCATION.

VT 102 134

NEW BRITAIN PUBLIC SCHOOLS

New Britain, Connecticut

REPORT OF THE CAREER EXPLORATION PROGRAM FOR JUNIOR HIGH SCHOOLS IN NEW BRITAIN

Submitted by

THE NEW BRITAIN BOARD OF EDUCATION

DR. THOMAS R. BOWMAN, SUPERINTENDENT OF SCHOOLS

TO

THE STATE DEPARTMENT OF EDUCATION

DIVISION OF VOCATIONAL EDUCATION

Prepared by:

Arthur K. Kevorkian, Director of Vocational Education

Joseph B. Geraci, General Chairman of C.E.P.

Peter Bosco, Special Areas Chairman

Gregory Frey, Guidance Chairman

Peter L. Kummer, Math and Science Chairman

Lance Bagley, Communications Chairman

John Macensky, Social Studies Chairman

VT 102 134

CONTENTS

TITLE PAGE

CONTENTS

BOARD OF EDUCATION

C.E.P. PERSONNEL

FUNCTIONAL CHART

INTRODUCTION

TEACHER'S ROLE

CLUSTER CONCEPT

KEY TO OCCUPATIONAL CLUSTERS

GUIDANCE ROLE

GUIDANCE PROPOSAL FOR C.E.P.

BUSINESS, INDUSTRY, AND AGENCY ROLE

OBJECTIVES AND PURPOSES OF THE PROGRAM

REPORTS BY THE SOCIAL STUDIES, MATH AND SCIENCE,
SPECIAL AREAS, GUIDANCE, AND COMMUNICATIONS COMMITTEE

REPORT OF THE PILOT PROGRAM

REPORTS OF APPEARANCES BEFORE GROUPS

FORM LETTERS AND FORMS DEVELOPED BY C.E.P.

MINUTES OF GENERAL AND CHAIRMEN MEETINGS

NEWS ARTICLES

MINUTES OF COMMITTEE MEETINGS

ABSTRACT AND CONCLUSIONS

BOARD OF EDUCATION

City of New Britain

Robert T. MacBain, Chairman

Paul G. Covaliere

Mrs. Cherry W. Howard

James D. Buckwell

Nicholas E. DeNigris

John A. Kwasowski

Louis Zabohonski

Dr. Andrew F. Zembko

Mrs. Patricia Luke

Rev. Lee Van Bremen

C. E. P. PERSONNEL

Board of Directors

Dr. Thomas P. Bowman	Superintendent of Schools
Arthur H. Kevorkian	Director of Vocational Education
Donald G. Paris	Director of Guidance
Barbara Campbell	Administrative Aide
Joseph E. Hogan	Principal, Slade Junior High
Thomas P. Cabelus	Principal, Nathan Hale Junior High
Francis M. Kelly	Principal, Washington Junior High
John F. Smith	Principal, Roosevelt Junior High

General Chairman

Joseph B. Geraci

Guidance Committee

Greg Frey, Chairman	Roosevelt
Charlotte Kania	Nathan Hale
Dorothy Wojtusik*	Slade
Dick Soloman*	Washington
Arlene Walenski	Washington

Special Areas Committee

Peter Bosco, Chairman	Nathan Hale
John Fuller	Slade
John Ringrose	Roosevelt
Edward Dolbeare	Washington

*Left committee at end of March to assume Assistant Principal's position at Slade
*Left committee at end of March and was replaced by Arlene Walenski

Math and Science Committee

Peter Kummer, Chairman	Washington
William Ackerman	Nathan Hale
Rose Berlani	Roosevelt
Joseph Geraci	Slade
Wolcott Phelps	Washington
Paul Cormier	Nathan Hale
Robert Galati	Slade
Henry Quarti	Roosevelt

Social Studies Committee

John Macensky, Chairman	Slade
Helen Giuffrida	Roosevelt
Roger Carlone	Washington
Josephine Sahadi	Nathan Hale

Communications Committee

Lance Bagley, Chairman	Roosevelt
Joan Lang	Slade
Henry Oslund	Nathan Hale
Gloria Berson	Washington

FUNCTIONAL CHART

CAREER EXPLORATION PROGRAM

I.	BOARD OF DIRECTORS A. SUPERINTENDENT B. JUNIOR HIGH PRINCIPALS C. DIRECTOR OF VOCATIONAL EDUCATION D. DIRECTOR OF GUIDANCE	ADMINISTRATES AND SUPPORTS
II.	GENERAL CHAIRMAN	PROGRESSES AND COORDINATES
III.	FIVE MAIN COMMITTEES	RESEARCH AND DEVELOPMENTAL
IV.	TEACHERS	WORKS WITH COMMITTEES-- DEVELOPS UNITS OF STUDY
V.	STUDENTS	CONSULTATIVE AND PARTICIPATES
VI.	PARENTS AND COMMUNITY REPRESENTATIVES	CONSULTATIVE AND PARTICIPATES

INTERACTION

INTRODUCTION

Career Exploration Program

The aim of the Career Exploration Program is to provide the student with the maximum in opportunities to investigate future occupational possibilities. In order to accomplish such an aim it is the objective of this program to involve the entire community with its natural resources.

The program will be school based with the schools providing two thirds of the inputs and the community providing one third.

In order to assume such a responsibility, the school, through its teachers, must change the emphasis of the various disciplines so as to give each student a practical application of what he is expected to learn. An emphasis on the individualized learning process will be necessary to accomplish the above objectives.

In essence we are saying that the community, rich in resources, will provide the raw materials of occupational work-role observations and the schools will provide the educational process. In so doing, the community will become the classroom.

TEACHER'S ROLE

The teacher's role in the Career Exploration Program is of primary importance. It is the teacher who will generate the interest of the students toward genuine and practical exploration of his own future. The generation of interest will be accomplished by teacher formulated units of study. Units which will relate the various discipline areas directly with the occupations within that discipline's cluster or clusters.

Teachers will also formulate work-role station sheets which the student will take with him to his observation station. Listed on this sheet are points of interest which specify information the student is expected to obtain from his experience. The maintenance and record of this form is explained further in the role of Guidance.

Upon the student's return to the classroom from his observation station, he will be expected to share his knowledge and experiences with the rest of the class. This may be done in the form of discussion or through the use of any props the student took with him to his station such as tapes, moving pictures, and snap shots.

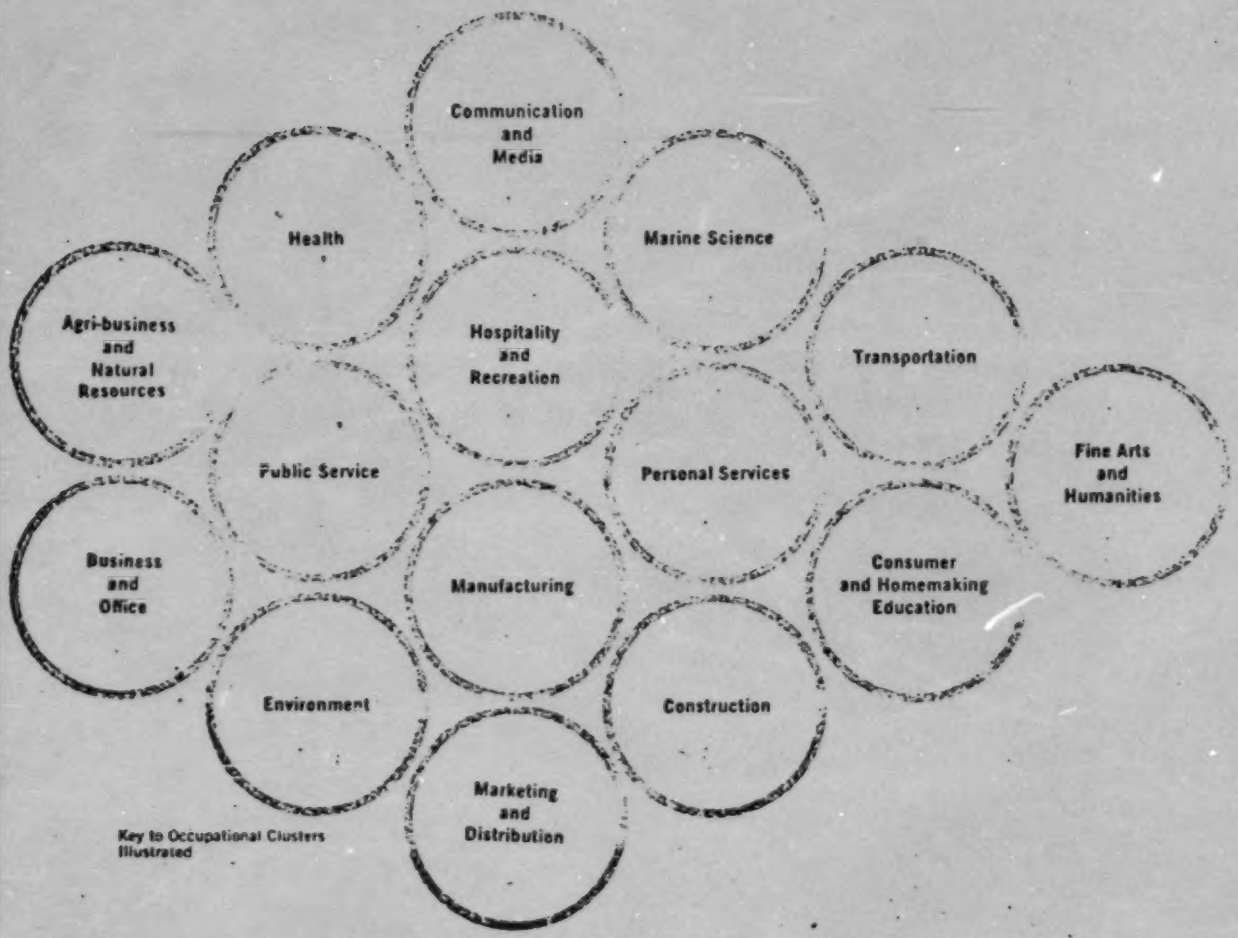
In addition, the student will not be held responsible for any material missed in class while at his station. His grade will be based upon the information he relates through his personal experiences.

CLUSTER CONCEPT

In view of the fact that all occupations are classified according to the cluster concept, it would do well at this time to explain this means of classification.

All occupations are broken down into fifteen major clusters. On the following page is a diagram of the 15 clusters.

KEY TO OCCUPATIONAL CLUSTERS



Key to Occupational Clusters Illustrated

★ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 449-190

Figure #1

GUIDANCE ROLE

The Junior High School Guidance Department will provide vocational materials for media centers to be located in each school. Included in the reservoir of occupational information will be individual specifications and pertinent information on all possible occupations.

In addition, the Guidance Departments will maintain a catalogue of all observation stations in the form of work-role units of study. This catalogue will be organized according to the fifteen major occupational clusters.

Administration of certain interest tests will also be the responsibility of the Guidance Departments. The purpose of these will be to insure the validity of the students interests and prevent a student from using the program as a way out of school.

Once the student has examined the available data of the occupation that interests him, been tested on his interest, and picked his observation station from the catalogue, the counselor will then contact the observation station and set up the mechanics of the placement.

Guidance Proposal for Career Exploration Program

With the inception of the Career Exploration Program, the role of the guidance counselors will be greatly expanded in the vocational area. The guidance office will become the hub of the Career Exploration Program. It will serve as a vocational media center for all the teachers, including the following: occupational briefs, film strip kits, vocational tapes, view-decks, and a current list of available speakers on vocational topics. The guidance office will be partially responsible for the student's role in the Career Exploration Program. We will assist the student in his selections of work-role observation stations and the necessary follow-up. Along with these will be the continual up-dating of the C.E.P. Catalog, new contacts in the community, and the possible review of the work-role sites.

Along with these new responsibilities, the guidance office will continue to be responsible for most of its present duties. Because of our desire to see the Career Exploration Program succeed, as it will be of great practical benefit to our students, and because the C.E.P. will place a great demand on the counselors time, we feel that it is necessary that some of our present duties be eliminated. The two primary activities to be eliminated should be Group Guidance, because of the time spent vocationally in the C.E.P., and Career Day. By the very nature of the C.E.P. program, most of the activities done in Group Guidance and those of Career Day <u>will be incorporated in the classroom</u> during the school year. Some of these activities would be the dissemination of vocational information and the use of speakers on various careers.

BUSINESS, INDUSTRY, AND AGENCY ROLE

The community will provide the observation stations. They may pertain to any occupation; professional, business, or industrial. The student should be allowed to get the most from his experience. This may be accomplished by answering any questions he may have and explaining any procedure and terminology involved. He should also be allowed to take with him certain audio-visual aids to assist him in recalling his experience, such as tapes and cameras.

A second possible input of the community is the availability of consultants and resource people. These people should be available to help the teacher in generating the interests of the students and preparing them for specific work-role stations. These people may become involved in the classroom itself or they may relate their expertise in their respective places of business or employment prior to the student's actual placement.

Agencies such as the Chamber of Commerce may serve as a liason between the occupational and educational communities. A close line of communication between all involved is a must if this program is to enjoy continued success.

STATEMENT OF PROJECT OBJECTIVES

The major goal of the overall program for the four junior high schools is to incorporate the Career Exploration Program with a revised curriculum to be offered and to develop an integrated program designed to increase awareness of self-potential and vocational sophistication of students in a sequential and developmental process from elementary through high school: first through orientation, then through observation and finally through participation.

The major objective of this initial project is to develop plans for implementation of a total observation program as follows:

A. The development of in-service training programs for retraining approximately 210 classroom teachers and guidance personnel in the use of a "Work-Role Instructional Technique."

B. Development of "Work-Role Observation" study units.

C. The identification and development of "Work-Role Observation" stations.

D. The development of "Work-Role Observation" guidance orientation and techniques.

E. The development of Work-Role Catalogue and resource material.

The outcome of this program cannot be evaluated until it is implemented in September 1972 and has run its course for a full year. Pre-tests and post tests will have to be developed

to measure the results of this project. A pilot program was run in May of 1972 at Stanley Works and the New Britain Herald. This program will be evaluated in another section of this report. Individual teachers will evaluate desireable outcomes based on behavioral objectives relative to study units. Each work-role observation station will have to be identified in terms of a job analysis or job description. Local employers will assist in this identification. A description of occupational titles categorized by cluster will be compiled as a resource catalogue.

Local and state consultants will be invited to assist in the development of project techniques, and a third party will be asked to evaluate the project and assess the effectiveness of each component technique.

It is anticipated that through in-service training and the development of project technique materials and "Work-Role Observation" stations, a program can be implemented in September of 1972.

PURPOSE

There is a demonstrated need in our educational programs for a bridge between the elementary Community Career Opportunities Program and the senior high school programs.

In order to provide for a change in curriculum that involves four junior high schools, approximately 2827 students and 210 teachers, there is a need for establishing an in-service training program for re-training staff. The focus initially of this pro-

ject is to re-train the teaching staff in the use of (1) "Work-Role Observation" techniques, (2) the development of "Work-Role Observation" study units, (3) the identification and development of "Work-Role Observation" guidance orientation and techniques. The traditional junior high school program needs drastic change in order to provide a comprehensive and new approach to learning. The gap that now exists does not provide for career orientation and educational exploratory experiences for all students.

It is the intent of the Committee to bring about these changes by innovating and providing new dimensions to the total junior high school program. This will be accomplished by a partial reorganization of the curriculum, instruction, and guidance programs in grade 9 in September, 1972 and eventually in grades 8 and 7 to provide for career exploration through "Work-Role Observation" and study on an individualized student program.

"Work-Role Observation" techniques involves the use of innovative instructional practices pertaining to clusters of jobs such as food services, health services, manufacturing industries, mass transportation, ecology, Government Services, etc. The development of "Work-Role Observation" techniques requires the educator to reassess present instructional techniques and to make necessary changes to improve the learning process. The development of Work-Role Observation Study Units will be dependent on the proper identification of Work-Role Observation stations in fifteen occupational clusters.

The development of "Work-Role Observation" guidance orientation and techniques will directly support the instructional in-school programs by providing resource information, materials, audio-visual aids and resource personnel from the community.

All students will be provided the opportunity to explore the many career opportunities in the various clusters based on their interests. This exploration will directly involve the student as an observer in a work-role situation both in-school and out-of-school in the community.

The length of time spent in a work-role situation will depend on the unit of study. Under this proposed program, the student will spend a portion of his time in experience settings outside the school building in structured observation and study activities. The Community will actively be co-partners in the educational process. Resource personnel from the community will assist in the development of the program.

REPORT OF THE SOCIAL STUDIES COMMITTEE C.E.P.

Introduction

The first job of the Social Studies Committee of the C.E.P. was to define its role within the context of the entire program. In so doing, it was decided that the Public Service Cluster was clearly within the social studies framework. The committee began its work by contacting such Public Service areas as City Hall, federal government agencies, fire department, police department, legal firms and the Board of Education.

Community Reactions

We found the community people contacted by us to be very enthusiastic toward the program. They made comments like, "I wish they had this type of program when I was in school." Others thought it was a good plan but in their line of work it was either too dangerous, unsafe, or a possible emotional implication to the students. Even the places that didn't want to participate were extremely kind and wished us well in our program.

Committee Reactions

The committee's reactions started with thoughts on how the student who participated in the program would be selected. The next discussion revolved around whether C.E.P. should be designed to fix existing curriculum, or whether a new curriculum should be established to fit into the C.E.P. idea. We discussed how teacher and student scheduling would be determined, and how student interest would be gauged and evaluated; and relationship

between classroom teacher and the C.E.P. Our last reaction revolved around what type of unit we should write to go along with our work-role observation stations.

The Social Studies Committee of the Career Exploration Program was made up of one member from each Junior High school in the City of New Britain. The names of the committee, the school they represent and the total hours worked beyond released day are listed below:

John H. Macensky (Chairman)	Slade	40 hours
Josephine Sahadi	Nathan Hale	18 "
Roger Carlone	Washington	18 "
Helen Giuffrida	Roosevelt	16

We held all day work sessions on our released days from 8:00 a.m. to 2:30 p.m. at the Administration Building on these dates:

Feb. 29, 1972	April 19, 1972	June 8, 1972
Mar. 8, 1972	May 3, 1972	June 13, 1972
Mar. 23, 1972	May 17, 1972	
April 6, 1972	May 24, 1972	

We held after school meetings to plan our all day work sessions and to do other work on the dates listed below:

March 21, 1972	May 10, 1972	June 1, 1972
April 4, 1972	May 16, 1972	June 6, 1972
May 3, 1972	May 23, 1972	June 13, 1972

The Social Studies Committee of the Career Exploration Program visited and talked with the people in charge at these locations in New Britain:

1. City Hall:

William E. Issel, City Plan Commission
Dorothy R. Turnrose, Edward J. Karwoski, Registrar of voters
Finance Director
Mrs. Helen Farrell, Park & Recreation
Richard T. Murphy, Town & City Clerk
Human Relations Council
Health Department
Parking Ticket
Corporation Council
Welfare Dept.
Public Works
Civil Service Commission
Personnel Director

II. Police Department:

Deputy Chief John Gwiazda
Captain Donald Parsons
Lt. Clifford Willis
Sgt. Karl Smith
Detective Albert Valentine

III. Federal Agencies:

Jesse R. Morris, U.S. Air Force, Recruiter
Robert A. Gustafson, U.S. Navy Recruiter
Allan B. Rothlisberg, U.S. Army Recruiter
National Guard
Joseph Perrotta, Postmaster, New Britain
Social Security - Health, Education & Welfare Dept.
Internal Revenue Service

IV. Fire Department

Deputy Chief Michael Spendolini

V. Legal Films:

William Weber of Weber & Marshall
Joseph P. Cianci of Joseph P. Cianci, Law Office
Nicholas E. DeNigris of Januszewski, McGuillan & DeNigris

VI. Board of Education

Donald Friday, Acting Asst. Superintendent of Schools

With all the contacts the Social Studies Committee of the Career Exploration Program made, we were able to set up 43 work-role observation stations for the students of the Junior High schools of the City of New Britain. The stations we set up are listed below:

I. City Hall

A. City Plan Commission
1. Draftsman I
2. Draftsman for City Plan Commission
3. Transitman (survey)

B. Registrars of Voters

1. Clerk

C. Finance Director

1. Administrative Accountant
2. Clerk

D. Park & Recreation Department

1. Chesley Park Foreman
2. Willow Brook Park Foreman
3. Washington Park Foreman
4. A. W. Stanley Park Foreman
5. Stanley Quarter Park Foreman
6. Stanley Golf Course - Greenskeeper
7. Walnut Hill Park Gardner
8. General Foreman of Park & Recreation
9. Hungerford Park Horticulturist
10. Stanley Quarter Park - City Forester
11. Park & Recreation Mechanic

II. Police Department

A. Community Relations

B. Public Information

C. Report Analyst

D. Identification & Records

E. Police Administration

F. Police Training Division

G. Traffic Control Division

H. Detective Bureau

I. Park Patrolman

J. Police Matron

K. Special Service

L. Uniform Division

M. Youth Bureau

III. Federal Agencies

A. Navy Recruiting Office

B. National Guard

C. Post Office

1. Clerk
2. Mail Carrier
3. Custodian

IV. Fire Department

A. Firefighter

B. Fire Inspector

C. Fire Training

V. Board of Education

A. Assistant Superintendent of Schools

B. Secretaries

C. Clerks

Units of Study

Public Service Cluster

of

CAREER EXPLORATION PROGRAM

by

Social Studies Committee

on

City Hall

Police Department

Fire Department

Federal Agencies

Legal Firms

INTRODUCTION UNIT

Public Service

The purpose of this unit is to introduce the student to each of the work role observation stations available to him within the cluster of the Public Services. The stations under consideration here fall into three general catagories: elective offices, appointive positions, and Civil Service classifications.

This unit does not attempt to cover all aspects of the local services and government agencies, but offers instead a synopsis of the general qualifications, duties, responsibilities, and variety of jobs available in the area of Public Service.

If more thorough investigation of the operation and function of local services is preferred, the information contained in this unit can be the basis upon which to construct a more comprehensive study to meet student needs.

The descriptive materials contained in this unit have been compiled by the Social Studies Committee and have been approved by each of the departments represented.

It is hoped that this information will prove of value to the teacher who presents this unit of study and to the student who has indicated an interest in the area of Public Service as a vocational ambition.

INTRODUCTION

City Hall

The government of a city consists of its people, their elected officials, and the officials' workers. In the cluster of the Public Services, many of the stations available to observe are those occupied by the worker. Just as the people elect their officials to perform the tasks of keeping the city "running", the officials surpervise their workers to get each and every job done. These jobs are necessary for a city government to function smoothly and efficiently.

The City Hall is the location for many of the Public Service Observation Stations. Some stations, however, are directed from City Hall but the actual locations are elsewhere. No matter where the location, the duties and responsibilities of each of the work stations are essential to the city and its people.

In studying the observation stations that fall under the City Hall category, remember that each worker has his own duties but each of his duties is connected to those of his fellow workers. All duties performed within the framework of the government and therefore the jobs are governed by Civil Service requirements.

D.O.T. _____

OBSERVATION STATION: Finance Director

LOCATION: City Hall

FUNCTIONS:

The Director of Finance is responsible for the composition and control of the city budget and for the general direction and control of all accounting and bookkeeping of all the city offices and departments. He is also responsible for the maintenance of a complete and modern system of accounting.

Some specific examples of the duties of the Director are: keeping all accounts of the city government, review-methods as will afford opportunity to prevent unnecessary expenditures, and submitting all recommendations to the Mayor, Board of Finance, and the Common Council.

In general, a Finance Director is responsible for the making and maintaining of contin accounting controls of all financial transactions affecting the Board of Finance and Taxation.

Qualifications for the position of Director of Finance include graduation from a recognized college with a degree in accounting or a related field supplemented by at least six years of progressively responsible municipal bugeting, accounting, and taxation along with considerable knowledge of department rules and regulations.

D.O.T._____

OBSERVATION STATION: Administrative Accountant

LOCATION: Finance Director's Office, City Hall

FUNCTIONS:

The Administrative Accountant has charge of the Finance Office with the responsibility for the supervision of the office in the absence of the department head, the Finance Director.

Working directly under the supervision of the Director, the Administrative Accountant assists in the preparation of the city's annual budget that is submitted to the Board of Finance. He is responsible for keeping a complete and systematic record of all City Financial transactions. He balances books and compiles reports at regular intervals to show receipts, expenditures, accounts receivable, accounts payable, and other items pertinent to the operation of the city's business.

Qualifications for this position include high school and business college graduation along with a thorough knowledge of accounting, preferably governmental practices, procedures and equipment of modern office relative to governmental accounting, and the ability to set up and maintain operating controls.

D.O.T. _____

OBSERVATION STATION: Clerk

LOCATION: Finance Department, City Hall

FUNCTIONS:

The office clerk located within the Finance Department performs a variety of routine clerical and typing duties.

The clerk works under the supervision of the Administrative Accountant and types letters, reports and other matter from rough draft or corrected copy. The clerk also files records and reports and operates office machines, Other responsibilities include keeping fiscal records and statistical reports, making out bills, answering the telephones, sorting and distributing mail and performing other clerical duties.

Qualifications for the position of clerk include high school graduation or business school with courses in typing. The clerk should have a knowledge of standard office practice and procedures, clerical aptitude and ability, skill in the operation and care of typewriters and office machines, and the ability to deal with the public.

D.O.T._____

OBSERVATION STATION: Transit Man

LOCATION: City Plan Commission, City Hall

FUNCTIONS:

A Transit Man performs difficult transit and level work on field surveys, topographical studies, cross sections, setting line and grade, setting stakes, merestones, and pipes. He obtains contours for street layouts, levels on building and other municipal projects, plots field notes, makes and checks calculations, draws and traces complete maps in pencil and in ink, and collects engineering information from various sources.

He inspects simple construction projects to check line and grade and may also sample materials, check quantity and quality of materials, and enforces contract specifications, and makes estimates of work completed.

A Transit Man should have a knowledge of the principals and practices of surveying and of engineering and drafting. He should have the ability to compile engineering data, to use standard drafting equipment, and to set up and operate a transit and level with speed and accuracy.

In addition to high school or vocational school graduation, he must have three years as an Engineering Aide performing engineering, drafting, and construction inspection.

D.O.T. _____

OBSERVATION STATION: Registrar of Voters

LOCATION: CITY HALL

FUNCTIONS:

There is one registrar of voters for each of the major political parties. The position is elective and runs concurrently with the term of mayor. The office of the Registrar also includes several Civil Service clerks.

The main duties of the department are concerned with the making of new voters and the conducting of elections. For example, the office of Registrar is responsible for the preparation of primary and election calendars. Any time there is to be an election, a primary, or a referendum vote, the registrar must see to it that voting lists are up to date and readily available, and he must see that voting places and times have been widely announced and advertised through the various media.

The registrar must be familiar with all regulations concerning elegibility for voting. As stutes and regulations are passed or revised this office is responsible for keeping its records up to date. Another duty is the annual canvassing of established voters. New addresses and changes of name must be noted. In addition to a thorough knowledge of primary and election laws, anyone interested in this phase of the public services should have the ability and skills necessary for the smooth operation of general office procedures.

D.O.T. _____

OBSERVATION STATION: Clerk Typist

LOCATION: City Hall Office of the Registrar of Voters

FUNCTION:

This is a Civil Service position which requires the general skills and abilities of clerical work.

Since this position is located within the Office of the Registrar of Voters, the work handled by the clerk concerns the making of new voters and the conducting of elections and primaries.

In addition to general office skills such as typing, filing, and the operation of business machines, the clerk placed in this office must have the ability to meet with the general public, answer questions concerning voting rights and responsibilities, and the ability to pass the standard Civil Service Examination.

Some specific duties include the maintence of all voting and primary lists, the up dating of lists and records, and the arrangement of the voting calendar.

D.O.T. _____

OBSERVATION STATION: Park General Foreman

LOCATION: Park Department

FUNCTIONS:

A Park General Foreman must supervise park maintenance activities. Within his supervision would be twenty to twenty-five employees, or more.

Some of his duties include: directing and supervising the construction and upkeep of baseball diamonds, tennis courts, swimming and wading pools, roads, sewers, and walks; assigning members of his crew to other parks when necessary; maintaining order and enforcing park rules and regulations; keeping records on supplies and materials; preparing reports; taking charge of snow-plow operations and other storm emergencies; and keeping time of employees.

A Park General Foreman needs considerable knowledge of grounds, maintenance, operation and care of parks and equipment, and park regulations. He also must have a supervisory ability, a recordkeeping ability, a report making ability, an ability to deal with the public, and an ability to work outdoors under varying weather conditions.

In order to become a Park General Foreman, a person must meet the Civil Service specifications for the job.

D.O.T. _____

OBSERVATION STATION: Park Foreman

LOCATION: All City Parks, Park Department
Chesley Park A.W. Stanley Park
Willow Brook Stanley Quarter
Washington Park

FUNCTIONS:

A Park Foreman is responsible for the care and maintenance of a large city park or a group of small parks. He is a Civil Service worker and is part of the Park Department. In the line of his duty, a Park Foreman must be able to supervise workers assigned to him, keep their time, deal with the public, and work out of doors.

Some of the jobs that the Park Foreman lays out, assigns, and supervises are: grass cutting, weeding, rolling and lining athletic fields and tennis courts, painting and repairing buildings, benches, and bleachers, cleaning and repairing swimming and wading pools and fireplaces, clearing of snow. He must, therefore, have a knowledge of all aspects of a park. Along with this, he must know and be able to enforce all park regulations.

In order to become a Park Foreman, a person must be able to meet the Civil Service specifications for this job.

D.O.T. _____

OBSERVATION STATION: Greenskeeper

LOCATION: Stanley Golf Course,
Park Department

FUNCTIONS:

A greenskeeper is responsible for the care and maintenance of the golf course. He may also be responsible for supervising workers assigned to him.

Some examples of his work are: maintaining greens, fairways, roughs, tees, and approaches; fertilizing and treating greens for brown patch; supervising the raking and trimming of sand traps; hauling fertilizer and top dressing; grinding and screening of top dressing; supervising clubhouse activities; and maintaining the club building.

He needs a knowledge of: the maintenance, practices, and techniques of a modern golf course; the grasses used for greens and fairways; and the methods of growing and caring for grasses. Along with this, the greenskeeper needs a knowledge of park equipment and an ability to deal with the public.

In order to become a greenskeeper, a person must be able to meet the Civil Service specifications for his job.

D.O.T. _____

OBSERVATION STATION: City Forester

LOCATION: Stanley Quarter Park,
Park Department

FUNCTIONS:

A City Forester assists in maintaining and replacing city shade trees by planning and directing a city wide and private shade tree program. As a City Forester, he must assign and lay out forestry projects and inspect all shade trees within the city to see if they comply with state and city legal requirements.

He must also plan, program, and prepare budget estimates of the Forestry Division and supervise all its activities. He must inspect all public and private shade trees in the interest of public safety. That is, he inspects the trees to see if they are obstructing vision, preventing effective fire fighting operations, being infested with diseases, molds, or insects, or contain dead or misshapen branches.

Several other duties of the City Forester are to: report findings of private trees to their owners and order remedial work or condemnation if necessary; follow up to be certain that the orders are carried out; assign and direct foresting crews in spraying, prunning, planting, removing limbs and stumps of public shade trees and supply the technical information necessary; insure proper safety precautions are maintained to prevent injury to employees and property; maintain records of all city owned shade trees; and perform all special assignments and related work.

In order to perform these many duties, a City Forester needs a great deal of specific knowledge. For example: he needs a knowledge of tree removal, planting, pruning, and treatment techniques. He needs a scientific knowledge of insects, parasites, and diseases that attack trees and shrubs. A City Forester must also have a knowledge of: the composition and uses of insecticides, fungicides, disinfectants, and fertilizers used in forestry work; the hazards of forestry work and the necessary precautions; and the varieties of trees,

their growth habits, value, and characteristics. The City Forester also must have the ability to: plan and direct a large scale tree maintenance and replacement program; supervise skilled workers; deal with emergencies; and deal with other employees and the public.

In order to become a city forester, a person must meet Civil Service requirements.

D.O.T. _____

OBSERVATION STATION: Horticulturist

LOCATION: Park Department, Greenhouse

FUNCTIONS:

The Horticulturist is in charge of the City Greenhouse, its plants, shrubs, and flowers and those of the Park Department. In the line of his duty, the Horticulturist must supervise any workers assigned to him.

He needs a thorough knowledge of: the kind of ornamental plants commonly used in parks, plant culture, and greenhouse operation. This knowledge will be put to use in planting and growing plants to be used in city parks, designing flower beds, pruning shrubs, watering gardens, weeding, and cultivating.

The requirements for a Horticulturist are to meet Civil Service specifications.

D.O.T. _____

OBSERVATION STATION: Gardener

LOCATION: Walnut Hill Park Department

FUNCTIONS:

A Gardener must plant and care for flowers in the Department of Parks and Recreation. In so doing, he works under the direction of the Horticulturist and he must supervise any workers assigned to him.

A Gardener plants and grows plants to be used in city parks, he prunes shrubs, waters gardens, weeds, and cultivates. In order to be a gardener, a person needs a knowledge of the types of ornamental plants commonly used in a park and a knowledge of plant culture.

The Civil Service specifications for this job must be met in order to become a gardener.

D.O.T. _____

OBSERVATION STATION: Mechanic for Park Department

LOCATION: Park Department

FUNCTIONS:

A mechanic for the Park Department repairs mowers, tractors, and other mechanical equipment.

He needs: a knowledge of machine construction, an ability to diagnose mechanical defects, and an ability to use hand and machine tools.

A mechanic must be able to meet the Civil Service specifications for the job.

THE POLICE DEPARTMENT

INTRODUCTION

The role of the policeman in today's world is much more demanding than ever before. The community he serves is far more complex, and crime much more rampant. Yet, the basic duties and responsibilities of the police remain constant. It is their sworn duty to apprehend and bring before a judge anyone guilty of a crime. The policeman is the human instrument of the law without which all law would be useless; our cities would become jungles as each man sought to protect himself and his family.

But the New Britain Police Department is a community service as well as a law enforcement agency. When lawbreakers infringe upon public security, it is the department's main function to provide protection of life and property and to apprehend the criminal. Equally important too, is the desire and the obligation of the police department to continue its work in the prevention of crime and in the constant improvement of services offered to the community.

Some of the many departments and community services which are part of the New Britain Police Department and which have made observation stations available to students are listed and briefly described below.

D.O.T. _____

OBSERVATION STATION: Police Administration (Business Office)

LOCATION: New Britain Police Department

FUNCTIONS:

This office is the business department of the New Britain Police Department. The people who work in this division are chiefly responsible for planning and budgeting police services which are available to local community.

This department employs several Civil Service Clerk Typists and stenographers as well as three detectives and regular police officers who are assigned to this office by the Chief of Police.

The regular type of work handled by these people involves the regulating and record keeping of such matters as police pensions, insurances, payrolls, and the administration of funds from federal and state grants which are awarded to the department at large.

Anyone interested in the clerical side of police work would be advised to select training which would qualify one for these positions.

D.O.T. _____

OBSERVATION STATION: Department of Public Information

LOCATION: New Britain Police Department

FUNCTIONS:

The department of Public Information is a new, federally funded project operating under the provisions of the Omnibus Crime Control Act of 1968. This division is located in, and works closely with, the Department of Community Relations.

The general purpose of this office is to make available to the public, information and education concerning the various police services which are available to the community. Other related functions of Public Information involve activities concerned with dispatching and receiving correspondence from other police departments throughout the nation. Another important job of this division is to help to alert the public to crime prevention and to help to make the police services more responsive to local needs.

The person assigned to head this division is a civilian hired according to Civil Service classifications. Anyone interested in this or a similiar position should have a college degree in either journalism or public relations and should have an interest in police affairs. This job involves a good deal of writing skills since this office is also responsible for periodically publishing brochures and pamphlets which describe the police services.

D.O.T._____

OBSERVATION STATION: Records and Identatification Division

LOCATION: New Britain Police Department

FUNCTIONS:

This division is staffed by a number of police officers and Civil Service Clerks. Its chief function is the maintenance of master files of all arrests and criminal records on file in the New Britain Police Department.

The department is also responsible for all activities involved with fingerprinting and photography. Another main function is the processing of evidence collected by the detectives and the patrolmen. This division also maintains control of video tapes made in the various other divisions of the Police Department.

Among the other duties performed by members of this division is the issuing of taxi licenses and registrations, and the supervision and issuance of pistol permits for individual citizens.

Anyone with an interest in this area of police work would be advised to persue courses in business and technical training such as photography, video tape processing, and scientific procedures in the processing of criminal evidence.

D.O.T._____

OBSERVATION STATION: Police Training Division

LOCATION: New Britain Police Department

FUNCTIONS:

This department is headed by a police sergeant and several patrolmen and detectives who are assigned to this division by the Chief of Police.

The most important function performed by these people is maintaining a police recruit training program. Since there are only certain times in the course of the year when this specialized training takes place, these officers have many other responsibilities.

Besides maintaining the police training classrooms, textbooks, and other materials of instruction, these officers are also responsible for keeping an efficient police library which is open to all members of the force. The Training Division officers also attend seminars and conferences and often provide in-service training for established officers. This is especially necessary when new Supreme Court rulings or new state and local statues are put into effect.

In addition to these duties, this department also performs quartermaster activities such as the issuance of police equipment and supplies.

D.O.T. _____

OBSERVATION STATION: Youth Bureau

LOCATION: New Britain Police Department

FUNCTIONS:

This department was created specifically to handle cases conderning juvenile offenders (persons under sixteen years of age). The officers staffing this department act on complaints from principals, regular patrol officers who have referred the cases to the Youth Bureau, and from other concerned citizens.

Some of the duties of this office are making referrals to the proper agencies such as the juvenile courts or Child Guidance Clinics and keeping up files of case studies of juvenile offenders.

Officials are assigned to this department by the Chief of Police and are under the immediate supervision of a Police sergeant. For the most part they are plain clothes detectives working out of this particular department.

Persons interested in working in this phase of police work should, in addition to possessing the requirements necessary for general police patrolman and detective positions, persue courses in child and adolescent psychology, public relations, and social work.

D.O.T. _____

OBSERVATION STATION: Detective Bureau

LOCATION: New Britain Police Department

FUNCTIONS:

The function of the detective is to specialize in the investigation of crimes and in the protection of life and public property. The work involves the responsibility for performing police duties in plain clothes. Although there are standard methods and practices which must be followed, the work is varied and is performed independently and permits considerable opportunity for the exercise of independent judgement and initiative.

Detectives are responsible not only for identifying and apprehending criminals; but also for the scientific collection of admissible evidence. All work is performed in accordance with the rules and regulations of the department with some supervision from superior officers through the assignment of cases, personal inspections, reviews of reports, and a general appraisal of the effectiveness of the Bureau itself.

Some of the specific duties of a plain clothes detective include: investigation of crime scenes and the search for and the preservation of evidence; interviewing suspects, prisoners, complaints and witnesses to obtain information about crimes; assisting the prosecutor in preparing and presenting cases, and testifying in court; and making written reports of complaints and investigations.

Some skills and abilities which are required of men applying for this position are: having a working knowledge of the approved methods and practices of criminal investigation and identification; a working knowledge of the methods of preserving evidence and of what consitutes admissible evidence; a knowledge of the approved practices of general police work; a knowledge of controlling laws and ordinances.

It is also important for the detective to be thoroughly familiar with the geography of the city, and to display skill and ability in observing and preserving evidence and in identifying suspects.

Applicants must be able to pass a valid and thorough medical examination as well as a Civil Service Exam for Detective.

D.O.T. _____

OBSERVATION STATION: Park Patrolman

LOCATION: New Britain Police Department

FUNCTIONS:

Under the general supervision of the Superintendent of Parks and of the Park Foreman, the Park Patrolman performs law enforcement duties in the protection and safeguarding of life and property, and in the prevention of crime in the City's park system.

The officer patrols an assigned district on foot, motor scooter or park cruiser. He makes arrests for violations of park ordinances, rules and regulations. He investigates complaints of theft, vandalism or general destruction of public property.

When necessary, he is called upon to administer first aid and to regulate crowds at games, skating ponds, and public park events.

The Park Patrolman should have the ability to observe situations anayltically and objectively and to record them clearly and completely. He should be able to understand and carry out oral and written instructions, and should have the ability to deal firmly and fairly with the public, particularly with children.

Applicants must have Connecticut drivers licenses, pass a formal police training program and conform with the city's standards for age and physical condition. High school graduation is also a requirement.

D.O.T. _____

OBSERVATION STATION: Traffic Division

LOCATION: New Britain Police Department

FUNCTIONS:

The operation of this bureau revolves around the enforcement of all laws and ordinances which regulate vehicular and pedestrian traffic in the city.

Officers assigned to this department are responsible for the investigation and recording of all traffic accidents, the investigation of complaints respecting traffic conditions, and the supervision of traffic signs, zones, and signals. This department also cooperates in the enforcement of regulations established by state and national governmental highway traffic agencies.

Much of the work handled by this division is technical in nature. Traffic officers must have some knowledge of map reading and map construction, drafting skills, photography and radar operation.

Personnel in this department are appointed by the Chief of Police and work under the immediate supervision of a Police Captain.

D.O.T. _____

OBSERVATION STATION: Uniform Division (Police Patrolman)

LOCATION: New Britain Police Department)

FUNCTIONS:

The police patrolman is under the immediate supervision of a police sergeant or other superior officer to perform law enforcement duties in the protection and safeguarding of life and property, the prevention of crime, the apprehension of criminals, and the preservation of peace.

The officer usually patrols a specified district or "beat" on foot, on motorcycle, or in a police cruiser. He is responsible for checking doors and windows of business establishments and for investigating any suspicious conditions. The patrolman makes arrests for violations of laws or ordinances, escorts prisoners to court, and when necessary, is called upon to testify in court.

Among the skills and knowledge he must have is the ability to observe situations analytically and objectively and to record them completely. He should have the ability to react quickly and calmly in emergencies and to handle situations firmly, courteously, tactfully and impartially. Another important asset of a policeman is the skill to express himself concisely and clearly both orally and in writing.

The officer's job also includes enforcing traffic laws, directing traffic, controlling crowds at fires, accident scenes, and other events which attract large groups of people.

Applicants for the position of patrolman must be high school graduates (or the equivalency) and are required to meet age and physical requirements established by the City of New Britain.

D.O.T._____

OBSERVATION STATION: Report Analyst

LOCATION: New Britain Police Department

FUNCTIONS:

This is a federally funded civilian position which is located in the police station. It operates under the provisions established by the Omnibus Crime Control Act of 1968.

The general purpose of this department is to maintain a computerized system of record keeping on a seven-city regional basis. Information on crime and criminal statistics is stored, analyzed, and compiled. This information is to be constantly updated and must be readily available to any police department within the established region.

The personnel of this department should have skills and ability in technical fields, such as computer programming and data processing. A college degree in business or economics is also preferred to head this division.

Eventually this sharing of police information will be completely computerized, although at this particular time much of the work is still done along traditional lines which require the usual clerical skills.

D.O.T. _____

OBSERVATION STATION: Police Matron

LOCATION: New Britain Police Department

FUNCTIONS:

The Police Matron is responsible for the safe custody of female prisoners and does other related work as required. She works under the direction of the Chief of police and other superior officers.

She examines female prisoners to prevent self-inflicted injuriés, and accompanies them to physicans for examinations, to court, or to prison or to other institutions. She is also expected to remain with violent prisoners overnight and to keep cells in neat and orderly conditions.

An applicant for this position must have some knowledge of social work and of police problems and procedures. She should have the ability to deal firmly and understandingly with female prisoners and skill in gaining their confidence and cooperation. She should have the ability to restrain violent prisoners and the ability to keep records and make written reports.

Requirements for this position include high school graduation and some experience in working with delinquent women and girls.

D.O.T. _____

OBSERVATION STATION: Community Relations

LOCATION: New Britain Police Department

FUNCTIONS:

This office is relatively new to the New Britain Police Department. It is presently headed by an officer with the rank of lieutanant and is staffed by detectives and civilian employees.

The purpose of this division, which is listed as a public service, is to act as a liaison between the public and the police department. The duties of the department include activities designed to make the public aware of the police services which are available to them, and the police functions which are in effect for public protection.

The people assigned in this division are also responsible for presenting lectures and speaches on the role of the police in the community. The officers act as a sounding board for public complaints and questions.

Anyone interested in persuing this particular area as a career would be advised to take courses not only in police work, but in the areas of public relations and social work as well.

This office also employs Spanish and Polish interpretors to aid in helping non-English speaking people .

INTRODUCTION

The Fire Department

The Fire Department Headquarters for the city of New Britain is located on Beaver Street. The Department's observation stations available in this unit are the positions of: Fire Fighter, Drill and Training Master and Fire Inspector.

The Department is responsible for all fire fighting and prevention activities. The over-all business of this department requires a comprehensive knowledge of approved modern fire fighting and prevention procedures, practices and methods, with the main goal being the protection of human life and property.

The positions described in this unit are all regulated according to Civil Service Specifications and are under the immediate supervision of the Fire Chief.

D.O.T. _____

OBSERVATION STATION: Fire Drill Master (training)

LOCATION: Fire Department Headquarters, Beaver Street

FUNCTIONS:

The Drill Master is responsible for the general superintendence of the Fire Department training and drill program. He works under the directions of the Chief and consults with and seeks advice from Deputy Chief Engineers (Fire) in charge of each operational fire fighting work group.

Examples of the work performed are: aids in setting up and implementing the training and drill program of the fire department; directs the company level in-service-training and drill program; instructs subordinate personnel in standard and new fire department operations and techniques; and conducts field, classroom, and on-the-job training classes.

Qualifications include considerable knowledge of modern fire fighting apparatus, equipment, appliances, and methods, ability to direct subordinates and the ability to evaluate if the training and drill program improves efficiency and holds it at a high level.

A Drill Master must have had at least two years employment as a Fire Captain.

D.O.T. _____

OBSERVATION STATION: Firefighter

LOCATION: Fire Department Headquarter, Beaver Street

FUNCTIONS:

Under the supervision of a Fire Captain or Fire Lieutenant, performs fire prevention and fire protection of life and public property. Work includes the performance of hazardous tasks under emergency conditions which may require performance under such handicaps as smoke and close quarters.

Although directions and instructions are usually given by superior officers, the firefighter is required to have a thorough understanding of fire fighting methods. Fire fighting duties are of primary importance, but the majority of time is spent in other duties such as inspecting, training, and routine house duties which include the care and maintenance of Fire Department property and equipment.

Qualifications for the position of firefighter include graduation from a standard high or vocational school and the ability to pass a thorough medical examination as well as a Civil Service examination.

D.O.T. _____

OBSERVATION STATION: Fire Inspector

LOCATION: Fire Department Headquarter, Beaver Street

FUNCTIONS:

The Fire Inspector is responsible for performing and assigning all fire inspections, checking fire escapes, building exits, and related structures and appurtenances for compliances with fire prevention ordinances.

The Fire Inspector must have a thorough knowledge of the rules and regualtions of the New Britain Fire Department and familiarity with the location of city streets, major plant buildings and institutions. He should also have a knowledge of the principles and practices of building construction and maintenance along with a comprehensive knowledge of the city building codes. He is further responsible for a considerable knowledge of safety features and practices.

Other qualifications for this position include a broad knowledge of the city's building code and fire prevention laws and ordinances, reasonable knowledge of current studies and literature in the field, and the ability to plan, assign, supervise, and review the work of a large number of subordinates.

INTRODUCTION

Federal Agencies

The role of the Federal Agencies of the United States Government in the city of New Britain are many and varied. We have work-role observation stations in two of those Federal Agencies. They're the U.S. Navy Recruiting Office and the Post Office.

The Navy Recruiter job is to find interested and qualified men or women to maintain the strength of the Naval Service. He must be an ambassador of good will between the city and the U.S. Navy.

The Post Office is one of the most important agencies in our city, state, and country. It is responsible for the prompt and efficient delivery of the mail plus many other things that are too numerous to mention.

The positions described in these units are all regulated by the United States Civil Service Commission of the U.S. Navy Department.

D.O.T._____

OBSERVATION STATION: U.S. Navy Recruiting Office

LOCATION: Post Office Building
120 West Main Street

FUNCTIONS:

A U. S. Navy Recruiter job is to procure men and women of no less than 18 years of age for enlistment in the regular Navy. The recruiter also procures men and women interested in becoming commissioned officers in the Navy and recruit nurses for the Navy Nurse Corps.

They are responsible for the proper qualifications of the men entering the Naval Service, maintaining the man power strength of the Navy, and establishing liason between the Naval Service and the public.

To become a recruiter you must hold at least the rate of 1st class petty officer or higher, be of good moral character, and have a good knowledge of the Navy.

You don't have to be a high school graduate to enter the Navy but they prefer that you are.

Since the recruiter is acting as a representative of the U. S. Navy in the community, he must be informative and proud to be part of the U.S. Navy.

D.O.T._____

OBSERVATION STATION: Clerk

LOCATION: Post Office, West Main Street

FUNCTIONS:

A clerk at the Post Office performs a variety of services. As a representative of the postal service, he or she must maintain pleasant and effective public relations with the people doing business with the Post Office. They are required to have a general knowledge of postal laws, regulations, and procedures commonly used.

Specific duties and responsibilities;

A. Sell postage stamps, cards, internal revenue stamps etc.
B. Deliver to patrons parcel post, insured C.O.D., registered mail, and issues general delivery mail
C. Verifies second, third, and fourth-class mailings
D. Assigns special delivery and registered mail for delivery
E. Checks and sets Post Office stamp-vending machines
F. Receive and follow up on patrons claims and complaints
G. Issues and cashes foreign and domestic money orders
H. Rents Post Office boxes
I. Information on any postal regulations, rates, and transactions
J. Additional duties - emergency carrier relays
alien registration and
census matters
separates and distributes mail

The clerk in the organizational relationship must report to the postmaster, assistant postmaster, or other designated supervisor.

D.O.T. _____

OBSERVATION STATION: Mail Carrier

LOCATION: Post Office Department

FUNCTIONS:

The basic function of the Mail Carrier is the responsibility for the prompt and efficient delivery and collection of mail on foot or by vehicle under varying conditions in a prescribed area within the city.

As a representative of the postal services, he must maintain pleasant and effective public relations with route patrons and the general public. He must have a general familiarity with postal laws, regulations and procedures commonly used, and with the geography of the city.

The Mail Carrier is responsible for routing all classes of mail in sequence of delivery and for rearranging and relabeling cases as required by route adjustments and changes in deliveries. He enters change of address and readdresses mail to be forwarded and marks for appropriate handling other mail addressed to route patrons who have moved.

He delivers mail along a prescribed route, on a regular schedule, picking up additional mail from relay boxes. He collects mail from street letter boxes and accepts letters for mailing from patrons. Such service may be rendered on foot or by vehicle and in some instances may consist exclusively of parcel post delivery or collection of mail. He deposits mail collected in the post office upon return from route and reports t o supervisor all unusual incidents or conditions relating t o mail delevery, including condition of street letter boxes and timecards.

The applicant for the position of mail carrier must pass a standard Civil Service Examination.

D.O.T. _____

OBSERVATION STATION: Custodian

LOCATION: Post Office, West Main Street

FUNCTIONS:

Does general cleaning and minor repair work in the Post Office Building. He is under the supervision of the building superintendent.

He must keep the building in clean and orderly condition and good state of repair--sweep, mop, and scrub public halls and stairways, remove litter and waste paper from offices, clear side walks of snow or debris.

The custodian must have some knowledge of cleaning methods, material, and equipment, good physical condition. He or she does not have to be a high school graduate.

INTRODUCTION

Legal Firms

The role of Lawyer and his staff in our community is very important. Besides advising us of our rights and obligations, representing us in court he negotiates settlements out of court, acts as trustee, guardians, or executors, prepares drafts of prepares drafts of proposed legislation and establishes law enforcement procedures.

New lawyers usually find salaried positions with well-known law firms, on legal staffs of corporations and government agencies, and as law clerks to judges.

After a lawyer has established himself he is apt to go in partnership with other lawyers in private practice. There are many advantages, especially greater average income than practicing alone or working for someone else. They can determine their own hours and workload and can practice law well beyond the usual retirement age.

We have three law firms that have given us work-role observation stations where junior high school students can see the lawyers in action.

D.O.T. _____

OBSERVATION STATIONS: LAWYERS

LOCATIONS: LAW OFFICERS

Januszewski, McQuillan & DeNigris
165 West Main St.

Joseph P. Cianci
28 Park Place

Weber & Marshall
19 Bassett St.

FUNCTION:

When people need legal help they retain lawyers who advise them of their rights and obligations and, when necessary, represent them in court.

Most lawyers engage in general practice which handles all different kinds of legal work. Some lawyers specialize in such things as corporation law, criminal law, patent law, real estate law, tax law, or international law.

To practice law a person must be a graduate of a 4 year college and in addition, must be a graduate of a law school approved by the American Bar Association. They then must take a written examination and pass it to be admitted to the bar in the state where they want to practice.

Lawyers work long hours and are under considerable pressure when cases are tried in court. They must keep abreast of the latest laws and court decisions.

A lawyer is rewarded many times, especially when he wins a big case or has helped someone in trouble.

D.O.T. _____

Observation Station: Legal Secretary

Locations: Cianci Law Offices
Januszewski, McQuillan and DeNigris
Weber & Marshall

Functions:

The legal secretary must have a high proficiency in secretarial skills, and advanced knowledge of secretarial business techniques and a basic familiarity with the terminology of law.

In addition to the usual skills such as stenography, filing and typing, the legal secretary must have the ability to meet with the public, maintain the confidence of clients and employers, and be able to function gracefully and efficiently in a business office.

Qualifications for this position include graduation from a two or four year college program in an executive secretarial program with specialization in legal secretarial training.

REPORT OF THE SCIENCE & MATH COMMITTEE OF C.E.P.

The main goal of this committee was to set up a number of work-role observation stations in the areas of math and science. Since information about various occupations are a part of the units of study already taught in math and science courses, we decided that separate units of study would not have to be developed. We first designed a format for the form we wanted the students to take with them to the observation stations. This form would guide them to look for certain things at the stations such as duties, responsibilities, advantages, and disadvantages.

We next sent out form letters and questionnaires to various area employers asking them to participate in the program. When the questionnaires were returned, we found that most of the businesses would like more information. We then went to visit those who had responded to see what observation stations could be set up. We either filled out the Guidance Catalog Sheets for the observation stations or had the businesses fill them out and return them to us.

Some of the places we visited and obtained work-role stations are:

Stanley Works
Conn. Natural Gas Corp.
New Britain Youth Museum
Adkins Printing Co.
Guida-Seibert Dairy
The John Boyle Co.
New Britain General Hosp.
Mill Supplies Inc.
New Britain Memorial Hosp.
Dr. John White, Internist
Dr. T. Horrax, Urologist
Dr. Joe Scully, Oral Surgeon
Dr. Walter Fletcher, Dentist
Dr. Samuel Ross, Veterinarian
Visiting Nurse Association
Henry Goldsmith & Co.
Hadfield Sport Shop
Arrow Drug Store, Pharmacist
Twin City Pharmacy
Abraham Bell, Accountant
Putnam, Coffin, & Burr, Stocks
Hirsch, Kaestle, ' Boos, Architects
Bureau of Engineering, City of New Britain
New Britain Bank & Trust Co.
New Britain National Bank
New Britain Federal Savings
Savings Bank of New Britain
Burritt Mutual Savings Bank
Winthrop Market
Ciarcia Insurance
Rogers Sash & Door Co.
Spano Printing Co.

About 75 work-role observation stations have been set up so far by our committee. We found that by making personal contacts with employers rather than just sending letters, we were more successful in setting up the observati n stations.

We found that community members were very enthusiastic about this program. Many felt that this would be more effective

than the Career Day Conferences that were held in the past. Students now would have an opportunity to visit with the employers of their choice to determine if they are really interested or not in a particular occupation.

Those employers who did not feel that they could take students for observation stated that they didn't have the personnel or the time to work with the students effectively, they couldn't because of insurance regulations, or they did work of a confidential nature.

Our committee spoke to the following groups about the C.E.P. program:

The Dept. heads at the New Britain General Hospital
Executives at the New Britain National Bank
Officers at the Data Processing Center of the Stanley Works

Members of the Science & Math Committee:

Peter L. Kummer--Chairman--Science--W.J.H.S.

Wolcott Phelps--Math--W.J.H.S.

Joseph Goraci--Science--S.J.H.S.

Robert Galati--Math--S.J.H.S.

Rose Berlani--Science--R.J.H.S.

Henri Quarti--Math--R.J.H.S.

William Ackerman--Science--N.H.J.H.S.

Paul Cormier--Math--N.H.J.H.S.

We held eight full day meetings and 6 afternoon meeting for a total of 57 hours of group meetings.

POSSIBLE OBSERVATION STATIONS IN MATH AND SCIENCE

IN MATH: banks, various departments
stock brokerage
business offices that use various math machines, computers
athletic events using distances and timing
transportation terminals, bus and R.R.
stores where salesmen work on a commission basis
accounting and tax firms
businesses or city departments that use a surveyor
payroll department of various businesses
actuary department of insurance companies
department and grocery stores where discounting and marking-up can be observed
loan company offices
credit union offices
post office
factories where machine work depends on math, also inspection

IN SCIENCE:
hospitals, various departments: x-ray, surgery, labs, etc.
water filtration plants
sewage disposal plants
Health Department of the city
research labs at factories, businesses, and college
places that prepare meats, dairy products, and other foods
doctor and dentist offices at clinics, etc.
nursery and landscaping businesses
Park Department of city
bakeries
visiting nurse and day care centers
florists that propagate and grow their own products
farms that raise dairy cattle, poultry, fruit, etc.
pet shops
weather stations
radio and T.V. stations
electronics companies
chemical companies

UNIT OF STUDY (To be found in the Guidance Office)

COURSE: SCIENCE
(or Field or Cluster)

UNIT: HEALTH SERVICES

DEPT.: NURSE
(or Job)

I. JOB DESCRIPTION:

II. WHAT TO LOOK FOR:

A. DUTIES:

B. RESPONSIBILITIES:

C. QUALIFICATIONS (BACKGROUND)

D. ADVANTAGES--DISVANTAGES:

III. OBSERVATION STATIONS: (Places to observe this work-role)

WORK-ROLE OBSERVATION

(Cluster or Field) _____ (TEACHER) _____

(COMPANY NAME) _____ (TYPE OF JOB OBSERVED) _____

1) WHAT DID THE PERSON DO?

2) WHAT ARE THE REQUIREMENTS FOR THIS JOB? (BACKGROUND)

3) WHAT DID YOU LIKE ABOUT THIS JOB?

4) WHAT DIDN'T YOU LIKE ABOUT THIS JOB?

5) ADDITIONAL COMMENTS.

(SIGNITURE OF COMPANY OFFICAL _____ DATE _____ SIGNITURE OF STUDENT _____

In Science and Math the following career oriented topics are already covered:

Mathematics:

A. Retailing

1. per cent in merchandizing
2. mark-ups
3. discounts
4. commissions
5. interest
6. time payments
7. statistics

B. Banking

1. basic arithmetic
2. simple and compound interest on savings
3. loans and mortgages
4. checking accounts
5. credit--finance companies vs. banks

C. Measurement

1. surveying--area, perimeter, volume
2. machine trade
3. carpentry
4. fractions

D. Stocks and Bonds

E. Insurance

1. rates
2. premiums
3. statistics

F. Graphing

1. to illustrate results

2. poll taking

G. Word-Problem Solving

1. inductive reasoning

2. ratio and proportion for work related problems

H. Computers and Programming

Science

A. Biology

1. Medicine
   a. the doctor and technician, etc.

   b. anatomy

   c. physiology

   d. instruments and their use

   e. research and measurement

   f. drugs

   g. diseases

2. Ecology
   a. the environment

   b. pollution

   c. food and nutrition

   d. population

3. Living things
   a. animals - zoos, veterinarians

   b. plants - greenhouse, parks

   c. protists - bacterial and other diseases

B. Physical Sciences

1. Technicians and scientists

2. Measuring instruments, etc.

3. Atomic energy

4. Chemistry lab work

   a. materials and methods

   b. qualitative and quantitative analysis

5. Graphing - interpretation and analysis of data

C. Earth Science

1. The geologist and his work

2. The astronomer and his work

3. The meteorologist and his work

4. The oceanographer and his work

5. The astronauts and space travel

6. Map reading and surveying

THE COMMITTEE IN SPECIAL AREAS

The Committee in Special Areas of the Career Exploration Program was comprised of four members. They were Peter L. Bosco, Chairman; John Fuller, John Ringrose and Edward Dolbeare. The primary function of this committee served to represent, among others, the following special area disciplines: Industrial Arts, Home Economics, Art, Music, Physical Education, Typing (Business), etc.

The Special Areas Committee held a total of 16 exclusive meetings. Of those, nine were "all day" meetings or work sessions while six were after-school sessions. This does not include independent work assignments that committee personnel took upon themselves to perform especially in the field. Nor does this compilation include combined meetings with the other committees, nor of course, the separate Chairmen Meetings. The number of official hours of committee work are shown in the table below.

EXCLUSIVE SPECIAL AREAS COMMITTEE MEETINGS ONLY

	All Day Meetings		Extra Com. Meetings		Total S.A. Com. Meetings
Committeeman	Days	Hours	Part Days	Hours	Hours
Peter L. Bosco	9	72	6	10	82
John Ringrose	7	56	6	10	66
Edward Dolbeare	7	56	5	8	64
John Fuller	5	40	3	5	45

The committee made a number of calls upon area businesses, industries and institutions in order to obtain "work-role" observation stations for future student use. Not all calls resulted in the procurement of a station for the program, and in some instances several repeat calls had to be made. Below is a table which shows calls made to area establishments indicating stations procured.

Committeeman	Number of Man Visits to Area Businesses	Number of Stations Procured
Peter L. Bosco	18	16
John Ringrose	13	12
Edward Delbeare	13	12
John Fuller	9	8
TOTALS	53*	48

* One business may possibly provide more than one station

Some of the establishments contacted are listed below

ART: Gray Advertising
John Grib Associates
Kufta Associates
CCSC Art Classes
D & L Display Dept.
Hartford Framing
Art League of New Britain
Renaissance School of Art
New Britain Art Museum
Malmgren Sign Company
Capitol Sign Company
Rianca Sign Company

HOME ECONOMICS:

The Yardstick
N.E. Mag and Sons
Stop and Save
Martin Rosol, Inc.
Visiting Nurses Association
Nat'l. Academy of Hairdressing
New England School of Hairdressing
Eddy Awning Company

HOME ECONOMICS (CON'T)

A.Y.O., Inc.

Capitol Farms

New Britain Nursery School

Packy's Restaurant

American Bazaar

INDUSTRIAL ARTS:

The Stanley Works

Fafnir Bearing Co., Inc.

The New Britain Machine Co.

A.A. Mills, Inc.

Leo's Kitchen and Stair

Albert Anderson Co.

Story Brothers

Corriveau Dry Wall

Crowley Bros.

Hjorpe's Hardware

Geront Plumbing

Guerard Electric

Weiners of New Britain

Aamco Transmission

MUSIC:

Burritt Music Co.

Warren's Record Shop

CCSC Music Dept.

New Britain Schools Music Dept.

Connecticut Music Co.

PHYSICAL EDUCATION:

Pro Shop, Stanley Golf Course

CCSC P.E. Dept.

Health Center

New Britain Schools P.E. Dept.

Puzzo's Barber Shop

BUSINESS:

Metropolitan Insurance Co.

UAW-Local 133

The Special Areas Committee appeared before groups as separate members on various occasions. Each of the committee members met at least once or twice with faculty of his school and on at least one occasion before the general junior high school staff.

The reaction of the committee to the proposed program is self-evident. The collective attitude of the committee is reflected in the amount of work produced through committee and individual efforts. The development of the Catalog Sheet and its related work-role observation form, the flow chart showing suggested procedures of the program and all related concepts were the products of the Special Areas Committee.

The reactions of the community which were encountered by the committee during its many hours of field work were varied of course. By and large, area concerns were enthusiastic toward the program, some were reticent until fuller explanations of the scope of the program were made. Very few were unreceptive or negative about objectives of the program.

American Industrial Arts Association

34 Annual Convention

March 26-30, 1972

Dallas, Texas

John Fuller - Representing

New Britain School Department

The basic theme of this convention for the five days and nights of over 220 meetings was centered around Career Education. I spent my time, four and five meetings a day, with those programs related to the Junior High (Middle School) in conjunction with career education and was disappointed that I had to miss so many other sessions which were overlapping. It was a full week and I have much of it on tape.

I have made an oral report to the teachers in the Career Exploration Program here in New Britain and have used much of the material in our committee work. The tapes were made available to all those wishing to hear them as well as to the Connecticut Industrial Arts Leadership Committee which is also spending much time with this new program of career education.

Rather than summarizing each session attended I have pointed out the highlights of certain meetings and have made some observations which might relate to the local program.

The keynote speaker on the opening meeting was Dr. Robert Worthington, Association Commissioner of Adult, Vocational and Technical Education, U. S. Office of Education (Tape 1A). He presented the program as seen by Dr. Sidney P. Marland, Jr., U. S. Commissioner of Education and how it is funded through his office. We were treated to an early showing of the film about career education which I strongly recommend be used locally to show lay groups. Dr. Saunders has a copy of it in Hartford for loan. The opening remarks on the film were by President Nixon and four model programs were discussed.

The best program, as I see it, was given by Dr. Keith Blankenbaker, Ohio State University, on "Comprehensive Career Education - Model No. 1 (School Based" (Tapes 3 and 4).

A very costly program was the Employer Based Career Education in San Jose, Calif. This model is completely away from the school according to Ralph Bohn (address attached). At the present time it is costing about $10,000 per client (student) per year. The powers to be have stated that the cost must come in line with other programs or it will be discontinued. It must be noted that they are having great success with their people. (Tape 7 note much was lost because this tape failed and the balance is on tape 8A).

Another outstanding program, however a bit political at times, was given by the Honorable Dan H. Kuykendall, Congressman from Tennessee (Tape 8A). He called a spade a spade and spoke of how to get funds and where vocational education is doing so well.

The program most like what I see might apply in New Britain is that presented by Dr. William Alexander, Trenton State College

Trenton, N. J. (Tape 10). They have a number of loose leaf books - Unit Plan which they are using in a control situation (sample attached). These are available by writing to Learning Systems Inc., Dr. Harry Snyder, Department of Justice, Camp Hill, Pa.

The final presentation that I would like to mention is by Dr. Donald Lux, Ohio State University (not on tape but I have written for a copy of his speech). Dr. Lux's speech should be heard by all administrators who are going to have a program in career education but not until they are sold and involved in the planning stages. He offers some good ideas and checks.

Having heard these speakers, I tried to see how their plan might fit into the New Britain program. I must say that our approach is much different than those being tried elsewhere and I urge further study. I believe it would be wise to set up a group of experts, researchers, writers, etc. to study and explore more deeply. This will take many more dollars than our present grant. It could be a start to bring education and the "World of Work" much closer together.

I want to thank the C.E.P. committee, Arthur Keverkian, Director of Vocational Education, and Dr. Thomas H. Bowman for providing partial reimbursement that made this trip possible. Lastly, I am indebted to my wife who gave up our vacation together so I might go to this conference.

Attached: "An Employer - Based Approach"
"Instruction Unit Plan - Transportation"
10 Tapes

GUIDANCE

Members of Guidance Committee

Name	School	#Hrs. on C.E.P.
Gregory Frey, Chairman	Roosevelt Jr. High	40
Dorothy Wojtusik*	Slade Jr. High	4
Charlotte Kania	Nathan Hale	10
Richard Salamon**	Washington	5
Arlene Walenski	Washington	4

*Left committee at the end of March to assume Assistant Principal's position at Slade.
**Left committee at the end of March and was replaced by Arlene Walenski.

The Guidance Committee had the following released days to work on the C.E.P. project: Feb. 23, March 2, March 16, April 5, April 19, May 3, May 17, May 31, June 7.

In addition to these released days, the Guidance Committee met twice a month after school to work on the C.E.P.

The early Guidance Committee meetings were concerned with the mechanics of the program: wage forms, travel vouchers, setting up of a schedule of meetings, and plotting a course of action to follow. Initially, a great deal of time was spent studying the 15 clusters that were given to us by Arthur Kavorkian, Director of Vocational Information, as to what jobs belonged to each cluster. We then separated the 9th grade Career Day choices, areas in which students have expressed an interest, into the various job clusters. The committee felt that because the students had already expressed an interest in these areas, these might become a starting point in the work-role observations.

The month of April was spent, in part, in ordering materials for each school for the C.E.P. Some of these materials included the Career Exploration kits from Careers, Largo, Florida; portable filing cabinets for Occupational Briefs, filmstrip kits on different job vocations, occupational view-decks, Dukane A-Vmatic sound filmstrip projectors, Earphones, and Earphone Junction Boxes.

The month of May was spent in organizing the C.E.P. catalog. This was accomplished by dividing a notebook into 15 sections - based on the 15 job clusters. All the C.E.P. work-role sheets that had been returned by the other committees were then separated into three clusters. Each sheet was then given its appropriate D.O.T., Dictionary of Occupational Titles, as issued by the United States Department of Labor. The sheets were then

put into the catalog from lowest number to highest number based on these D.O.T. codes. As of this writing, June 19, there are approximately 150 of these work-role stations within the City of New Britain.

The following is a description of the role of Guidance in the C.E.P. as seen by the Guidance Committee members:

I. To order vocational materials which will be contained within a media center in each school. These materials can be used either in a classroom situation or by one individual. Materials will include Filmstrips, Filmstrip kits, vocational tapes, Occupational briefs, information on community resources, list of available speakers and a catalog of vocational films.

II. Maintenance of catalogue - keeping the C.E.P. catalogue up to date with new additions, deletions and changes in present job stations. Also the cataloging of work role stations both by cluster and by D.O.T. Code.

III. Aid the students in selecting his work-role station. Explore the students interests by use of his expressed interests or by a [illegible], Kuder Interest Survey. Compare the students interests to his abilities - S.A.T. scores. Show the student what stations are available to him based on their interests and abilities.

GUIDANCE COMMITTEE'S

Recommendations for Implementation of C.E.P.

For Fall '72

I. Explained to 9th graders in September

A. 2000 *copies of all available work-role stations for 9th grade students, teachers, administrators, etc.

*400 Roosevelt
400 Washington
500 Nathan Hale
700 Slade

These lists should be typed exactly as they appear in the main cluster catalog: name of cluster - job observation - D.O.T. Code

B. Additions to above sheets will be made known to the students during the school year by whatever method devised by each school counselor
d Example - Group Guidance, cluster groups, intercom

C. Once a month students will be given the dates of participation by their school

D. Each September revised copies will be issued to students.

II. Once programs begins, all students are eligible to participate.

A. Initially a small number of students will be released to participate in the program.

B. As more expertise is acquired, the numbers of participants should increase.

III. The Guidance Committee recommends that all counselors be allowed to meet on Mondays from 2-3 p.m. for C.E.P. meetings as the need arises. These meetings may be more frequent at the beginning of the program in order to coordinate procedures between the four junior high schools.

LISTING OF ALL MATERIALS ORDERED BY GUIDANCE COMMITTEE AS OF 6-21-72

Item	Number	Price	No. Wanted	Total Am't.	Order From
Career Kits - Without posters Senior High Level		$11[illegible].50	[illegible]3	$352.50	Careers Inc. P.O. Box 133 Largo, Florida 33540
Oxford Tudror Mobile Cabinet	671x	65.00	9	585.00	Chronicle Guidance Pub. Inc. Moravia, N.Y. 13118
College Entrance View-Deck	900DV	150.00	2	300.00	"
Occupational View-Deck 1 extra preference pad		86.00	2	172.00	"
People Who Work In Science	7E-301588	37.50	4	150.00	Guidance Associates Pleasantville, N.Y. 10570
People Who Help Others	7E-301687	37.50	4	150.00	"
Job Hunting-Where To Begin	7E-102259	35.00	4	140.00	"
Preparing For World Of Work	7E-103901	35.00	4	140.00	"
A New Horizon - Careers In School Food Service	7E-103307	18.00	4	72.00	"
Careers In Materials Engineering: The Aerospace Age	7E-100568	18.00	4	72.00	"
An Overview Of Technical Ed.	7E-103604	35.00	4	140.00	"
A New Look At Home Economics Careers	7E-103323	18.00	4	72.00	
DuKane A-Vmatic Sound Filmstrip Projector	CP-3	240.00	3	620.00 (incl. discount)	"
Earphone Junction Box	7E-009108	9.00	4	36.00	"
Earphones	7E-009124	7.50	12	90.00	"

Item	Number	Price	Number Wanted	Total Am't.	Order From
"Jobs for High School Students"	10-102-291	$35	4	$140.00	Guidance Associates Pleasantville, N.Y. 10570
"Your Future In Nursing"	10-107-506	$18	4	$72.00	"
"Your Future In Engineering Technology"	10-107-605	$18	4	$72.00	"
"Your Job Interview"	10-107-654	$35	2	$70.00	"
"Your Future In Elementary Education"	S-107-456	$18	4	$72.00	"
"High School Course Selection And Your Career"	S-101-806	$35	3	$105.00	"
"Jobs and Gender"	S-103-349	$35	4	$140.00	"
"Babysitting: The Job - The Kids"	S-100-402	$35	4	$140.00	"
"Should You Go To College"	S-104-909	$18	3	$54.00	"
"Educators Guide to Free Guidance Materials" 1972 Ed. (11th annual)		10	4	40.00	Educators Progress Service, [illegible], Inc.

C. E. P. DAYS
Based on School Calendar
For 1972-1973

Nathan Hale	Roosevelt	Slade	Washington
Sept.	Sept.	Sept.	Sept.
11,15,21,27	12,18,22,28	13,19,25,29	14,20,26
Oct.	Oct.	Oct.	Oct.
3,10,16,20,25 30	4,11,17,24, 31	5,12,18,25	2,6,13,19,26
Nov.	Nov.	Nov.	Nov.
3,10,16,27	6,13,17,28	1,8,14,20,29	2,9,15,21,30
Dec.	Dec.	Dec.	Dec.
1,7,13,19	4,8,14,20	5,11,15,21	6,12,18
Jan.	Jan.	Jan.	Jan.
3,9,15,19,25 31	4,10,16,22,26	5,11,17,23,29	2,8,12,18,24,30
Feb.	Feb.	Feb.	Feb.
6,13,26	1,7,14,27	2,8,15,28	5,9,16
March	March	March	March
2,8,14,20, 27	5,9,15,21,28	6,12,16,22, 29	1,7,13,19,26,30
April	April	April	April
2,6,12,18	3,9,13,19	4,10,16,30	5,11,17
May	May	May	May
2,8,14,18, 24,31	3,9,15,21,25	4,10,16,22, 29	1,7,11,17,23,30
June	June	June	June
6,12	1,7,13	4,8,14	5,11,15
TOTAL	TOTAL	TOTAL	TOTAL
44	43	43	43

Guidance Committee

The Pilot Program for C.E.P. ran from May 15 through May 22, 1972. It consisted of eleven students and two community sponsors; The Stanley Works and the New Britain Herald. Three schools and three 9th grade teachers also took part. They were:

Andy Petruska - Roosevelt Jr. High School

Gloria Berson - Washington Jr. High School

John Whalen - Nathan Hale Jr. Jigh School

The cooperating sponsors provided the following work-role stations:

STANLEY WORKS

Industrial Journalism

Photography
Layout
Writing
Printing

one station

This station was supervised by Mr. Murray Fisher. It was a one day work-role observation and oncompassed three students for four hours (8:00-12:00 A.M.) on May 16, 1972.

Printing and Publications

1. Transcribing
2. Duplicating
3. Mail Room

These three stations ran from May 16 to 17 and involved four students (two boys and two girls) for four hours (8:00-12:00 A.M.). The girls spent one day each in transcribing and duplicating. The boys spent one day each in duplicating and mail. The supervisor was Mr. Ken Ranks.

NEW BRITAIN HERALD

Four students (three boys and one girl) were involved in this five-day observation program. They spent two days in Reporting and Advertising Sales and one day in the Composing Room. The program ran from May 15 through May 22, 1972.

1. News Reporter

The observation ran for the normal news day (7:30 A.M.-3:30 P.M.). This was a two-day station supervised by Mr. Richard Conway. Two students were exposed to actual on-the-spot reporting, writing and editing.

2. Advertising Salesman	This two-day station was supervised by Mr. Richard Zesk. Two students were involved in classified as well as local, state and national advertising. The students put in the full work day of a salesman, (8:30-5:00 P.M.)
3. Composing (mechanical)	This was a one-day station supervised by Mr. Diorio. The station covered the newspaper process from the editor's desk to the delivery room. The hours were from 7:30 A.M. to 3:00 P.M.

I. INTRODUCTION TO THE NEWSPAPER

A. History of the Newspaper

1. Teacher activity

a. Assign ten minutes in class writing on the question,"What is a newspaper?"

1. Students break into groups and read each other's papers. Each group will then develop their own idea of a newspaper and present it to the class.

2. The teacher will direct the discussion.

b. The teacher will provide the students with handouts on a short history of the newspaper. (See Kit #1)

1. Students may read these silently or aloud in class.

2. Key questions for discussion:
   a. How old is the newspaper?
   b. Why did the newspaper develop?
   c. Was it inevitable that a newspaper would evolve?
   d. Did the growth of newspapers go along with a development in technology?
   e. Does technology now provide for global, and even universal, news coverage?

2. Teacher writes on the board, "A newspaper is a history of the last 24 hours containing:" Underneath, the teacher will list items a-g, allowing students to fill in the examples in each area.

a. Important and minor events on local, state, national, and global news.

b. Entertainment provided through human interest stories and comics.

c. Special interest services for certain groups.

d. Information for readers on community activities and amusements.

e. In-depth reporting to make you a better informed person.

f. Information on where to buy a car, clothes, food, and countless other items.

g. Help in finding a job or pet.

HISTORY OF THE NEWSPAPER

As early as 69 B.C. a daily bulletin was issued in Rome giving news of the armies in the field, but it was not until the Venetian government issued its NOTIZIE SCRITTE in 1556, which was read for a small coin, that the modern newspaper originated. The Frankfurter Zeitung, called the first daily paper in the world, appeared in Frankfort, Germany in 1615.

The Weekly News of 1622, was the first English newspaper. Twenty years later, what has been called "the era of the Mercuries" was entered.

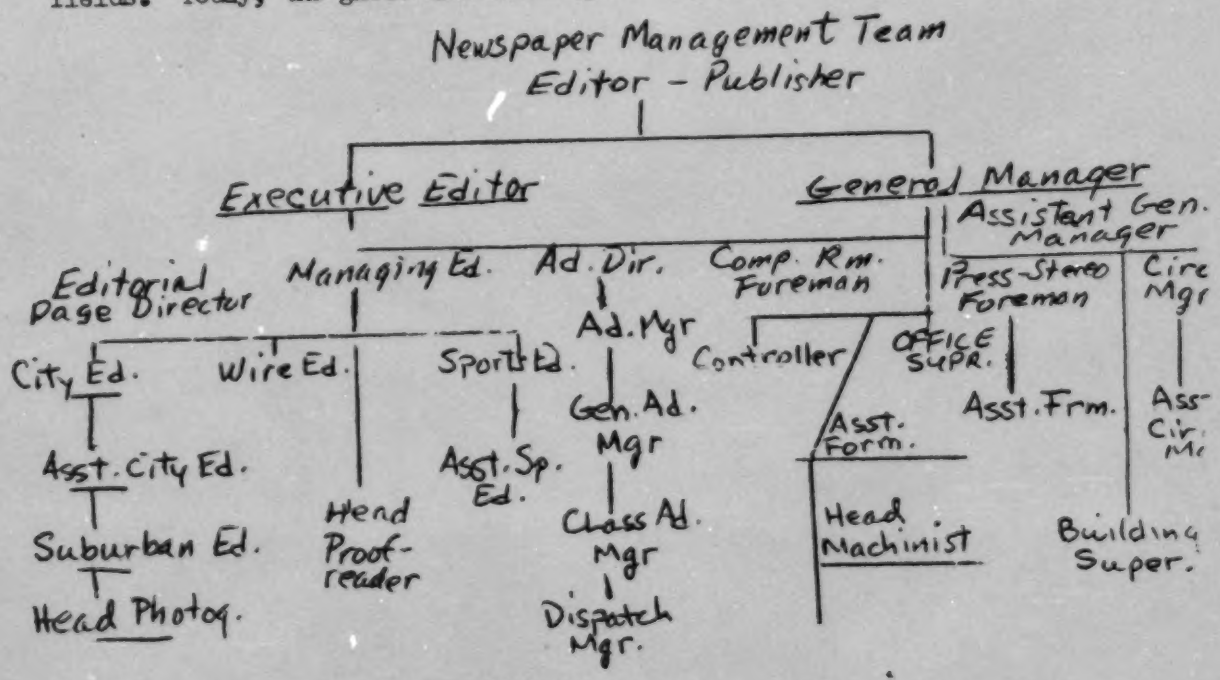
A newspaper censorship began in 1622, was continued until 1695, when the previous licensing law was done away with. During this period, there was no newspaper except the London Gazette, which only printed what the Secretary of State wished the nation to know.

After the law was dropped, many journals were produced. However, it was not until 1702 that a daily newspaper was published in England - The Daily Courant, a small sheet printed jonly on one side.

The first newspaper in North America was Publick Occurrences, printed in Boston in 1689-90. In 1704, the Boston News-Letter was published, and in 1719, the Boston Gazette followed. The Hartford Courant, published for the first time in 1764, is the oldest daily newspaper of continuous publication in the United States.

From the date of the first news sheet until the middle of the 17th century, all news was issued in the form of pamphlets, and it was not until 1785 in The Times that the present form of newspaper was laid out.

Until the invention of the railroad and telegraph, the circulation of newspapers was mostly confined to the city of publication, as was the news. With these facilities in operation, circulation and news covered ever-increasing fields. Today, the globe and outer space are covered in the news.



CLUSTER: Communications

COURSE TITLE: Mass Media

UNIT: News Media

AIM: To acquaint the students with the content and production of a newspaper and the role of this segment of mass media in their lives; and to introduce the students to the occupations available in this cluster.

EQUIPMENT: Overhead projector and screen. Kit of audio/visual materials containing:

#1 Handouts - History of the Newspaper
#2 Transparency - Organization and management chart
#3 Handouts - Organization and management chart
#4 Set of trasparencies on the copy flow process
#5 Handout - The Reporter, Definitions and duties of
#6 Handout - Editor, Definitions and duties of
#7 Adv rtising

Also, materials for display:

Computer tapes

Make-up paper (paste up sheets)

A. P. and U. P. I. sheets

Special Herald supplement on the "new" process

B. Structure--organization and management.

1. Teacher activity

a. Project transparency on screen with overhead projector and discuss the levels of management with the students. (See Kit #2)

b. Distribute student handouts of the organizational chart.

2. Student activity

a. Students will participate in the discussion.

b. Students will follow the discussion and make notes for future reference on the handouts. (See Kit #3)

C. Flow chart of news process from event to home delivery

1. Teacher activity

a. Motivation step: Ask the students to reproduce the news process from event to home delevery of the paper. Have the class write the steps on the board.

b. Project, with overhead projector, and discuss each step in the newspaper copy flow. (See Kit #4)

Note materials to display:
computer tapes
make-up paper
A.P. and U.P.I. sheets

2. Student activity

a. Participate in discussion.

b. Record steps of copy-flow process in notebooks.

D. Generalization of occupational possibilities

1. Teacher activity

a. Inform the students that although they are studying the newspaper process, the job skills employed are indeed used in numerous other areas:
1) Industrial publication--most industries are equipped with duplicating equipment and therefore offer occupations in this field.
2) Printing companies
3) All kinds of business offices
4) Much of this may come under secretaries' jobs
5) Ask for student ideas

REPORTING

Definitions and Duties:

1. "Beat Men" go out and cover regular beats or fields of news sources (city hall, courts, police dept., school board, etc.)

2. General assignment reporters stay at desk in city room (covering a number of different news items until they receive an assignment.

   Reporters return to city desk or call in to rewrite man (on large city newspapers) who writes story.

A Reporter:

1. Seeks out and gathers information and current happenings to be reported in newspapers.

2. Observes and writes accounts of events taking place.

3. Interviews people to get opinions and facts.

4. Reviews public records.

5. Does research on information he considers newsworthy.

Work Performed:

A reporter obtains his information by personal or telephone interviews; by attending meetings and court hearings; and by visiting the scenes of accidents, fires, meetings, and other newsworthy events. He may also consult police and other public records, or do research in libraries, or prepare stories from material mailed or phones in to the newspaper office.

He takes notes while collecting facts and then returns to his newspaper office, where he expands and refines his information until the story is ready for the presses. Sometimes, to meet deadlines, he may telephone information to another reporter on the staff, known as a "rewrite man," (see above), who will write the story for him. In some of the larger newspaper offices, reporters phone their stories to the office where their reports are recorded automatically on dictating machines.

After a reporter has turned in his story, the city editor or copy editor reads and edits it. If it needs further facts or refinement, or must be rewritten extensively or cut down, it may be returned to the reporter or rewritten by a "rewrite man" until it meets with the approval of the editor.

Daily newspapers often assign reporters to "beats," (see above) to cover news originating in different places every day. It is the job of the reporters to keep in constant touch with these news sources. General assignment reporters are jacks-of-all trades; they cover off the "beat" stories.

If they are employed by very small newpapers, reporters may have several duties other than gathering information and writing stories—they may also take photographs, write headlines, layout or design and plan pages, or even write editorials.

REPORTING

I. INTRODUCTION TO REPORTING

A. Definitions and Duties

1. Motivation: Students jot down duties of reporter, where he works, what he does.

   a. Record answers on board.

2. Teacher will provide students with handouts (which will contain information on the field of reporting, including definitions and duties) See Kit #5

3. Students read silently or aloud in class.

4. Key questions for brief discussion:

   1. What kinds of reporters are there?

   2. Where may a reporter work?

   3. What are the duties of a reporter?

   4. What are the differences in a reporter's duties on a large or small newspaper?

   5. Why must a reporter be curious?

   6. Can one be a good reporter without this trait?

   7. What are some other jobs that a person with a reporter's background might be interested in?

B. Class Activities

1. Fact VS. Opinion

   a. Teacher will write on board

      FACT OPINION

      Have students list facts on board and other students list opinions of same facts.

   b. Teacher will point out differences between reporting (fact) and editorials (opinion)

2. Teacher will have students bring in papers.

   a. Students will read an article silently trying to be critical of the types of information provided.

   b. In discussion that follows, teacher elicits from students the 5 W's (Who, What, When, Where, and Why), the mainstays of any newspaper article.

C. Key questions:

1. Why are the 5 W's found in the beginning of a newspaper article?

   a. Students may reread article or select a new one.

2. When do you find out about the How?

   a. Students may read chosen articles to illustrate this point.

3. Headlines

   a. Students read articles to answer question:

      Why is headline effective or not effective?

      Students read articles to class to explain their choice.

   b. Could you do better? If so, rewrite headline.

   c. Teacher creates short hypothetical articles and has students improvise headlines to accompany them - some serious, some comical, human interest etc.

4. Teacher assigns reporting. What do reporters report on? Choose an incident, an event of community interest, human interest story etc. and report on it.

   a. Students bring in stories next day. Get in groups of 4 or 5. Read each other's stories and make comments on:

      5 W's
      H
      Headline

   b. Groups will read chosen papers to class - best and worst, explaining good and bad points.

Personal Requirements:

There are certain mental personality traits which are desirable and often necessary for successful newspaper reporters. A reporter must have paraistence, poise, and a sense of humor if he is to conduct successful interviews with persons in the news. He must be pleasant, sincere, and tactful in order to win confidence.

A newspaper reporter must have the ability to write well and know how to express his thoughts cle and briefly. He must have a "nose for news", good judgment, initiative, resourcefulness, and a good memory. He must be accurate, or he may inadvertently write untrue or slanderous statements, which will involve his paper in lawsuits costing thousands of dollars.

Emotional stability is essential for those planning to become newspaper reporters—they must be able to face the irregular hours, difficult assignments, and pressing deadlines without becoming upset.

Aptitudes andInterests:

A student planning to enter this field should enjoy writing and write well. He should have the ability to determine the essential facts of a story and the ability to report these facts accurately. He should have an interest in people. One of the best ways to find out if one has these qualifications is to join the staff of a high school or college newpaper. This experience will be valuable in learning about the problems and techniques involved in seeking news, gathering information, and writing stories for publication. It will also provide training in the complexities of layout and printing.

HANDOUT #7

ADVERTISING

Advertising is the method used to make people need something they never heard of before. It can be traced back to ancient civilization. Merchants of ancient Egypt, for example, hired "criers" to walk through the street to shout and sing about products and services these merchants had to sell. Today we have house-to-salesmen, barkers at carnivals, demonstrators in retail stores, etc.

Art work, which appeared during the Middle Ages, was the next phase of advertising. Merchants hung picture signboards over their shop doors showing what they had to sell. For example, the shoemaker would have a large shoe hanging over his shop door to inform the public that he sold new shoes or repaired old ones.

Presently in the United States advertising is an industry worth well over $16 billion, employing over 200,000 men and women. Many of these are employed by newspapers to write the ads we see every day.

The copywriter is the person at the newspaper who writes the words for the advertisements. This is known as the "copy". He learns as much as possible about the product he is advertising such as what it is made of, who makes it, who sells it, how much it costs, how it is used, whether it is made in the United States or imported, whether it is seasonal such as for Christmas, Father's Day, etc., and anything else that might induce the reader to buy it.

Working with the copywriter is the art layout man. His duty is to find the pictures that will show off the product to its best advantage to the greatest number of people. Then he finds the size of type that will look best with the picture and not overpower it so that the print is more important than the picture The copywriter may think that his words are the greatest things since the inventi of the wheel, but the layout man is interested in the pictorial aspect rather than the words. Sometimes the two have to compromise in a hurry so that the pape will come out on time.

The people who work in the advertising department of a newspaper actually go out and visit businessmen and sell advertising to them, impressing them with the fact that the newspaper reaches many people who would not otherwise know what they have to sell, whether it is merchandise or other things such as service.

Some of the advertising we see is what is known as "national advertising". This covers items like Coca Cola, Ford, gasolines, airlines, etc., not specifical mentioning who sells the item but making the public aware of the brand name so that when people want a cold drink, for example, they will go into the store and automatically order the brand most publicized.

There are also "classified" ads which can be called the marketplace of the newspaper. This is the area where people announce the items and services they wish to buy or sell, on an individual basis or person-to-person. These ads must be short and to the point so that they will be eye-catching and still cover all important details.

ADVERTISING

Teacher activity: Hand out and discuss sheets on Advertising. (See Kit #7)

Teacher instruction: Have the class bring in newspapers.

Class activity:
1. List types of advertising a newspaper might publish.
2. List catch words that could be used in ads.
3. Discuss wording a classified ad.
4. Write classified ads.

Teacher activity: Discuss display ad. What comprises it?

Class activity: Pick out a picture and write copy for it.

Teacher activity: Discuss national advertising. List what could be national as opposed to local. Elicit examples

Class activity: List types of national ads to be brought in. Write advertising copy for a given product.

Teacher assignment: Test: Write a classified ad to sell a beehive. Develop a display ad promoting a vacation trip to the moon.

COPY EDITOR

He covers all fields of advertising. He corrects the grammar, decides on the important stories, sees that they are factual and have no misleading words or thought (as far as he can determine), and prepares the stories for final publication.

ACTIVITIES

Teacher activity: Discuss reason for this position. Couldn't a reporter do the same thing? Define carefully the distinction between the two.

Teacher activity: What do you edit for? Stress importance of item, terseness relation to main idea, inclusion of who, what, where, why, how.

Class activity: Take an article from which one important item has been removed and have the class edit it.

Teacher Activity: Assign writing of an article.

Class activity: Students exchange papers, editing for missing facts. Students will discuss errors with writer of the article and writer will correct his own work.

Teacher Activity: Stress idea that same standard of factual reporting applies to news items and advertising.

Teacher activity: Test: Edit a piece of copy that has been overwritten, paying particular attention to terseness, fact, inclusion of all details, etc.

EDITOR

Newspaper editor (See Kit #6) Editor will be done as handout and discussion.

Duties depend on size of newspaper, size of staff, type or nature of publication. (In the case of a small newspaper or one published weekly, his duties may include those of all the editors listed below and those of every other phase of putting out a newspaper, including reporting.)

1. To see that contributions to the publication meet the established policy of the paper as to style, content, and philosophy.

2. Must have a general knowledge of the entire operation including reporting, processing, printing, publishing, and circulation.

3. Supervises, directs, and coordinates the activities of reporters, copyreaders, rewrite men, proofreaders, printers, compositors, assistant editors, secretaries, clerks, etc.

4. Should be an expert in every part of newspaper work.

News Editor

Works under direction of newspaper's managing editor.

1. Responsible for physical layout of paper, planning layout of news items according to space allotted by the editor or the managing editor.

2. Issues all news copy received from various departments or news sources to copyreaders who tailor stories to fit allotted spaces.

3. Prepares headlines if copyreader has not done so.

4. Gives final approval to all news stories.

Managing editor

Coordinates and supervises all of the work produced by the various writing departments such as sports, fashion, business, etc.

1. Oversees make-up or format of publication as a whole.
2. May also edit copy written by other editorial departments.
3. Approves final make-up of publication.
4. May make last minute changes to meet emergency situations brought about by late news stories.
5. Confers with various department heads and representatives of owners to discuss matters pertaining to editorial policy, features, and make-up policies

Trade or technical publication editor

This editor is not on a newspaper but edits other types of publications such as books, industrial magazines, films, magazines, etc. He usually does all that the separate editors would do on a newspaper. He writes his own stories, makes his own field trips, plans his own layouts, checks and approves final copy proofs. and performs all other functions necessary before sending everything to press.

Teaching Purposes are:

Understanding that:

1. The newspaper dates back to 69 B.C. and has developed, along with technology, to provide for global and universal coverage.

2. A newspaper's job is to report the history of the last twenty-four hours. This coverage includes everything from major events to helping find a lost pet.

3. An organized management structure and orderly flow process provides for clear and concise communication.

4. There are many andvaried job opportunities in the printing-publications job cluster.

5. Reporters have many and varied duties depending on the size of the organization they work for.

6. Fact and opinion are to be identified and separated. Critical screening of information is a must.

7. The 5 W's are the mainstays of any newspaper article. They are introduced early in the article with the body left to develop the How.

8. Reporting is fact; editorials may be opinion.

9. Headlines are an integral part of the story, providing humor, insight or interest appeal.

10. An editor's job and responsibility will vary, depending on the size of the organization and staff.

11. Advertising is an ancient method of selling ranging from the utilization of copy and art work to barkers at carnivals.

12. Advertising can be divided into three parts; national, classified and local. Each category has a different audience.

Ability to:

1. Define the history of the newspaper and its role in everyday life.
2. Communicate an idea effectively.
   Separate fact from opinion.
   Write a clear, concise report utilizing the 5 W's
3. Edit a poorly written report.
4. Write an advertisement - national, classified or local.
5. Develop the art work andcopy for one advertisement.
6. Cooperate with others to achieve a common goal ie produce a newspaper.

Attitude of:

1. Exactness
2. Criticalness

3. Alertness
4. Inventiveness
5. Desire to base opinions on facts
6. Desire to explore the unknown
7. Reliability
8. Responsibility
9. Cooperativeness
10. Patience
11. Perseverance

Appreciation of:

1. Good planning
   Orderly procedure
   Accurate layout
2. Original thinking
3. Challenging problems
4. Cooperation of others

FINAL PROJECT

Students will publish a newspaper for the town of Classroom, U.S.A.

I. Teacher Activity

A. Make assignment. Specify areas of reporting, advertising, and editing.

B. Assign duties according to class size.

1. Managing editor
2. News editor
3. Newspaper editor
4. Advertising editor
5. Reporters
6. Advertising salesmen
7. Copy editors
8. Copywriters
9. Layout man
10. Compositors
11. Printers
12. Circulation man

II. Student activity

A. Follow prescribed assignments

B. Publish the newspaper

Materials:

1. Do layout on 8½ x 11 paper
2. Have artwork sketched in pencil or other carbon based writing implement
3. After compiling, make spirit master
4. Run off copies

Special Meeting at Nathan Hale

The Chairman of the Special Areas Committee called a faculty meeting of special area teachers at Nathan Hale Junior High on March 2, 1972. The primary purpose of the meeting was to inform the staff members of Committee progress thus far and also to obtain from each member a recommended list of potential establishments that might provide observation stations. A great number of potential locations were recommended as observation stations. In addition, the discussion directed attention to procedural areas when the program is in operation. This helped to generate ideas which the committee utilized in its ensuing meetings. Another meeting was later held at Roosevelt Junior High with Mrs. Shirley Tyorne in attendance. This meeting is recorded under regular committee notes.

March 13, 1972

Subject: The Minutes of Meeting For The Stanley Forum Of The Stanley Works.

A meeting was held Thursday, March 9th between G. Cooper and J. Lawler of the Forum Education Committee and a Committee of New Britain Jr. High School teachers who are initiating a Career Exploration Program under the direction of A. Keverkian.

Joseph Geraci	- Chairman
Peter Kummer	- Math & Science
Lance Bagley	- Communications
Greg Frey	- Guidance
Peter Bosco	- Special Areas
John Macensky	- Social Studies

It is proposed that the Stanley Works Forum present to the Jr. High School students of the 9th grade a basic program covering How the Business System Works.

The Forum's goal will be achieved while assisting the school committee to develop and implement its program of acquainting the student with Business and Industry. Within the above joint program, the student will receive in the Class Room, a presentation by representatives of industry, covering information on business and familiarization with various specific work disciplines.

The student will then make plant visitations where he will receive On-The-Job Exposure to work covered in class.

It is planned to develop a pilot program by May, 1972 so that the afore-mentioned may be included in the 1972-73 school curriculum.

The teacher's committee will visit the Stanley Works at 9:00 a.m. Thursday, March 23, 1972, to become familiar with our facilities and review the project.

There will be a meeting of the Forum Committee Thursday, March 16 1972 at 3:00 p.m. in the Main Office Conference Room.

(Signed J. T. Lawler)

Joseph T. Lawler
Chairman, Forum Education Committee
Ext. 595

March 14, 1972

Subject: Minutes of meeting between C.E.P. chairmen and representatives of the Stanley Forum

On Thursday, March 9, 1972 a meeting was held between C.E.P. chairmen and representatives of the Stanley Forum - Special Education Committee. The meeting was called to order at 3:00 p.m. in the second floor conference room of the administration building.

Those present were: Mr. John Macensky, Mr. Peter Bosco, Mr. Peter Kummer, Mr. Greg Frey, Mr. Lance Bagley, and Mr. Joseph Geraci. Representing the Stanley Forum were Mr. Joseph Lawler, Chairman, and Mr. Gerald Cooper.

The meeting began with an explanation of the philosophy and aims of C.E.P. by the General Chairman. Emphasis was placed on school-community involvement in the structure, planning, and carrying out of the program.

Mr. Lawler and Mr. Cooper agreed to submit to the area committee chairmen job specifications of all Stanley Works departments for use by the committees in preparing work-role units of study. In addition, they have agreed to open up all possible plant areas for observation stations and will, with assistance from the C.E.P. chairmen, prepare an in-school program to inform and prepare students for their observation stations.

In May of this year, an attempt will be made to pilot a program in one school. A small group of interested 9th grade students will attend observation stations in the Hardware and Hand Tool Divisions of Stanley Works.

Mr. Lawler and Mr. Cooper further extended an invitation to C.E.P. chairmen to tour the Stanley Works facilities and possible observation stations on Thursday, March 23rd.

Details of coordinating the programs will be worked out in future committee meetings.

Mr. Lawler and Mr. Geraci will be in close contact in preparing the mechanics of this joint effort.

The meeting was adjourned at 4:30 p.m.

(signed) Joseph B. Geraci)
Joseph B. Geraci
General Chairman

JBG:cc

March 20, 1972

Subject: Minutes of meeting between C.E.P. chairmen and a representative of the Southern New England Telephone Company

On Friday, March 17, 1972 a meeting was held between C.E.P. chairmen and a representative of the Southern New England Telephone Company. The meeting was called to order at 3:00 p.m. in the second floor conference room of the administration building.

Those present were: Mr. John Macensky, Mr. Peter Bosco, Mr. Peter Kummer, Mr. Greg Frey, Mr. Lance Bagley, and Mr. Joseph Geraci. Representing the Southern New England Telephone Company was Mr. Dick Nissi.

The meeting began with an explanation of the aims and philosphy of C.E.P. by the General Chairman, placing emphasis on bringing together the schools and the community and building a reservoir of data.

Mr. Nissi has agreed to supply the area committee chairmen with job descriptions for use by the committees in preparing work-role units of study. He has also agreed to open up observation stations in the areas of telephone operator, telephone installer, and service representative.

The meeting was adjourned at 5:00 p.m.

(signed: Joseph B. Geraci)
Joseph B. Geraci
General Chairman

March 21, 1972

On Monday, March 20, 1972 a meeting was held between C.E.P. chairmen and a representative of the New Britain Herald and the New Britain Chamber of Commerce. The meeting was called to order at 3:00 p.m. in the second floor conference room of the administration building.

Those present were: Mr. John Macensky, Mr. Peter Bosco, Mr. Greg Frey, Mr. Lance Bagley, and Mr. Joseph Geraci. Representing the New Britain Herald and the New Britain Chamber of Commerce was Mr. Lindsley Wellman.

The meeting opened with an explanation of the philosophy and aims of C.E.P. by the General Chairman. Emphasis was placed on school-community involvement, individualized instruction, and building a reservoir of data.

The discussion centered around possible areas open to students as observation stations and what some of the job requirements are. A list of possible stations at the Herald are as follows: Reporter, Advertising Salesman, Printer, Circulation Department, Switchboard Operator, Reference Librarian, and Photographer.

Mr. Wellman has offered the assistance of himself and that of the Chamber should any problems arise. He has also agreed to provide the committee chairmen with possible information in the field of Journalism to aid them in preparing units of study.

The meeting was adjourned at 4:00 p.m.

(signed: Joseph B. Geraci)

Joseph B. Geraci
General Chairman

cc

May 2, 1972

MINUTES OF THE PILOT PROGRAM MEETING BETWEEN THE STANLEY FORUM AND THE C.E.P. COMMITTEE

Subject: Status Report - Stanley Works Forum
Special Education Committee

A pilot program will be initiated this month in which the Forums goal of explaining the business system to students in the 9th Grade of the New Britain School System will be achieved while working with and assisting the School Committee with their Career Exploration Program.

The tentative combined pilot program will consist of exposing the students to the field of communications in industry and the news media (New Britain Herald) and will include:

I. The subject unit will be outlined in the classroom. (initially by teachers and, eventually, with the assistance of business and industry.)

II. Students will visit various work stations to become familiar with job duties and business in general.

The first group of students in the pilot program will visit:

A. Industrial Journalism (Editing) - Work Station

Three students will spend (4) hours with Mr. Murray Fisher on Tuesday, May 16, 1972 at 8:00 A.M. covering Writing, Layout, Editing, and Printing.

B. Printing and Publication - Work Station

Four students will spend (4) hours with Mr. Kenneth Ranks on Tuesday, May 16, 1972 and Wednesday, May 17, 1972 at 8:00 observing:
1. Transcribing; 2. Duplicating; 3. Mail Room

III. Representatives from Stanley will visit the classroom, or talk to the students at Stanley Works, where an evaluation of the program and an introduction to the business system will be made.

Joseph T.Lawler
Chairman, Forum Education Com.
Ext. 595

htb

110

First Report To Board of Directors

A meeting of the General Chairman, Area Chairman, Board of Directors, and the Superintendent of Schools was held on Tuesday, May 2, 1972, in the Administration Building. The meeting was called to order at 10:00 A.M.

Mr. Joseph Geraci, General Chairman, gave a report on the progress made by C.E.P. reports by each of the area chairmen were given concerning the progress made by their committees, and a question and answer period concluded the meeting.

* * * *

Career Exploratory Program

Minutes of the Junior High General Staff meeting held At Slade Junior High on Thursday, May 25, 1972, at 1:30 P.M. at which the C.E.P. Chairmen reported on progress to date. Representatives of the State Dept. of Education were in attendance.

The meeting began with an introduction by Mr. Arthur Kevorkian, Director of Vocational Education. Mr. Joseph Geraci, General Chairman, gave a rundown of the C.E.P. program and the progress that has been made to date. Then the area chairmen each gave a brief report of the work that each of their committees has accomplished such as the observation stations that have been set up, the reactions of the people that were contacted, study units that have been developed, and a report of the pilot program which the communications committee has developed. Students and teachers that were involved in the pilot program gave a report of their reactions. Representatives of the Stanley Works who participated in the pilot program also gave their very favorable reactions to the C.E.P. program.

A question and answer period followed the presentation to the staff.

The meeting was adjourned at 2:30 P.M..

Meeting Of The Science And Math Committee With Department Heads
At The New Britain General Hospital

The meeting was held on May 31, 1972, at 2:00 P.M. at New Britain General Hospital.

Attending the meeting were: Joseph Geraci, General Chairman of the C.E.P., Peter L. Kummer, Science and Math chairman, Miss Mary Meany, Personnel Dept., N.B.G.H., Miss Kelody, N.B.G.H. School of Nursing, N.B.G.H. department heads of nursing, dietetics, laboratory, and office.

The meeting began with an explanation of the C.E.P. program by the chairman of C.E.P. There was then a question and answer period about the program. Then the various department heads explained how each of their departments could set up observation stations to best show the various work-roles available. Some departments could take a small group just a few times during the year and others could work with individual students.

Generally, the people we talked to at N.B.G.H. felt that this was a much better program than the Career Day Conferences. They would still be able to send speakers to the schools when needed.

P. Kummer, Chairman

Social Studies Committee , C.E.P. Appearance Before Funeral Directors, City of New Britain

On June 8, 1972, John Maconsky and Roger Carlone addressed a session of the Funeral Directors meeting, held at the New Britain Memorial Funeral Home.

The directors had requested more information about the Career Exploration Program. After we gave our presentation and we had answered all their questions, they suggested that rather than establish work-role observation in their homes, that they would rather visit the Junior High schools and speak to students interested in learning more about their profession.

PUBLIC SCHOOLS OF NEW BRITAIN

27 Hillside Place

New Britain, Connecticut

Dr. Thomas R. Bowman
Superintendent of Schools

Arthur H. Kevorkian
Director of Vocational Education

Dear Employer:

The New Britain Board of Education, in conjunction with the State Department of Education, has instituted a Career Exploratory Program. This program called "CEP" is presently in the research and planning stage.

The purpose of this program is to familiarize Junior High School students, grades 7-9, with the vocational opportunities existent in the New Britain community.

The familiarization process will be accomplished through a "Work Hole Observation" situation. Students will observe specific functions and performances of the various vocations by means of carefully prepared units of study. Units of study will be prepared and reviewed in the classroom prior to the students on-the-job observation placement. While on-the-job observing, the student will be demonstrated, informed and assisted, by an employee of your choosing, of the operation involved.

We are seeking your cooperation in providing out of school on-the-job observation stations that will complement the in-school program for the school year 1972-1973.

Your cooperation in this program will better prepare our students for career opportunities in New Britain.

Please fill out the enclosed questionnaire and return as soon as possible.

Sincerely yours,

Joseph B. Geraci
General Chairman C.E.P.

QUESTIONNAIRE

_____ _____
Company Representative

We are willing to participate _____ (check if interested)

Need more information _____ (check for personal contact)

We have work observation stations available in the following areas.

_____ _____
Number

_____ _____
Number

_____ _____
Number

Please list additional areas.

Send to: Joseph B. Geraci
27 Hillside Place
Administration Building
New Britain, Conn.

Thank you for expressing an interest in our Career Exploratory Program. In order to incorporate your work-role observation stations into our Career-Education Catalog, we will need the following information for each observation station you have available.

Points of Observation

Requirements of Job:

Duties:

Responsibilities:

Qualifications (Background):

Additional information pertinent to each specific work-observation station.

We will appreciate hearing from you at your earliest convenience. Thank you again for your cooperation.

Please send to: Joseph B. Geraci
27 Hillside Place
Administration Building
New Britain, Connecticut

Joseph B. Geraci

Joseph B. Geraci
General Chairman

JBG:cc

CATALOG

Career Exploration Program

Work-Role Area

Observation Station: _____

Location: _____

Phone: _____

Report to: _____

Start Time: ____ Limit of Obs. Days ____ Obs. Time ____

Student Limit: _____ Gender: ____

Student Information

Student's Name: _____

School: _____ Grade ____

Emergency Call: _____

Cluster: _____

D.O.T. Code: _____

Authorization

Date: _____

C.E.P. STAMP

Record Time

IN [ ]

OUT [ ]

_____

Authorized Signature

Points of Observation

Employer's List of Points	Student Comments
Requirements of Job:	
Duties:	
1. _____	_____
2. _____	_____
3. _____	_____
Responsibilities:	
1. _____	_____
2. _____	_____
3. _____	_____
Qualifications (background):	
1. _____	_____
2. _____	_____
3. _____	_____
Additional Information:	
1. _____	_____
2. _____	_____
3. _____	_____

STUDENT SUMMARY

Was this observation of value to you? Why or why not?

Student I.D. Card

Name _____ Date _____

School _____

In Case Of Emergency - Phone _____

Job Observation Station _____

For office use only

Time

In [ ]

Out [ ]

Authorization _____

Student I.D. Card

Name _____ Date _____

School _____

In Case of Emergency - Phone _____

Job Observation Station _____

For office use only

Time

In [ ]

Out [ ]

Authorization _____

Career Exploration Program
Work-Role Sheet

Work-Role Area

Observation Station: _____

Location: _____

Phone: _____

Report to: _____

Start Time: ____ Limit of Obs. Days ____ Obs. Time ____

Student Limit _____ Gender _____

Student Information

Student's Name: _____

School: _____ Grade _____

Emergency Call: _____

Cluster: _____

D.O.T. Code: _____

Authorization

Date: _____

C.E.P. STAMP

Record Time

IN [ ]

OUT [ ]

_____
Authorized Signature

Points of Observation

Employer's List of Points	Student Comments
Requirements of Job:	
Duties:	
1. _____	_____
2. _____	_____
3. _____	_____
Responsibilities:	
1. _____	_____
2. _____	_____
3. _____	_____
Qualifications (background):	
1. _____	_____
2. _____	_____
3. _____	_____
Additional Information:	
1. _____	_____
2. _____	_____
3. _____	_____

STUDENT SUMMARY

Was this observation of value to you? Why or why not?

CAREER EXPLORATION PROGRAM

A meeting of area chairmen was held on Tuesday, February 8, 1972 at the administration building. The meeting was called to order at 3:00 p.m.

Members Present: Mr. Peter Bosco, Mr. Greg Frey, Mr. Lance Bagley, Mr. John Maconsky, Mr. Peter Kummer

Items Discussed:

A. Procedure for preparing: wage forms, expense vouchers and transportation records.

B. Explanation of wage payment rules:
The $5.00 per hour stipend will be granted for hours spent in committee work after school hours only. This applies to teachers not on the respective committees as well.

C. Planning of tentative monthly schedules. It was requested that area chairmen submit monthly meeting schedules to the General Chairmen so that conflicts may be avoided. It was also requested that copies of all correspondence be sent to the General Chairman so as to maintain unity and progression of the program.

D. A sample unit of study was presented and reviewed. A reference copy will be sent to each chairman.

E. The Committee agreed that a concrete aim and philosophy of the program should be established. It was decided that the chairmen will poll their committees in search of ideas for this objective. A special chairmen meeting will be held on Tuesday, February 15, 1972 at 3:00 p.m. at the administration building. The purpose of this meeting will be to consolidate the suggested aims into one. Keeping in mind, the need for a program tailored for the community of New Britain exclusively.

F. For organizational reasons the chairmen have agreed to meet twice each month. Exact dates will be set at the February 15th meeting.

G. Reference materials for researching units of study will be available to all and are located in Mr. Kevorkian's office.

The meeting was adjourned at 4:00 p.m.

(signed: Joseph B. Geraci)
Joseph B. Geraci
General Chairman

JBG:cc

CAREER EXPLORATION PROGRAM
Chairman Meeting Report

February 15, 1972

A meeting of area chairmen was held on Tuesday, February 15, 1972 at the administration building. The meeting was called to order at 3:00 p.m.

Members Present:

Mr. Peter Bosco
Mr. Lance Bagley
Mr. Greg Frey
Mr. John Macensky
Mr. Peter Kummer

Items Discussed:

A. Establishment of a general aim and purpose of the C.E.P. Program:

The aim and purpose of the C.E.P. Program is one of "Work-Role Observation". In this program the student will have the opportunity to observe the functions and procedures of various occupations. This aim will be accomplished through ajoint effort between the educator and the businessman. The educator, with his expertise of the learning process, will formulate and provide detailed units of study. The employer will, with his expertise in his field, provide the specific functions and procedures of the designated vocation.

B. Chairmen were informed of future meetings with area businessmen and tours of prospective observation stations. Dates to be announced later.

C. A heading format of the units of study was agreed upon for organizational purposes.

D. A clarification of insurance coverage for students while on the job was requested. The General Chairman will be responsible for the clarification.

E. The next Chairman Meeting was scheduled for March 7, 1972, Tuesday.

The meeting was adjourned at 4:00 p.m.

(signed) Joseph B. Geraci)
Joseph B.Geraci
General Chairman

JBG:cc

CAREER EXPLORATION PROGRAM

Chairman Meeting Report

March 8, 1972

A meeting of area chairmen was held on Tuesday, March 7, 1972, at the administration building. The meeting was called to order at 3:00 p.m.

Members Present:

Mr. Peter Bosco
Mr. Greg Frey
Mr. Lance Bagley
Mr. John Macensky
Mr. Peter Kummer

Items Discussed:

A. Distribution of Materials:
Additional reference materials were distributed to chairmen for distribution to their respective committee members.

B. Monthly Wage Reports:
Chairmen were requested to submit monthly wage reports as soon as possible in order that the General Chairman may maintain a monthly scrutiny on the program budget.

C. Meeting plans for officials from Stanley Works:
Chairmen were informed of a meeting with Stanley Works officials scheduled for Thursday, March 9, 1972, in the conference room of the Administration Building. The meeting will begin promptly at 3:00 p.m.

A purpose will be to investigate possible work-role stations for the C.E.P. Program, also an attempt will be made to examine the feasibility of implementing a pilot program commencing in May of this year.

Mr. Bosco volunteered to organize and obtain any audio-visual materials that may be required for this meeting.

D. Comments & Questions:
1) It was requested that the secretary compose a monthly calendar of committee meetings and send them to committee chairmen at the beginning of each month. This will be in addition to the cross-correspondence system now in effect.
2) Members were reminded of the General Meeting to be held on March 21, 1972, at the Slade Jr. High School beginning at 3:00 p.m. Committee chairmen were also reminded of progress due at that time.

The meeting was adjourned at 4:30 p.m.

Joseph B. Goraci
General Chairman

MEMORANDUM

April 5, 1972

To: C.E.P. Committee Members

From: Joseph B. Geraci, General Chairman

Subject: Minutes of General Meeting

On Tuesday, April 4, 1972, a General Meeting of the C.E.P. committee members was held at Slade in room 102. The meeting was called to order at 3:00 p.m.

The meeting began with several remarks by the General Chairman concerning the final evaluation of the C.E.P. Program in June by the State, the Board of Education and the Superintendent of Schools. Each individual will be evaluated and the results of every meeting will be compiled, edited, and published in June.

Because of the numerous positive replies to the letters sent to the area businesses, the contacting of these concerns will be divided up between the committee members.

A meeting has been set up between the C.E.P. committee chairmen and Mr. Joseph T. Lawler to discuss the pilot program. The meeting is scheduled for Thursday, April 13, 1972, at 2:00 in the conference room of the Administration building.

It was agreed that the work-role observation sheets should include a student identification card, the format developed by the Special Areas committee, and the points of observation developed by the Math and Science committee. It was also agreed that the limitations box should include space for time in and out, days to report, the number of students reporting at one time, and their gender.

Mr. John Fuller reported briefly on his trip to the National Career Education Conference in Dallas. He stated that many of the career education programs throughout the country are either school based or industry based programs. He stated further that to the best of his knowledge the C.E.P. Program of New Britain is unique in that it is incorporating the two together.

A General Meeting has been scheduled for Thursday, April 25, 1972, at 3:00 p.m. in room 102 of Slade Jr. High.

The meeting was adjourned at 4:30 p.m.

Joseph B. Geraci
General Chairman

jbg;cc

CAREER EXPLORATION PROGRAM
Chairman Meeting Report

April 18, 1972

A meeting of area chairmen was held on Monday, April 17, 1972 in the Administration Building. The meeting was called to order at 3:00 p.m.

Members Present: Mr. Peter Bosco, Mr. Greg Frey

Items Discussed:

A. Personal Contact with Businesses
When making personal contact with business, a copy of the catalogue form should be taken and as much additional information as possible.

It was suggested that a sample copy of the catalogue be filled out and included. It should be pointed out that this is only a sample copy when presenting it to the businesses.

B. Emphasis should be placed on handling the students on an individual basis. On the occasion of a student's expression of interest in a certain area, the teacher will make an outline on paper with the student of what is involved in this area of study.

C. Cluster Folders
Each committee is responsible for culling each of the fifteen cluster folders for affirmative letters which pertain to their committee. The designation of each affirmative letter will be as follows:

1. Across the top of each reply will be designated the primary committee responsible.
2. If there is more than one station, it may be that a secondary committee is also responsible for follow up.
3. The primary committee is responsible to follow up the letter first. The particular station should be initialed and marked "complete" with the date i.e.: "L.B. complete 5/1/72". This designation should appear along side the designated station.
4. If there is a secondary designation on the reply, that committee should not make their calls until the primary committee has initialed and marked it complete.

The meeting was adjourned at 4:00 p.m.

Joseph B. Geraci
General Chairman

JBG:cc

MEMORANDUM

April 26, 1972

To: C.E.P. Committee Chairmen

From: Joseph B. Geraci, General Chairman

Subject: Minutes of General Meeting

On Tuesday, April 25, 1972, a General Meeting of the C.E.P. committee members was held at Slade in Room 102. The meeting was called to order at 3:00 p.m.

The meeting began with a reminder to the committee chairman to submit their wage and mileage reports for the month of April.

A meeting between the committee chairmen and the C.E.P. Board of Directors has been scheduled for Tuesday,, May 2, 1972, at 10:30 a.m. at the Administration Building.

The pilot program at the Herald will run from Monday, May 15 to Monday, May 22 for which the Communications Committee developed a course of study on News Media. Copies were distributed to each committee. The program will consist of four students, two from Roosevelt and two from Washington. The students will spend full days observing individually the area of News Reporting, Advertising, and Copy Flow.

The Social Studies Committee distributed a sample unit plan on Public Service observation stations to provide the teachers with general information in this area.

The Special Areas Committee has developed a "flow chart" giving a general picture of how the program will mechanically operate. It was developed to function as a traceable path to determine the strengths and weaknesses of the program and as an outline to guide the teachers in writing up other component parts.

The meeting adjourned at 4:15 p.m.

Joseph B. Geraci
General Chairman

JBG:cc

CAREER EXPLORATION PROGRAM

Chairman Meeting Report

May 2, 1972

A meeting of area chairmen was held on Mondpy, May 1, 1972 in the Administration Building. The meeting was called to order at 3:00 p.m.

Members Present: Mr. Peter Bosco, Mr. Peter Kummer, Mr. John Macensky, Mr. Lance Bagley, Mr. Greg Frey

Items Discussed:

A. Meeting with C.E.P. Board of Directors
The General Chairman gave a brief outline of the meeting with the C.E.P. Board of Directors scheduled for Tuesday, May 2, consisting of a report by the General Chairman of the progress made by C.E.P., reports by each of the area chairmen concerning the progress made by the committees, and a question and answer period.

The General Chairman discussed with each of the area chairmen the information that each would present to the Board in connection with the individual committee progress.

The General Chairman also went over the information he was to give at the meeting in the form of the roles of the school, Guidance, and the teachers.

The meeting was adjourned at 4:00 p.m.

Joseph B. Geraci
General Chairman

JBG:cc

CAREER EXPLORATION PROGRAM

Chairman Meeting Report

May 16, 1972

A meeting of area chairmen was held on Monday, May 15, 1972, in the Administration Building. The meeting was called to order at 3:00 p.m.

Members Present: Mr. Peter Bosco, Mr. Peter Kummer, Mr. John Macensky, Mr. Lance Bagley, Mr. Greg Frey

Items Discussed:

A. A General Staff Meeting has been scheduled for Thursday, May 25,1972, at 1:30 p.m. at Slade. Representatives from the State Department of Education will be in attendance. The meeting will consist of a preliminary run-down of the program by the General Chairman, brief reports given by the area chairmen, and a question and answer period.

B. A pamphlet is being prepared by the General Chairman explaining the C.E.P. Program. Included in this pamphlet will be pictures depicting each phase of the program. The pamphlet will be available to everyone--students, teachers and parents.

C. Chairmen are reminded to submit their meeting dates for the month of June as soon as possible. They are to include both afternoon and full day meetings.

D. A chairman meeting has been scheduled for Monday, May 22, 1972, at 3:00 p.m. for the purpose of reviewing the material to be presented at the May 25 meeting. Also, the classroom teachers participating in the C.E.P. Pilot Program have been asked to attend and bring with them information concerning the classroom phase of the C.E.P. Program.

The meeting was adjourned at 4:00 p.m.

Joseph B. Geraci
General Chairman

JBG:cc

CAREER EXPLORATION PROGRAM

Chairman Meeting Report

May 23, 1972

A meeting of area chairmen was held on Monday, May 15, 1972, in the Administration Building. The meeting was called to order at 3:00 p.m.

Members Present: Mr. Peter Bosco, Mr. John Macensky, Mr. Greg Frey, Mr. Peter Kummer, Mr. Lance Bagley

Items Discussed:

A. It was decided that the presentation of the pilot program at the General Staff Meeting would consist of an explanation of the pilot program by the Communications Committee Chairman, the reactions to the classroom phase of the program by the participating teachers, the reactions of two students who participated at the Herald, and the reactions of those involved in the business phase of the program. Mr. Lindsley Wellman and Mr. Joseph Lawler will be contacted with regards to this segment of the presentation.

B. Miss Gloria Berson, Mr. John Whalen and Mr. Andrew Petruska, the classroom teachers, shared their observations of the program from the classroom point of view with the area chairmen. They agreed upon the need for a C.E.P. "class" every day, the classroom time for the pilot program was insufficient.

C. Mr. Bagley will be unable to offer his services during the last two weeks in June.

D. The General Chairman has received word from the State that funds are available for only the five chairmen through next year.

E. Mr. Bosco reported on the C.E.P. Stamps which will be put on the student's work-role sheets by the businesses at the time of their "observing". We presented three styles, and a stamp with the letters "CEP" in red and blue on a white background was agreed upon.

F. It was suggested that each school be provided with a list of the dates on which students from that school can be sent out to the stations. These numbers can be applied to any month in any year. If an observation date falls on a weekend or holiday, the student will go out on the next specified date.

The meeting was adjourned at 4:30 p.m.

Joseph B. Geraci
General Chairman

New Britain Herald June 7, 1972

Helping students look to the future

Stanley Forum and New Britain School system members planning a program to help students select careers are: Seated, from left: Gregory Frey, Joseph Geraci, Peter Bosco and John Macensky, New Britain school system, and standing, from left, Alfred Millard and Robert MacBain, Stanley industrial relations department; Joseph T. Lawlor, chairman, Gerald Cooper and Peter Grieco, Hardware division, and Lance Bagley, school system.

SW explains possible careers to ninth graders

A special education committee of the Stanley Forum is working with representatives of the New Britain School system on a project aimed at providing ninth grade students greater insight into career opportunities in industry and better understanding of the workings of the business system in America.

The pilot program has three phases. In phase one, various careers are described and discussed in the classroom by teachers, assisted by representatives of the Stanley Works.

In phase two, students visit the Stanley Works to observe people working in certain jobs.

In phase three, representatives from Stanley meet with participating students to evaluate the program and to discuss how the business system operates.

The first group of participating students visited the Stanley Works last month. Three of them spent half a day learning about industrial journalism and four others participated in an orientation on transcribing and printing.

Joseph T. Lawlor, chairman of the committee, said that New Britain school system representatives involved in the project have expressed belief that the career exploration program will be of major value to the students.

STANLEY WORLD

VOL. 36, NO. 5 THE STANLEY WORKS, NEW BRITAIN, CONN., U.S.A. MAY, 1972

Stanley Forum helping students select careers

A special education committee comprised of members of The Stanley Forum is working with representatives of the New Britain school system on a project aimed at providing ninth-grade students a greater insight into career opportunities in industry, and a better understanding of the workings of the business system in America.

The pilot program has three phases. In phase one, various careers will be described and discussed in the classroom by teachers assisted by representatives of The Stanley Works. In the second phase, students will visit The Stanley Works to observe people working in certain jobs. It is planned to have students become involved in the actual work whenever such participation is practical. In phase three, representatives from Stanley will meet with participating students to evaluate the

Stanley Forum careers project

(Continued from page 1)

program and to discuss how our business system operates.

The first group of participating students visited The Stanley Works this month. Three youngsters spent half a day learning about industrial journalism, and four others participated in an orientation on transcribing and printing.

Joseph T. Lawlor, Stanley Hardware Division, and chairman of The Stanley Forum education committee, said that New Britain school system representatives involved in the project have expressed the belief that the career exploration program will be of major value to the students, their teachers, and guidance counsellors. The group indicated that the project can help the ninth graders realize the relationships between subjects they study and eventual careers. It is also expected that the experience will help the students decide what type of high school studies program would be of most interest and use to them.

PLANNERS – Participants in planning the special project being conducted by the Stanley Forum and members of the New Britain school system are, seated left to right: Gregory Frey, Joseph Geraci, Peter Boscoe, and John Macensky, New Britain school system. Standing: Alfred Millard and Robert MacBain, industrial relations department, The Stanley Works; Joseph Lawlor, Gerald Cooper, and Peter Grieco, Stanley Hardware Division; Lance Bagley, school system.

129

Organizers, directors of CEP

A Career Exploration Program involving educators and city groups has been launched here. Organizers and directors include, seated from left: Peter Kummer, Lane Bagley, Arthur Kevorkian, Gregory Frey and John Macensky; and standing from left: Gerald Cooper of the Stanley Forum, Joseph Geraci, chairman; Joseph Lawlor and Peter Bosco.

(Herald photo)

New education approach:

Community becomes the classroom

City educators along with various community agencies including business and industrial groups have joined to launch a Career Exploration Program in the city, according to Joseph B. Geraci, general chairman.

CEP was launched yesterday in the school administration building on Hillside place.

Program aims

Among the aims of the program are:

a) Cooperate with business and industrial organizations to develop learning modules. These modules will assist in the development of an in-school instructional program.

b) Involve various community agencies in addition to business and industrial organizations to provide the student with the opportunity to observe work-role techniques.

c) Incorporate the in-school program so as to develop those work-role teaching techniques that will individualize the learning process.

The thrust of CEP is to meet the geunine needs and interests of the student by providing him with authentic work-role experiences. In this manner he is able to explore and nurture his interests, as an individual at his own level and pace.

In essence, this program is shaking away many of the loose timbers of traditional education. Students will be allowed to explore interests and search for knowledge outside the confines of the classroom. In effect, the community will become his classroom.

The program organizers consist of 5 discipline chairmen: John Macensky, social studies; Peter Bosco, special areas; Lane Bagley, communication; Gregory Frey, guidance; and Peter Kummer, math and science.

Directing the program is Geraci as chairman. The board directors consists of: Dr. Thomas R. Bowman, superintendent of schools; Arthur H. Kevorkian, director of vocational education; Donald G. Paris, director of guidance; Donald W. Friday, principal of Slade Junior High School; Thomas P. Cabelus, principal of Nathan Hale Junior High School; John F. Smith, principal of Roosevelt Junior High School, and Francis M. Kelly, principal of Washington Junior High School.

'Work role observation' program to be launched in junior high schools

By DAVID P. FERGUSON

A junior high school program designed to let students "get out and explore" the diversity of the New Britain business community is scheduled to be launched in September.

The project is an attempt to meet increased educational demands with decreased budgetary resources and, according to Arthur H. Kevorkian, director of vocational education, is one of the first such programs in the country.

It also marks the first time that teachers are being allowed to formulate a curriculum and guide its implementation.

Pursue Interest

The program, dubbed "Work Role Observation," will enable junior high school students to pursue their areas of interest outside the classroom.

"The community will provide the raw material and we'll provide the students," said Joseph B. Geraci, program chairman. "The community, in essence, will become the classroom."

Geraci, who is also a life science teacher at Slade Junior High School, is overseeing the work of five teacher committees formulating units of study in communications, mathematics and sciences, social studies, guidance and special areas into which 15 subject "clusters" will be organized.

The groups have been working since January under a state grant and will complete preparation for the program with a pilot experiment in May.

"It's not really work," Geraci said. "It's something I've been wanting to do for a long time."

The program originated last December with the submission to the School Board of a Chrager Exploration Program which outlined the need for such a project and the objectives it should strive to achieve.

Response Overwhelming

Since that time, nearly 2,000 letters have been sent to city businesses seeking their cooperation in the program. Geraci describes the response as "overwhelming" and notes that no negative reactions have been received.

JOSEPH B. GERACI
Program Chairman

Two of the firms contacted, Stanley Works and the New Britain Herald, have agreed to participate in the May pilot program.

"We hope that the program will being home to the students the importance of the courses they are taking," said Lindsley Wellman, Herald general manager. "Kids learn so much about true academics in the classroom but they don't get a chance to get out and see the importance of what they are learning until after high school. I hope the program will put some meaning behind the courses they are taking."

Checks and Balances

A series of checks and balances between the schools and the businesses will be used to prevent misuse of the student's released time.

"But I don't think this will be much of a problem," Geraci said. "The students who will be going out will be the ones who have shown an interest in what they will be doing.

"I think people will be surprised by the change of student attitude because of the program — they can't help but be interested."

Nevertheless, he admitted "we'll take it easy at first — we don't want the program to fall apart."

The teacher committees are still working to answer many questions about the implementation of the project, including how the students will be prepared for the program, how long they will be allowed to remain out of school, and how the program itself will be evaluated.

"But I think the program will be a benefit to the individual and to the business community," Geraci said. "The student will be allowed to expand outside the classroom. I think we in the schools can do a better job with the help of the community."

131

Memo 1

C A R E E R S E X P L O R A T I O N

February 3, 1972

To: Committee in Special Areas
From: Chariman of Special Areas Committee

Subject: Personnel list in Special Areas

1. At this time it would be of benefit to all concerned if each member of the committee drew up a list of faculty members of their respective schools who are teaching some Special Area subject.

2. This list of teachers will be invaluable for purposes of reference and resource. These teachers should be thought of as an extension of our committee. Should the occasion arise when and if some of them contribute a significant piece of work or research they should be considered for some hourly compenstation (within limits of course). Feel free to call upon them frequently concerning our work. In effect you are our contact man in your school.

3. Please send me your lists by Wed. (2-9) showing school, chairman, list of teachers and teaching area. Care should be taken that eve y teacher is accounted for.

4. A combined list will than be dittoed and distributed. A copy should then be kept in your personal committee file for quick reference purposes.

Peter L. Bosco
Nathan Hale

Memo 2

C A R E E R S E X P L O R A T I O N

February 16, 1972

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting Feb. 24, 1972

1. A Special Areas Committee Meeting will be held on Thursday, February 24, 1972 at 2 p.m. Remember there is 1:30 dismissal on Thursdays. Please remember to tell your principals that you must leave the building as they do not receive these meeting notices. The second floor conference room will be used in the Administration Building.

2. The agenda for the meeting will be as follows:

   (a) Review of "Possible CEP Objectives" (enclosed) as approved by the CEP Chairmen prefaced by, "With Work-Role Observation as the focal point in CEP, it is hoped that the following objectives are realized..."

   (b) Your ideas (and those of others you've contacted) of how you picture CEP will be working (use your imagination because that's all we have at this point).

   (c) Clerical matters so far

   (d) Setting of an all-day meeting (possibly) Monday, February 28

   (e) Questions and comments

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 3

C A R E E R S E X P L O R A T I O N

February 29, 1972

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of Feb. 28, 1972

1. A full-day meeting was held at the Admin. Building on Monday, Feb. 28, 1972. Members present were Mr. Edward Dolbeare and Mr. Peter L. Bosco.

2. The first part of the meeting was used to study materials made available by Mr. J. Geraci, General Chairman and Mr. Art Kevorkian. The remainder of the day was used to begin tying in specific job roles within each cluster to a committee that might become known as the "parent" or "sponsor" of the job roles.

3. Once this work has been completed, then the Special Areas Committee could begin concentrating on units of study in those areas for which it will be responsible.

4. The next meeting for the Special Areas Committee is scheduled for Monday, March 6---all day.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 4

C A R E E R S E X P L O R A T I O N

March 7, 1972

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of March 6, 1972

1. A full-day meeting was held at the Admin Building on Monday, March 6, 1972. Members present were Messrs. Edward Dolbeare, John Fuller, Hohn Ringrose and Peter L. Bosco.

2. The Committee for the most part divided in half and worked on two separate projects. Messrs. Dolbeare and Bosco continued their breaking-down of job clusters and assigning specific job-roles under the jurisdiction of one of the standing CEP committees. Messrs. Fuller and Ringrose concentrated on discovering job locations through use of directories, etc. and specifying proposed observation roles.

3. The Committee combined informally at various times during the day to exchange ideas, thoughts and discoveries encountered while working in pairs.

4. Mr. Fuller reported that the faculty at Slade questioned the CEP philosophy and the role that job-observations could play not only for vocational but for future avocational interests. We must educate for leisure activities as well as for work roles.

5. Mr. Ringrose brought in some written materials concerning vocations that are already being used by one Special Ed. teacher in his school. The committee voted to have this teacher join some of the committee meetings as a resource person. That teacher is Mrs. Thorne.

6. Mr. Dolbeare reported on a faculty meeting he conducted in his school. Many questions arose for which we have no answers at this point. Interest was stimulated however.

7. Mr. Bosco turned over to Mr. Ringrose sheets prpared by teachers at Nathan Hale concerning job locations and possible job roles. These will be used as resource materials in the area of job-role development.

8. The next Special Areas Committee meeting will be held on Thursday, March 16 at 2 o'clock at Roosevelt J.H.

Peter L. Bosco
Nathan Hale

cc:all chairmen

Memo 5

C A R E E R S E X P L O R A T I O N

March 21, 1972

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of March 16, 1972 (at 2:30 p.m.)

Present: Mrs. Shirley Thorne, Mr. John Ringrose, Mr. Edward Dolbeare, Mr. Peter L. Bosco

1. Mrs. Shirley Thorne, Special Ed. teacher at Roosevelt, served as a staff resource person at this meeting. Her contributions were enlightening for those present. Mrs. Thorne introduced the committee to materials which may be very useful in developing our CEP curriculum. Some of the materials discussed were the Follet Vocational Reading Series, Fearon Publications and the Turner-Livingston Series. The inter-related use of these materials was demonstrated. The committee has obtained samplings of these materials.

2. The discussion continued on a critical level concerning work and goals set thus far by the committee. Mrs. Thorne cautioned the committee, based on her experience, that we should not attempt too complex or rigorous approaches in our CEP developments lest we lose sight of our basic objectives---a point well taken.

3. The meeting adjourned about 4 p.m.

Peter L. Bosco
Nathan Hale

cc: all chairmen
Mrs. Shirley Thorne

Memo 6

C A R E E R S E X P L O R A T I O N

March 22, 1972

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of March 21, 1972 (all day meeting at Slade)

Present: Mr. John Fuller, Mr. John Ringrose, Mr. Edward Dolbeare, Mr. Peter L. Bosco

1. A comprehensive review of our work was made during the morning hours of the meeting. It was generally felt that we needed more concrete types of input to augment our curriculum development work thus far.

2. Three items of potential importance were worked out as a starting point in our more tangible approach. These were: (a) the catalog or guidance handbook which will contain all work-role locations and specification, (b) the work-role observation sheet which will be carried by the student and later filed in his student CEP notebook and (c) the daily master CEP master log where summary information is kept on students who are on observation assignments. This material was later presented at the general meeting for discussion.

3. In addition to the above, it was felt by the committee that we needed some outside consultation at this time. As an alternative to this it was decided that perhaps one member of the committee could attend the national convention of American Industrial Arts Association at Dallas on March 27 through30. The theme at this convocation will be Career Education. It was unanimously decided to propose at the general meeting to send Mr. John Fuller contingent on his being able to receive at least some reimbursement for expenses.

4. The next meetings involving Special Areas Committee are:

April 4 Entire (24) Committee at Slade 3 pm
April 5 All day meeting at Admin. Blgd.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 7

C A R E E R S E X P L O R A T I O N

To: Committees in Special Areas and Guidance
From: Chairman of Special Areas Committee

Subject: Joint Guidance and Special Areas Committee Meeting April 5, 1972 (all day meeting at Slade)

Present: Mr. Greg Frey and Mrs. C. Kania (Guidance), Messrs. J. Fuller, J. Ringrose, E. Dolbeare and P.L. Bosco

1. The newly created Work-Role sheet and related forms were used as a basis for developing further procedures which will be proposed at the next general meeting.

2. Among the procedures developed at the joint meeting were pre-observation activities, observation procedures, and post-observation procedures. Also discussed was the eminent use of some type of cluster-activity period to be used on a regular meeting basis.

3. The cluster-activity period would serve as pre-and-post observation sessions in a mainly student-directed lesson. Such things as CEP notebook maintenance, seminar-type discussions and presentations of observation exchanges, futrue group and individual observation planning, exchange and review of pertinent literature and publications, utilization of outside resourse persons and other related activities have been suggested at this time.

4. Mr. E. Dolbeare is engaged in the meantime on a logistic coding procedure which will provide easy access to and maintenance of the eventual CEP catalog.

5. Plans for the presentation of tapes recorded at the convention in Dallas which was attended by Mr. John Fuller had to be postponed to a later date.

6. The next Special Areas meeting is scheduled for April 14 at the Admin. Bldg.---all day.

Peter L. Bosco
Nathan Hale

cc: All chairmen
Mrs. C. Kania

Memo 8

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of April 14, 1972 (all day meeting at Admin. Bldg.)
Present: Messrs. J. Fuller, J. Ringrose, E. Dolbeare, and P.L.Bosco

1. The committee reviewed its position relative to work accomplished and work which still lay ahead. During the course of the day the following individuals made unscheduled appearances but offered valuable comments and observations for future planning. They were: Messers. Art Kevorkian, Don Paris, and Nick Klym (high school PIC liason). Mr. Klym offered futrue aid in choosing potentially good work-role locations with which he is familar.

2. Messrs. Ed Dolbeare and John Fuller began work on the cluster folde s which contained returned letters from prospective participating companies. Some problems were discovered. First, three categories of "returns" were evident: letters sent out but not returned, letters sent out but negative reply, and letters sent out returning with positive reply but more info required. It was decided that immediate follow-through must be made in all categories including personal visits. Another problem was found to be that of indefinite committee assignment as to handling of correspondence. More than one committee might or might not handle some pending correspondence thus causing confusion, etc. This will be rectified at the Chairmen's meeting of April 17 where more definite assignment can be made.

3. Messrs. John Ringrose and P. Bosco continued work on the flow chart which would serve as a guide to the final procedure write-up. Considerations in setting Work-Role procedure are the restrictions as set forth in the original proposal to the State Dept. of Ed.,and any other anticipated problems concerning scheduling, pre-observation, observation, and post-observation procedures. It is hoped that this may be presented to the main body on its next meeting April 25.

4. The next committee meeting is scheduled for Thursday, April 20 at 2 p.m. Admin. Bldg.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 9

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas

From: Chairmen of Special Areas Committee

Subj: Meeting notes of April 20 (at 2 p.m. Admin. Bldg.)

Present: Messrs. J. Fuller, J. Ringrose, and P.L. Bosco

1. A review of the minutes of the latest Chairmen's meetings was made to bring the Special Areas working committee up-to-date on new policy and direction.

2. The 15 cluster folders were culled for new letters returned by prospective job-based participants. It was noted that the recommendations made at the April 17 Chairmen's meeting were not done: marking of letters for designation of handling committees.

3. Four letters were drawn-off for committee contact. They are: Aamco Trans., Story Bros Garage, N.B. Natural Gas, and Louis H. Weiner of N.B. These companies will be contacted by phone in order to arrange for a meeting (s) on April 27. Upon acceptance of the program by any of these companies, a catalog shoot will be completed by the "employer" with the aid of the committeeman right then and there.

4. The next scheduled meetings are:

   Tuesday, April 25, Slade at 3 p.m. - all committees

   Thursday, April 27, grouping at Slade for outside calls...Mr. Fuller's room <u>before</u> 2 p.m.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 10

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas

From: Chairman of Special Areas Committee

Subject: Meeting notes of May 4, 1972 (all day in field)

Present: Messrs. J. Ringrose, E. Dolbeare, P.L. Bosco

1. Short review meeting held on position of committee status thus far at the administration building. This was followed by work in the field.

2. Contact was made with the Stanley Works through Mr. Joseph Lawlor. Mr. A. Stohmal was assigned as liaison man for factory contacts during our morning visit.

3. Mr. Stohmal directed the group to Dept. 54 and its Blanking Operations. Mr. Mario Bucchi, Department Foreman, cordiall cordially assisted in outlining a job-role sheet for a job-observation station there.

4. It was later decided after discussions with Messrs. Lawlor and Stohmal to use the Stanley job description correspondence as a "menu" where ever possible to select jobs of interest to the Committee. They in turn would develop single or a cluster of observation areas (if necessary) to make up single observation stations. The sheets would be sent to Stanley where they would see that they were properly filled out by responsible foreman.

5. Messrs. Ringrose and Dolbeare proceeded to Dept. 23 in the afternoon hours for as many observation stations as could be enlisted from Mr. D. Rizza, General Foreman. Mr. Rizza has been most receptive.

6. Mr. Bosco proceeded to the Fafnir Bearing Co. where he met with Mr. VanLoan, that company's contract agent. A future meeting will be held with other company officials in about one week.

7. An additional all day meeting is being requested in May because of the volume of work before the Committee. The day requested is Tuesday, May 30.

8. The next all day meeting is scheduled for May 15. Other afternoon meetings will have to be scheduled for this month. Information to follow.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 11

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas

From: Chairman of Special Areas Committee

Subject: Meeting notes of May 15, 1972 all day meeting

Present: Messrs. E. Dolbeare, J. Fuller, P.L. Bosco

1. The committee met at the Administration Building and reviewed committee progress thus far, the correspondence folders and set a work schedule for the remainder of the day.

2. Contacts were made and meetings were held at the following concerns: Metropolitan Life Insurance Co., The New Britain Machine Co., The Fafnir Bearing Co., The Stanley Works, and Packy's Restaurant. A number of observation stations were procured for CEP.

3. Further work remains with all the above except the Fafnir Bearing Co., and Packy's Restaurant.

4. The Stanley Works has in their possession a number of Catalog blanks pre-wiitten by us with job titles obtained from their "Job-specs correspondence" now in our "Stanley" file. When these forms are completed and retruned we shall have onlisted a large number of stations from the Stanley Works. This does not preclude contacts made by the Math Committee with the Stanley Data Processing Center.

5. Inquiries were made concerning the purchase of quantities of validating rubber stamps for the Work-Role sheets. The cost is prohibitive when the large quantities are considered. An alternate ay of suggestion has been a postagestamp type of thing. This, among other methods of validation will be explored.

6. The next committee meeting will be Thursday, May 18 at 2 pm. More calls will be made.

Peter L. Bosco
Nathan Hale

cc: all chairmen

Memo 12

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas

From: Chairman of Special Areas Committee

Subject: Meeting notes of May 18, 1972--afternoon meeting (2pm)

1. The main purpose of the meeting was again to procure more observation stations from area business. Among those places contacted were Puzzio's Barber Shop, UAW Local 133, Park Fashions, and Hitchock Printing (repeat call).

2. Mr. George Walker of New Britain Machine was contacted as earlier agreed upon but could not be reached.

3. Validation stamping was investigated. It appears that a postage-stamp type of validation is the most economical. Hitchcock Printers was contacted. They have agreed to submitted a base price by letter if an initial order of 2000 is made. Sketches of the disign will also be forthcoming.

4. Also discussed with the General Chairman and Mr. Kevorkian was a non-conflicting method of student assignment to job-observation stations. Many stations with a limit of one student could create duplications if some simple procedure is not instituted. It was suggested that a number system corresponding to the days of a calendar could be assigned to each of the Junior High Schools. A school could send observers only on days prescribed for that school.

5. The next meeting is set for May 22 at 3 pm. Although the chairmen will be attending a separate meeting at the same time, Special Areas members could come in and pick up their outside calls and proceed with their work.

6. Forthcoming meetings: May 22 (3pm), May 25 All JHS (1:30), May 30 all day

Peter L. Bosco
Nathan Hale

cc: All chairmen

Memo 13

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas

From: Chairman of Special Areas Committee

Subject: Meeting notes of May 22, 1972--afternoon meeting(3pm)

Present: Messrs. J. Ringrose and P.L. Bosco

1. A list of prospective calls was made available. They were: New Britain Machine, deliver to Mr. Walker some observation forms to be filled out; UAW Local 133, repeat call; Park Fashions; Metropolitan Insurance, repeat call; National Academy of Hairdressing and the New England School of Hairdressing.

2. Mr. Ringrose selected to make a call to Park Fashions. The Chairman proceeded to a chairmen's meeting.

3. A call was made on Tuesday, May 23 by Mr. Bosco to the N.B. Art Museum on Lexington St. After an explanation of CEP, Mr. Ferguson accepted a few observation forms for consideration. A future meeting was set for June 6.

4. The next meeting is scheduled for Tuesday, May 30---All day.

Peter L. Bosco
Nathan Hale

cc: All Chairmen

Memo 14

C A R E E R S E X P L O R A T I O N

To: Committee in Special Areas
From: Chairman of Special Areas Committee

Subject: Meeting notes of May 30, 1972--all day meeting

Present: Messrs. J. Ringrose, E. Dolbeare, P. L. Bosco

1. The cluster folders were culled for correspondence. Notations were made where necessary.

2. The CEP Stamp was drawn for submittance to the Hitchcock Printing Co. for pricing. In addition, cancellation rubber stamps will be ordered for each of the junior high schools.

3. A discussion was pursued relative to classroom inputs to CEP program. It was agreed that indicies for each of the disciplines under the Special Areas Committee would be a helpful tool for each of the classroom teachers. Such information as type of jobs available, locations available for observation and other helpful information be made available for teachers to relay to students.

4. Calls were made to line up and confirm appointments for the day. Then each of the committeemen proceeded to make personal calls to area prospective work role stations.

5. A procedure was established whereby committeemen could come to the Admin. Bldg. any free afternoon to pursue more outside calls available on the "call sheet" as designated at meeting.

6. The remaining meetings are scheduled for June 7 (all day), followed by June 12 (3 p.m.) meeting . . plus any individual calls made.

Peter L. Bosco
Nathan Hale

cc: all chairmen

SPECIAL NOTE !!!

The Chairman should have all our timesheets as of yesterday. In addition to this, he wishes an estimate of projected time through June 15. Coming meetings are listed in #6 above, plus any other calls you anticipate you will be making. Add to this a mileage sheet and send all information to the General Chairman immediately so that payrolls may be figured out.
Also don't forget the substitute information including names, dates, etc.

Memo 15

C A R E E R E X P L O R A T I O N

From: Chairman Special Areas Committee
To: Committee in Special Areas

Subject: Meeting notes of June 7, 1972 - all day meeting

Present: Messrs. J. Ringrose, E. Delbeare, P. L. Bosco

1. The final all day meeting was held at the administration building. Progress reports were made concerning the further enlisting of observation stations. Cluster folders were checked for new candidates and sheets inserted for places covered by the committee that did not have letters in the folders.

2. The Hitchcock Printing Co. has yet to submit a price of the validation glue-stamp. We have been instructed by the General Chairman to submit the job to another company if no response comes very shortly. Eight rubber stamps have been ordered at Tab's Printing Co., two for each school. They will be used as cancellation stamps bearing the name of the junior high school. The price was quoted as $4.00 each.

3. The Committee disbursed for the remainder of the day making calls at prospective locations. Among some of the new entrants are Hjorpe Hdwe., American Bazaar, Martin Rosol's, N. B. Museum of Art and others. The Stanley Works advised us that all catalog sheets would be sent to us by the end of next week.

4. The final afternoon meeting will be held Monday, June 12, at the Admin. Bldg. at 3 p.m. This meeting will be used to complete unfinished paperwork, to collect all time and mileage sheets and to outline any individual calls that might be made prior to the closing.

P.L. Bosco

cc: All chairmen

Memo 16

C A R E E R E X P L O R A T I O N

From: Chairman Special Areas Committee
To: Committee in Special Areas

Subject: Meeting notes of June 12, 1972, 3:00 p.m. meeting

Present: Messrs. J. Ringrose, E. Dolbeare, P. L. Bosco

1. The final committee meeting was held this day. Three purchases were discussed: art work for the CEP stamp at Gray Advertising, CEP stamp order increase from five to ten thousand at Hitchcock Printers, and eight cancelation rubber stamps at Tab's Printing Co. It was advised that pre-billing be requested in order to meet budget time schedule.

2. Those present at the meeting felt that calls for observation stations were still incomplete so that calls will be made individually to the locations pending. Time sheets will be kept at the Chairman's desk where any additional hours can be added when necessary. This should also include any mileage.

3. Should any questions arise during the closing out period, contact Mr. Kevorkian's office where any one of the chairmen may be working at various hours.

4. I wish to take this opportunity to extend my personal thanks to those members of the committee who worked so faithfully and energetically during the development of the CEP program - a job well done!

P. O. Bosco

cc: All chairmen

February 17, 1972

Career Exploratory Program
Communications Committee

The first meeting of the Communications Committee was held at the Administration Building at 3:00 p.m. February 16, 1972, with all members attending.

Members Present:

Lance Bagley, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

Items Discussed:

It was decided by the members that the Communications Committee would meet the first and third Wednesdays after school at the Administration Building. It was also decided that the first and third Fridays of each month would be set aside as workshop days and that the last Friday of February, the 25th, would be the first workshop day.

The chairman, Lance Bagley, discussed the meeting held with other committee chairmen regarding possible aims and purposes of the overall Career Exploratory Program. Each member was given a copy of said aims and purposes for future reference.

After discussion of the overall objectives of the program with General Chairman, Joseph Geraci, members agreed that the first item on the agenda would be to research the resource material available in order to set up a Communications Program which would successfully bridge the gap between the elementary and high school PIC Program.

The meeting adjourned at 4:15 p.m.

cc: General Chairman, Joseph Geraci, Slade
Committee Chairmen, Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee, Members
Lance Bagley, chairman, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

March 1, 1972

Career Exploratory Program
Communication Committee
Meeting

A meeting of the Communication Committee was held at the Administration building at 3:00 p.m. March 1, 1972, with the following people in attendance:

Lance Bagley, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

The format of the meeting can be divided into three areas.

1. A review of our work to date.

We reviewed the work that each of us has done thus far on our projected units. One unit is to be dealing with Mass Media - Content and Production. The other unit deals with job awareness.

2. We discussed what our work would be at the next full day work-shop, March 3, 1972.

3. We discussed with C.E.P. Committee Chairman, Joseph Geraci, the units so far developed by our committee. It was agreed that we were working in the right direction.

We adjourned at 4:00 p.m.

Respectfully submitted,

Harry Oslund

cc: General Chairman, Joseph Geraci, Slade
Committee Chairman, Peter Bosco, Nathan Hale

cc: Committee Chairmen, Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt

Communication Committee Members, Lance Bagley, Chairman
Joan Lang, Slade
Harry Oslund, Nathan Hale
Gloria Berson, Washington

April 6, 1972

Career Exploratory Program
Communications Committee
Meeting

A meeting of the Communications Committee was held at the Administration Building at 3:00 p.m. April 5, 1972, with the following members in attendance:

Lance Bagley, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade

A rather lengthy discussion took place concerning re-evaluation of the Communications Committee's role in the Career Exploratory Program.

Most of our time thus far has been spent developing units of study, i.e. curricula change. A couple are as follows:

a) Job and You - interpersonal relations and communications terminology within the business world.

b) Mass Media/Content and Production - communications and terminology dealing with content and production of various facilities including radio, television, newspapers, magazines, etc.

During the General Meeting of April 4, 1972, held at Slade, a new program format was developed in the form of a work-role sheet which was to be completed by the student, employer, with work-role areas and clusters defined by committee members.

It was noted by this committee, however, that the Catalog form, which was to have been a composite of three forms made up initially by the Science, Social Studies and Special Areas committees, was not the one voted on at the General Meeting of April 4. The section submitted by the Science Committee had been eliminated altogether and another, completely new section substituted.

This committee has directed its energies toward complementing and supplementing work-role observations in areas of reading, verbiage, filling out forms, etc. as well as setting up work-role stations for the various areas of communication. It is now felt that our role in effectively aiding the student with in-class instruction has been greatly minimized, if not eliminated altogether. We strongly feel that unless this career program is implemented in the classroom, it will lose its effectiveness and eventually fail.

The chairman reported on his March 24 visit to the Stanley Works and stressed that the Industrial Relations Dept. would be

the area to contact for future dealings in the area of Communications. We hope to visit this facility soon.

The chairman is to contact Mr. Wellman at the New Britain Herald in the hopes of touring this facility this Friday, April 7, when we will meet for our fourth workshop day. It is our hope that we can gain considerable information regarding the possibilities for students in the work-role observation station of a newspaper with its broad base in the area of communication.

The meeting adjourned at 5:00 p.m.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Geraci, Slade
Committee Chairmen, Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt

Communications Committee, Lance Bagley, chairman, Roosevelt
Members
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

April 27, 1972

CAREER EXPLORATORY PROGRAM
Communications Committee Meeting

The Communications Committee members met with members of the Stanley Forum at the Stanley Works on April 27 at 2:00 p.m. The following members were in attendance:

Lance Bagley, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade

Mr. Joseph Lawlor, Mr. Gerald Cooper and Mr. Alfred Millard discussed with the members Stanley Work's role in CEP. Mr. Lawlor stressed the fact that the CEP is very much in keeping with the goal of the Stanley Forum to acquaint the student with the business in democracy as we know it.

The same cooperation we experienced at the New Britain Herald. was evident at Stanley Works. We were given a tour of the Duplicatin facilities, mail room and trascription center by Mr. Ken Ranks, General Office Manager. Many of the machines in Duplicating were similar, on a smaller scale, to those already seen at the Herald.

A pilot program, involving 9th graders, was set up in the area of Communications for May 16-17. Four students (at 3 work-role stations) will report to Mr. Ken Ranks on May 16 from 8:00-12:00 p.m. Two will be assigned to Duplicating and one each to the mail room and transcription center. On the 17th, the students will reverse work-role stations.

Although Mr. Fisher in Industrial Journalism was not available today, he left word that he would accept three students to work with him on the moring of May 16 from 8:00-12:00 p.m. It is hoped that we will see him at another time.

Mr. Lawlor, Mr. Cooper and Mr. Millard hope that after the students have been at their work-role stations, they can be observed on closed-circuit TV in a "rap session" with members of the Stanley Forum to see what kinds of comments and opinions they may have concerning their work-role experiance. The men also agreed to come to the schools to serve as resource people when the time came. The meeting ended at 4:30 p.m.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Geraci, Slade
Committee Chairmen, Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee Members
Lance Bagley, chairman, Roos.
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

CAREER EXPLORATORY PROGRAM
4th WORKSHOP DAY - COMMUNICATIONS COMMITTEE
ADMINISTRATION BLDG. - APRIL 7, 1972

The Communications Committee met today with the hopes of touring the New Britain Herald facilities but were informed by Lance Bagley, chairman, that due to a previous commitment, Mr. Wellman was not able to see us today. He did suggest several dates during the week of April 17, however, and it was decided that the committee would visit the Herald on April 21, our next workshop day. In the meantime, we will set up the worksheets so that specifications for various jobs in the Communications cluster can be filled in at that time.

The chairman discussed with the committee the flow chart made up by the Guidance Committee suggesting procedure the student would follow from the initial Guidance Session to acquaint the student with the whole idea of career education, to the final cluster seminar after the student has returned from the work-role station. All agreed it was helpful.

Having received only two replies to the queries sent out to local businesses concerning their participation in the Career Exploratory Program, the suggestion was made that a follow-up phone call should be made. With no special marking on the envelope, many businesses might throw out the request as junk mail without ever opening it. Personal contact was felt to be the best approach. This committee plans to start contacting those businesses involved in Communications.

Most of the day was spent going through the fifteen clusters, selecting those areas pertinent to Communications and setting up work-sheets which we will be taking to the employer for job specifications.

The committee discussed the change of emphasis in CEP from a school-based program to an employer-based program with Mr. Devorkian and Mr. Geraci and were informed that curriculum change is absolutely necessary if the program is to succeed. Businesses expect the teacher to prepare the students who come to them. The program worksheet is important to be sure in helping to set up an effective program. This committee feels that it's not a substitute for the whole program.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Geraci, Slade, Peter Bosco, Nathan Hale, Peter Kummer, Washington, John Macensky, Slade, Greg Frey, Roosevelt,
Communications Committee Members, Lance Bagley, chairman, Roosevelt, Gloria Berson, Washington, Joan Lang, Slade, Harry Oslund, Nathan Hale

April 17, 1972

CAREER EXPLORATORY PROGRAM
Communications Committee
Meeting

A meeting of the Communications Committee was held at Washington Junior High School at 3:00 p.m. on April 17, 1972, with the following members in attendance:

Lance Bagley, Roosevelt
Harry Oslund, Nathan Hale
Gloria Berson, Washington

The committee reviewed the "Desk-Top Career Kit" and the SRA "widening Occupational Roles" kit to determine whether these tools would be of use to us. We found that these kits contained a great deal of material with respect to job descriptions and vocabulary required in classroom pre-instruction for almost any job. It was decided to use these kits in our lesson plan preparations.

Harry Oslund reported on his discussions with John Whelan of the Nathan Hale Junior High School faculty. Mr. Whelan, who is planning a "Media" course at Nathan Hale for the coming school year, indicated his interest and willingness to cooperate with this committee with respect to filling us in on the course he is preparing. He will share with us the resources he discovers and we will supply him with any information he can use.

The committee discussed the requirements of Mr. Fisher at Stanley Works with whom it will meet on Wednesday, April 19, 1972, and those of Mr. Wellman at the New Britain Herald with whom it will meet on Friday, April 21, 1972. After the latter meeting we will immediately develop a concrete outline for presentation in the classroom in the pilot operation. This unit will be based on a variety of publications from the standpoint of the editor and the subclassifications under his dominion.

A rough outline was discussed with emphasis on the deductive approach, i.e. the editor as the focal point and all operations emanating from his domain.

The meeting adjourned at 4:15 p.m.

Respectfully submitted,

Gloria L. Berson

cc: General Chairman, J. Geraci, Slade
Committee Chairmen, Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee Members

CAREER EXPLORATORY PROGRAM
5TH WORKSHOP DAY - COMMUNICATIONS COMMITTEE
APRIL 21, 1972

The Communications Committee met today at the Administration Building and left almost immediately to meet with Mr. Wallman of the New Britain Herald.

We discussed the CEP program with Mr. Wellman and our hope in setting up a pilot program which would involve the Herald in the area of Communications. Mr. Wellman was not only cooperative, he was enthusiastic. He agreed that youngsters should be allowed to observe different occupations and where the Herald was concerned, his support was complete.

After giving the members a tour of the Herald and all its functions, we reassembled in his office for a planned program of what the Herald could do in cooperation with the Communications Committee. It was agreed that four (4) students (9th grade) would report to the Herald for a week's observation of reporting, advertising, and compositing (with printing and circulation added)

The students would be expected to report to the Herald whenever the reporter did (7:30 a.m.) and accompany him on his rounds for the day, watching and observing carefully his techniques. Two days would be spent with the reporter, two with the advertising man (also out in the field) and the last day to see just how the newspaper was put together. Dates of the pilot program run consecutively from May 15-23. Mr. Wellmen will evaluate the performance of those who are involved in the pilot.

The remainder of the day (from 1:00 to 7:30 p.m.) was spent at Gloria Berson's home setting up the total unit on the newspaper. An Introduction to theNewspaper, sections on Reporting with Classroom activities, copy editing and advertising were put together by the members. Transparencies will also accompany the unit to give a visual sample of the newspaper in general from the reporter's story to the actual delivery by the newsboy.

Today was the most worthwhile day the Communications Committee has had. We really feel that we have a sense of direction and accomplishment.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Gerace, Slade
Committee Chairman, Peter Rosen, Nathan Hale
Peter Duncan, Washington
John Moczarsky, Slade
Greg [illegible], Roosevelt
Communications Committee, [illegible], Chm. Roosevelt
Members Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

CAREER EXPLORATORY PROGRAM
6TH WORKSHOP DAY - COMMUNICATIONS COMMITTEE
APRIL 28, 1972

Three members of the Communications Committee, Lance Bagley, Gloria Berson and Joan Lang, met today at the Administration Building in order to complete the typing and compilation of the Newspaper-Unit which will serve as the basis for the in-school instruction preceding the pilot program scheduled to begin the week of May 15, 1972, at the New Britain Herald.

The unit consists of an Introduction to the Newspaper, Introduction to Reporting, Editing, and Advertising, with varied teacher and student activities in each of the latter three categories.

In addition, there are several handouts to be given to the students along with a variety of materials for display in the classroom. These include six-level tape (computerized) which carries every news story, paste-up sheets, A.P. and U.P.I. wire sheets, and the special Herald supplement on the "new" process. The final project of the unit will be the publication of a newspaper for "Classroom, U.S.A."

The unit will be presented to Dr. Bowman and the Jr. High School principals at a meeting with the Committee Chairman of the CEP on Tuesday, May 2, 1972.

Respectfully submitted

Joan Lang

cc: General Chairman, Joseph Geraci, Slade
Committee Chairman: Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee Members: Lance Bagley, chairman, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

CAREER EXPLORATION PROGRAM
7TH WORKSHOP DAY-COMMUNICATIONS COMMITTEE
MAY 5, 1972

Members of the Communications Committee met today at the Administration Bldg. to begin compiling materials for the new unit on Radio and TV Broadcasting. It was our hope that at least two of the members would visit some radio and TV facilities today, but we were unable to set up a meeting on such short notice. However, Gloria Berson and Joan Lang will visit Channel 30 on May 19, 1972 to see what CEP work-role stations can be set up. Hopefully, some radio stations will be visited on that day also.

Most of the day was spent going through occupational briefs to locate radio-TV related work roles, such as broadcaster, public relations man, actor-actress, news photographer, TV directors, writers, advertising men, etc. Many of the work-role stations are the same as those required for a newspaper.

The radio-TV unit will follow the same format as the newspaper unit. Actually, there will be two units in one, since radio is largely aural and TV visual. There will be a short history of both media, with the body of the unit devoted to teacher and student activities in the development of a radio and TV show. The final project of the unit will be the actual presentation of a show in both media.

Mr. Geraci approved Thursday, May 25, 1972 as a workshop day for the Communications Committee in order to complete this unit so that it may be given to 9th grade English teachers for use in the classroom next fall.

This committee ran off additional copies of the newspaper unit, complete with handouts, for distribution to the 9th grade English teachers.

Respectfully submitted,

Joan Lang

General Chairman, Joseph Geraci, Slade
Committee Chairman: Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee: Lance Bagley, chairman, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

CAREER EXPLORATORY PROGRAM
8TH WORKSHOP DAY - COMMUNICATIONS COMMITTEE
MAY 19, 1972

Members of the Communications Committee met today at the Administration Building. First on the agenda was a discussion with Gloria Berson of her classroom teaching of the newspaper unit. She brought along copies of the newspapers made up by her classes, the final project of the unit. On Monday, May 22, she will meet with the CEP Committee Chairmen to brief them on classroom procedure. She will also make a presentation to secondary teachers at a special CEP meeting to be held at Slade Jr. High on May 25, 1972. A student from the pilot program will also be on hand.

We worked most of the morning compiling information for the radio and TV unit. In the afternoon, Gloria Berson and Joan Lang visited WTIC Broadcast House for a tour of the radio and TV facilities. Mrs. Ripple, the tour guide, was most pleasant and made the tour both informative and enjoyable.

Although we were not seeking work-role stations because of a Hartford based operation, the accessibility of WTIC via Route I-84 should not be discounted. At any rate, we acquainted various personnel with the CEP program in general, and the area of Communications in particular.

We visited various studios and watched several programs in progress, the Public Relations Dept., Art Dept., Commercial Library, Record Library, Projection Room, Computer Room and News Room. John Ferguson of the News Room (where the radio and TV facilities come together) was most helpful and gave us several visual aids for the unit, including teletype material on the national, state and local levels.

As teachers, we now feel that we can bring a great deal more to the classroom instruction on the Radio-TV unit.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Geraci, Slade
Committee Chairmen: Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee Members: Lance Bagley, chairman, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

CAREER EXPLORATORY PROGRAM
9TH WORKSHOP DAY - COMMUNICATIONS COMMITTEE
JUNE 2, 1972

Three members of the Committee, Lance Bagley, Gloria Berson and Joan Lang, met today at the Administration Building in order to complete the Radio and TV Broadcasting Unit. After a few hours of writing up, typing and compiling materials to accompany the unit, it was realized that the unit could not be completed today. Although this is our last workshop day, this committee will meet again after school on June 12 and 13 to finish the unit.

The "rap session" with members of the Stanley Forum will take place on June 5. Gloria Berson, who taught the newspaper unit in the classroom, will attend with those students who took part in the pilot program at Stanley Works. Students who participated in the Herald pilot have been invited to attend also.

Miss Berson was asked to work for the Communications Committee , CEP, until the end of June to contact various businesses regarding work-role stations in the area of communications. It is hoped that WTIC will make its facilities available to us.

Respectfully submitted,

Joan Lang

cc: General Chairman, Joseph Geraci, Slade
Committee Chairmen: Peter Bosco, Nathan Hale
Peter Kummer, Washington
John Macensky, Slade
Greg Frey, Roosevelt
Communications Committee Members: Lance Bagley, chairman, Roosevelt
Gloria Berson, Washington
Joan Lang, Slade
Harry Oslund, Nathan Hale

MINUTES OF THE MATH & SCIENCE COMMITTEE OF C.E.P. 2/29/72

The first meeting was held at the Administration Building on Feb. 22, 1972, at 3:00 p.m.

Members present: Peter Kummer, Paul Cormier, Rose Berlani, Judy Bradlau, Bud Phelps, Henri Quarti

Discussion:
a) transportation record and other forms.
b) hourly wage rules
c) basic aim and philosophy of the program; ditto passed out to members
d) unit of study format; a sample was passed out.
e) a list of possible observation stations was formulated
f) a tentative schedule was set up for the month of March.

Full days: March 13 and 20.
Afternoons: Feb. 29, March 14 and 21.

The meeting was adjourned at 4:00 p.m.

* * * *

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

Feb. 29, 1972

The committee met at the Administration Building at 3:00 p.m.

Bob Galati of Slade will replace Judy Bradlau on the committee.

We set up the schedule for the March meetings:

March 13 and March 20 will be full day meetings.

March 14 and March 21 will be afternoon meetings at 3:00 p.m.

The C.E.P. committees will be setting up the units of study to be used by the teachers and students in preparation for the work-role observations. To set up the study units, the committee members will be visiting various businesses which will be contacted by mail informing them of the program.

For the first full day meeting on March 13, the committee members are asked to come prepared with a format for the study unit.

We also went through the reference material which has been obtained for use by the committees.

The meeting was adjourned at 5:00 p.m.

Peter Kummer
Chairman

MINUTES OF THE SCIENCE & MATH COMMITTEE OF C.E.P.

March 13, 1972

The full committee met at 8:00 a.m. at the Administration Building. Since this was our first all day meeting, we began by reviewing the basic aims and philosophy of the Career Exploratory Program. We made additions to the possible observation stations list.

The committee members came prepared with ideas for the unit of study format that we would use. We decided that two separate sheets would be needed. The one which would be kept in the Guidance Office catalog would include:

1) Job descriptions
2) What to look for: a) Duties; b) Responsibilities
   c) Background d) Advantages; Disadvantages
3) Places to make observations.

The other, the student would take with him to the work-role observation and would fill out. We thought that this one should be very simple in structure.

Copies of these forms would be sent to the other committees for comment. We also spent some time going over the reference material that was made available to the committee. We looked through and discussed the 15 cluster lists and picked out those areas that were most closely related to science and math.

The meeting was adjourned at 2:30 p.m.

MINUTES OF TH SCIENCE & MATH COMMITTEE OF C.E.P.

March 14, 1972

The committee met at the Administration Building at 3:00 p.m.

Members present: Paul Cormier, Bud Phelps, Bob Galati, Henri Guarti, Bill Ackerman, Peter Kummer

The chairman reviewed the discussion which was held with the representatives of the Stanley Works the previous week.

Members of the committee asked if letters to the various businesses had been sent out asking for their participation in the program. It was found that the letters had not been sent out to any extent yet. It was thought that this should be done so that we could get to work on making observations and writing up the units of study.

We finalized the two forms which we developed for use by the Guidance Office and the student making a work-role observation.

The meeting was adjourned at 4:00 p.m.

* * * *

MINUTES OF THE MATH & SCIENCE COMMITTEE OF C.E.P.

March 20,1972

The full committee met at the Administration Building at 8:00 A.M.

We obtained the lists of various local employers and businesses from the C.E.P. secretary.

The major part of the day was used to send out the letters that describe the C.E.P. program and questionnaires asking if the businesses are willing to participate in the program and what kind of work-role stations are available. About 1,000 letters were addressed and sent out today.

We also set up the schedule for the April meetings:

April 12 and April 24 will be full day meetings
April 18 will be an afternoon meeting at 3:00 p.m.

The meeting was adjourned at 2:30 p.m.

MINUTES OF THE MATH AND SCIENCE COMMITTEE OF C.E.P.

April 12, 1972

The full committee met at the Administration Building at 8:00 a.m.

The committee began by going over the questionnaires that had been returned to us by the various businesses which we had contacted by letter. We noted those which pertained to our committee for future reference.

We also outlined the type of questions to be asked and what kinds of things to look for at the New Britain National Bank for our observation today. We proceeded to the bank and were greeted by Mr. William Gombatz, Executive Vice-President. He introduced us to Mr. Moore of Personnel who took us around to possible observation stations where we were able to talk to department heads at length about the kinds of things we want to do in the Career Exploration Program. We found out such things as the number of students that could be sent to each department, the days that observations could be made, and the length of the observation to get a good idea of each work-role. Mr. Moore also said that he would send to our committee the job specifications for such work-role observations as teller and any other information that might be of help to us.

Upon returning to the Administration Building, we discussed the day's activities. We discussed how to go about writing up the catalog sheets for the work-role observations. The committee also took the positive response questionnaires that were received and divided them up among the members who would make personal contacts as most businesses required more information.

Because many committee members had questions in regard to teacher responsibilities, courses of study, and other things. Mr. Geraci and Mr. Keverkian were asked to sit in on our discussion and to answer some of the questions.

The meeting was adjourned at 3:30 p.m.

Peter Kummer,
Chairman

MINUTES OF THE MATH & SCIENCE COMMITTEE OF C.E.P.

April 18, 1972

The committee met at the Administration Building at 3:00 p.m.

Members present: Paul Cormier, Bud Phelps, Bob Galati
Henri Quarti, Bill Ackerman, Pete Kummer

The committee again went through the cluster folders to see if more questionnaires had been returned. Again, those positive responses were noted and contacts will be made.

The members reported on what progress they had made in contacting the businesses. They were reminded of the full day meeting next Monday, and that about half of the day should be used in talking to various businesses and half of the day should be used to work on the catalog forms that the students will use before making their observations.

The committee members were reminded to bring their pay work schedules next week so that the total hours could be given to the general chairman.

The meeting was adjourned at 4:00 p.m.

* * * *

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

April 24, 1972

The full committee met at 8:00 a.m. at the Administration building.

We outlined the activities of the day. We first went through the 15 cluster folders to see if new letters had been received. Those in our area were noted and will be contacted.

The major part of the day was spent in visiting various businesses.

Mrs. Berlani went to the Grove Hill Clinic to talk to all the people there who had responded to our questionnaire. She also visited Dr. Ross, the veterinarian.

Mr. Galati and Mr. Phelps visited various local banks and the Henry Goldsmith Co.

Mr. Ackerman and Mr. Cormier visited Conn. Natural Gas, various dentists, Winthrop Market, and the John Boyle Co. Mr. Quarti visited the City Dept. of Engineering, Dr. Fletcher and the Guida-Siebert Dairy. The remainder of the day was spent in writing up the work-role sheets which would become a part of the Guidance catalog.

Peter Kummer, Chairman

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

May 1, 1972

The full committee met at the Administration Building at 8:00 a.m.

We again went through the 15 job cluster folders and noted the recent responses.

The major part of the day was spent in visiting various businesses.

Mr. Berlani spoke to the business manager at the Grove Hill Clinic and to a representative at the Children's Library and Museum.

Mr. Galati and Mr. Phelps spoke at the New Britain Savings Bank, Four Seasons Sport Shop, and Putnam, Coffin and Burr.

Mr. Cormier and Mr. Ackerman went to Adkins Printers and the D.S.O. Manufacturing Co.

Mr. Quarti worked on writing up the work-role sheets from the information that had been gathered through the visits to the businesses.

The remainder of the day was spent on writing up the work-role sheets on the information that was gathered today. This was done as committee members returned from their appointments.

* * * *

May 9, 1972

The meeting began at 3:00 P.M. at the Administration Building.

Members present: Rose Berlani, Bill Ackerman, Henry Quarti
Bud Phelps, Peter Kummer

We again went through the 15 cluster folders to see if new letters had been received. We also went over the lists that were used for the original mailing to the area employers and noted some who had not as yet responded. An effort will be made on Friday to contact some of these places.

We set up some appointments for Friday. The Data Processing Center at Stanley Works (Mr. Valerio), New Britain General Hospital Personnel Dept. (Miss Mary Meany), Dr. Herrax, and others will be contacted.

The meeting was adjourned at 4:00 p.m.

Peter Kummer
Chairman

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

May 12, 1972

The committee met at 8:00 a.m. at the Administration Building.

We went through the 15 cluster folders to see if new letters had been received. We also looked through the lists of employers to find those who had not responded to the first letter yet. We noted some and these will be contacted personally today and in the future.

Mr. Ackerman, Mr. Cormier and Mr. Quarti spent the day contacting various businesses and writing up the guidance catalog sheets.

The rest of the committee met with Mr. Valerio and other officials at the Stanley Works Data Processing Center. We spent the morning reviewing the two observation stations that have been set up there and filling out the guidance catalog sheets for those stations.

Afternoon meetings had been set up with the Visiting Nurse Association, Dr. Herrax, New Britain General Hospital, and others.

I met with Miss Mary Meany of the Personnel Dept. at New Britain General Hospital. We discussed the program in general terms and she suggested that a meeting be set up with their department heads and our committee chairman. A tentative meeting has been set for May 31 in the afternoon.

Peter Kummer, Chairman

* * * *

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

May 22, 1972

The committee met at 8:00 a.m. at the administration building.

We went through the 15 cluster folders and lists of employers to see where new contacts could be made for observation stations. We spent some time writing up the Guidance Catalog work-role sheets from the information that has been gathered since the last full day meeting.

We also compiled the substitute list which is to be turned into the general chairman.

Some of the places that were visited today were: Hirsch, Kaestle, & Boos, architects; Dakillo Photographers; New Britain Memorial Hospital, where 10 stations were set up; and the Visiting Nurses Association.

The meeting was adjourned at 2:30 p.m.

Peter Kummer, Chairman

MINUTES OF THE SCIENCE AND MATH COMMITTEE OF C.E.P.

June 5, 1972

The Committee met at 8:00 a.m. at the Administration building.

Present were: R. Berlani H. Quarti

R. Galati P. Kummer

S. Phelps

Committee members entered sheets into 15 cluster folders for the various employers who had been contacted and had not returned letters.

Much of the time today was spent in filling out the work-role observation sheets for the Guidance catalog.

The rest of the time was spent in visiting various employers such as: New Britqin General Hospital; Ciarcia Insurance; Abraham Bell, accountant; Arrow Drug; Twin City Pharmacy, New Britain National Bank; and the Federal Savings Bank.

As this is our last meeting, I would like to thank the Math and Science Committee members for all the work that they have done and for the fine job in completing our part of the C.E.P. program.

The meeting was adjourned at 2:30 p.m.

Peter Kummer
Chairman

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMETTEE MEETING
2-22-72

MEMBERS IN ATTENDANCE: John Macensky, Chairman
Helen Guiffrida
Jo Sahadi
Slade
Roosevelt
Nathan Hale

The committee decided to meet during regular school hours on the following days: Tuesday, February 29; Wednesday, March 8; Wednesday, March 22. A notice will be sent to the principals of each junior high notifying them of these dates so that substitutes can be obtained in time.

Various forms such as the Travel Expense Voucher and the Work Schedule for Pay Purposes were distributed and the hourly wage rules were explained.

The committee then reviewed the basic aim of C.E.P. which is to give students the opportunity to observe the functions and procedures of various occupations. This aim will be accomplished through group effort between educators and businessmen. The educators will formulate and provide detailed units of study, while the employers will provide specific functions and procedures of the designated vocation.

The committee also examined samples of work-role units of study in use by the PIC Program. It was suggested that for the next meeting the committee members encourage other staff members from their schools to attend and offer ideas they may have about the role of the social studies in C.E.P. Each member of the committee was asked to compile lists of possible job observations stations related to the social studies.

Respectfully submitted,

Jo Sahadi
Nathan Hale

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
2/29/72

MEMBERS IN ATTENDANCE: John Macensky, Chairman
Jo Sahadi
Roger Carlone
Helen Giuffrida
Slade
Nathan Hale
Washington
Roosevelt

The first meeting during regular school hours of the Social Studies Committee was held on Tuesday, February 29, 1972. The next two meetings to be held during regular school hours will be Wednesday March 8 and Wednesday, March 22. The correction of an error in dates was noted and will be made.

The committee worked on defining its role within the context of the entire porgram. In so doing, it decided that local government (public service) and its observation stations were clenrly within the Social Studies framework and should be completed first. The committee then began working on this project.

Lists of other clusters and observation stations, that are clearly within the Social Studies framework, were compiled.

The committee also prepared the Social Studies form of the Work-Role Units of Study sheet. In reviewing the provided sample copy, the committee made several changes, although it kept the basic form of the sheet the same.

Finally, the committee discussed those clusters and observation stations that might be shared with other committees. It was decided that the Social Studies Committee might eventually meet with each of the other commettees to prepare units of study on these overlapping observation stations.

Arrangements are being made to allow the Socail Studies Committe to visit the New Britain City Hall and other observation stations so that the committee members may gather first-hand information and knowledge. Also, individual job specifications are being gathered to aid the committee in its preparation of the Work-Role Unit of Study sheets.

Respectfully submitted,

Helen Giuffrida
Roosevelt

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
3/8/72

MEMBERS IN ATTENDANCE:	John Macenesky, Chairman	Slade
	Roger Carlone	Washington
	Helen Giuffrida	Roosevelt

The second meeting during regular school hours of the Social Studies Committee was held on Wednesday, March 8, 1972. The committe decided upon the dates for the meetings during regular school hours for the remainder of the school year. These dates will be submitted for approval.

A complete list of observation stations was prepared to be submitted to the general chairman. This list contains "general" observation stations. Many of these observation stations can be broken down into several work-role units. This will be done at a later date.

A study of the available materials and information in the Social Studies field was made. The committee worked on preparing work-role units of study for several observation stations. The committee also began preparations for future Social Studies meetings.

A discussion of the 3-hour session that Stanley Works is preparing for ninth graders was held. It was decided that an aptitude test of some sort should be taken by all students who will participate in this work-role program. This point will be raised by the Social Studies Committee at a furure meeting with the Committee Chairmen.

Respectfully submitted,

Helen Giuffrida
Roosevelt

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
MARCH 22, 1972

Members in Attendance: John Macensky, Chairman
Helen Guffrida
Roger Carlone
Jo Sahadi

Slade
Roosevelt
Washington
Nathan Hale

A letter requesting permission to visit various City Hall office was written to Mr. Ben Sisti. The committee felt that first-hand observation of the operation would facilitate the listing of job-role observation stations and the accompanying student Work-Role sheet.

The committee then reviewed the proposal made by Peter Bosco at the last general CEP meeting, March 21, at Slade. He suggested a standard form to be used by all departments. This committee decided to retain the basic format of Mr. Bosco's system but suggested that a detachable Student I.D. Card be included. This card would be filla in by the student up to the double line, (see attached copies), and then turned in to the proper authority upon arrival at his observatio station. These cards would be authorized and time in and out noted. The company would then retain this card for its records. The committ felt that this would be a good double check on the students and also would eliminate the need for special CEP stamps which would have to be distributed to too many people.

The Master Log also proposed by Mr. Bosco's committee was reviev and ammended. It was decided to add another date column which would be divided into Out and In columns. This would refer to the student Work-Role sheet.

The committee also revised the Student Work-Role Sheet and re-worded the final evaluation question to read "Was this observation of value to you? Why or why not?"

Next on the agenda came a review of some of the letters which have been sent to the various firms and companies in this area. Each work station was requested to send in a list of possible observation stations for the junior high school students.

The next discussion revolved around the central aim of CEP. The question was posed whether the CEP should be designed to fit into the existing curriculum or whether a new curriculum should be established to fit into the CEP idea. The prevailing opinion was that time will not permit the formation of new curricula by this coming September.

The suggestion was then made that CEP evaluation and weekly cluster discussion be incorporated into the Group Guidance classes now in existence in each of the junior high schools. Although this would remove the operation from the classroom teacher, it would help to organize the system until the program is established. This would also solve the problem of overlapping clusters by making one department responsible for all observation stations.

Respectfully submitted,
Jo Sahadi

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
April 6, 1972

MEMBERS IN ATTENDANCE:

John Macensky, Chairman	Slade
Helen Giuffrida	Roosevelt
Roger Carlone	Washington
Jo Sahadi	Nathan Hale

The first order of business today was the examination of replies from various local services and businesses to determine how many employers are willing to participate in C.E.P. A discussion of locatio and housing of prepared catalog sheets and the problem of teacher and pupil scheduling then followed.

A suggestion was made to send work-role sheets to each employer and to request them to fill in information regarding qualification and background necessary, responsibilites and duties, and special points of interest for each work observation station they plan to make available for our use. This would necessitate changes in the present work-role sheet. This committee felt that the form would have more value if more specific requirements were clearly defined such as - education required tools or special equipment needed, etc.

It was further suggested to send simplified forms to employers rather than include the top portion of the existing catalog sheet. Mr. Geraci came in and approved this suggestion.

The committee then constructed a sample of a work-role catalog sheet which included these new proposals. Mr. Geraci then suggested that teaching units be prepared for each cluster and that employers be personally contacted. A list of those firms which have expressed inte est in the program was compiled. The list included those firms which the committee felt could best fit into the social studies areas.

Two form letters were then devised. One to those employers who have expressed a desire to participate in the program, and one to thos who have expressed some questions concerning the purpose and practices of C.E.P. and their role in it. These letters were sent to Mr. Geraci and adopted for use by all other committees.

The next item on the agenda was to be the construction of a unit on local government to accompany the social studies emphasis and conce with City Hall.

The committee decided, after extensive discussion, that it is impossible to construct any type of unit until we know where and how suc a unit can be used. The discussion once again centered on the questio of how student and teacher scheduling will be determined for next term, how student interest in C.E.P. is to be gauged and evaluated, and what is to be the relationship between the classroom teacher and C.E.P.

The committee felt that until some decisions are made and definit proposals suggested, it is literally impossible to make any meaningful contributions in terms of units.

Respectfully submitted,

Jo Sahadi
Nathan Hale

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
4/19/72

MEMBERS IN ATTENDANCE: John H. Macensky, Chairman — Slade
Jo Sahadi — Nathan Hale
Roger Carlone — Washington
Helen Giuffrida — Roosevelt

Since plans for today's meeting of the Social Studies committee of the Career Exploration Program included a visit to the New Britain City Hall, the meeting opened with making appropriate preparations.

The objectives of our visit to the City Hall included:

1. To familiarize each department head with our program, answer any questions he may have, and begin to work-out details for establishing specific work-observation stations.
2. To familiarize ourselves with the facility.
3. To familiarize ourselves with the operations of each public service department.
4. To gather data for our units of study on public service which we are preparing.
5. To gather information for the Program's "Catalogue Sheet concerning each work-observation station.

We discussed our presentation to each department head, our approa and decided upon the best methods of gathering data. (To facilitate this, we had previously prepared a letter to be left with each department head requesting specific information. This letter was approved b the general chairman and adopted for use by the entire program).

While at the New Britain City Hall, we visited five city departments: 1) City Clerk, 2) Registrar of Voters, 3) City Plan Office, 4) The Corporation Counsel, 5) Finance Office

Upon our return to the Education Building, we began making preparations for another visit to the City Hall to see those departments tha could not receive us today. We also began making preparations to gather information from the Police and Fire Departments.

A sample unit of study was also begun. The committee intends to complete it and prepare sample copies of it tomorrow. This unit of study will be presented to the entire group of committee members at ou next general meeting.

Respectfully submitted,

Helen Giuffrida
Roosevelt

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
MAY 3, 1972

Members In Attendance:

John Macensky, Chairman	Slade
Helen Giuffrida	Roosevelt
Roger Carlone	Washington
Jo Sahadi	Nathan Hale

After a brief meeting at Walnut Hill, the Social Studies Committee spent the morning investigating possible work observation stations at City Hall. The information obtained during this visit was later compiled into the catalog pages and used in the formation of study units to accompany each station. The following departments were visited:

Human Relations Council

The director of this council felt that the nature of the work handled by his department deals with concerns that are too confidential to be observed by junior high school students.

Health Department

The Health Department has many facets. Some of the things handled by this office are checks on air and water pollution, analysis of tests submitted by city doctors, premarital blood tests, investigation of child abuse complaints, and T.B. and V.D. Clinics. The work stations within this department are doctors, housing investigators, medical stones, clerk typists, clinic workers, and public health nurses.

Our committee was then advised by Mrs. Dorothy Partika of the Health Department's Clinic who said that although the medical records on file in her clinic are classified information and therefore no observation stations would be available to us, she would be willing to come into the schools and address any group of students who express an interest in learning more about this aspect of the Health Department.

The director of the Health Department Laboratory was also unwilling to accept students in observation roles due to the possibility of accidental exposure to communicable diseases and the element of danger present in the specialized equipment and machinery used by the lab staff. He will, however, fill out the catalog forms describing the work of his department. The lab will be listed in the social studies Public Service Unit as a position with no observation stations available.

Parking Tickets

This commission is affiliated with the police department and operates under the jurisdiction of the Department of Finance.

They are happy to cooperate in our program and will fill in the information requested on the catalog pages. These forms will then be forwarded to Mr. Geraci.

Parks and Recreation

This department is very willing to accept numbers of students. There are five parks including the Hungerford Greenhouses. Points of observation include the planning and maintenance of various sports areas, seeding and turf upkeep, park superintendents, recreation directors, agronomist duties and clerical workers. This department will also forward catalog forms to Mr. Geraci.

Public Works Department

Duties of this department include the maintenance of incineration plants, city streets and plowing. There is a clerica staff of civil service workers as well as mechanics and other garage workers.

Public Welfare Department

The director of the Welfare office felt that his department would be among those unable to accept any student observers. He did give the committee information to be included in the Public Service Unit.

The Welfare Department is funded by State and Federal Agencies. The local Welfare Department is bound by law to assist all qualified cases which are not listed in the categorical state program. The state categories are Aid to Dependent Children, Aid to the Aging, Aid to the Disabled, and Aid to the Blin The state establishes standards of eligibility for all local departments of public welfare.

The most usual type of aid dispensed by the local department is aid to families on atemporary basis. This covers families hit by long hospital stays or long periods of unemployment. Among the long range programs is the Aid to Dependent Children. This continues until the youngest child in the family reaches age eighteen.

The local department is administered by a board of six directors appointed by the mayor. Public Welfare also covers medical aid, clothing allowances, housing and shelter, and the investigation of the mentally incompetent.

All positions in this office are civil service classifications. Preferred background of personnel should be in the areas of social work or psychology. People with BS or BA Degrees and experience are given highest consideration.

The next meeting of the Social Studies Committee will be Wednesday, May 10 at 3:00 at the Hill. The next regularly scheduled all day meeting will be May 17 at the Hill.

Jo Sahadi, Nathan Hale

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
5/17/72

MEMBERS IN ATTENDANCE:	John Macensky, Chairman	Slade
	Jo Sahadi	Nathan Hale
	Roger Carlone	Washington
	Helen Giuffrida	Roosevelt

Our meeting today began with a short conference and assignment of special duties for each member. We then began our tasks.

Jo Sahadi completed the work-role catalogue sheets for each of the observation stations at the Police Station and continued to work on the Police Unit of Study.

Helen Giuffrida reviewed the cluster folders to find any new responses that have been received since our last meeting and compiled a list of businesses for the Social Studies Committee to visit personally She also compiled a list of businesses that have not yet responded to our original letter. The committee plans to review this list and contact as many as possible.

John Macensky and Roger Carlone went to the New Britain Herald and Stanley Works and took pictures of our students participating at these places in our "pilot program". They also made arrangements for an interview at the New Britain Memorial Home. Their visit to the Post Master of the New Britain Post Office was successful. The Post Master agreed to participate in the program and also to provide films, tapes, etc. for a unit of study.

Jo Sahadi and Helen Giuffrida also visited a law firm that has agreed to provide 4 observation stations. They collected data for the catalog sheets and units of study also.

The committee is also working on compiling more catalog sheets and is preparing units of study for each of the observation stations it arranges.

Respectfully submitted,

Helen Giuffrida

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
5/24/72

MEMBERS IN ATTENDANCE: John Macensky, Chairman
Jo Sahadi
Roger Carlone
Helen Giuffrida
Slade
Nathan Hale
Washington
Roosevelt

Our activities today consisted of visiting businesses and working on our units of study and catalogue sheets.

Among the places visited were:

Army Recruiter
Navy Recruiter
Air Force Recruiter
Connecticut Employment Service
New Britain City Hall
a legal firm
New Britain School Admin.

Appointments were made at several other places for a later date.

Our units of study are well under way. We are finding that a unit is best approached by describing and clarifying each job observation station. In this way, the student will have a specific idea in mind of what each job includes before he gets there. Hopefully, with this previous knowledge of the job, the student's observation will be keener and therefore will be more beneficial. He will be able to spend time analyzing the job itself, how it fits into the rest of the business, how it fits into society, and how interested he is in that particular line of work. We hope to provide an adequate unit of study for each observation station, without burdening the student with an overwhelming presentation of a job in which he is merely showing an interest.

The main difficulty we are having in arranging observation static and gathering information for our catalogue sheets is that each busine wants to set-up its stations and procedures for visitation in its own way. In other words, there is very little uniformity in: start time, end time, number of days, number of hours each day, particular days of the week or month, etc. This is leading to a good deal of confusion and, in some cases, will even necessitate making arrangements before each student's observation.

Our meeting ended with making a schedule and arrangements for our next all-day meeting.

Respectfully submitted,

Helen Giuffrida

CAREER EXPLORATORY PROGRAM
SOCIAL STUDIES COMMITTEE MEETING
June 8, 1972

Members In Attendance:	John Macensky, Chairman	Slade
	Helen Giuffrida	Roosevelt
	Roger Carlone	Washington
	Jo Sahadi	Nathan Hale

Today's meeting was the last regular meeting of the Social Studies Committee during the school day.

John Macensky and Roger Carlone went to address a session of the Funeral Directors meeting held at New Britain Memorial Home. The Directors had requested more information about the Careers Program. They suggested that rather than have junior high school students come to the funeral homes they would instead come to the schools to speak with any students interested in learning more about the profession.

Helen Giuffrida interviewed Donald Friday to ascertain observation stations for students within the school department, while Jo Sahadi sorted out specifications which pertained to the social studies from the job specifications sent the committee from the Civil Service Commission.

The rest of the day was spent in writing catalog pages and units of study for each observation station listed by the Social Studies Committee.

The next committee meeting will be Tuesday, June 13 at 2:45 at the Hill.

Respectfully submitted,

Jo Sahadi
Nathan Hale

To: All Committee Chairmen
From: Chairman of Guidance Committee

An organization meeting of the Guidance Committee was held Wednesday, February 16, 1972, at the Administration Building.

Items Discussed were:

I. Explanation and Distribution of wage forms and travel expense vouchers
II. Discussion of the areas chairmen meetings to date
III. Distribution of sheets concerning aim and purpose of CEP program
IV. Distribution of monthly schedules of released days: Feb. 23; March 1, 15; April 5, 19; May 3, 17: June 7
V. A discussion was held together with J. Geraci as to what role the Guidance Committee will play in the CEP. This will be continued at our next meeting.

The meeting was adjourned at 4:00 p.m.

Greg Frey
Roosevelt Junior High

* * * *

Career Exploration Program

An all day meeting of the Guidance Committee was held on Wednesday, May 3, 1972 at the administration building. Those in attendance were: Greg Frey, Chairman, Charlotte Kania, Arlene Wolenski

The morning session was held with the intention of starting the Career Exploration Catalog. This was accomplished by dividing a notebook into 15 sections based on the 15 job clusters. All the CEP work-role sheets that have been returned were then separated into these 15 clusters and each one was given its appropriate DOT code. The sheets were then put into the catalog from lowest number to highest based on the DOTS. More and more work-role sheets are returned, this will become a bigger and bigger job.

The afternoon session was spent on ordering vocational materials for the media centers which will be located in each junior high school next year. Some of the materials ordered include: Career Kits - job descriptions; College and Occupational view-decks; Filmstrip kits; DuKane automatic sound filmstrip projectors; Earphones. Many more materials will be ordered in the future.

Greg Frey
Roosevelt Junior High

To: Career Exploration Program Committee Chairman

From: Guidance Chairman

The first meeting of the Guidance Committee on released time was held at the Administration building on February 23, 1972.

Members present were: Greg Frey, Chairman
Dorothy Wojtusik
Charlotte Kania
Dick Soloman

The first part of the meeting was devoted to studying the materials which J. Geraci, the General Chairman, had left for us. Of these materials, the 15 job cluster units were given most attention. Art Kevorkian emphasized that all the various committees should use these same 15 clusters in order to have a unified program.

The remainder of the day was spent separating the 9th Grade Career day choices, areas in which students have expressed an interest into the various job clusters. It was felt that since the students have already expressed an interest in these areas these might become a starting point in the work-role observations.

Greg Frey
Roosevelt Junior High

The first part of the session was spent on reviewing the progress of the program thus far. This was done primarily for the benefit of Arlene Belmonzi who has replaced Dick Salemme from Washington Jr. High.

As one of the roles of Guidance in CEP will be to function as a media center - disseminating information on occupations for the teachers' benefit, a list of materials already on hand in all the Guidance Offices was drawn up as well as a list of some of the things that we would like to see in the Guidance Offices. Some of the items that all the schools have now, are: (1) - the 3d edition of the D.O.T.'s to be used for the cataloging of work role stations. (2) - the Guidance Chronicle's Occupational Briefs. (3) Guidance Chronicle's books on (a) Student Aids, (b) Guide to College Majors, (c) College Facts, (d) Career Index.

Some possible equipment for the Guidance Centers might include the Career Exploration Kits from Carrera, Largo, Florida, portable filing cabinets for Occupational Briefs, which would allow these briefs to be used in the classroom teacher, filmstrip kits on different job observations, and tapes of jobs. Other types of vocational equipment will be studied at a later date.

In the afternoon session we were joined by Don Paris, Director of Guidance, and Art Hovorkian, Director of the PIC Program. In this session, the role of Guidance in CEP was examined. In addition to providing vocational information for the classroom teachers, the Guidance Office will be in charge of the finished CEP Catalog of work role stations with all its ramifications. Also, the Guidance Department will become an ongoing process. Because of these new responsibilities the Committee feels that some of the present responsibilities the Guidance people now have should be eliminated. These will be elaborated on at a later date.

For the rest of this school year, the Guidance Committee will be making community contacts, as time permits.

Respectfully submitted,

Gregory Frey

CAREER EXPLORATION PROGRAM

An all day meeting of the Guidance Committee was held at the Administration Building on April 19, 1972, with the following members in attendance:

Greg Frey - Roosevelt
Arlene Walenski - Washington
Charlotte Kania - Nathan Hale

The majority of the morning session was spent on drafting a proposal on the role and duties of Guidance in the C.E.P. This proposal is to be presented to the C.E.P. Board of Directors by the General Chairman at the same time that the entire C.E.P. is explained. This proposal was drawn up with the assistance of Mr. Donald Paris, Director of Guidance, and meets with his approval.

The afternoon session was spent looking through catalogs containing vocational information. Also Mr. Boyle was asked to furnish us with any information he may have regarding vocational tapes or other vocational material which would be appropriate for the C.E.P.

Greg Frey
Chairman Guidance Committee

cc: Joseph Geraci
Donald Paris
C.E.P. Chairmen
Guidance Committee

ABSTRACT OF THE CAREER EXPLORATION PROGRAM

The Career Exploration Program for the New Britain Junior High Schools had its beginning at a general staff meeting, February, 1972, at Slade Junior High School. At this meeting, the idea of a career education program was presented to the staff by Mr. Arthur Kevorkian, Director of Vocational Education, and Dr. Thomas Bowman, Superintendent of Schools. Within two weeks, a committee of 24 teachers was brought together to create the curriculum and all related inputs.

The group of 24 was representative of 5 areas of discipline: Math and Science, Communications, Social Studies, Guidance and Special Areas (which includes school subjects not covered by other committees). Each sub-committee consisted of 4 members, one of which was the chairman. The Math and Science Committee included 8 members with one chairman in charge. An over-all General Chairman was elected to oversee the entire operational progress of the program.

Meetings and work sessions were held regularly since the general committee's inception in February and ran steadfastly through June, the date the project became complete. A variety of meetings were necessary to develop various aspects of the program; general committee meetings, sub-committee meetings, school faculty meetings, meetings with prospective community agencies and other business participants, meetings and discussions with students, meetings and discussions with educators outside the community as well as state, regional and even national conferences. Ideas began to develop, rapidly becoming material reality. The foundation was laid and the details began to take refinement.

The contributions came from three main sources: The school, the student, and the community. Without the conserted effort of all these sources, the program and its procedures could never have been devised. The school inputs were those tangible and intangible ingredients supplied basically by the Committee, supported by the Board of Directors of the program as well as the school facilities-at-large.

The students themselves made very real contributions through in-class and individual discussions dealing with the anticipated program. More tangibly, those students involved in the pilot project in May served as true critics of the proposed program.

Finally, the community itself with its myriad businesses, industries, institutions and civic agencies served as the

backbone in the actual procurement of on-the-job observation posts, the real meat of the entire program. Many of the area businesses not only offered observation stations but aided in the development of many of the ideas of the program.

The conclusions that were arrived at by the Committees are as follows:

We had to set up a format for the work-role observations that the students would be making.
The Guidance Department in each school would maintain a catalog of all the work-role observation sheets compiled by the various committees.
The Guidance Department in each school would be the hub of the Career Exploration Program serving as a resource center and for making appointments for the student's observations as well as counseling the students on careers.
All of the junior high staff should be kept informed of developments in the Career Exploration Program.
Personal contacts with area employers is the best way to obtain work-role stations.
An informational pamphlet should be developed about the Career Exploration Program and distributed to the schools and the various businesses in the community.
As much written and audio-visual material as possible should be obtained for reference in the schools.
Some committees felt that units of study had to be developed to tie in with the Career Exploration Program.
The community should be educated and informed of the Career Exploration Program through news releases as much as possible.
Students should be free to select as many work-role observations as their genuine interests are determined by teachers and counselors.
That the Career Exploration Program should be totally integrated into the curriculum.
That students and teachers should work on a one-to-one basis as much as possible in preparation for a work-role observation.
That time should be set aside during the school day for Career Exploration discussions, speakers, and individual work.
That the schools should generate about 2/3 of the input and the business community about 1/3 of the input.
That the students could make their observations during the school day and it would be up to them to get to their appointments on time.
That all the junior high school staff and students and the business community have input into the program.
That the students have an I.D. card that they would take with them.
That the student have a form similar to the Guidance Catalog Sheet that he would fill out at the observation station and that he could use as a base for his report to the teacher/class back at school.

Students would not have to make up missed work as a result of being out on an observation.
A pilot program was developed and evaluated and this showed that the program could be very effective.
That communications between the school and the community be an on-going thing in order to refine and perfect the program more and more.
Copies of the catalog forms should be made available and provided for the area businesses who are participating in the program to see what the schools are working on.

The stage has been arranged, the props have been set in place, the "producers and directors" stand in the wings in anticipation of the cast (the students) that will walk across the stage setting this innovative educational concept into motion.

ACCESSION NUMBER: VT102136

PUBLICATION DATE: JUL73

TITLE: CAREER EDUCATION PROJECT. INTERIM REPORT.

PERSONAL AUTHOR: MURRAY, JOHN P.

DESCRIPTOR: *CAREER EDUCATION; *OCCUPATIONAL GUIDANCE; PROGRAM EVALUATION; ELEMENTARY GRADES; SECONDARY GRADES; COMPREHENSIVE PROGRAMS; DEVELOPMENTAL PROGRAMS

IDENTIFIER: BUFFALO; NEW YORK

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 74P.

ABSTRACT: THIS INTERIM REPORT DESCRIBES THE PROGRESS OF THE FIRST OF A THREE-YEAR PROJECT BY THE BUFFALO, NEW YORK SCHOOL SYSTEM TO DEVELOP A K-12 CAREER EDUCATION PROGRAM. BASED ON A MODEL OF CAREER EDUCATION AS A DEVELOPMENTAL PROCESS, AND USING A COUNSELOR/TEACHER TEAM APPROACH, THE PROGRAM INCLUDED THREE JUNIOR HIGH SCHOOLS AND NINE ELEMENTARY SCHOOLS. THE TECHNIQUES USED WERE COUNSELING, GAMES AND ROLE PLAYING, FIELD TRIPS AND CLASS PRESENTATIONS. IN ADDITION, A SCHOOL EMPLOYMENT SERVICE WAS CREATED. THE RESULTS OF THE EVALUATION, OBTAINED BY PRE-POST TEST INSTRUMENTS, SHOWED A DEFINITE INCREASE IN OCCUPATIONAL KNOWLEDGE. INCLUDED IN THE APPENDIX ARE A SAMPLE CAREER EDUCATION GAME, AN OUTLINE OF THE GUIDANCE PROGRAM, A LIST OF INSTRUCTIONAL MATERIALS, AND A K-9 RESOURCE GUIDE. (NJ)

CONTRACT NUMBER: OEG-0-72-5148

INSTITUTION NAME: BUFFALO PUBLIC SCHOOLS, N.Y.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102136

INTERIM REPORT

Project No. V-261012
Contract No. OEG-0-72-5148

Career Education Project

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

John P. Murray
Buffalo Public School System
Room 808, City Hall
Buffalo, New York 14202

2

July 1973

Interim Report

Project No. V261012
Grant No. OEG-0-72-5148

Career Education Project

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

John P. Murray
Buffalo Public School System
Room 808, City Hall
Buffalo, New York 14202

July 1973

Table of Contents

INTRODUCTION 1

A GUIDANCE MODEL 2

GOALS AND OBJECTIVES 4

PROJECT DESIGN 4

IMPLEMENTATION OF THE PROJECT 6

RESULTS AND ACCOMPLISHMENTS OF THE PROJECT 17

RECOMMENDATIONS 18

BIBLIOGRAPHY 20

APPENDICES 21

INTRODUCTION

In recent years community organizations have been voicing strong concerns about the lack of career education (guidance) within the school program. Particularly poor minority groups have felt short-changed in terms of the very real needs of their children in this area as opposed to some of the built-in career orientation accessable to middle class children, i.e., home and community role models and the school itself as a representation and extention of middle class life. But in essence all students have been to some degree neglected in the area of career education.

Admittedly school counselors and school teachers have placed career education (guidance) on a very low rung of their ladder of priorities.. Administrators and building principals have also not felt the need to develop and implement career education in the schools. This has not been by design on the part of educators, but more akin to a sin of omission. Most of us in education become comfortable with our established pattern of teaching/counseling and the standard operating procedures fostered by our own systems. There is also a tendency among educators to stereotype career programs as a narrow type of education that involves imparting information about occupations to those students who " we presume" will not attend post high school programs.

With the community focusing on the issue, the Buffalo Guidance Department decided to review various nationwide career programs and to develop one of our own. Our guidance philosophy and orientation necessitated that we seek out programs that were based upon developmental learning theory and ones in which the school counselor was a central figure.

We found a very appropriate model in the Developmental Career Guidance Project of Detroit, Michigan. Dr. George Leonard and Dr. James Woodruff of the Counselor Education Department, Wayne State University, were in the midst of developing a K-12 program for Detroit's inner city. Their program contained the flow concept of elementary schools feeding into a junior high school which in turn fed a senior high school. A project counselor was assigned to each school along with a counselor aide. The latter were community residents who assisted the counselors develop the project. The counselors acted as resource people to teachers, helped teachers organize field trips, brought role models into the schools from the world of work and, at the high school level, developed cooperative programs with business and industry.

Although the DCG project had a decidedly black orientation due to their pilot schools' population, we felt that the educational philosophy was sound and much of what was being done in Detroit's inner city in terms of career education could be adapted to Buffalo.

With the assistance of the State Bureau of Guidance in Albany, New York, and several consultants from the Counselor Education De-

partment at State University of New York at Buffalo, we began a similar project at three schools in Buffalo's inner city. Through that project entitled Project Open Door to the World of Work our personnel developed a K-9 Career Resource Guide (see attached copy), provided seven counselors and six counselor aides to one inner city elementary school, one junior high school and one senior high school. The program was successful in many areas, but weak at the K-6 level. The project was limited in terms of only serving three schools in one sector of the city. Our evaluation also left much to be desired since the evaluation instruments were developed and administered by our own Board of Education. Interviews, testimonials and a likert scale were the basis for our evaluation.

In the spring of 1972 we applied for and received a Commissioner's Grant to develop a career education program. With the assistance and support of Buffalo's Department of Vocational Education and the Division of Vocational Education in Albany, our proposal was reviewed and funded for a three year period. Through this grant we could expand our project city wide, focus more on the K-6 program and contract a third party evaluator.

A GUIDANCE MODEL

Our first year model has developed into what we consider a functional approach to education with a decided career emphasis. We have tried to help students to become familiar with the values of a work oriented society, to integrate these values into their personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful and satisfying to each individual (Hoyt, Evans, Mackin and Mangum).

The school counselors role in career education is a pivotal one because implementation of any school based career education program involves the restructuring of the schools' curriculum, cooperation between academic and vocational education, and the redevelopment of many administrative policies (Marland 1972; Bottoms 1972).

The school counselors role in assisting students in the developmental process complimented his role as career education counselor for as a person learns and grows, his knowledge and skills also grows, and he can perform a wider variety of tasks. This developmental process particularly as it relates to careers, has been discussed by Super (1953, 1963) and others.

More specifically recent research and literature have cited three major developmental components of a career education program: skills development, attitudes and information. The first includes psychomotor skills and interpersonal skills, the second includes areas such as punctuality, cooperativeness, responsibility and the worth and dignity of work while the third includes information about the self, data about job requirements, sources of information about jobs and, lastly, a general information base provided typically by regular school subjects (Brown, Feit, and Forestandi 1973).

Utilizing the above components we have attempted to develop a counselor role based on the 3C model discussed by Lundquist and Chamley (1971) and fully developed by Brown and Srebalus (1972). The 3C model has three basic premises. First it is assumed that the counselor's activities can be subsumed under three general topics, counseling, consultation and coordination. Second it is postulated that no ideal role exists for the school counselor, but his expertise, personality and a variety of environmental factors are the determinants of his role. Third, the model assumes that the counselor's functioning will be a natural outgrowth of the basic needs of the students he serves.

The first C, counseling, can be defined as a process which involves the counselor in providing direct assistance to a student. Consultation, the second C, is a less intense process in which a student is helped indirectly usually through a third party such as a parent or teacher. Coordination, the third C, is the least intense of the three and usually involves the marshalling of all available resources in a concerted effort to assist a large number of students.

The flexibility of the 3C model allows for adaptation in the elementary, middle or secondary schools and also allows the counselor the freedom to determine the allocation of his time and efforts based upon the needs of the participants in the programs within the school and community. What usually happens in developing this model, as was the case with most of our project personnel, the counselor engages in a variety of activities in the initial stages of the program, but coordination processes occupy a major share of his time. However, as the program matures and other members of the staff develop more skills in the area of career education, the counselor will be able to engage in the more intense activities of consultation and counseling.

This has been an excellent model for us this year. Counselors seem very confortable with it. It has also been very compatible with our basic vocational guidance approach i.e., John Holland's personal orientation theory (see evaluation).

GOALS AND OBJECTIVES OF THE PROJECT

Two parallel objectives are sought for each child in the project:

(1) An ever more mature appreciation of the personal and social implications of becoming a worker.

(2) An increased understanding of the specific tasks required for gaining and maintaining employment.

I have included the more specific objectives of our program in the section entitled Results and Accomplishments.

PROJECT DESIGN

The Career Education Project is designed to establish Career Education Resource Centers at West Hertel Middle School, Southside Junior High School and Clinton Junior High School. Each Career Education Resource Center will serve three feeder schools based on the United States Office of Education center-satellite concept. The project patterned in accordance to the New York State Plan for Occupational Education, as outlined on page 9 of the Statement of Policy and Proposed Action by the Regents of the University of the State of New York, proposes to ensure the development of students so that by age 9, the student understands the concept of work; by age 12, the student is familiar with the broad families of occupations; by age 15, the student is able to assess his own potential and to participate in making informed decisions regarding his immediate educational and occupational goals.

A Career Education Advisory Committee consisting of central office administrators who direct education programs will be established to plan career education activities, organize in-service education, provide direction and support, coordinate project activities with secondary career education programs and assess progress toward desired project goals.

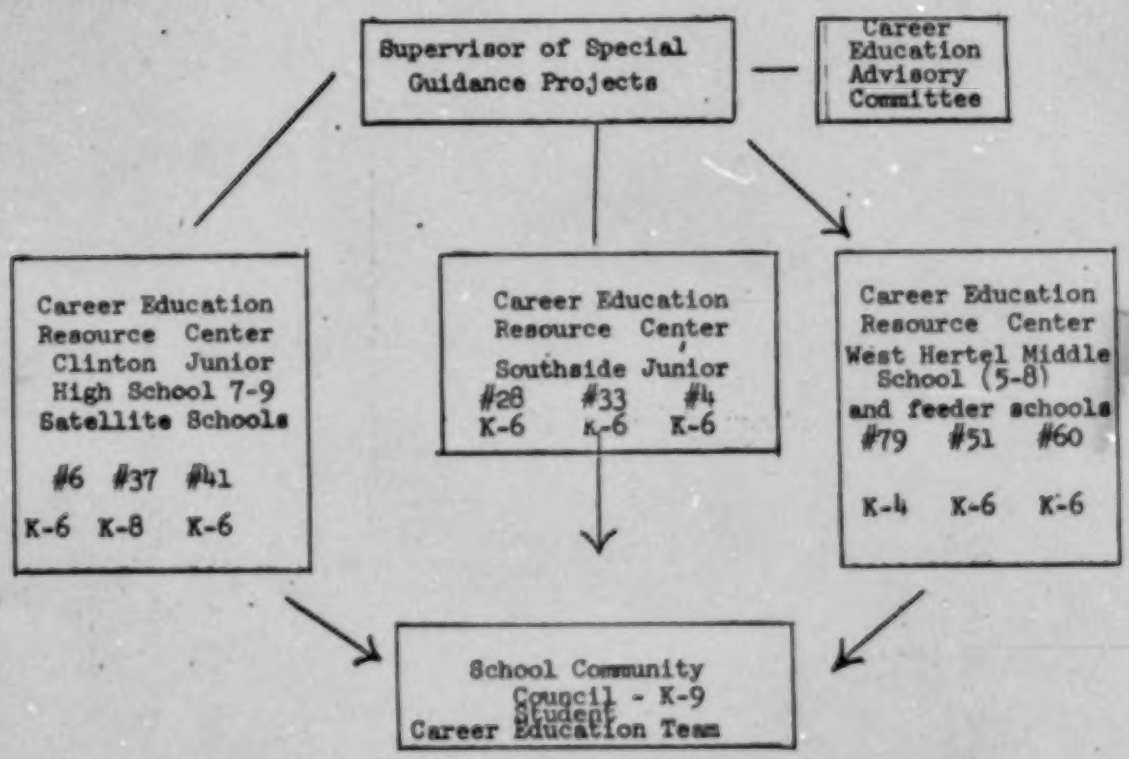
Career Education teams consisting of teachers of industrial arts, home economics, business education, art and music, and counselors will be established in each Career Education Resource Center. These teams served as consultants to teachers to incorporate field trips and assist students and teachers in the utilization of materials and equipment available in the Career Education Resource Centers. They also developed a systematic program to provide information and counseling which assisted young people to take full advantage of the strong diversified career education opportunities available in the Buffalo Schools at the secondary level and post-secondary educational programs available in the Buffalo community.

A continuous developmental career education program, instituted at the kindergarten level, which incorporated world of work concepts and attitudes into the regular instructional program and strengthened and integrated exploratory and pre-vocational programs formed the basis for hopefully better informed career decisions at the end of the 8th or 9th grade. More informed student decisions result in

greater student retention and satisfaction at the secondary level. Students, with continuing career counseling, will be ready for post secondary education or entrance into the labor market upon graduation.

The Career Education Advisory Commitee assisted the project supervisor to plan pre-service and in-service activities with the career education practitioners in the schools.

Consultants from business and industry, adult education and manpower agencies and post-secondary educational institutions will assist the administrators, practitioners and students to broaden the base for career education and plan appropriate activities regarding world of work attitudes, requirements and opportunities.



Instructional Staff

Project personnel sponsored by federal funds are as follows:

Supervisor of Special Guidance Projects (1)
Stenographer (1)

Career Education Counselors	(12)
Counselor Aides	(2)
	14

Instructional staff attending in-service through federal funding are as follows:

Special area teachers at the sixth grade through ninth grade levels	(15)
Selected grade level teachers Kindergarten through sixth grade level	(45)
Project staff	(14)
	74

IMPLEMENTATION OF THE PROJECT

To simplify the major section of the interim report I am dividing it into two sections, elementary (K-6) and early secondary (5-8 - 7-9). At each level I will discuss two major categories: methods and/or techniques and materials and/or instruments used to implement the project. I will also indicate under methods and/or techniques which ones are predominately counseling, consultation or coordination in keeping with the model described in the introduction.

Elementary Program - Kindergarten through Sixth Grade

As I have indicated earlier, this was our weakest level in the state funded project. In comparison we feel we have really made great strides in developing a model K-6 program under the Commissioner's Grant.

Our main thrust in the career program at this level was to simply expose children to the various aspects of the world of work. The major focus was to provide the child with developmental experiences which would create an awareness of the self, the family, the peer group, the immediate school community, the value and diversity of work roles within groups, the interdependence of workers, pride and appreciation of work well done and introduction to the decision-making process.

Methods and/or Techniques - (a composite of nine elementary schools)

I. Counseling C[1]

A. Group Counseling - All nine elementary counselors have met regularly with small groups of students (6-10) for the purpose of discussing values in society, the meaning of work and work roles at

at home, school and in the community. These sessions were ongoing with students and counselors meeting usually once or twice a week for eight to ten weeks per group.

A unique innovation in group work as it applies to career education was the use of value clarification/career exploration games. Activities such as Building a Society Game, Building a City Game, Career Square Puzzle Game, Value-Career Hierarchy, and Career "Card" Game have helped set the group focus on career orientation and were action oriented and appealing to children (see appendices).

Another group technique used by several counselors was the role playing of careers using hats which depicted a career. The counselor showed each of several hats to groups of children and the students discussed the job connected with each hat. Each youngster then selected a number which corresponded with the number on the hat. He then placed the hat on his head and role played the career. The counselor summarized the content and the process at the end of each group meeting.

Number of Groups	Number of Students
60	420

B. Individual Counseling - Referrals to counselors on an individual basis came from administration, teachers, parents or on a self-referral basis. The nature of most of the referrals was not directly career oriented per se, but rather directly associated with either a school adjustment problem, i.e., underachiever, or peer group social problem. Indirectly these areas are most important in the development of the whole child in terms of positive growth and goal achievement.

Over and above the effect of the counselor in working with the child in a one to one situation was the tremendous success achieved when the counselor worked closely with the teacher in our behavioral modification program (see section on consultation).

The individual and group counseling approach most often used by project personnel was based on Dr. William Glasser's Reality Therapy. It is rather an eclectic approach which emphasizes establishing a relationship with the counselee, positive reinforcement, reality testing and contracting. We feel it is one of the best approaches to school counseling and fosters many of the concepts of career education.

Number of Students Counseled Individually - 3,600

C. Group Guidance - Although group guidance is not technically considered counseling, it is a counseling tool which offers direct counselor contact with students. It has also been an indespensable part of our career education project.

One mistake we made with our state pilot project in career education was the overemphasis of the counselor role as resource person or "consultant" to teachers. This created some resistance and alienation

among teachers who viewed the counselor as a person who was willing to give advice and provide resources, but unwilling to work with classroom size groups of students.

In the Career Education Project the counselors have taken a more active role in terms of actually demonstrating career education materials in the classroom and in fact, implementing their own on-going group guidance programs on career awareness. Teachers have appreciated this "activist" role on the part of the counselors and in return have become more involved in using our materials and resources. Usually after a class demonstration by the counselor, most teachers continued to use the materials on their own.

The content or subject matter that counselors addressed themselves to in their classroom presentations were as follows: explanation of the school employment service, growth and development, values, the meaning of work and attitudes towards work (see listing of materials in appendicies).

Number of Group Demonstrations	Number of Students Involved
50	1150

No. of Ongoing Group Guidance Programs	No. of Students Involved
27	700

II. Consultation (C^2)

The foundation for establishing a working relationship with teachers in the project was established early in the school year with a ten week in-service on behavioral modification (see first quarter report). After the in-service counselors and teachers consulted on strategies to change childrens behavior by using behavioral modification techniques such as positive reinforcement, contracting and reward systems.

Some of the school based programs which were a direct result of this consultation process were as follows:

School Employment Service - Counselors and teachers worked together in creating job titles, application forms, job requirements, interviewing and selection teams, on-the-job counseling program and reward system. At the K-3 level all student jobs were contained within the classroom, i.e., taking attendance, venetian blind adjustor, window adjustor, chair straightener, material distributor, etc. At the 4-6 level jobs were more school oriented, i.e., audio-visual assistant, attendance card carrier, safety patrol, guidance monitor, etc.

A few elementary school counselors worked closely with the students and eventually the entire process was taken over by student committees. Through this program students received real life experiences in the processes involved in applying for a job, getting a job, retaining a job and attaining rewards for a job well done.

Types of Jobs	Number of Students Involved
classroom	415
school based	373

12

N.B. Classroom jobs were much easier to monitor. The 4-6 school employment service should begin on a small scale and be expanded gradually.

Token Economy Store

This strategy has been pilot tested at one school and may be expanded to other schools next year. It involved the counselor organizing a toy store and token system with the teachers. Students worked in the classroom for the tokens and when enough were saved, cashed them in for an article or toy from the store. This procedure, of course, enhanced the concept that we all work for rewards and the better our work is the more rewards we get.

Interestingly enough the token economy store did not perpetuate crass materialism as our own society sometimes does, but through the conscious efforts of teachers and the counselors created pride in schoolwork and a need on the part of students for social rewards. The counselor in particular always included a social reward with the material reward, i.e., "nice work Jimmy" or "we're really proud of your work." As a result many students saved their tokens to go bowling with the counselor on Saturday morning or to go on a field trip with their teachers.

Number of Students Involved	Number of Teachers Involved
62	11

Curriculum Development

Counselors and teachers consulted during in-service sessions and on a weekly basis to devise ways of incorporating career materials into exisiting courses of study and syllabi. Our approach was one of attempted integration of career experiences and activities into the exisiting curriculum rather than fostering the unit approach, although the teacher could choose either.

Our efforts in this area were not as successful as we had hoped, but we intend to increase teacher involvement next year (see section on recommendation). This first year the counselors have held school based in-services on the use of instructional materials purchased through the project. They demonstrated the materials in the classroom and set up the organization for distribution of the materials to teachers on request. Many teachers made use of the materials but usually not on a systematic basis.

A listing of resource materials is included in the appendices. The Kindle Scholastic Series on self-concept and the Science Research Associates material on career education were used by most teachers. Feedback from teachers indicated our selection of resource materials was most appropriate for the K-6 level.

Number of Teachers Using Material	Number of Students Exposed to Materials
72	- 1,590

III. Coordination (C^3)

As the research indicated (see section on Model P.3)most of the counselor time this year was spent in coordinating school and community activities which revolved around career orientation and awareness. This role was at times frustrating for the counselor for it placed him in the position of being a quasi administrator. But if the research holds true, this role will diminish in the second year when teachers and staff become more involved and gain expertise in the area of career development.

Project counselors coordinated all activities in the following areas:

Field Trips - Over 150 field trips were scheduled among the nine elementary schools. These included walking trips in the school community, trips in teachers' and counselors' automobiles and bus trips. For the most part the trips were academically planned by counselors and teachers around units of study being taught at the time, i.e., after completeing a unit on transportation, students visited the Port Authority or airport.

Resource People(Role Models) - Counselors coordinated role model presentations to classroom groups or small groups composed of students interested in special areas of the world of work. The latter groups of students were surveyed by counselors and teachers in order to assess areas of interest. The resource people from the world of work interacted with student groups by explaining their jobs, discussing their preparation for the job and most important, talking freely about their life style and values as regards work, leisure time, family role, etc. We found that the most successful role models in terms of interaction with students were the ones most child-like and open about their job role, family role, values, etc.

We invited as many female role models and minority group role models as possible to talk with students. Role stereotyping in these areas, particularly the former, is quite pronounced as our evaluation indicates. (see evaluation)

We sought role model contacts in a variety of ways. Chamber of Commerce and National Allience of Businessmen speaker lists were two sources. By sending form letters to the students homes requesting participation, many parents and relatives offered their services as resource people. Contacts were made through teachers' spouses, friends, relatives, and by counselors phoning or writing to individual businesses, industries and agencies.

A total of approximately 6,300 students interacted with ninety two (92) role models from sixty one different areas of the world of work. We had at least one representative from each of the fifteen job families as defined by the U.S. Office of Education. Like the field trips, role model presentations were scheduled in conjunction with career subject matter being taught by the teacher or counselor.

Materials and Instruments Used

During the first year, counselors and teachers used a variety of packaged materials published by such companies as Science Research Associates, Scholastic Incorporated, and Guidance Associates. Our own Career Resource Guide (K-9) was also used. We were very selective in our choice of materials and avoided those which depicted career education too narrowly or emphasized only one or two aspects of careers or career clusters. Our materials related to career development as a life process with many variables affecting the student as he attempts to assess himself, his surroundings, set tentative goals and make decisions. They focused on both the emotional and intellectual side of man and emphasized career development as a balance between process (making your way through life) and content (the knowledge and skills that assist you on that career path).

In assessing the use of the materials I would say that the short (15-20 minute) film strips with accompanying record or tape was our most effective resource, especially if used with small groups followed by a discussion period. The content of the film strip or film held student interest only if it took into account values, decision making and personal life styles of the role models depicted in the film strip or film.

Our own K-9 Career Resurce Guide served as a reference for teachers, but we were somewhat disappointed in its effectiveness. At least we learned a great deal about teacher involvement as it relates to teacher input. I will discuss that issue further at the end of the report.

Counselors also experimented with devising their own games, activities, form letters, surveys, etc. Copies of these appear in the appendices. I have already referred to the successes some counselors had in using value clarification games and devising games and activities oriented towards career awareness.

Good use was made of our SONY video tape machine. Presentations by role models were taped and replayed to other classes. Field trips were taped for the same purpose and the machine was also used to tape sessions of the school employment processes, presentations by resource people and career role playing by students.

In summary I am pleased with the development of our project at the K-6 level. Teachers are cooperative and school staff at this level are very much child oriented. The self-contained classrooms and continuous progress education programs provide a perfect forum for our developmental career program.

Early Secondary Program - Seventh Grade through Ninth Grade (Please make note that one of our secondary schools, West Hertel is a middle school 5th - 8th grade).

Two distinct types of programs have emerged in developing the 3C model at the early secondary school level. Although the two programs emphasize exploration of the world of work, one is very programatic and counseling (C^1) oriented with consultation (C^2) second in priority and coordination (C^3) last, while the other program (at two schools) has a C^3, C^2, C^1 priority listing. Both have their strengths and weaknesses and offer a variety of approaches to the counselors. Fortunately the working relationships between the counselors is such that each can adapt or reject portions of the others program based upon their own counseling style, feasability within their particular school setting or a number of other factors. In fact, the same can be said for the elementary school counselors in terms of their working relationship.

Methods and Techniques - Counseling (C^1)

In this model the counselor worked directly with three types of student groups.

For two or three days a week he met with six to eight eighth grade students for the entire day or seven forty-one minute periods. This day long process involved working with the students using several career exploratory instruments (see appendices). The process is based upon the vocational theory of Dr. John Holland, which also happens to be the basis for our evaluation procedures (see evaluation). This particular developmental process was actually used by Dr. Paul Munson at East Aurora High School with some success. As one of our consultants, Dr. Munson encouraged us to adapt the approach to the junior high level and our counselor has done so with great success.

The activities center on three major categories - career classification techniques, self-knowledge, awareness and evaluation and positive attitudinal concepts towards work and workers (see appendices).

Number of Students Processed - 315 8th Graders

Small group discussions were held with ninth grade students on topics such as high school ahead, decision making, self identity, positive self-image, awareness of the fifteen career clusters including structure and level within the career groups, in addition to the concept of life style as influenced by career choice.

N umber of Students Involved - 215 ninth Graders

The third grouping (class size) which emphasized a guidance approach, as opposed to small group counseling, centered on local vocational school awareness. A film depicting vocational school offerings was shown to eighth and ninth grade classes. The counselor led discussions on entrance requirements, skills, and abilities necessary for success and career goals.

Number of Students Involved - 750 eighth and ninth Graders

This was followed up by the counselor organizing small groups (5-6) of students who had made tentative decisions to apply for a particular vocational school. It was indeed a very sound developmental approach to decision-making.

Number of Students Involved - 245 eighth and ninth graders

Individual counseling took place as a result of student participation in one of the above groups, teacher referral or contact with counselor on field trips, role model presentations, etc.

Number of Students Seen - 100

Consultation (C^2)

Consultation took place primarily with special area teachers i.e., industrial arts, art, home economics, and business. Classroom programs included:

	No. of Students
Art - Career Field of Commercial Art	50
I.A.- Careers in Manufacturing and Industry	250
Eng.- Careers related to subject	130
Hist.- " " " "	130
Math - " " " "	130
Science - " " "	130
	820

Coordination (C^3)

Nine resource people presented to over one thousand five hundred fifty (1,550) students in large group presentations and six major field trips were scheduled to area businesses, industries and institutions for over two hundred and six (206) students.

In model #2 which involved two early secondary schools, the counselors approaches were quite different. Their major thrust was to achieve total school involvement through coordination (C^3) and consultation (C^2).

Field Trips

Over three thousand (3000) students were involved in field trips to thirty different institutions. Field trips were based on student surveys and units of study taught by subject matter teachers.

Role Models

Forty six (46) role models representing the fifteen (15) job families spoke to over one thousand three hundred and eighty (1380) students in grades five through nine.

Career Week

A rather unique career week was held involving not only a key note speaker and representatives from the world of work, but also direct

teacher and student participation.

Teachers used educational materials and resources provided by the counselor in their classrooms. Students interviewed community world of work representatives and actually role modeled the job of their choice throughout the week.

It is interesting to note that many students modeled the job of their parents even though some members of the teaching staff thought it demeaning. I guess we have our work cut out for us in terms of breaking down attitudes about the dignity of all work much less race and sex stereotyping.

Number of Students Involved	Number of Teachers Involved
700	20

Articulation Program

Both counselors coordinated articulation programs for their respective incoming fifth/seventh graders and outgoing eighth/ninth graders. It was arranged for project feeder school counselors to bring their graduates to the project center schools and spend a day with a "big brother" going through the day on the latter's schedule. Graduates of the center schools had the opportunity to visit the area high schools in the same manner.

In both schools use was made of peer group guidance by having older students "rap" with the incoming students on their perceptions of their school, careers they were preparing for and a variety of other topics.

Number of Students Involved	Number of Teachers Involved
475	12

Public Relations

Through interschool memos from the career centers, letters to parents, and articles in school newspapers, counselors publicized career events such as role model presentations, career week, field trips, articulation programs and upcoming group guidance programs.

Consultation (C^2) - School Employment Service

Continuing developmentally with the school employment program, counselors consulted with administration and faculty on instituting the program and creating in-school jobs for students. Similar to the elementary level, students were required to make applications and be interviewed for jobs such as switchboard operator, main office messenger, library aide, A.V. aide, cafeteria food handler, counseling office aide, etc.

Number of Students Involved	Number of Staff Involved
79	34

Spanish Career Information Program

Spanish speaking pupils in the project feeder schools were presented vocational high school data via filmstrips and prepared (translated) scripts regarding vocational offerings in Buffalo.

The center school project counselor, Spanish teacher and feeder (elementary) school project counselor worked together in developing this program.

Number of Students Involved	Number of Teachers Involved
60	1

Production Line

To develop the concepts of production and distribution and the interdependence of workers, counselors at both schools worked closely with the industrial art teachers. Students worked in teams and decided on products to be made and assigned work roles, i.e., promotion, manufacturing, sales, etc. Sixth grade elementary students teamed with seventh grade junior high school students in the project schools to make trivets, book ends and other products.

Counselors assisted by video taping the production line at work, purchasing needed materials, handling intraschool communications and arranging for the teams to present at Buffalo's Main Place Mall and the New York State Industrial Arts Convention in Niagara Falls, New York.

Number of Students Involved	Number of Teachers Involved
150	6

Behavioral Modification Program

Continuing at the secondary level with the concept of positive reinforcement and a reward system, counselors and teachers purchased or procured items such as typewriters, gift certificates, cases of soft drinks, dinner coupons, etc. Students worked for these rewards in their academic and special subject areas.

Number of Students Involved	Number of Awards
400	30

Curriculum Planning

At in-services, faculty meetings and on a weekly basis, counselors consulted with teachers on integrating career activites and resource materials in their classrooms. Teachers used resource materials from the career guidance centers to supplement their classwork.

We have plans to improve this area of endeavor next year (see concluding section).

Number of Students Involved	Number of Teachers Involved
1,000	20

Counseling (C^1) - Small Group Counseling

Counselors made use of career education games (see elementary counseling).

Number of Students	Number of Games
30	5

Counselors met with small groups to discuss decisions concerning high school (academic and/or vocational) courses of study.

Number of Students	Number of Groups
128	13

Large Group Guidance

This activity usually preceded or followed a field trip by the class. The counselor would prepare students by going over, verbally and with a data sheet distributed to the students, what the student should look for, be aware of, etc. After the field trip, the counselor and/or teacher would discuss with the students their perceptions of the trip.

Number of Students	Number of Classes
450	15

The answer, if there is one, as to what role the counselor should play in career education probably lies somewhere between the two models described in the preceding section. Effective consultation (C^2) with staff is the key element. The working relationship between teachers and counselors is crucial to the success of the project. This relationship is best effected by, first, the teacher observing the counselor as an active person who not only espouses developmental learning theory and career education, but is highly visible coordinating activities (C^3) and counseling children (C^1). The latter behavior on the part of the counselor encourages the teacher to participate in the development of the project and consult (C^2) with the counselor about planning and implementing career activities.

Materials and Instruments Used

Both models used a variety of materials and instruments to implement their programs. Copies are attached in the appendices, but I would like to describe a few outstanding examples.

Self Rating Instrument

Students fill out forms on their assessment of their own personality, abilities, interests and values. After these are completed, group counseling takes place whereby students interact with each other concerning their self surveys. The counselor role is to lead the group by using techniques such as clarification, summarizing, and in general assisting students to explore values.

Positive Adjective Check List (Peer Rating Instrument)

Students sitting opposite each other in a group had to check off several positive adjectives which described the person across the table. Students then interacted in terms of agreement or disagreement with the assessment by their peer.

Choosing Your Career

This introductory filmstrip shows people working at a variety of jobs in the six different job classifications as described in John Holland's theory of personal orientation. After the filmstrip, the counselor processes the activity with discussions of personality as it relates to job preference.

Building a Society (City)

These value clarification games force students to come to a consensus as a group on ranking jobs in order of value to society (city), value to survival and value in terms of status and personal preference.

We have found that if we tie in career education (content materials) with action oriented or dialogue types of activities as described above, students attention, interest and retention of learning seems to be of a higher degree than didactic methods of instruction.

RESULTS AND ACCOMPLISHMENTS OF THE PROJECT

A summary listing of project accomplishments are as follows:

1. The establishment of three career guidance centers at our early secondary schools.

2. The establishment of career education satellites in three schools under each center.

3. The establishment of an educational advisory committee and vocational advisory committee (see appendices).

4. The establishment of career education teams at the center schools.

5. The implementation of fifteen weeks (four hours per week) of staff in-service on topics such as behavioral modification, career education, learning disabilities and self concept and ego development.

6. The incorporation of world of work concepts into regualr instructional programs by demonstrating career education materials and providing same to teachers.

7. Through field trips, role models, group guidance and group counseling, career weeks, school employment services, behavioral modification programs, simulated work experience programs, instructional materials, and role playing sessions, counselors and teachers helped students to understand the concept of work, appreciate the value of work and the worker, develop an awareness of his own abilities, interests and aptitudes in relation to various occupations and increased students' knowledge of diversified career education opportunities.

Most of the above has been difficult to measure, but our evaluation has indicated positive growth in the area of job knowledge (see evaluation).

The development of the counselor/teacher team approach has been a most important accomplishment. Together it is hoped that they will be able to provide an expanded curriculum to students in the area of career development.

RECOMMENDATIONS

I believe I have drawn several conclusions and implications as I have completed each section of this report. In this concluding section I will discuss our recommendations for next year and a few project developments already in process for the 1973-74 school year.

It has been strongly recommended by the staff that we involve teachers, at all levels, in writing curriculum. The problem this year in attempting to use the previously developed K-9 career resource guide was one of lack of teacher involvement. The feedback from teachers was that the guide was good but it was not theirs. They did not plan it or write it and since they were not a part of this very important process, felt no real concern or desire to implement the guide.

I have allocated over half of our in-service funds next year for curriculum writing and implementation. Teachers will be able to write their own lesson plans, activities, units of study, etc. They will test them out in the classroom and, if successful, we will help them develop a project guide K-9. This guide will be inexpensive (paper bound, duplicated, limited number) and will be replete with tested out classroom activities that really work. Teachers names will be printed on activities that they devised and they will have opportunities (in-services) to share their materials with their colleagues from other project schools. Although we are partial to the integrated approach to career education, those teachers wishing to experiment with the unit approach will not be discouraged.

The above approach will be pilot tested this summer by one of our elementary schools and next fall by one of our center schools.

One of our elementary teams, composed of the building principal, guidance counselor, librarian and six teachers, one for each grade level (K-6), will attend a summer workshop for six weeks, five hours per day. They will develop a K-6 career education school program with a heavy curriculum emphasis. They will also receive a one thousand dollar ($1,000) mini grant for supplies and materials. This project team competed against several other city schools for acceptance at the workshop.

At the junior high level a project counselor, industrial arts teacher and academic teacher will actually teach a forty week pilot class in career exploration/value clarification next fall. This will be an experimental course in Buffalo and, if successful, will probably become a standard elective throughout the city (see appendices).

Our evaluation will be more extensive next year. Our third party evaluator is going to include a longitudinal study involving cross comparisons of grade levels, pre and post testing at two levels and on-site ibterviews with people familiar with the project.

In summary then I feel our first year of project development has been very successful except for two areas where I feel we could do more, that is in developing instructional units and integrating world of work concepts into the regular instructional programs.

In closing I would like to again thank the personnel at the federal and state levels who have assisted and supported us in our first year of project development.

BIBLIOGRAPHY

1. Bottoms, G. State Level Management for Career Education, American Vocational Journal, 1972, 47, 89-92.

2. Brown, D. and Srebalus, D.J. Contemporary Guidance Concepts and Practices: An Introduction. Dubuque, Iowa: Wm. C. Brown, 1972.

3. Demues, Celia. Career Perspective: Your Choice of Work, Belmont, California: Wadsworth Publishing Company, 1972.

4. Gysbers, N.C., and Moore, E.J. Program Content and Staff Responsibilities, American Vocational Journal, 1972, 47, 60-62.

5. Hoyt, K.B. Career Education and Career Choice, American Vocational Journal, 1972, 47, 84-88.

6. Hoyt, K.B.; Evans, R.N.; Mackin, E.F.; and Magnum, G.L. Career Education, Salt Lake City, Utah: Olympus Publishing Company, 1972.

7. Krumboltz, John D. and Krumboltz, Helen B., Changing Children's Behavior. Englewood Cliffs, New Jersey: Prentice Hall, Inc.

8. Lundquist, G.W. and Chalmly, J.C. Counselor-Consultant: A Move Towards Effectiveness, School Counselor, 1971, 18, 362-366.

9. Marland, S.P. Career Education: Every Student Headed for a Goal. American Vocational Journal, 1972, 47, 34-36.

10. Super, D.E. A Theory of Vocational Development. American Psychologist, 1953, 8, 189-190.

11. Super, D.E. Vocational Development in Adolescence and Early Childhood: Tasks and Behaviors. In D.E. Super, Et. Al. (Eds.), Career Development: Self Concept Theory. New York: CEEB, 1963.

Appendices

THIRD PARTY EVALUATION

SAMPLE CAREER EDUCATION GAME

OUTLINE OF JUNIOR HIGH DEVELOPMENTAL GUIDANCE PROGRAM

LIST OF PROJECT INSTRUCTIONAL MATERIALS

VOCATIONAL ADVISORY COMMITTEE

K-9 CAREER RESOURCE GUIDE

Evaluation Report

of

Career Education Project

for

Buffalo Public School System

In early autumn of 1972 the Career Education Project was begun in twelve of the Buffalo Public Schools. The major purpose of this Project was "to provide students with experience and knowledge that will serve as a basis upon which appropriate educational and occupational choices can be made at future major decision points." Two objectives were sought for each child: 1) "an ever more mature appreciation of the personal and social implications of becoming a worker and 2) an increased understanding of the specific tasks required for gaining and maintaining employment." Herein is contained the third party evaluator's report of this Career Education Project. This report covers the period from November 1972 through April 1973.

Rationale for Evaluation

Most project evaluations are empirical and hence their usefulness lies in the analysis of the actual data gathered. For the evaluation of the Career Education Project we decided to make the evaluation somewhat theoretically based; that is, to collect empirical data in the usual manner, but to be guided in what data to collect by a theory of vocational choice or development. Such an approach has the merits of normal empirical studies plus the advantages of adding to knowledge about the theory and of multiplying the usefulness of the data collected by studying not only its prima facie content; but studying the theoretical

concepts generated from the data. For example, in Holland's theory of vocational choice (the theory employed in this study) there is a concept called "homogeneity" which refers to the clarity or degree of differentiation of a person's vocational choice. Empirically, data are collected on each of Holland's six vocational interest factors; then in addition to being able to examine a person's vocational interests, we can study the person's degree of homogeneity because homogeneity is operationally defined by subtracting a person's lowest interest score from his highest interest score and comparing the result with normative table of homogeneity scores. Hence, by gathering data on only six factors of vocational interest, we are able to study other variables of importance because of the theory behind the data collected.

In conducting the evaluation we attempted to accomplish three general objectives. First, we wanted to evaluate any changes in pupils' knowledge of occupational and vocational information. Secondly, we hoped to assess the clarity, consistency, and reality of the pupils vocational interests. Thirdly, we wanted to generate information that would be useful to the teachers and counselors in conducting the program. Finally it should be pointed out that the current evaluation was of a Project ending in the spring of 1973, it was planned to provide a basis for continuing the evaluation in subsequent years. Hence some of the information generated will be more useful when related to future data.

A Theory of Vocational Choice

The theory used as a basis for much of the data collection was Holland's Theory of Vocational Choice (Holland, 1959; 1966). Holland's theory was chosen for several reasons; it is the only theory of vocational choice for

which has been developed an easily administered interest inventory enabling concepts in the theory to be measured; it has been widely used in research (tho mostly with high school seniors and college students), and it is a basically simple one which can be applied and understood by students, teachers, and counselors. Indeed since the evaluation of this Project began, some counselors at the junior high school level begun to institute programs designed to enhance vocational development based on Holland's theory.

Holland's theory has been adequately outlined in many sources (e.g., Holland, 1959, 1966,) so we will only summarize it briefly here by saying that Holland states that there are six general types of people and a corresponding six types of work environments. Each person bears varying degrees of resemblence to the six types of people and people working at a particular job tend to have personalities which resemble each other more than they resemble people working in other jobs. Thus each occupation, because of the similarity of the people in it, can be classified into one of the six basic types. The types are:

1) Realistic - outdoor, mechanical, tradionally masculine people; e.g., farmer, forester, TV repairman;

2) Investigative - scientific, logical, intellectual people, e.g., chemist, arithmetic teacher.;

3) Artistic - creative, fine arts type people; e.g., musician, journalist, interior decorator;

4) Social - gregarious people interested in helping others; e.g., teachers, social workers;

5) Enterprising - status, success, and power oriented people; e.g., politician, salesman, lawyer;

6) Conventional - focused, structured, conservative followers; e.g., bank clerks, civil servants.

A person's dominant personality type or area of vocational interest Holland calls one's "high point code" and a person's secondary personality type or area of vocational interest is called his "secondary code." Hence a woman who mainly wants to be a kindergarten teacher (Social occupation) but who also likes to write short stories and poetry (Artistic activities) has a Social high point code and an Artistic secondary code. [Through research conducted over the last 14 years Holland has classified nearly all common occupations into one of his six types.]

Some of the above types are closely related to each other both logically and empirically as verified by correlational studies. Two types closely related to each other are called "consistent." The consistent types are as follows: Realistic is consistent with Convential and Investigative; Investigative is consistent with Realistic and Artistic; Artistic is consistent with Investigative and Social; Social is consistent with Artistic and Enterprising; Enterprising is consistent with Social and Conventional; and Conventional is consistent with Enterprising and Realistic. According to the theory people are consistent if their high point code and secondary code are consistent.

Another concept used in the theory is homogeneity; that is, the degree to which a person's interests are homogeneous or clearly specified as opposed to having heterogeneous or diffuse and unclear interests. The more clearly a person's interest fits into one interest category to the relative exclusion of the other the more homogeneous that person is.

Procedures and Method of Evaluation

A pretest - posttest approach to evaluation was employed meaning that each subject serves as his own control. This approach was chosen over the experimental group-control group design because of the practical and ethical difficulties of randomly assigning some subjects to treatment groups and

having to exclude others. Additionally our approach enabled us to assess changes in pupils over the five month interval during which the students were studied. Although such a brief time interval may reduce the extent of the changes that occur and as a result the time between pre and post testing will be increased in next year's evaluation.

Subjects

The pupils in the Career Education Project whose progress was evaluated. were the ninth graders at Clinton and Southside Junior High Schools, the eighth graders at West Hertel Middle School, fifth graders at Public Schools 6, 33 and 51, and the fourth graders at Public Schools 4, 28, 37, 41, 60 and 79.

Random samples of subjects were selected from each school. Below appears in Table I a list of the number of pupils at each school together with the number pretested and the number posttested.

Table I

School	Number of Pupils	Number Pretested	Number Posttested
Southside	1379	78	69
Clinton	783	86	76
West Hertel	1209	100	93
P.S. 41	365	35	24
P.S. 28	628	40	36
P.S. 4	699	38	25
P.S. 37	909	39	23
P.S. 51	420	45	41
P.S. 60	685	40	36
P.S. 33	471	48	34
P.S. 6	714	44	37
P.S. 79	341	39	34
Total Jr. Hi.	3371	264	238
Total Elem.	5232	368	290
Grand Total	8603	632	528

Eighty percent of the elementary schoolers pretested were posttested and 90 percent of the junior high pupils pretested were posttested.

Instrumentation

At both the elementary and junior high school levels it was decided to evaluate two general areas - knowledge about occupations or job awareness and occupational or vocational interests. Accordingly four separate instruments were developed in consultation with some of the counselors in the Project.

At the junior high level we constructed a 52 item test of knowledge about jobs. Eighteen of the 52 items dealt with students; knowledge of the data-people-things, framework for viewing occupations and ten items dealt with career ladder and job family notions. The remaining questions dealt with general occupational knowledge. At the elementary level we constructed a simple 25 item three response multiple choice test of job knowledge. Both tests were constructed to be of low item difficulty so that in addition to serving as a mechanism for evaluation, the pupils could have a sense of accomplishment since they would probably know the correct answers.

Occupational interest questionnaires similar to each other in format were developed for the elementary and junior high school level. These questionnaires consisted of four lists of 12 jobs each (three lists at the elementary level). Two of the twelve jobs in each list were from each of Holland's six vocational categories. Pupils were instructed to place an "L" beside the four jobs they would like to work at the most and a "D" besides the four jobs they would least like to work at. In addition subjects were asked to pick the four jobs out of each list which they felt they had the most ability to perform and to pick the two jobs out of each list that the students' felt were the most important and valuable to society. Scores on each of Holland's six factors were tabulated on the interest measures,

the ability measures, and the value to society measures. The interest scores were the ones of major concern in the evaluation of the Project.

All instruments were administered in the schools by the teachers and guidance counselors. Directions were read aloud at the elementary level. All scoring and data analysis was carried out by the third party evaluators. Initial testing was conducted in November 1972 and the final testing was completed during April 1973.

Results of Evaluation

Both initial and final testing revealed the interesting conclusion that the dominant high point code at all three junior high schools and at eight of the nine elementary schools was Social. Though when examined by sex, junior high school boys had highest interest scores on the Realistic scale with Enterprising ranking second; while girls were highest on Social followed by Artistic. The above observation points out the necessity of examining the data for boys and girls separately when possible. In addition to examining overall pre-post test differences and differences by sex, differences among the schools at each level were tested.

Junior High Level Results

The clearest and most positive result of the evaluation of the Project at the junior high school level was the increase in occupational knowledge that took place. The mean posttest knowledge scores increased at a statistically significant level ($p \leq .01$) overall, for both sexes, and for subjects at each school. The mean for the various groups on the occupational knowledge test are detailed in Table 2 below.

Table 2

Occupational Knowledge Pre and Post Test Means

Group	Pretest Means	Posttest Means
Overall	35.7	39.7
Boys	31.9	38.0
Girls	38.1	40.2
West Hertel	38.3	43.0
Southside	37.7	42.4
Clinton	29.0	31.2

It is interesting to note that though all subgroups means increased, the most dramatic increase was in the mean for boys. However a significance test (ANOVA) of the comparative increase in boys and girls' scores indicates that if we were to conclude that boys' mean increased significantly more than the girls' mean we might be wrong 11 percent of the time. Hence it is probably safer to state the general conclusion that all subgroups increased their knowledge of occupations as tested by our questionnaire.

Turning to the results of the analysis of the interest questionnaire, the conclusions are as one might expect, much less clear. Data examined include pre-post differences on each of Holland's six scales of vocational interest, ability, and value to society, In addition changes in consistency and homogeneity were examined as were the relationships among parents' occupation and childrens' occupational interests.

Changes in Vocational Interest Scores

The pre and posttest means on the vocational interest scales are given in Tables 3 through 8 below.

Table 3

Realistic Mean Scores

	Pretest Mean	Posttest Mean	
Overall	10.3	10.0	
Boys	13.4	12.9	
Girls	8.3	8.2	
West Hertel	10.5	10.2	**
Southside	9.9	10.8	**
Clinton	10.3	9.1	**

(** $p \leq .01$)

As can be seen from Table 3 the Realistic interest scores for the total group stayed about the same from pre to post testing. As is usually the case on the Realistic scale; boys evidence a much greater interest in Realistic occupations than do girls though their relative degree of interest did not change.

West Hertel School students followed the pattern of no change but a fairly curious phenomenon occurred at the other two schools. Pupils at Southside showed a statistically significant increased interest in Realistic occupations while students at Clinton demonstrated a significant decline in interest in Realistic occupations. Further examination of the data showed that while both sexes' interest in Realistic occupations declined at Clinton, it was mainly the girls whose Realistic scores increased at Southside.

Table 4

Investigative Mean Scores

Group	Pretest Mean	Post test Mean
Overall	11.7	11.1*
Boys	12.2	11.5
Girls	11.2	10.6
West Hertel	12.4	13.1 **
Southside	11.9	10.7 **
Clinton	10.7	9.2 **

*($p \leq .10$) **($p \leq .01$)

The effect of the Project on investigative mean scores (see Table 4) was fairly prominent and interesting. First there was a significant decline for both sexes in interest that was statistically significant for pupils at both Southside and Clinton. Interestingly enough however, interest in investigative occupations rose at West Hertel. Although both boys and girls at West Hertel increased their investigative scores, most of the increase occurred among the girls. The boys at West Hertel started out with and wound up with a mean investigative score much much higher than any other subgroup. Perhaps some of their interest rubbed off on the girls.

Table 5

Artistic Mean Scores

Group	Pretest Mean	Post test Mean
Overall	10.6	11.0*
Boys	9.3	9.9
Girls	11.4	11.8
West Hertel	10.9	11.2
Southside	9.5	10.5
Clinton	10.7	11.3

*($p \leq .07$)

The results of the analysis on the Artistic mean scores (see Table 5) were clear, simple, and unique. The total group and every subgroup examined evidenced an increased interest in Artistic occupations from the pretesting

Table 7

Enterprising Mean Scores

Group	Pretest Mean	Posttest Means
Overall	10.2	9.9
Boys	11.7	11.6
Girls	9.1	8.5
West Hertel	9.8	9.7
Southside	11.0	10.4
Clinton	9.6	9.8

Interpretation of the results of analyzing changes in Enterprising scores is the simplest of any of the scales - no subgroup nor the total group changed (see Table 7). In general there were slight decreases, but none approached statistical significance.The Project apparently had little effect on interest in Enterprising occupations for any of the subgroups participating in the program. It is interesting to note that for the subjects as a whole interest scores on the Enterprising scale were lower than any other scale.

Scores on the Conventional scale (see Table 8) tended to decrease overall and at each school. There was however a statistically sex effect in that girls scores decreased significantly while scores for the boys increased slightly. Most of the increase in the mean Conventional score

Table 8

Conventional Mean Scores

Group	Pretest Mean	Posttest Means
Overall	10.6	9.9
Boys	8.4	8.8 *
Girls	11.8	10.8 *
West Hertel	8.7	8.6
Southside	12.1	11.4
Clinton	10.9	10.1

*($p \leq .05$)

for boys came about because the boys at West Hertel, whose Conventional score mean started out one-half a standard deviation lower than boys at the other schools, greatly increased their scores. However girls at every school clearly showed decreased interest in Conventional occupations perhaps as a result of the Project teaching girls that there are many vocational opportunities open to them other than secretarial work.

Changes in Self-perceived Ability Scores

In table 9 are shown the pre and post test means on the six ability scales corresponding to the six interest scales. Two factors (Sex and School)

Table 9

Pre and Post-test Ability Score Means

	Realistic	Investigative	Artistic*	Social	Enterprising	Conventional
Pretest Mean	2.58	2.59	2.38	3.22	2.33	2.55
Posttest Mean	2.47	2.45	2.55	3.08	2.17	2.30

*($p \leq .10$) **($p \leq .05$)

analyses of variance were conducted on each scale. While means on five of the six scales decreased, the only statistically significant decline was in Conventional ability scores, which might reflect pupils learning that more skill is required to perform certain Conventional jobs than the students thought at the beginning of the Project.

The only ability scale on which pupils felt they had more ability at the end of the Project than at the beginning was the Artistic scale. Such a finding may reflect pupils learning that some of the more unorthodox occupations aren't as out of reach as they might have first thought.

There were only two other significant results of analyzing the ability scales. First, there was a significant sex effect on the Realistic scale

($p \leq .05$)where the mean for boys declined from 3.60 to 3.22 while the mean for girls rose from 1.93 to 2.01. The Realistic occupations are ones traditionally performed by men and perhaps during the Project girls began to see that they might have some talent at these jobs and boys, though still perceiving themselves as having more skill at these jobs than girls do, may discover that the societal folklore about Realistic jobs is one thing and the actual competencies required may be another.

Second, there was a significant interaction effect on the Investigative ability scale which occurred because boys at Southside, whose perceived ability in Investigative occupations was lowest on the pretest, showed an increase in their perceived Investigative abilities while boys at the other two schools had lower mean Investigative ability scores. For girls a similar result occurred. Girls at West Hertel had a higher mean Investigative ability score while girls at the other two schools showed a decrease on the same scale. Like the Southside boys, the West Hertel girls began the Project with the lowest mean Investigative ability score.

Finally it is worth noting that on both pre and post tests, pupils felt they had more ability in Social occupations than many of the other categories of occupation and pupils felt they had about equal ability to perform jobs in each of the other five categories.

Changes in Perceptions of the Value to Society of Occupations

We were curious to see how important certain vocations were to society in the eyes of the students and to see if pupils changed their attitudes toward the value of occupations during the Project. The results of the data designed to answer these questions are presented in Table 10. Statistical analyses (two factor analysis of variance) of these data yielded three significant results.

Table 10

	Realistic**	Investigative	Artistic*	Social	Enterprising	Conventional
Pretest	1.03	2.82	.33	2.01	1.33	.44
Posttest	.81	2.66	.43	1194	1.19	.35

**($p \leq .01$) *($p \leq .07$)

First, it is interesting and somewhat predictable to note that pupils clearly felt that Investigative occupations, which tend to be science or technology oriented, were of the greatest value to society. Social occupations were a distant second, Enterprising a distant third and Realistic a distant fourth. Just as clearly, pupils viewed Artistic and Conventional vocations as having least value for society. However it should be pointed out that, in the case of each job category, pupils felt the occupations were of less value at the conclusion of the project than they thought at the beginning - with one exception. Artistic occupations were the only jobs that, during the Project, pupils came to see as more important to society than they did at the start of the Project. This finding is especially interesting when we recall that of the six interest, ability and value to society categories, in each case the Artistic scores were the only ones that increased while all other decreased. The Project clearly had a positive effect on students' ideas about themselves in relation to Artistic occupations.

Secondly, as was mentioned above, mean scores on all the "value to society" scales declined; but the largest and only statistically significant decrease was in the Realistic category. During the course of the Project pupils came to view Realistic occupations as less valuable to the nation than the students originally viewed them.

Thirdly, there were significant school and interaction effects ($p \leq .06$) on the Investigative scale. Further examination of the data indicated that both significant effects were brought about by the girls at West Hertel who, during the Project, came to view investigative jobs as much more important to society than they felt at the Project's beginning while all other subgroups viewed Investigative occupations as slightly less valuable than they did at the start of the Project.

Analysis of Homogeneity and Consistency Scores

The mean homogeneity score for the total group (homogeneity according to Holland reflects the clarity or specificity of one's vocational choices and is related to job satisfaction and success) increased from 17.18 on the pretest to 17.30 on the posttest, a difference that was not statistically significant. In the analysis of variance of the homogeneity scores by sex and school, one statistically significant result ($p \leq .05$) appeared - produced by the boys at West Hertel and Clinton Junior High. That is, boys at Southside had slightly increased homogeneity scores but the boys at West Hertel had a posttest homogeneity mean ($\bar{x}$=16.12) of over one-half a standard deviation lower than the pretest mean ($\bar{x}$=19.62), while the boys at Clinton had an even greater increase in homogeneity during the Project from a pretest mean of 15.32 to a posttest mean of 21.11. Clinton boys had the lowest pretest homogeneity mean and the highest posttest homogeneity mean of any of the subgroups. While West Hertel boys began the Project with the highest mean homogeneity score and wound up with the second lowest homogeneity mean. Apparently something happened at West Hertel to make the boys, but not the girls, much less certain about their vocational choices and something occurred at Clinton to make only the boys much more clear in their vocational interests.

Table 11

Pre and Post test Consistency Percentaged by Sex and School

Group	Pretest Percent Consistent	Posttest Percent Consistent
Overall	42	40
Boys	46	41
Girls	40	40
West Hertel	51	51
Southside	36	28
Clinton	38	41

The percentage of consistent pupils (subjects whose two highest vocational interest scales are highly related as mentioned earlier) on the pre and post tests is shown in Table 11. The three findings apparent from this table are: 1) a minority of about 40% of the pupils are and were consistent, 2) during the time the project was conducted there was little or no change in the consistency of pupils' vocational interests and 3) students at West Hertel began with and maintained higher levels of vocational choice consistency than students at the other schools.

Relationship of Parents' Jobs to Children's Choices

It is interesting to note that of the boys pretested in the Project evaluation, 83 percent of them have fathers whose jobs are Realistic while the mothers' jobs are mostly Social (64%) and Realistic (30%). Forty one percent of the boys scored highest on the interest scale that matched their fathers' job and 21 percent scored highest on a category that matched their mothers' job.

For the girls 71 percent of their mothers were in Social occupations, 19 percent were in Realistic jobs, and 10 percent were in Conventional jobs. Ninety six percent of the girls' fathers were employed in realistic occupations. Only five percent of the girls scored highest on an interest category that matched their fathers' occupation and 29 percent scored highest on a category

that matched their mothers' job. In general it would appear that junior high school students are not unduly influenced in the vocational interests by their parental role model; though the same sexed parent, expectedly, has more influence than the opposite sexed one.

Results for Elementary School Pupils

For elementary school students, as was the case with the junior high pupils, there was a statistically significant increase in mean occupational knowledge scores During the Project (see Table 12). Sex was unrelated to the increase in knowledge scores but school was a factor in that pupils at schools 28, 60, and 6 had significantly larger increases in posttest knowledge scores compared to pretest scores; students at schools 33 and 37 showed decreases in knowledge scores especially the school 33 students

Table 12

Knowledge Pre and Post Test Scores

Group	Pretest Mean	Posttest Mean	
Overall	15.5	17.2**	
Boys	15.5	17.5	
Girls	15.5	16.9	
P.S. 41	14.8	15.0	
P.S. 28	13.8	17.8	
P.S. 4	14.3	16.2	
P.S. 37	16.5	15.9	*
P.S. 51	16.6	17.1	
P.S. 60	17.6	21.1	
P.S. 33	17.1	14.8	
P.S. 6	12.3	16.8	
P.S. 79	16.4	18.5	

*($p \leq .05$) **($p \leq .01$)

who scores declined by almost one standard deviation; and students at the remaining schools showed moderate increases in mean knowledge scores. In general then, pupils knowledge about occupations improved significantly during the Project, with the surprising exception of students at school 33

where the drop of 14 pupils (out of 48) from pre to post testing must have influenced the results on the posttest knowledge test.

Changes in Occupational Interest Scores

In Table 13 are presented the data on the Realistic occupational interest scale. Overall there was no change in Realistic interests during the project however when the data were examined by sex a statistically significant result occurred indicating that boys decreased their interest in Realistic occupations

Table 13

Mean Realistic Interest Scores

Group	Pretest Mean	Post test Mean
Overall	7.7	7.5
Boys	11.7	10.9 **
Girls	3.9	4.3
P. S. 41	7.0	6.4
P.S. 28	7.6	8.8
P.S. 4	8.3	7.3
P.S. 37	6.0	6.1
P.S. 51	8.2	7.6
P.S. 60	8.0	7.4
P.S. 33	9.1	8.3
P.S. 6	5.5	6.0
P.S. 79	8.7	8.8

**($p \leq .01$)

while girls increased their interest. Of course boys still, even at the end of the Project, evidenced a much higher interest in Realistic occupations, but the Project apparently did introduce some interest in Realistic jobs for girls while perhaps getting some boys to see beyond the masculine stereotype associated with Realistic vocations. Examination of the data by school indicates that only at school 28 did pupils show a large increased interest in Realistic jobs while highly decreased interest was in evidence at schools 4 and 33. No ther school effects were statistically significant.

Table 14

Mean Investigative Interest Scores

Group	Pretest Mean	Posttest Mean
Overall	8.1	7.9
Boys	9.3	9.4
Girls	7.0	6.5
P.S. 41	7.2	7.0
P.S. 28	7.9	9.1
P.S. 4	8.8	8.4
P.S. 37	6.4	5.8
P.S. 51	8.7	8.5
P.S. 60	10.2	9.5
P.S. 33	8.1	7.0
P.S. 6	7.5	7.8
P.S. 79	7.3	7.0

Analysis of changes in investigative scores turned up no statistically significant results. Overall there was a slight decrease in posttest scores from pretest scores mostly because the girls' scores were lower. Investigative scores of pupils at school 28 seemed to increase quite a bit and scores at schools 33, 37 and 60 appeared to decrease; but not significantly. We may conclude that the the elementary level the Project had little impact on pupils' interest in Investigative occupations.

Table 15

Mean Artistic Interest Scores

Group	Pretest Mean	Posttest Mean
Overall	9.3	9.5
Boys	7.7	8.7 *
Girls	10.7	10.2 *
P.S. 41	8.4	8.5
P.S. 28	9.1	7.2
P.S. 4	9.4	8.9
P.S. 37	10.4	15.2 *
P.S. 51	919	9.1
P.S. 60	8.0	9.3
P.S. 33	8.6	9.2
P.S. 6	10.1	10.2
P.S. 79	9.4	9.4

*($p \leq .02$)

While both initially and at the time of posttesting, girls scored higher on the Artistic scale, there was a statistically significant change in Artistic scores as a function of sex. The boys clearly showed an increased interest in Artistic occupations and the girls's evidenced a decreased interest in such jobs. Since many Artistic jobs tend to be stereotyped feminine, this result may be another example of the Career Education Project beginning to break down sexual stereotyping in pupils' views of jobs.

Additionally pupils at school 28 and 51 had decreased Artistic scores while students at schools 37 and 60, especially at school 37 where a tremendous increase occurred, showed increased interest in Artistic occupations during the duration of the study. Something very stimulating to interest in Artistic occupations must have taken place at school 37.

Table 16

Mean Social Interest Scores

Group	Pretest Mean	Posttest Mean	
Overall	10.6	10.7	
Boys	8.3	9.2	**
Girls	12.8	12.2	
P.S. 41	11.4	11.1	
P.S. 28	11.0	10.3	
P.S. 4	10.2	11.4	
P.S. 37	13.2	14.8	*
P.S. 51	9.2	10.6	
P.S. 60	10.5	9.5	
P.S. 33	9.7	9.5	
P.S. 6	11.3	11.4	
P.S. 79	10.4	9.8	

**($p \leq .01$) *($p \leq .03$)

As at the junior high school, Social interest scores at the elementary level were the highest of any category. Analysis of these scores showed statistically significant sex and school effects. The sex effects come

about for the same reason they did on the Investigative and Artistic scales, because mean increased and women decreased their interest in Social jobs during the Project.

The significant school effects occurred because pupils at schools 28 and 60 lost some interest in Social jobs while pupils at schools 28, 4, and 37 showed an increased interest in Social occupations. As occurred on the Artistic scale, pupils at school 37 began and ended the Project with much higher Social scores than pupils at any of the schools.

Table 17

Mean Enterprising Interest Scores

Group	Pretest Mean	Post test Mean
Overall	7.7	8.6 **
Boys	9.1	9.1 **
Girls	6.4	8.1
P.S. 41	7.7	7.6
P.S. 28	7.9	8.3
P.S. 4	7.9	8.6
P.S. 37	7.9	9.7
P.S. 51	7.1	7.8
P.S. 60	7.4	9.3
P.S. 33	8.4	8.7
P.S. 6	7.2	8.6
P.S. 79	7.8	8.7

** ($p \leq .01$)

The changes in pupils interest in Enterprising occupations during the time the Project was conducted were clear and unlike those changes occurring on any other scale. There was a statistically significant increase in Enterprising interest for the total group and Enterprising interest increased at every school; however scrutiny of the significant sex effect revealed that it was the girls in whom the changes took place while the boys' interest in Enterprising occupations remained unchanged. Such a finding may be another instance of the Project breaking down occupational sex stereotypes

since Enterprising jobs tend to have been traditionally held by males.

Table 18

Mean Conventional Interest Scores

Group	Pretest Mean	Posttest Mean
Overall	8.3	7.9
Boys	6.5	6.5
Girls	9.9	9.3
P.S. 41	10.0	8.7
P.S. 28	8.3	8.4
P.S. 4	7.4	7.7
P.S. 37	8.0	9.3
P.S. 51	8.1	7.4
P.S. 60	7.9	7.3
P.S. 33	7.7	7.2
P.S. 6	9.1	8.5
P.S. 79	8.3	7.6

Analysis of changes in Conventional interest scores during the Project's existence revealed no statistically significant changes for any of the subgroups. Overall there was a slight decline in Conventional scores mostly because the girls' scores declined. The only noticeable changes in interest in Conventional occupations at individual schools occurred at school 41 where the interest decreased quite a bit and at school 37 where interest scores increased. No changes were statistically significant however.

Summarizing changes in occupational interest at the elementary school level, we should note that sex seems to be an important factor in two ways. First on both the pretest and the posttest there were large differences in mean interest scores between the sexes on all six occupational categories, boys scoring clearly higher on the Realistic, Investigative, and Enterprising scales and girls' scoring much higher on Artistic, Social, and Conventional scales. Secondly, on four of the six scales there were significant differences between the sexes on the amount and direction of change that occurred, boys increased and girls' declined on the Artistic and Social scales while the opposite occurred on the Realistic and Enterprising scale.

Looking at the changes by school we find that pupils at school 41 showed no significant change on any occupational interest category except Conventional where they evidenced a clear decrease in interest Conventional jobs. Pupils at school 28 showed significantly increased interest in Realistic and Investigative occupations but on the Artistic and Social scales their scores decreased significantly. At school 4, pupils increased their interest only in Social jobs and decreased their interest only in Realistic jobs.

Pupils at school 37 evidenced large significant increases in vocational interest on the Artistic, Social, Enterprising, and Conventional categories and remained unchanged on the others. Pupils at school 51 showed little change on any scale except Social where their interest increased. At school 60, pupils seemed to change from pretesting to posttesting more than pupils at any other school though school 37 was a close second. Students at school 60 changed a lot on every scale, increasing their interest in Artistic and Enterprising occupations and decreasing their interest in other four occupational categories.

Except for increases on the Enterprising scale (which occurred at all schools) by pupils at schools 6 and 79 and for a decrease on the Investigative scale by students at school 33, pupils at schools 33, 6, and 79 changed their vocational interests very little during the project insofar as we were able to measure them.

Changes in "Value to Society" Scales

Analysis of pupils responses about which occupations were of greatest value to society (see Table 19) indicated that there were no differences between boys and girls in their views about the importance of the occupation to the nation. Both sexes felt that Investigative occupations were of most value to society and that Artistic jobs were of least value.

Table 19

Pre and Posttest "Value to Society" Mean on the Six Scales

	Realistic**	Investigative**	Artistic	Social	Enterprising**	Conventional **
Pretest Mean	1.24	1.49	.24	1.42	.78	.80
Posttest Mean	1.65	1.92	.23	1.37	1.13	.63

**($p \leq .01$)

The Project apparently had some effect on the pupils's attitudes about the importance of various occupations since on three of the six scales (Realistic, Investigative, and Enterprising) pupils had a statistically significantly higher post-test mean than they did pretest mean and on the Conventional scale they had a significantly lower mean on the posttest. It is interesting to note that the three occupational categories which students came to view as more important to society than they did initially are the same ones that the boys, but not the girls, showed significantly increased interest in - this despite there being no sex differences on the "Value to Society" Scale.

After examination of the data by school only one finding worth commenting on stood out. On the three scales which pupils felt the occupations were more valuable to society at the conclusion of the evaluation than they did at the beginning, students at eight of the nine schools felt the occupations had increased social value. In each case (scale) it was the students at school 37 who viewed the jobs as having less value to society on the posttest than on the pretest. Pursuing this further, it turns out that the pupils' at school 37 had greatly lower posttest means (compared to pretest mean) on every one of the six scales. No other school had more than two posttest mean lower than pretest means. Perhaps in some

unknown way, the fact that only 23 of the 39 pretested pupils at school 37 were posttested related to this finding.

Changes in Homogeneity and Consistency

Analysis of changes in homogeneity scores from pre to posttesting resulted in a sex effect and no overall or school effects (see Table 20).

Table 20

Mean Homogeneity Scores

Group	Pretest	Posttest
Overall	14.57	14.52
Boys	13.96	15.11 **
Girls	15.13	13.99

**($p \leq .01$)

Thus we have the relatively unique occurrence of the boys clearly becoming more homogeneous or focused about their vocational choices and the girls becoming less homogeneous. It would be interesting to discover why this phenomenon occurred but the explanation is not known at this time.

The percentage of pupils whose two highest vocational interest categories were consistent with each other are shown by sex and school in Table 21. The data demonstrated only that there is a higher percentage of consistent

Table 21

Percentage of Consistent Pupils

Group	Pretest Percent	Posttest Percent
Overall	55	55
Boys	54	52
Girls	55	58
P.S. 41	42	56
P.S. 28	58	55
P.S. 4	52	80
P.S. 37	73	65
P.S. 51	61	40
P.S. 60	55	47
P.S. 33	59	69
P.S. 6	43	57
P.S. 79	50	44

pupils at the elementary level than at the junior high level (55% to 40%) and that there is quite a lot of variation among the schools in changes in consistency. Pupils at schools 41, 4, 33 and 6 seemed to grow more consistent during the Project while pupils at schools 37, 51, 60 and 79 became less consistent. Apparently the Project has little effect on consistency of occupational choices as Holland defines consistency.

Summary and Conclusions

A number of specific conclusions could be reached by attending to the data on each individual school on each separate scale; however at a general level three major conclusions can be noted. First, the Career Education Project certainly seemed to help increase the occupational knowledge of its participants of both sexes and at both the elementary and junior high school levels. This is the most clear and relevant conclusion reached in the evaluation of the Project.

Second, clear sexual differences on various aspects of vocational choice emerge from the evaluation. The correlation (Spearman's rho) between the sexes on the vocational interest scales was -.70 at the junior high school level and -.77 at the elementary level. Boys at both levels are most interested in Realistic jobs and least interested in Conventional ones while girls are most interested in Social occupations and least concerned with Realistic jobs. It is interesting to point out that the sexes are each consistent in their interest patterns from elementary to junior high. The correlation between mean on the six interest scales for boys at the two levels was 1.00 and for the girls it was .94.

Further sex differences are illustrated by the interesting fact that the correlation between vocational interest scores and "value to society" scores for boys was .69 for elementary and .60 for junior high; but for girls the respective correlations were 0.40 and .04. This indicates that while boys tend to be interested in jobs that both they and the girls see as valuable to society, the girls tend to be most interested in occupations that are not viewed as being very important to the society. Such a finding certainly provides the teachers and counselors in the Project with a goal for the coming year of increasing girls's perceptions of the worth of their vocational interests.

Another finding, however bodes well for the girls. The finding empirically is that the correlation between the boys vocational interests on the pretest and their self-rated abilities on the occupations in the interest scales was .26. The same correlation for posttest data for boys dropped to -.03. Comparable data for girls were .32 on the pretest and .60 on the posttest. What this indicates is that at the start of the Project both sexes felt they had about equal abilities to perform the jobs they were interested in; but by the end of the Project, the boys felt that any relationship between their skills and interests was negligible. Meanwhile the girls came to feel that they had interest in occupations which they also had skill and ability. This result probably is a sign that both sexes are reassessing, in a more realistic way, their vocational interests and skills, and it also probably mean that they, because of occupational sex stereotyping, entered the Career Education Project at very different places, i.e.,boys overly optimistic and girls overly pessimistic about their vocational alternatives.

Third and finally, the Project seems to have the very positive effect of breaking down some occupational myths and stereotypes. For example, Artistic occupations, which tend to be less practical and financially rewarding and are viewed by especially the lower and middle classes as "artsy," were ones in which students, at the start of the Project, had little interest, felt they had little ability in, and thought were of least value to society. Yet, especially at the junior high level, the Artistic occupations were the only ones in which students had significantly increased interest and perceived ability and also felt were more valuable to society by the end of the Project. Many students probably started the Project

knowing very little about Artistic occupations and as they learned more about such jobs they began to change their views somewhat.

As another example, junior high boys began the Project most interested in Realistic and Investigative occupations; and the Realistic and Investigative job categories were the only ones on which they clearly showed less interest at the end of the project than at the beginning. They also began the Project least interested in Artistic and Conventional jobs and Artistic and Conventional were the only categories on ehich they showed clearly more interest at the conclusions of the Project than at the start of it. Similar results, the direction of change being inversely related to initial level of interest, occurred at the elementary level.

This third general conclusion is probably a function of the first; i.e., it probably results from the increase in vocational knowledge that seemed to take place during the Career Education Project.

References

Holland, J. L., "A theory of vocational choice," Journal of Counseling Psychology, 1959, 6, 35-45.

Holland, J. L., The Psychology of Vocational Choice. Blaisdell Press, Waltham, Massachusetts, 1966.

Richard H. McGowan

Career Education Project

Create A Society Activity

This activity is based upon the following premise:

You and other members of your group will be transported to an island in one years time, and you have to make certain decisions before you leave.

1. Members of the group must decide which jobs will be necessary on the island.

2. Members must decide who will handle each of these tasks, assuming that the individual can be completely trained before they leave for the island and that each individual is employed at only one task.

Decisions as to reward for work, leadership, mode of decision making, rules for the society, etc., can also be explored.

A variation could be to have group members decide what jobs they would like to have and the task would be to creat and examine a society based on these "desired" jobs.

Find attached a work sheet used with a group who created their own society. The sheet is used to examine certain relations between the selected jobs based upon the values of the group members.

	Important	Hours each Day	Days each week	Hardest Job	Best Job	Pay $ per hr
Carpenter						
Blacksmith						
Cook						
Weaver						
Farmer						
Fisherman						
Doctor						

Choosing Your Career

1) It is necessary that a close examination of yourself and your daily life - your courses, your goals, activities and your role as a citizen of the community - will reveal certain patterns of interest and talent which should be used as guidelines in choosing and preparing for a career.

2) You need self-evaluation
classification of information
exposure to career possibilities
in order to begin a systematic method for approaching the question of a career choice for the future.

3) It is important for you to understand that it is never to soon to begin thinking about your future vacation and that, in fact, the sooner you begin to analyze your own goals, interests, and potential, the sooner you will be equipped to face the possibilities of the future and make an intelligent career selection.

4) Note there are six general vocational and personality classifications:

Classifications

(1) Realistic - people who work with things such as in mechanics, construction, electronics.

(2) Intellectual - being interested in ideas investigating the "hows" and "whys" of something.

(3) Social - being involved with people by helping or caring for them or advising them.

(4) Enterprising - dealing with people, being persuasive such as in sales work or as a lawyer.

(5) Conventional - working in an orderly and systematic way such as in office or general business area.

(6) Artistic - activities that require imagination, ability to visualize and improvise.

NOTE - Most jobs are combinations of interests relating to "people", "things", and "ideas".

Careers-(Work) - What's It All About

Ideas to consider about your own career growth and development:

1.) The world of work is big. There are many opportunities for everyone and nearly everyone works.

2.) People have their own very personal reasons for choosing the work they do.

3.) People need information about careers in order to make a choice.

4.) There are many decisions involved in making a choice. Each person should look at all the angles possible so he can make a choice that is best for him.

Examples:

a) Knowing oneself in relation to ability, interest, aptitudes, personality and temperament.
b) attitude toward others and work itself
c) education and type of training required
d) knowledge of entry jobs and ladder approach to advancement opportunities
e) availability of jobs
f) understanding of your values in relation to your job:

Examples: Security, creativity, variety, Independence, associations, esthetics, altruism.

5.) Planning toward a goal is important. Things don't usually "just happen"!

6.) Some type of training is a part of practically all careers and there are many types of training available: technical, vocational, trade, college, apprenticeship, correspondence, on-the-job training or any specific learning for a purpose.

7.) Work is an individual effort which produces something for the organization and satisfaction and prestige for the worker if his effort is well channeled.

8.) Work produces material reward whereby one can become independent and self supporting.

9.) Work allows one to have money to enjoy time off on weekends, holidays and vacations.

10.) Work is a big part of everyone's life and influences total life style; therefore the decision about what kind of work should be carefully made.

Section III

In the blanks after each question, write the number of the job that is the best answer to the question.

1. Which job would you earn the most money? _____ Social Worker

2. Which job would require the most speaking skill? _____ Cartoon Writer and Drawer

3. At which job would you have the most contact with poor people? _____ Biology Professor

4. Which job would require mathematical skill? _____ Sanitation Worker

5. Which job would require the most years of college? _____ Bus Driver

6. At which job would you have the least contact with people? _____ Radio Disc Jockey

7. Which job would require the most creative ability? _____ Corporation Executive

8. At which job would you most likely work for the city? _____ Dental Hygenist

9. Which job would require driving skill and contact with people? _____ Engineer

10. Whoih job would require a two year college education? _____ Policeman

Section IV

Workers in some jobs spend most of their time working people, in other jobs workers work mainly with things (like tools, machines, cloth, etc.) and in still other jobs workers work mostly with ideas (like books, language, numbers, etc.)

Below is a list of 18 jobs. Fill in the blanks with a P or I or T depending on whether you think that job deasl mostly with people or ideas or things.

People = P
Ideas = I
Things = T

_____ Kindergaten Teacher

_____ Auto Mechanics

_____ Airline Stewardess

_____ Salesman

_____ Welder

_____ Bartender

_____ Weather Observer

_____ Guidance Counselor

_____ Minister or Priest

_____ Sewing Machine Operator

_____ Butcher

_____ Writer

_____ Historian

_____ Computer Programmer

_____ Cement Truck Driver

_____ Poet

_____ Factory Worker

_____ Auditor

Rating Yourself On Attitudes

DO YOU:	Often	Seldom	Never
1. Have to be the boss when you work on a Committee or in a group?	☐	☐	☐
2. Let others do all the work?	☐	☐	☐
3. Volunteer to help out when help is needed?	☐	☐	☐
4. Try to be on time for classes and club meetings, etc.?	☐	☐	☐
5. Try to get by doing as little as possible?	☐	☐	☐
6. Make uncomplimentary remarks about others?	☐	☐	☐
7. Try to think of better ways of doing a job?	☐	☐	☐
8. Think that most success is due to luck?	☐	☐	☐
9. Resent it when someone gives you a suggestion?	☐	☐	☐
10. Get real satisfaction from a job well done?	☐	☐	☐
11. Tackle your problems honestly?	☐	☐	☐
12. Try to run away from problems?	☐	☐	☐

Note: These ideas on your present attitudes can be a reflection of your future thoughts and ways in your work on career area.

Career Education Program

Rating Yourself

I take my work seriously	__	__	__	__	__	I am happy go lucky
I study hard	__	__	__	__	__	I don't study hard
I read a lot	__	__	__	__	__	I don't read very much
I like to lead others	__	__	__	__	__	I prefer to follow others
I can take orders	__	__	__	__	__	I don't like being told what to do
I am reliable	__	__	__	__	__	I don't mind breaking promises
I am generous	__	__	__	__	__	I think mostly about what I want
I like Adventure	__	__	__	__	__	I hate to try new things
I do things quickly	__	__	__	__	__	I am slow and pain-staking
I get angry easily	__	__	__	__	__	I rarely lose my temper
I stay home most of the time	__	__	__	__	__	I go out most of the time
I am considerate of others	__	__	__	__	__	I think mostly of myself
I like to be around people	__	__	__	__	__	I am the "lone wolf" type
I like to talk	__	__	__	__	__	I prefer to listen to others
I make friends easily	__	__	__	__	__	I am shy with strangers
I have many friends	__	__	__	__	__	I haven't any friends
I am satisfied with my appearance	__	__	__	__	__	I don't like the way I look

Samples of Career Opportunities Relating to Subject Areas

English:

Salesman
Lawyer
English Teacher
Radio Announcer
Speech Therapist
Librarian
Writer
Actor, Actress
Journalist
Script Writer
Editor
Clergyman

Social Studies:

Archaeologist
Curator
Historian
Sociologist
Politician
Economist
Foreign Diplomat
Personnel Manager
Psychologist
Social Worker
Social Studies Teacher
Anthropologist
Research Specialist
Labor Relations Expert

Science:

Bacteriologist
Chemist
Botantist
Physicist
Geologist
Physician
Meteorologist
Agronomist
Zoologist
Electrician
Astronomer
Engineer
Veterinarian
Dietitian
Forester
Science Teacher
Laboratory Technician
Dental Technician
Radio Repairman

Mathematics:

Accountant
Architect
Bookkeeper
Cashier
Engineer
Mathematician
Surveyor
Statistician
Mathematics Teacher
Ticket Agent
Draftsman
Banker
Research Worker
Office Manager

Secretarial, Retailing, General Business:

Office Secretary
Executive Secretary
Buyer
Bookkeeper
Court Stenographer
Sales Clerk
Medical Secretary
Stenographer
Cashier
Office Supervisor
Office Machines Operator
Commercial Teacher

Language:

Actor, Actress
Translator
Interpretor
Writer
Receptionist
Foreign Correspondent
Foreign Service Worker
Language Teacher
Secretary - Import-Export Firm
Radio Announcer

Home Economics:

Practical Nurse
Dietitian
Fashion Designer
Interior Decorator
Home Demonstration Agent
Dressmaker
Homemaking Teacher
Cafeteria Manager
Cook
Nursery School Operator

Industrial Arts:

Plumber
Welder
Automobile Mechanic
Gunsmith
Printer
Electrician
Draftsman
Metallurgist
Airplane Mechanic
Carpenter
Brickmason
Tool and Die Maker
Watch Repairman
Machinist
Dental Technician
Industrial Arts Teacher

Art:

Architect
Art Teacher
Cartoonist
Window Trimmer
Photographer
Cartographer
Artist
Sign Painter
Commercial Artist
Interior Decorator
Fashion Designer
Architectural Engineer
Industrial Engineer
Tool Designer
Ceramics Engineer
Civil Engineer

Music:

Music Teacher
Dancer
Organist
Piano Tuner
Vocalist
Music Librarian
Instrumentalist
Piano Teacher
Composer
Arranger
Music Salesman
Choreographer

I. A. Name _____ Grade ____ Hd. ____

B. Major area of study in High School _____

C. Electice subjects _____

II. What area of career classifications according to general vocational and personality factors interest you at the present time. Check one or more.

Realistic	☐	Enterprising	☐
Intellectual	☐	Conventional	☐
Social	☐	Artistic	☐

III. What special areas in the following list seems to be of most interest to you as a link to a future career choice? Check one or more.

Outdoors	☐	Artistic	☐
Mechanical	☐	Literary	☐
Computational	☐	Musical	☐
Scientific	☐	Social Service	☐
Persuasive	☐	Clerical	☐

IV. Select three (maximum) career cluster areas that you would be interested in securing further information by participating in assembly programs, classroom sessions, field trips, audio visual presentations.

Allied Health	☐	Public and personal Services	☐
Building trades	☐	Skilled Services	☐
Business and office	☐	Transportation	☐
Communications	☐	Conservation and Environmental Control	☐
Industry	☐	Recreation	☐
Machine trades	☐	Marine Science	☐
Sales (Marketing & Distribution)	☐	Consumer and Homemaking Education	☐
Fine Arts and Humanities	☐		

V. a.) What five positive adjectives describe you best:

_____ _____ _____

_____ _____

b.) What is one negative quality you have that you would wish to change for a more positive one? _____

VI. What positive attitude do you feel is most important in dealing with other people in work situations?

_____

VII. What career or job did you feel you were interested in doing before you participated in this career planning session?

_____

VIII. What career area or job do you feel now interests you? Check one.

a. Exactly the same as before. ☐

b. Not the same job but in a similar career area. ☐

c. Undecided because there may be two or three areas or clusters that interest you. ☐

In an effort to help you gain a more thorough understanding of yourself, it is helpful for you to identify your values, or what you think is important in relation to your job and career choice.

	Most Important	Somewhat Important	Least Important
1. Creativity: "Work which permits one to invent new things, design new products or develop a new idea."			
2. Management: "Work which permits one to plan and lay out work for others to do."			
3. Achievement: "Work which gives one a feeling of accomplishment in doing a job well."			
4. Surroundings: "Work which is carried out under pleasant conditions - not too hot or too cold, noisy, dirty, etc."			
5. Supervisory Relations: "Work which is carried out under a supervisor who is fair and with whom one can get along."			
6. Way of Life: "Permits one to live the kind of life he chooses and to be the type of person he wishes to be."			
7. Security: "Work which provides one with the certainty of having a job even in hard time."			
8. Associates: "Work which brings one into contact with fellow workers whom he likes."			
9. Esthetics: "Work which permits one to make beautiful things and to contribute beauty to the world."			
10. Prestige: "Work which gives one standing in the eyes of others and evokes respect."			
11. Independence: "Work which permits one to work in his own way, as fast or as slowly as he wishes."			

	Most Important	Somewhat Important	Least Important
12. Variety: "Work that provides an opportunity to do different types of jobs."			
13. Economic Returns: "Work which pays well and enables one to have the things he wants."			
14. Altruism: "Work which enables one to contribute to the welfare of others."			
15. Intellectual Stimulation: "Work which provides opportunity for independent thinking and for learning how and why things work."			

POSITIVE ADJECTIVE CHECKLIST

active
adventurous
affectionate
alert
ambitious
appreciative
assertive
attractive
calm
capable
charming
cheerful
clear-thinking
confident
conscientious
considerate
cooperative
curious
daring
demanding
dependable
determined
easy-going
efficient
energetic
enterprising
enthusiastic
foresighted
frank
friendly
generous
good-natured
helpful
humorous
idealistic
imaginative
independent
individualistic
industrious
initiative
insightful
intelligent
inventive
jolly
kind
logical
modest
organized
outgoing
persevering
persistent
pleasant
quiet
rational
realistic
reflective
reliable
resourceful
responsible
sensitive
serious
sincere
sociable
steady
supportive
tactful
thoughtful
trusting
understanding
warm

Instructional Materials Used in Career Education Project

Films and Filmstrips

The Trouble With Truth
What Do You Do About Rules?
You Promised!
But It Isn't Yours ...
That's No Fair
A Strategy For Teaching Values
Parent Myths, Reality
What Do You Expect of Others?
What Happens Between People
Guess Who's In a Group?
Who Do You Think You Are?
You Got Mad: Are You Glad?
Young, Single and Pregnant
Understanding Parents

All Published by Guidance Associates

Who Am I?
How Do I Learn?
Getting Along
Five Children
Five Families

Published by Scholastic Kindle

Drugs and You - QED Productions
It's Your Future - Eye Gate House

Films: Government Services-Doubleday
Transportation-American Personnel and Guidance Association

Books

The World of Work - New Jersey State Department of Education
Vocational Guidance and Career Development in the Schools - Houghton Mifflin
An Outline of Educational Psychology - Erie Press
Encyclopedia of Careers and Vocational Guidance Vols. I & II - J.G. Ferguson Co.
Occupations - New Readers Press
The World of Work - New Readers Press
Vocational Biographies - Series A - Vocational Biographies
Guide to Two-Year College Programs - J.G. Ferguson Publishing Co.
Career Opportunities for Technicians and Specialists - J.G. Ferguson Publishing Co.
Career Opportunities: Ecology, Conservation and Environmental Control - J.G. Ferguson Co.
An Open Door Book - Series 1970 - Childrens Press
Directory of Community Services - Research and Planning Council for Community Services
Career Perspectives: Your Choice of Work - Wadsworth Publishing Company
Career Education 1972: An Annotated Bibliography - Career Education
The College Handbook - College Entrance Examination Board
Career Education, What It Is and How To Do It - Olympus Publishing Co.
Planning, Developing and Field Testing Career Guidance Programs - Youth Development Research of American Institute for Research
Career Development in the Elementary School - Chas. E. Merrill Publishing Co.
Values Clarification - Hart Publishing Co.
A Guide to the Self-Directed Career Program: A Practical and Inexpensive Vocational Guidance System - Center for Social Organization of Schools
About Me - Combined Motivational Educational Systems, Inc.
Guidance for Total Development - Wayne State University
Perspectives on Vocational Development - APGA Publications
Careers in Alied Health Service - American Personnel and Guidance Association
Careers in Building Trades - American Personnel and Guidance Association
Careers in Business and Office Occupations - Amer. Pers. and Guidance Ass.
Careers in Industry - Amer. Pers. and Guidance Ass.

Books

Careers in Skilled Services - American Personnel and Guidance Association
Career Guidance for Every High School Student - American College Testing Program
An Outline On The Concept of Career Education - Supt. of Documents
Community Workers - Past and Present
A Psychological Classification of Occupations - John Hopkins University
The Self Concepts Profiling Technique: A Procedure for the Exploration of Self-Concept Systems - Information System for Vocational Decisions - Harvard University

Science Research Associates Materials

Focus on Self Development K-2, Stage One: Awareness - (with records and cassettes)
Focus on Self Development 2-4, Stage Two: Responding (with records and cassettes)
Focus on Self Development 4-6, Stage Three: Involvement (with records and cassettes)
Here I Am - activity book, The Me I Know - activity book, Being Me - activity book
Learn How To Study
We Are Black Kit
We Are Black - filmstrips and records
Occupational Information: The Dynamics of Its Nature and Use
Occupational Information in the Elementary School
Junior Guidance Series Booklets
Handbook of Job Facts
Counseling Adolescents
Techniques of Guidance: An Approach to Pupil Analysis
Emotional Disturbance and School Learning
Identifying Children With Special Needs - Volumn I, Teachers Guidance Handbook
Helping Children With Special Needs - Volumn II, Teachers Guidance Handbook
Career Exploration Program

Subscriptions to Career Magazines

Elementary School Guidance and Counseling - APGA Subscriptions Dept.
Career World 1972-73 - Curriculum Innovations, Inc.
Scholastic Magazine - Scholastic Magazine
Career of the Month - Vocational Films
Career Education News - Career Education News
Focus on Guidance - Love Publishing Company

Miscellaneous Career Materials

Career Interest Builder Units - Careers Publishing Co.
Student Attitude Builder Unit - Careers Publishing Co.
The World of Construction, Software Set - McKnight Publishing Co.
The World of Manufacturing, Software Set- McKnight Publishing Co.
Reprints: Four Big Questions Children Need to Ask and Ask and Ask.
Workers in the Community - liquid duplicating masters - The Continental Press
Opportunity Knocks Series - McGraw Hill
Decision Making Kit - Unitarian Universalist Association
Bulletin Board Aides, Grade One and Grade Two - American Book Discount Center
Mathlabs - James Ewart

Miscellaneous Career Materials con't

Multi-Ethnic Charts; Families and Friends - Instructor Publications
Workers We Know; Charts - Instructor Publications
Places We Go; Charts - Instructor Publications
Where We Live; Charts - Instructor Publications
How We Travel; Charts - Instructor Publications
Doctor Kit; Nurse Kit - Bardeen's, Inc.
Negro Community Workers - Novo Educational Toy Equipment Corp.
Business Career Kit - Careers, Inc.
WOM Special Set - McKnight and McKnight Publishing Co.
TAPES Program - NYS Department of Motor Vehicles

BUFFALO PUBLIC SCHOOLS
BUFFALO, NEW YORK

Advisory Council for Occupational Education

Mr. Kurt P. Alverson, Director
Research and Marketing
Buffalo Area Chamber of Commerce
238 Main Street
Buffalo, New York 14202

Mr. James Bell
Bell Bros. Dry Cleaners
1429 Jefferson Avenue
Buffalo, New York 14208

Mr. Milton A. Bender, Personnel
Mgr. Buffalo Forge
490 Broadway Street
Buffalo, New York 14204

Mr. Ralph Brighton, Director of
Personnel - Arcata Graphics
TC Industrial Park
Depew, New York 14043

Mr. Nelson Duerr
Buffalo AFL-CIO Council
1334 Prudential Building
30 Church Street
Buffalo, New York 14202

Mr. Robert J. Duerr, Principal
School #84
462 Grider Street
Buffalo, New York 14215

Mr. Lester Gross
1410 Liberty Bank Bldg.
Buffalo, New York 14202

Dr. Theodore T. Jacobs, Director
Buffalo General Hospital
100 High Street
Buffalo, New York 14203

Mr. Leland N. Jones Jr. Director
State University Urban Center
220 Delaware Avenue
Buffalo, New York

Mrs. Olga Kubala, Counselor
Division of Vocational Rehabilitation
General Donovan Bldg. - 8th Floor
125 Main Street
Buffalo, New York 14203

Rev. Edmund A.W. Millet, Pastor
Lincoln Memorial Methodist Church
48 Donaldson Road
Buffalo, New York 14208

Mrs. Carmen Rodriguez, Director
Bi-Lingual Education Program at
School #76
300 S. Elmwood Avenue
Buffalo, New York 14201

Mr. Clifford Roe, Supervisor
Employment - Buffalo Division
Westinghouse Electric Corporation
Box 225
Buffalo, New York 14240

Mr. George Wessel, President
Buffalo AFL-CIO Council
1334 Prudential Building
30 Church Street
Buffalo, New York 14202

Mr. Norvin Whitmore, Vice Pres.
Erie Community College
Main and Youngs Road
Williamsville, New York 14226

Mr. Douglas Winokur, District
Superintendent
New York State Division of Employment
200 Franklin Street
Buffalo, New York 14202

OCCUPATIONAL EDUCATION PERSONNEL

Miss Rosalie Amato
Supervisor, Home Economics
Room 808, City Hall
Tel. 842-7906

Mr. Martin Aschenbrenner
Supervisor of Curriculum
Development, Vocational
Room 721, City Hall
Tel. 842-4658

Mr. Louis Chickos
Supervisor, Adult Education &
Adult Basic Education
Room 816, City Hall
Tel. 842-7907

Miss Mary E. Dougherty
Director, Business Education
Room 725, City Hall
Tel. 842-3170

Mrs. Victoria Gangloff
Director, Home Economics
Room 808, City Hall
842-4653

Mr. Edward Holewinski
Supervisor of Placement and
Follow-up
Room 214, School #73
Tel. 842-7830

Dr. Arnold Lamont
Director, Industrial Arts
Room 808, City Hall
Tel. 842-4687

Dr. Jospeh Manch
Superintendent of Schools
Room 712, City Hall
Tel. 842-3161

Mr. John Murray
Supervisor, Special
Guidance Projects
Room 808, City Hall
Tel. 842-7904

Mr. H. James Peck
Supervisor of Vocational
Education
Room 816, City Hall
Tel. 842-3197

Mr. Robert Pfuelb
Supervisor of Federal
Projects & Equipment
Purchase - Vocational
Room 725, City Hall
Tel. 842-7949

Mr. Eugene Reville
Associate Superintendent -
Instructional Services
Room 701, City Hall
Tel. 842-2362

Mr. Joseph Schmidle
Assistant Superintendent
for Vocational Education
Room 816, City Hall
Tel. 842-4694

Mr. Ralph Theurer
Supervisor of Vocational
Education
Room 816, City Hall
Tel. 842-4652

Dr. Ralph Thomas
Director, Adult Education
& Adult Basic Education
Room 810, City Hall
Tel. 842-4680

ACCESSION NUMBER: VT102137

TITLE: CAREER EDUCATION. A GUIDE TO THE 1972-1973 PILOT PROJECT.

DESCRIPTOR: *CAREER EDUCATION; *CAREER AWARENESS; *OCCUPATIONAL GUIDANCE; *ELEMENTARY SECONDARY EDUCATION; *OCCUPATIONAL CLUSTERS; INDIVIDUALIZED INSTRUCTION; LEARNING LABORATORIES; PILOT PROJECTS

IDENTIFIER: RHODE ISLAND

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 45P.

ABSTRACT: A PILOT PROGRAM TO TEST THE IDEA THAT A CAREER-ORIENTED, LEARNER CENTERED PROGRAM IS SUPERIOR TO THE TRADITIONAL SUBJECT-MATTER-CENTERED APPROACH IS DESCRIBED IN THIS GUIDE. THE PILOT PROGRAM FOR IMPLEMENTING A CAREER DEVELOPMENT PROGRAM WAS DESIGNED FOR K-12 STUDENTS IN THE EAST PROVIDENCE, RHODE ISLAND SCHOOL DISTRICT. IN ADDITION, A WORKSHOP FOR ORIENTING TEACHERS TO CAREER EDUCATION WAS CONDUCTED PRIOR TO PLANNING THE IMPLEMENTATION. THE PROPOSED PROGRAM WAS DEVELOPED FOR TWO MAJOR COMPONENTS, THE ELEMENTARY COMPONENT AND THE SECONDARY COMPONENT. INCLUDED WITH THE PROGRAM DESCRIPTION ARE SAMPLE ACTIVITIES FOR STUDENTS, A LISTING OF AUDIOVISUAL AIDS AND MATERIALS, AND A LISTING OF SAMPLE COMMUNITY RESOURCES. (VA)

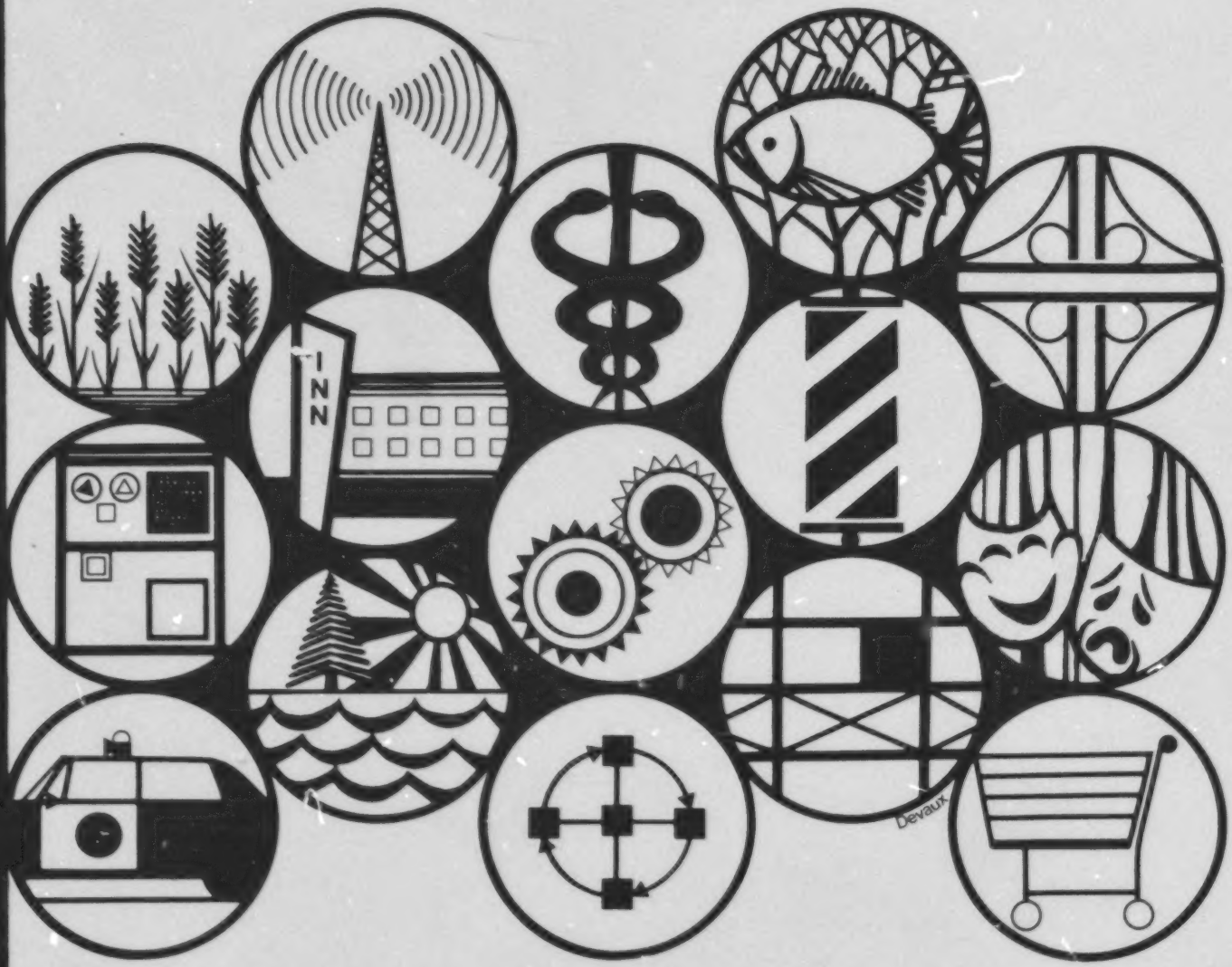
INSTITUTION NAME: EAST PROVIDENCE SCHOOL DEPT., R.I.

VT 102 137

Made Possible by the Ford Foundation

CAREER EDUCATION

A Guide to the 1972–1973 Pilot Project



ROVIDENCE SCHOOL DEPARTMENT CITY OF EAST PROVIDENCE, RHODE ISLAND

VT 102 137

CAREER EDUCATION

A Guide to the Pilot Project

EAST PROVIDENCE SCHOOL DEPARTMENT
EAST PROVIDENCE, RHODE ISLAND

3

East Providence School Committee

Mr. John I. Goodwin, Chairman

Dr. John J. Clancy, Clerk

Mrs. Mary E. Cole

Mr. Henry J. Connors

Mr. James T. Kanelos

Superintendent of Schools

Mr. Edward R. Martin

PROFESSIONAL PARTICIPANTS

MR. EDWARD R. MARTIN
Superintendent of Schools

Mr. F. Paul Colella	Director of Federal and State Programs
Mr. George R. Thompson, Jr.	Director of Curriculum
Mr. Myron J. Francis	Director of Elementary Education
Mr. James F. Ryan	Director of Career Education Project
Mr. Orrin Laferte	State Director for Career Education
Dr. Ronald A. Espisito	Project Consultant, Rhode Island College

COOPERATING PRINCIPALS

Mr. George E. Burke, Sr.	East Providence Senior High School
Mr. George M. Mullervy	Riverside Junior High School
Mr. Frank R. Saraceno	Central Junior High School
Mr. John J. Hurley	Orchard Street School
Miss Christina M. Libramento	Grove Avenue School

PREFACE

The Career Education Program scheduled to begin in our schools this September initiates a process that could possibly revolutionize education throughout this state.

As we envision this project, students and teachers will be engaged in an educational process that can be distinguished from the present program in a number of ways:

- the focal point of instruction will be the learner; his needs, interests, and skills.

- the variety of instructional techniques utilized provides and encourages a greater degree of individualization. Essentially, we are customizing education, so to speak, for each and every student.

- the teacher assumes a more flexible role, that of facilitator of activities, guidance counselor, resource person, technician, and manager of school and community resources.

- nearly everything that is learned is in terms of the occupational goal of the student.

- the acquisition of decision-making skills, as a segment of this process, is an integral part of the curriculum.

- the physical organization of the project schools will change gradually as the career concept begins to take hold.

- the culmination of a student's educational experience will have provided him with sufficient skills to enter the world of work with ease and confidence.

The success of this program will be insured by the continual support and cooperation of the parents of these students as well as the active interest of the business and professional communities in East Providence.

EDWARD R. MARTIN
Superintendent of Schools
East Providence, Rhode Island

CONTENTS

Preface vii

The Need for a New Concept of Education
Becomes Evident. 1

The Goals of Career Education 5

The Changing Role of the Teacher
The Summer Workshop 8

The Changing Techniques of Instruction
Career Clusters. 10

The Elementary Component
The Grove Avenue School 14

The Early School Years: Career Awareness 15
An Individualized Program: Reading 16

Individualization: The Contract Technique. 19

The Secondary Component
Central Junior High School 22
Riverside Junior High School 24
Orchard Street School. 25
East Providence Senior High School 26

Sample Activities for Secondary Students 28

Decision Making at the Secondary Level 29

Appendix A
Audio-Visual Materials 31

Appendix B
Sample Community Resources 35

PROJECT STAFF

Mr. James F. Ryan
Project Director

Grove Avenue

Mrs. Dolores Engustian
Mrs. Raymola Graham
Miss Yolanda Ramos
Mrs. Virginia Carmody
Mrs. Mary Champagne
Miss Carol Johnson
Miss Catherine Nagle,
Career Awareness Coordinator

Senior High

Mrs. Joan Soper
Miss Karen Dodd
Miss Arlene Kirkland
Mr. Paul Dearden
Mr. Samuel Wolstencroft
Mr. Jacob Smith
Miss Bette A. Davey
Mr. James Wilson
Mrs. Bertha Francis
Mr. Francis Floor
Mr. Robert Thayer
Mr. Alexander McDonald

Riverside Junior High

Mr. Clarke Lowery
Mr. George E. Burke, Jr.
Mr. Fred Ferrarra
Mr. Peter Allen
Mrs. Jean Mitchell
Mr. Carl Izzo
Mrs. Nancy Ryan
Mrs. Dolores Loiselle
Mr. John Minicucci

Central Junior High

Mrs. Beverly-Ann Saccoccia
Mrs. Laura Seixas
Mrs. Joanne Dubsor
Mr. James Driscoll
Mr. John Rezendes
Mr. Alfred Lombardi

Orchard Street

7th Grade

Mr. George Brown
Mr. Paul Shea

6th Grade

Mr. Bernard Fagundes

THE NEED FOR A NEW CONCEPT OF EDUCATION BECOMES EVIDENT

According to the United States Office of Education, a staggering total of 2.5 million students leave the formal educational system each year without adequate preparation for careers. Something must be done to insure that these lives and the futures of many others do not end up without direction and purpose. A way must be found to provide these youngsters with the opportunity to enjoy the useful and fulfilling life to which they are entitled. To this end the United States Commissioner of Education, Dr. Sidney P. Marland, Jr., has spoken out vigorously for a new emphasis on what he calls "career education". Along with the wide interest aroused by the term - and more particularly the whole concept it labels - came a barrage of questions seeking a clearer definition of career education and a more elaborate explanation of its implications. This brochure is an attempt to explain this exciting concept.

Very early in the year 1972 your school department became alerted to the possibility of a pilot project that was to be financed in the State of Rhode Island. Subsequently the East Providence School Department applied for and received a grant of over $155,868 to finance a pilot career education program in five of our schools:

East Providence High School
Central Junior High
Riverside Junior High
Orchard Street
Grove Avenue

In an attempt to alleviate some of the problems wrought by today's ever-changing society which inevitably has its effect on our youth, the career education program has as its objectives:

1. To make all educational subject matter more meaningful and relevant to the individual through restructuring and focusing it around a career development theme.

2. To provide all students the guidance, counseling, and instruction needed to develop their self-awareness and self-direction; to expand their occupational awareness and aspirations; and to develop appropriate attitudes about the personal and social significance of work.

3. To assure the opportunity for all students to gain a basic, marketable skill before they leave school.

4. To prepare all students completing secondary school with the knowledge and skills necessary to pursue further education or enter the labor market.

5. To offer services for placing every student in the next step in his development whether it be employment or further education.

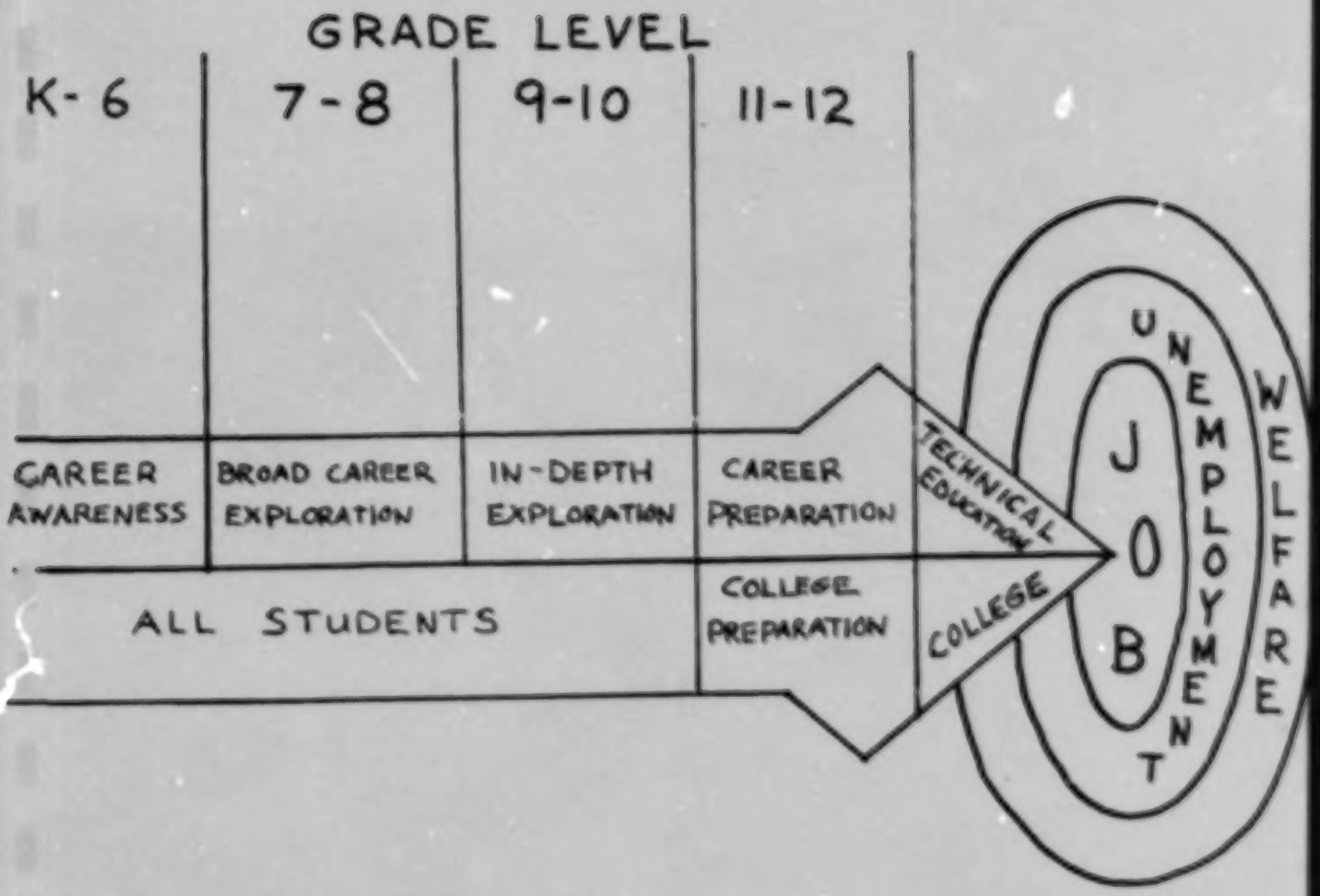
6. To provide an educational system which utilizes and coordinates its activities with all community resources.

7. To increase the educational and occupational options available to all students through a flexible educational system which facilitiates entry into the world of work and re-entry into the educational system.

Career education will be a K-12 educational adventure. It is organized in such a manner so that students from kindergarten through grade six will, through a variety of career-oriented material and activities including the introduction of innovative methods of instruction, focus on <u>career awareness</u>.

Junior high school students will, through the use of varied techniques and newly acquired audio-visual material, explore the world of work and become acquainted with a large variety of occupations in which they could possibly develop an interest. This exploration will start with parental occupations and eventually permeate the area of community employment opportunities. Students in the senior high school years will concentrate on one or two occupations within a given cluster and hopefully gain entry-level skills so that they could acquire gainful employment in one specific occupation if they chose to leave the educational system.

Further, the program will encourage greater interaction between student and teacher. An increase in the guidance function of the teacher will be evident while at the same time a de-emphasis of the subject-matter-centered classroom will be accomplished. The way is clear for a greater humanization of the schools through the individualization of instruction by gradually eliminating the lock-step, structured program that has entrapped our youngsters for so long.



CAREER DEVELOPMENT LEVELS

THE GOALS OF CAREER EDUCATION

Since career education is basically an experiment and a type of research, the students in the program will be called the experimental group. There will be a comparable number of students who are not in the program whose activities will be monitored throughout the program year so that a comparison can be made at the beginning and at the end of the program. The students who are not in the program, yet whose initial levels of achievement are similar to those in the experimental group, will be called the control group.

To test the idea that a career-oriented, learner-centered program is superior to the traditional subject-matter-centered approach both the experimental and control groups will be tested at the beginning and at the end of the school year. The New England Resource Center for Occupational Education has contracted with the State Department of Education to perform a third party evaluation.

Project Objectives

At the end of the first year of the program it is hoped that the following project objectives will have been achieved: Students in the project environment will have a more positive attitude toward school and the world of work than students in the control group.

a) The experimental group will exhibit a statistically higher rate of attendance than the control group.

b) Documentation will show that the experimental group experiences significantly fewer disciplinary incidents than the control group. (A disciplinary incident is any behavior that requires either detention, removal from class, or explusion from school.)

c) The project students will indicate a significantly greater positive change in attitude towards school than the control group. A standardized instrument will be administered as a pre-post measure to document change.

d) Students in the experimental group will be more aware of the priority of work in their life.

Given the increased time devoted to non-traditional academic pursuits, the two groups will <u>not</u> differ significantly on standardized achievement tests.

a) The project students will not score significantly different from the control group on a reading subtest.

b) The project students will not score significantly different from the control group on a mathematics subtest.

The experimental group will show significantly greater growth in their ability to use problem solving techniques in making decisions than will the control group.

a) Observation techniques, combined with a problem solving task, will be developed and used with a representative sample of youngsters from both groups.

b) A standardized instrument will be sought to measure this difference as well.

c) A recording system will be implemented to document the decisions and the decision-making process.

Students in the experimental group will exhibit a significantly greater knowledge of career information than those in the control group.

a) An instrument will be developed to assess career knowledge. The instrument will have varied forms corresponding to the different age groups within the project.

Students in the experimental group will make career decisions at the end of the program that are significantly more congruent with their profile than the control group.

a) The Ohio Vocational Interest Survey (OVIS) will be used to measure career decisions. Correlations will be computed between career-choice level and student characteristics.

Students in the experimental group will make career decisions that are more independent of socio-economic, racial, and sex characteristics than the control group.

a) The correlation between "traditional" careers and stereotypic personal characteristics will be significantly lower in the experimental group (i.e., girls will not be hesitant to indicate interest in traditionally "male" careers).

THE CHANGING ROLE OF THE TEACHER
The Summer Workshop

A teacher workshop designed to explore many techniques and materials for the delivery of a career education program was held during the summer of 1972. A survey of the latest educational methods was conducted. Experts in various fields that have application to career education worked with the teachers.

In addition:

1. Teachers met and talked with people who have successfully established alternate learning projects.

2. Teachers had the opportunity to learn about contingency contracting and its application to career education.

3. Teachers had the opportunity to view multi-media presentations and to plan similar programs of their own.

4. Teachers became familiar with the fifteen occupational clusters that encompass more than twenty thousand types of employment identified by the United States Department of Labor in the Dictionary of Occupational Titles.

5. Teachers had the opportunity to survey a multitude of guidance and subject matter materials. Then they selected those items needed for the career education program.

6. Teachers were given the opportunity to become thoroughly familiar with the latest audio-visual materials purchased for the project, including the Video-Rover II which is a portable TV camera and video-recorder. In addition they received instruction in making their own slides, filmstrips and transparencies.

7. Teachers were instructed in the use and administration of the "Self-Directed Search", a guidance experience that the student undergoes on his own that will provide a base for discussion of career direction for the individual.

As a result of intensive training, the teacher will assume a new role as counselor and manager of school and community resources. The

teacher will now be responsible for employing an individualized, career approach using all available means. An additional duty will be the refocusing of classes in the basic subject areas: math, science, language arts, and social studies; in such a way that these disciplines are presented in terms of the student's career interests, thus for that student school will become more relevant.

THE CHANGING TECHNIQUES OF INSTRUCTION

Career Clusters

In a career education program, each student is helped to develop a very broad awareness of the full range of career options in the world of work. At the same time he is helped to develop his own self-awareness, to become cognizant of his own strengths and weaknesses, his aptitudes and capabilities, and his interests and needs so that he can make a realistic consideration of himself in relation to the many career options available in the world of work. In addition, he is helped to practice and develop logical direction-setting and decision-making skills which will be useful to him throughout his lifetime in considering alternative career possibilities.

After becoming aware of the full range of career options in the world of work, each student is provided with opportunities to explore in considerable depth those kinds of careers which he feels are of most interest to him and most suited to his needs and capabilities. He has a chance, through realistic exploratory experiences, to test himself against the activities and requirements typical of a number of career areas of his choice.

He is then in a position to make a rational choice of an appropriate career goal. Needless to say, this thorough and systematic approach to career possibilities is far better for the individual than the currently prevalent practices, which make career selection more a matter of happenstance than a rational activity.

Once a student has established for himself a tentative career goal, he is helped to plan an appropriate educational path to that goal, and he is provided with those educational programs and work experiences which will enable him to achieve the goal. For a given student, depending upon the nature of his particular career goal, the educational path may involve going through a four-year college, going to a two-year college, or going through job preparation experiences at the secondary-school level which will enable him to go directly to work when he leaves high school.

The problems of delivering this type of comprehensive career education are compounded by the complexity of the American economy and the diversity of the American labor force. The Dictionary of Occupational Titles, for example, lists more than twenty thousand individual jobs. Obviously, dealing with each of these individual jobs would be administratively impossible when designing and implementing a career awareness program or when providing other aspects of career education. The only feasible solution seems to be to group these jobs into a series of manageable clusters. While it is not possible to deal with twenty thousand separate jobs, it is feasible to deal with 15 or 20 broad career clusters.

Any scheme which is developed for clustering jobs for career education purposes should meet four basic requirements:

1. The cluster scheme should be such that it encompasses all the jobs in the Dictionary of Occupational Titles. In other words, after the cluster scheme has been established, it should be possible to fit each and every job in the Dictionary of Occupational Titles into one of the career clusters which have been designated.

2. Each cluster should include jobs at all levels, from entry-level through skilled jobs, technical jobs, and professional jobs, that is to say, each cluster should contain a logical career ladder of jobs requiring increasing levels of education.

3. Each cluster should be related to an identifiable group of employers. For example, if we have a cluster in the health occupations, it is possible to identify within the community a group of potential employers, such as hospital administrators, private physicians, and dentists, who could relate to this particular cluster. Similarly, if we have a cluster in the construction occupations, it is possible to identify in a given community various construction contractors and construction firms who could relate to this career cluster.

4. The clusters should be enduring over time. That is, each cluster should represent a continuing societal function which will be carried on throughout the foreseeable future. For example, it can be assumed that for the foreseeable future our society will be manufacturing things, constructing things, transporting things and providing health services for the people. Therefore, clusters in the manufacturing occupations, the construction occupations, the transportation occupations, and the health occupations are likely to be enduring over time. Although individual jobs within these clusters may be phased out due to technological change, other new and emerging jobs will appear in each cluster to take the place of those phased out. If an individual has had well-rounded training in the common core of a particular cluster, his flexibility for moving to another job within that cluster will be facilitated, should his present job disappear as a result of technological change. Having mastered the common

core of the cluster, he would be able, with a minimum amount of retraining, to move to another type of merging job within that same cluster. This will provide individuals with the flexibility needed to cope with the changing nature of our economy and our labor force.

The United States Office of Education has developed a cluster scheme which, it is believed, meets the four requirements specified above. This cluster scheme consists of 15 career clusters, which are:

Construction Occupations
Manufacturing Occupations
Transportation Occupations
Agri-Business and Natural Resources Occupations
Marine Science Occupations
Environmental Occupations
Business and Office Occupations
Marketing and Distribution Occupations
Communications and Media Occupations
Hospitality and Recreation Occupations
Personal Service Occupations
Public Services Occupations
Health Occupations
Consumer and Homemaking Occupations
Fine Arts and Humanities Occupations

THE ELEMENTARY COMPONENT

The Grove Avenue School

The elementary component of the Career Education Project will be housed in the Grove Avenue School. Approximately two hundred students were selected for participation in this project from kindergarten through grade five.

There are five classroom teachers plus a career awareness coordinator that were especially trained to deliver a career-oriented curriculum to their students. The school-within-a-school concept will be evident here as the west wing of the school has been set aside primarily for use of the career education student.

Plans have been developed by these teachers to change from a traditional subject-matter-centered program to an entirely different atmosphere which will reflect a learner-centered approach.

This change will be most noticed in the career education classroom. (See model classroom on page 18.) No longer will there be six rows of five desks each. A set of five study carrels per classroom will be used to provide a place for individual work with either cassette-recorder, filmstrip viewer, slide viewer, or programmed instruction. There will be "activity centers" at which children will be engaged with manipulative materials, math materials, science projects, art work, creative writing or library materials. Many of these activities will be going on simultaneously. Through its bulletin boards

the classroom will reflect an emphasis on the world of work. Children will use pictures from magazines, advertisements and posters reflecting their own feelings about occupational life.

Career Awareness The focus of the career education project in the elementary school will be on career awareness, an awareness of the world of work: the kinds of work people do, the tools they use, the skills involved. This concept, while drawing the attention of the student to a wealth of occupational information by the development of definitions of work and play, by the exploration of many occupational goals, by simulated work experiences and by exposure to occupational situations, will still encompass all the basic subject areas. As this sense of direction is applied to the traditional program of studies, an added dimension of increased motivation and stimulation will result. Learning must be purposeful for everyone. It is with this consideration under the career education concept that studies would be framed in terms and objectives that the child could clearly see and feel as being of personal importance to him.

Although decision-making as a goal for primary grade children will not be emphasized, hopefully the individualization of instruction will serve as a foundation for the acquisition of decision-making skills by promoting a greater freedom of choice of activities that will meet his

own needs. The child will also be charged with the concurrent responsibility of seeing these activities through to completion.

Some of the benefits that will hopefully evolve from the individualization of the student's program will be:

1. A greater personal interaction between teacher and child.
2. A self-concept on the part of the child that will bring about self-confidence as he learns to manage some of his own activities.
3. A relaxed atmosphere for both teacher and child, thus reducing anxiety and promoting learning.
4. An awareness on the part of the child of the dignity of all types of work.

<u>An Individualized Program: Reading</u> The teaching of reading in the elementary grades will undergo significant change, with improvement in the overall effectiveness of instruction the desired goal. Although the group leader (teacher) will be responsible for the progress of the students assigned to her homeroom, the new approach to reading instruction will be characterized by a great degree of flexibility, individualization, and a concerted team effort by all teachers (regardless of grade level) to meet the needs of each child at the student's own pace. This will mean frequent diagnosing of pupil problems, frequent evaluation of skills mastery, comprehensive record-keeping on the progress of each child, and constant planning to insure for him the greatest possible measure of success.

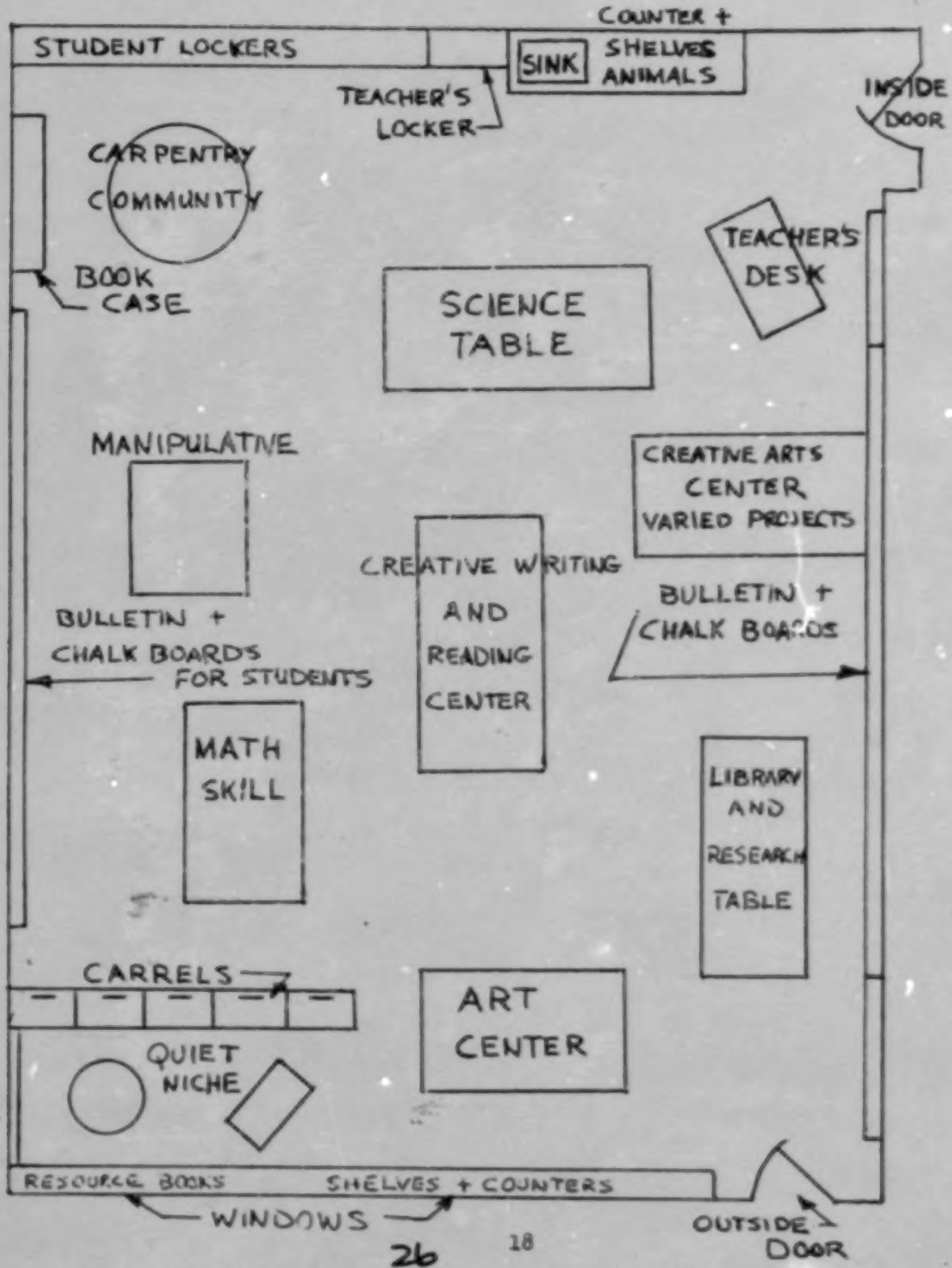
This individualized approach will allow the student to receive instruction in basic reading skills in small, frequently-changing groups with others having needs common to his; it will provide a wider choice

of reading materials at his own level of competence; and, perhaps, most beneficial of all will be the realization that in this type of program he is in competition with no one but himself.

Some highlights of the reading program will be:

1. Small-group instruction, constantly changing (ad hoc) as needs change.
2. Basic skills instruction given by the group leader (teacher) who can best fulfill the child's specific needs.
3. Use of newly-adopted systematic instructional materials for diagnosing needs and teaching word attack skills.
4. Use of newly-adopted basic readers for beginning reading instruction.
5. Use of specific books relating to career awareness.
6. Use of individualized materials which will provide for a wide range of reading levels in each classroom.
7. A wider use of tape recorders, filmstrips, film loops, records, and other audio-visual materials.
8. Encouragement of creativity: dramatics, role-playing, story writing, poetry writing, etc.
9. Development of research skills.
10. Detailed anecdotal record of child's progress.

GRADE FOUR MODEL CLASSROOM CAREER EDUCATION



INDIVIDUALIZATION: The Contract Technique

A vital tool of today's economy is the contract. This agreement entered into by two individuals or groups of individuals has proven its worth as a useful tool in almost every sphere of economic activity. Now this tool will be adopted in this program to educational activity. Using a contract similar to the one illustrated (page 21), the elementary teacher will, after the youngster has been exposed to a number of career clusters and expressed an interest in some of them make an agreement to perform an activity in a certain subject area.

Some sample activities on the elementary level are shown here.

AREA: Language Arts

CLUSTER: Transportation

Activity: You and two of your classmates are to interview a truck driver using the cassette tape recorder. Together make a list of questions such as:

"Do you make a good salary?"
"Do you work long or short hours?"
"Do you get a paid vacation?"
"Do you like your job?"
"Is there any special training needed?"

After this interview return to your room and make arrangements to let the class hear your recording.

AREA: Math

CLUSTER: Marine Science

Activity: Get a map of Narragansett Bay and plan according to the scale of miles an underground cable that must connect to a point on Long Island, New York.

AREA: Science

CLUSTER: Environmental

Activity: Interview a fireman from a station close to your school or home. Use the cassette recorder for the interview. Write a list of questions and ask your group leader to check them over. Ask the fireman what you can do to stress fire safety in the home. Based on this interview you and another student will prepare a report for the class.

.....

SAMPLE FORM

EAST PROVIDENCE CAREER EDUCATION PROJECT

Individual Activity

Feedback Form

NAME:_____ Completion Date:_____

DECISION: _____ Contract No.:_____

CLUSTER:_____

AREA	ACTIVITY NUMBER	DESIGNATION

Comments:

Student's Signature_____

Instructor's Signature_____

SAMPLE FORM

EAST PROVIDENCE CAREER EDUCATION PROJECT
Student Contract Sheet

NAME: _____ DATE _____

DECISION: _____

CLUSTER: _____ CONTRACT NO.: _____

AREA	ACTIVITY NUMBER (s)	COMPLETION DATE	EVALUATION
Art			
Business			
English			
Home Economics			
Industrial Arts			
Mathematics			
Science			
Social Studies			

SPECIAL REQUIREMENTS OR LIMITATIONS:

Student's Signature _____

Group Leader's Signature _____

THE SECONDARY COMPONENT

Central Junior High School The Central Junior High School teaching team consists of six teachers that were especially trained to deliver a career-oriented program to the one hundred-twenty students selected for the project. There are two classes of thirty students each on the eighth grade level and a similar number in the ninth grade.

The physical plan for the program is based on the school-within-a-school philosophy. Four classrooms have been set aside for exclusive use by project students. In addition one room, centrally located, will serve as the media center. The location of these rooms provides easy access to the home economics, library and industrial arts areas of the building. Further, provisions for easy access to the street where buses could be waiting to take students on field trips has also been incorporated into this plan. If necessary the auditorium-audio-visual center is close by for any large group assembly of the project students.

The first two weeks of the school year will find each of the classes meeting with their teacher-group leader for the entire school day. During this period students will be encouraged to create their own world of work environment through bulletin board displays and classroom decoration. Introduction to the cluster concept will take place at this time. Individualized methods of instruction will be explained and discussed. The idea of the contract technique will be explored

as a close relationship between each student and his group leader is engendered.

It is during this time that the pre-program testing will be administered. Attitudes toward school and the world of work will be measured as will the student's knowledge of careers and occupations. Additional tests will measure levels of achievement in the basic skills.

Much of the new audio-visual material will be examined and its use explained. The school-within-a-school concept will be defined to each of the program participants.

Riverside Junior High School The Riverside Junior High teaching team for this program consists of a guidance counselor and eight teachers that were also trained in the summer workshop to deliver to career-oriented program to the one hundred eighty students selected for the project. There are two classes of thirty students on each grade level; seventh, eighth and ninth.

The physical plan for the program is identical to the other schools in the project in that it is based on the school-within-a-school concept. Six classrooms, all in the same second floor wing of the school, have been set aside for the exclusive use of the project students. One room containing twenty-five cubicles, or study carrels, will be used for individual study with either cassette-recorder, filmstrip viewer, slide viewer, programmed instruction or reading assignments. A smaller centrally-located room has been designated as a teacher planning area.

The first two weeks of the school year will find each of the classes meeting with their teacher-group leader for the entire school day. During this period students will be encouraged to create a classroom atmosphere, which through room decoration and bulletin board displays, reflects a world of work interest. The cluster concept, individualized techniques of instruction, and the idea of student-teacher contracting will be explored. The fostering of a close student-teacher relationship will be a primary goal during this period. Pre-program testing will take place.

Orchard Street School The Orchard Street School has a career education staff of three teachers who will work with thirty students in the sixth grade and two classes of thirty students each in the seventh grade.

Here again the school-within-a-school concept will prevail. The seventh grade classrooms are back-to-back in the front west wing of the school. Plans have been formulated for team teaching and individual instruction. Each of the career education classrooms has five study carrels in it which will also serve somewhat as a room divider.

The first two weeks of the school year will chiefly be used to explain various aspects of the career education program including student-teacher contracting, the cluster concept and the individualization of instruction. The junior high school years are primarily a time for the exploration of occupational options, however, decision-making will now become an integal part of this program.

East Providence Senior High School Approximately three hundred students will comprise the career education program at the Senior High School. There are eleven teachers and a guidance counselor from this school that participated in the summer workshop for the purpose of adapting their skills to the world of work approach. Again, the school-within-a-school philosophy will permeate the physical arrangements that have been made. A centrally-located resource center has been developed. In the very next room will be the media center containing thirty individual study stations where students can, use many of the audio-visual materials available to them. The use of the resource and media center is based on the limits imposed by the student teacher contract (illustrated on page 21). Project students during the first two weeks of school will meet with their teacher-group leader for the entire school day. A close relationship will hopefully evolve as discussions and explanations will center on:

- the mechanics of the career education program
- the cluster concept
- the student-teacher contract
- the individualized instruction
- familiarization with audio-visual materials
- how to best create an atmosphere that shows an interest in the many occupational options

Subsequent to the two-week orientation period project students will then begin the process of student-teacher contracting during a period each day set aside for this activity. Students will contract with their group leaders to do an activity based on a cluster in which the

student has developed an interest. When the activity is completed each subject teacher will report student progress to the group leader through the Individual Activity Feedback Form (illustrated on page 20). Then the responsibility of each teacher-group leader is to monitor the student's progress in each subject area based on the original contract.

Sample Activities for Secondary Students

AREA: Language

CLUSTER: Environment (Demographic and Population Trend Survey)

Activity: Conduct a survey of at least twenty-five people in your immediate neighborhood to determine: (a) occupation; (b) length of time at present address; (d) number of people in family; (e) average age of head of household. Organize this information into a report and provide supplementary tables.

AREA: Language

CLUSTER: Environment (Public Awareness Development)

Activity: Write and record a two-minute public service message, suitable for television, outlining the need for the preservation of forested areas within the State of Rhode Island.

AREA: Science

CLUSTER: Marine Biology

Activity: Take several water samples from local fresh and salt water sources. Make a comparison of the samples. Identify some of the pollutants and suggest their sources.

AREA: Science

CLUSTER: Construction

Activity: Write or interview a glass manufacturer. Find out what materials make plate glass stronger than regular window glass.

Decision Making at the Secondary Level

Pertinent observations on the topic of decision making have been made by Gelatt, Varenhorst, and Carey in the introduction to Deciding: A Leader's Guide:

> "Young people of the 1970's view life individually and uniquely. As they live the present and approach the future, they are developing a variety of life styles that provide additional alternatives for the planning of their lives. Although many students want to plan for themselves and their future, others prefer not to think ahead to college or careers.
>
> Whatever the attitude of a young person, his options exist in increased numbers. The greater the number of opportunities, the better a person's chance to find personal satisfaction. However, more options make the task of deciding among them more difficult. More values are in conflict, more variables have to be considered, and a greater amount of information is needed. Forced to choose without adequate information based on objective data or personal experience, without a feeling of future consequences, without sufficient skill of practice in the process of deciding, a person may choose unwisely.
>
> Thus, the process of decision making is vitally important. Decision making is practiced by everyone each day of his life. Because it is a common act, it receives little attention until a person is faced with an important decision that has long-term consequences. Despite its pervasiveness and its importance to people and society, decision making at present has no systematic, formal place in any educational program. Generally, American society has not provided the means by which people can learn a conscious process for making decisions. Although school counseling attempts to help students learn how to make personally satisfying decisions, a major portion of time spent in counseling students involves developing information or supplying it to students. Obtaining information is only one segment of the decision-making process. Not only do many students not know how to use the information, but they lack knowledge of the other parts of the process."[1]

---

[1] H. B. Gelatt, Barbara Varenhorst, and Richard Carey, "Deciding: A Leader's Guide," (New York College Entrance Examination Board, 1972), p. 1.

For these reasons this decision making program which has been developed and field-tested is considered a vital part of the career education program. Some sample topics that will be discussed as part of the decision making component include:

I. Values

1. Values in decision making
2. Recognizing personal values
3. What do I value
4. Identifying present American values
5. Using values in making decisions
6. Stating clear personal objectives

II. Information

1. Identifying alternatives
2. Do you know all the laternatives
3. Acceptable and unacceptable alternatives
4. Practice in seeking sources of information
5. Options - A decision making game

III. Strategy

1. The role of values in risk-taking
2. Personality and risk-taking
3. Self-rating on risk-taking
4. Choosing a job: An experiment
5. Identifying strategies

Appendix A

AUDIO-VISUAL AIDS AND MATERIALS

Equipment

1. Slide Projectors
2. Instamatic Cameras
3. Cassette Players/Recorders
4. Study Mate Viewers
5. Filmstrip Kits
6. Super 8 Projectors
7. Head Sets/Listening Stations
8. Visual Makers
9. Color Video Cassette Recorders
10. Portable Television Cameras/Videotape Recorders

Material

1. Television Video-Tape
2. Blank Cassettes
3. Slide Films
4. Carousel Slide Trays

Occupational Information Kits

1. Job Experience Kit (SRA)
2. Career Information Kit (SRA)
3. Widening Occupational Roles (SRA)
4. World of Work Program (Singer/SVE)
   Story Study Prints:
   - Community Helpers
   - Urban Life Picture

Individualized Booklets (Follett)

1. Accent/World of Work
2. Accent/Job and Job Models

Simulation Games

Guidance
1. Life Career Game

Home Economics (Gillum)
1. Nutri-Crossroads
2. Foods-Crossroads
3. Sharp-Shopper

Multi-Media Kits

Social Studies
1. The Color of Man (Singer)

Elementary Reading
Reading/Audio Program-Reader's Digest
1. Skill Builder's Kit (Primary)
2. Skill Builder's Kit (Intermediate)

Teaching Cassette Tapes

Science (Wollensak)
1. Light Years
2. Stars
3. Elements
4. Photosynthesis
5. Metric System
6. Temperature Conversion
7. The Thermometer
8. Simple Machines
9. Understanding Water Pollution
10. Understanding Air Pollution

Elementary Science
11. The Skeletal System
12. Photosynthesis
13. The Universe

Elementary Mathematics
14. Rounding off Decimals
15. Problem Solving: Steps to be Followed
16. Ancient Number Systems

Social Studies
17. Causes of the Revolutionary War
18. Freedom of Speech Now
19. Dissent Topples an Empire
20. A Visit to France
21. A Visit to Greece
22. A Visit to Japan

Language Arts
(Library 16 Bell and Howell)
23. American Literature in the Early National Period

Social Studies (Imperial)

24. Transportation and Communications
25. Touring the Nation's Capital
26. The Electoral College
27. The United Nations

Filmstrips/Cassettes

Guidance (Guidance Associates)

1. Values for Teenagers: The Choice is Yours
2. Dare to be Different
3. Failure: A Step Toward Growth
4. Dropping Out: Road to Nowhere
5. Four Who Quit
6. Why Work at All?

Filmstrips

Home Economics (3M)

1. You the Shopper
2. Your Wardrobe and You
3. Spending Your Food Dollars

Film Loops Super 8

Home Economics

1. Clothing Construction: Advanced Sewing Techniques (Webster McGraw-Hill)

Science

2. Comparative Sizes of Microscopic Animals
3. Paramecium (Kavic)

Elementary Guidance

4. Understanding Ourselves and Others

Individualized Instruction Programs

1. Gregg Shorthand: Individualized Progress Method (Theory)
2. Algebra Skills Kit (Singer/Random House)
3. Mathematics Skills Kit
4. Individualized English/Programmed Instruction (Follett)
5. Individualized Study Lessons in General Science (Follett)

6. Individualized Study Lessons in Map Reading (Follett)
7. Accent/Family Finances
8. Turner Career Guidance Series
9. Vocational Reading Series

Transparancies

Science
1. The Human Heart
2. Digestive System
3. The Frog
4. The Earthworm

Home Economics
5. See and Sew (set of 250)

Industrial Arts Curriculum Project

1. World of Construction Set with Filmstrip
2. World of Manufacturing Set with Filmstrip

Appendix B

SAMPLE COMMUNITY RESOURCES

The following is a sample list of occupational exposure opportunities available to students in the City of East Providence.

It would be appropriate to begin with the school plant itself. Within its complex we will find the following vocations:

1. Administrator
2. Teacher
3. Clerks
4. Custodial Staff and Ground-keepers
5. Cafeteria Workers
6. School Nurse
7. School Librarian
8. Librarian's Assistant

Nursing Homes

1. Administrator
2. Registered Head Nurse
3. Receptionist-Main Desk
4. Nurses' Aides
5. Visiting Medical Doctors
6. Dietitian
7. Maintenance Staff
8. Consulting Pharmacist

Pharmacies

1. Pharmacist and/or Proprietor
2. Drug Clerks
3. Cosmetician
4. Cashiers
5. Bookkeeper
6. General Stock/Shelf Maintenance
7. Sales Representatives

Dental Offices

1. Dentist
2. Dental Assistant
3. Receptionist

Cleanser

1. Owner-Operator
2. Cashiers
3. Truck Drivers
4. Washing Machine Operators
5. Pressers
6. Packers

Marine Engine Shop

1. Marine Mechanic

Marinas

1. Owner-Businessman
2. Boat Hauler/Painter
3. Chief Marine Mechanic
4. Boat Inspector (Coast Guard)

General Large Department Store

1. Manager
2. Assistant Manager
3. Stock Clerks
4. Cashiers

Summer Only - Amusement Park

1. Businessman
2. Cooks-Large Restaurant
3. Cashiers - Restaurants and Rides
4. Manager - Concession Stands (games)
5. Manager - Concession Stands (food)
6. Ground Keepers
7. Security Guards

Boat and Motor Dealer

1. Owner
2. Salesman
3. Mechanic

Refineries

1. Control Chemist
2. Research Chemist
3. Plant Managers
4. Steel Workers
5. Ship's Captain
6. Merchant Seamen
7. Ship's Officers
8. Chief-Boiler Engines
9. Radio and Radar Operators
10. Cooks
11. Truck Drivers (oil, gasoline)
12. Ground Maintenance
13. Ground Security Guards

Traffic and Road Engineers

1. Traffic Lights
   Traffic Planning

2. Road Construction
   Road Maintenance

3. Street Cleaning Department

Soft Drink Bottling and Storage Plant

1. Plant Manager
2. Stock Clerks
3. Order Takers
4. Truck Drivers
5. Maintenance

Jewelry Company

1. Manager
2. Department Heads-Office
   a. Bookkeepers
   b. Personnel
   c. Accounting
3. Department Heads - Plant
   a. Soldering
   b. Plating
   c. Polishing
   d. Carders
   e. Checkers/Inspectors
   f. Shippers

acknowledgements

DR. FRED G. BURKE, Commissioner of Education, for his support in the securing of funds for this project and for his continuing assistance in making the Career Education Pilot Project a successful educational venture.

DR. NELSON F. ASHLINE, Assistant Commissioner of Education, whose understanding helped solve many of the early problems inherent in any new program.

THE EAST PROVIDENCE CHAMBER OF COMMERCE, for providing the community involvement which is so vital to the success of a Career Education Program. We look forward to the continuation of our close working relationship with its members and staff.

ACCESSION NUMBER: VT102138

PUBLICATION DATE: AUG73

TITLE: COOPERATIVE STATEWIDE PLANNING FOR HEALTH MANPOWER DATA IN OKLAHOMA.

PERSONAL AUTHOR: SMITH, VIVIAN S.

DESCRIPTOR: *HEALTH PERSONNEL; *HEALTH OCCUPATIONS EDUCATION; *MANPOWER NEEDS; *STATEWIDE PLANNING; PERSONNEL DATA; OCCUPATIONAL SURVEYS

IDENTIFIER: *OKLAHOMA INTERAGENCY HEALTH MANPOWER DATA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 14P.

ABSTRACT: THE DEVELOPMENT OF AN INTERAGENCY STATEWIDE COOPERATIVE EFFORT TO PROVIDE SUITABLE HEALTH MANPOWER NEEDS DATA FOR PLANNING REGIONS AND THE STATE OF OKLAHOMA AS A WHOLE IS DESCRIBED. GROUPS REPRESENTED ARE IDENTIFIED WITHIN THE FRAMEWORK OF ORGANIZATIONAL PATTERNS IN OKLAHOMA. PROBLEMS, POTENTIALS, AND CHALLENGES TO HEALTH MANPOWER EDUCATIONAL PLANNERS ARE DISCUSSED, PARTICULARLY IN TERMS OF RELATING PRODUCTION TO NEEDS AND PROGRAM CATEGORIES TO JOB TITLES. (AUTHOR/VA)

VT 102 138

Cooperative Statewide Planning for Health Manpower Data in Oklahoma

Vivian S. Smith, Ph.D.

VT 102 138

COOPERATIVE STATEWIDE PLANNING
FOR HEALTH MANPOWER DATA IN OKLAHOMA

Vivian S. Smith, Ph.D.

published by

OKLAHOMA REGIONAL MEDICAL PROGRAM

SUMMARY

The development of an interagency statewide cooperative effort to provide suitable health manpower needs data for planning regions and the state of Oklahoma as a whole is described.

As a result of the cooperative effort, the Interagency Task Force for Health Manpower Data has evolved as a viable entity. Groups represented are identified within the framework of organizational patterns in Oklahoma.

Problems, potentials, and challenges to health manpower educational planners are discussed, particularly in terms of relating production to needs and program categories to job titles.

COOPERATIVE STATEWIDE PLANNING FOR HEALTH MANPOWER DATA IN OKLAHOMA

Vivian S. Smith, Ph.D.*

August 1973

The health manpower shortage of the sixties is giving way in the seventies to a growing concern that the output of many new training programs, considered along with increased enrollment in existing programs, may result in an oversupply in some occupations. Difficulty of planning is compounded by the need to assess required numbers of varied kinds of health workers as factors which are dependent upon the organization of the system within which care is delivered. For instance, we have no way of knowing to what degree increased utilization of medical care facilities would follow enactment of national health insurance legislation, how much of a shift in needs for certain kinds of health manpower would occur if patterns of payment favored out-patient and home care as much as they now favor hospital care, and how the factors of physician and patient acceptance will finally affect the degree to which physician assistants may be used in any given part of the country. These questions, and innumerable others which have a bearing on health care needs, are shrouded in controversy. Solutions which are acceptable in one locality may be unworkable in another, and health care patterns which were formerly determined totally by providers are now increasingly subject to thoughtful examination by consumers. There is a desperate need for unbiased presentation of all of the options.

Within the context of this highly fluid situation, and aggravated by the sudden sharp decline in federal support for health manpower education, decisions must be made at the state level about allocation of increasingly scarce resources for education and training programs. Data gathered at the national level represent sampling techniques which are not accurate enough for local needs, and are often out of date by the time they are in print. State professional associations and licensure agencies may have excellent current data, but value to planners is limited because the data are prepared from the standpoint of a particular professional group.

Identification of a single state agency which has sustained capability and responsibility for development of comprehensive health manpower information is generally elusive, and possibly less desirable than it might seem. Despite the difficulties involved in development of an interagency cooperative effort, the potential benefits are enormous. An opportunity is created for education of all parties concerning the complexities of health care needs as they affect manpower needs, and concerning each agency's differing

* Adjunct Associate Professor, College of Health and Allied Health Professions, University of Oklahoma Health Sciences Center, Oklahoma City.
Health Sciences Center representative, Oklahoma Interagency Task Force for Health Manpower Data.

responsibilities in relation to the manpower picture. Furthermore, a framework is provided for a continuum of useful activity. The following account describes an approach which is being used in the state of Oklahoma.

Background Factors

Colleges and vocational schools in Oklahoma have moved to develop additional and more diverse training programs for health care personnel as a way both of meeting community and state needs and of providing additional opportunities for students. The efforts to meet needs have included increased size of medical school classes and plans for development of a college of osteopathic medicine, increased numbers of programs to train nurses and allied health workers, and increased training of entry-level (aide) workers. The latter is being done primarily with Manpower Development and Training Act funds, and with funds of varied origin which support programs aimed at disadvantaged students. Federal grants at every level have encouraged the confusing proliferation. Agencies and schools have sometimes planned programs with little knowledge of what was being done elsewhere. At the higher education level, the fact that federal grant mechanisms are geared to dealing with individual institutions has complicated the job of coordinating programs statewide.

Entities with responsibilities for health manpower planning in Oklahoma are:

1. State Regents for Higher Education
2. State Department of Vocational and Technical Education
3. Governor's Manpower Planning Agency
4. State Health Planning Commission
5. Areawide Health Planning Agencies
6. Employment Security Commission
7. Oklahoma Regional Medical Program
8. Oklahoma Council for Health Careers
9. University of Oklahoma Health Sciences Center.

For a description of the function of each, see Appendix I.

An interest in manpower data-gathering is not limited to the above groups, and is generally an important function of licensure agencies and professional associations. Organizational entities associated with a particular profession, however, are of greatest value as information sources about that profession.

The Oklahoma Interagency Task Force for Health Manpower Data

A common thread of interest in health manpower data, for very varied reasons, unites the broad-function agencies we have listed above. Each had something to gain by cooperating with the others. Mutual concern has resulted in the origin and development of the Interagency Task Force for Health Manpower Data.

A survey of Oklahoma health manpower needs was done in the summer of 1970 under joint auspices of the State Department of Vocational and Technical Education and

the Employment Security Commission. Emphasis was on vocational-level occupations. Data appeared in print in two forms, one published by the Employment Security Commission as Health Manpower Needs In Oklahoma 1971, 1972, and 1975, and the other published by the Occupational Training Information System (OTIS) of the State Department of Vocational and Technical Education as Supplement I, OTIS Cycle 3 Report, Health Manpower Needs in Oklahoma, 1971-72. Employment Security Commission data were based on a survey of hospitals, nursing homes, and government agencies. The OTIS publication included added information from a sample survey of doctors' offices. Subsequent OTIS publications (Cycle 4 and Cycle 5) have involved very limited additional data-gathering. As vocational-technical instruments, their emphasis has been on data concerning technical-level occupations.

A separate and distinct effort, called Professional Manpower Information System (PROMIS), was under development in 1971-72 by the State Regents for Higher Education to provide valid data for program planning and resource allocation in higher education. Decisions relating to support for programs to train health care personnel have become extraordinarily difficult in the face of increasing competition for funds.

As a neutral person who was respected by the staff members in all of the agencies, the author has functioned more or less as an independent liaison representative who moved freely among the parties. Initial effort centered simply on persuading the Regents and Vo-Tech staffs to make OTIS and PROMIS compatible. The result, arrived at in direct dialogue between staff members of the two agencies, was most encouraging. The Regents staff agreed to use OTIS data for health manpower needs, provided that OTIS categories were expanded to include jobs requiring baccalaureate and professional levels of education. With the two key education groups in agreement, there was a sound basis for a broad effort to which everyone might contribute, -- a new and improved health manpower needs survey.

A preliminary meeting in August, 1972, called by the Oklahoma Council for Health Careers, OTIS staff, and the State Health Planning Staff, was followed by the organization in October, 1972, of the Interagency Task Force for Health Manpower Data. Task Force meetings are informal, open, and arranged by staff of the State Health Planning Commission. (Entities represented on the Task Force were listed on page 2.) Agendas of meetings are prepared by the State Health Planning staff in cooperation with those having the most business to be considered. Meetings are called as needed; there is no chairman and the structure of the group is inherently flexible. Tensions which were apparent a year ago have faded away. There are disagreements, but they are constructively expressed and handled. With emphasis placed on agency representation, the framework permits easy substitution or supplement by individuals with specific interests or capabilities. The State Department of Education was not represented on the 1972-73 Task Force. It will be a natural addition if its health manpower planning activities are increased as a result of implementation of career education concepts developed through the U.S. Office of Education.

It must be emphasized that the Task Force is not a policy-making body, but only one which addresses itself to the need for adequate data for use by policy-makers and planners. Therefore, its basic function is service.

The 1973 Survey and Its Development

Result of the 1973 Oklahoma health manpower needs survey, and a narrative describing its history, are published as an OTIS report, Health Manpower Needs in Oklahoma, 1973. Survey instruments, job descriptions, and projection methods are contained therein and need not be repeated here. Starting with the premise that a completely new comprehensive set of job categories and job descriptions was needed, along with a comprehensive list of kinds of places to be surveyed, Task Force members worked to make the survey something we could all defend. Responsibilities assumed were as follows:

1. Job Categories and Job Descriptions

   Assembled and monitored by Health Sciences Center representative, with much outside cooperation.

2. Categories of Places to be Surveyed

   Assembled and monitored by Employment Security Commission, and supplemented by Health Sciences Center representative.

3. Employer Needs Survey

   Performed by staff of the Research and Planning Division of the Oklahoma Employment Security Commission, with voluntary assistance at no cost provided by areawide health planners, Manpower Planning staff, State Health Planning staff, Health Sciences Center staff, State Health Department staff, and Oklahoma Regional Medical Program staff.

4. Training for Survey Interviewers

   Arranged and conducted by Research and Planning Division of the Oklahoma Employment Security Commission, with assistance of certain Task Force representatives.

5. Supply Data

   Assembled by staff of State Department of Vocational and Technical Education in cooperation with State Regents for Higher Education. Assistance provided by Oklahoma Council for Health Careers staff and Health Sciences Center representative. Checked at Task Force meetings.

6. Funding

   Some funds from operating budgets of Employment Security Commission and State Department of Vocational and Technical Education. Essential additional funds from the Oklahoma Regional Medical Program and from three HS/EA (Health Services Educational Activities) projects funded in eastern and central parts of the state

by the Regional Medical Program. Total from these sources was $19,000, the only clearly identifiable cash contribution to the survey costs.

7. Publication

An OTIS publication of the State Department of Vocational and Technical Education. The 1973 list of job titles appears in Appendix II.

Discussion of Survey Approach

Development of a health manpower needs survey provided an extraordinarily effective focus for promoting communication among agencies represented on the Task Force. Negotiation of an original proposed list of 85 job categories down to the final 66 required an examination of the diversity of categories. This was educational, particularly to those Task Force members with no in-depth experience in the health field.

Lengthy discussion was associated with a decision to omit educational requirements from job descriptions. Later, problems encountered in connection with the absence of educational requirements from some job descriptions (e.g.- nursing categories) have provided an insight into reasons why some changes may have to be made before the next survey. All aspects of the survey were carefully scrutinized, from sampling techniques (in the few instances where coverage was not 100 percent) to projection methods.

Limitations of a survey of the type conducted are understood. At present, plans call for annual updating including modification in methodology and job categories as necessary. The fact that a survey is not a study is recognized. A well-executed survey, however, provides data from which needs may be justified and studies may be designed. Also, most important is the potential for developing state-by-state current survey data which may be combined to form a national data base.

Problems and Priorities

One major problem area has been delineated more clearly than ever. This is the inadequate distinction between job titles and educational program titles. Job titles in the health field have become inordinately numerous, in connection with increased fragmentation of specialty services and the appearance of lesser trained assistant and aide categories, so that even health professionals are not fully aware of the services performed by some kinds of workers in areas removed from their own functions. A one to one ratio of job titles and educational programs has been the national trend, and the exasperation of thoughtful planners is epitomized in the title of Kinsinger's recent article, "What this Country Doesn't Need is a Left Carotid Artery Technician". Some of the blame for this rests squarely on the widespread over-use of the term "innovative". Grantsmanship is linked to being "innovative", and somehow a modification in a training program for a recognized type of worker is not nearly as noticeably "innovative" as creating

a new kind of worker and, of course, a new training program with a new and different-sounding name. We should have a moratorium on the use of the word "innovative".

The diverse factors affecting needed numbers of different kinds of health workers must be considered for planning purposes, in the context of the fact that products of programs may be two or more years away. Some specialty workers (e.g.- medical laboratory personnel) are used in relatively large numbers. Others are not. Epidemiologists, for instance, are essential members of the public health portion of our system, yet the numbers of epidemiologists needed are relatively small if we exclude from this category the community health workers of varying backgrounds who may perform epidemiological functions, such as venereal disease investigation. Some jobs, such as that of the physician assistant, are still emerging, and there is no valid way of determining numbers to be used. Emergence of the physician assistant category is further complicated by problems of physician acceptance, reimbursement patterns, fears of malpractice, community acceptance, variations in training standards, and credentialing.

At institutional, community, state, and national levels, educational planners seek approaches which take cognizance of employer and public needs, student desires for career choices, and the purse of the taxpayer. Resources are the key determinant. We cannot afford the luxury of an excessive amount of specialty programming. In terms of human resources, we must build in every possible safeguard of individual versatility and adaptability as length of training increases. Although job opportunities in the health field are inherently specialized, job satisfaction is greater for individuals who function in situations which allow variety of performance. The challenge to educators is to produce people who can fill jobs competently while offering additional dimensions as a result of having gone the lengthy educational route.

Change is the most constant feature of modern life; its most dramatic evidences have come with advancement of knowledge in the health field. We need health personnel who are versatile and, above all, adaptable.

REFERENCES

1. Kinsinger, Robert E. What this Country Doesn't Need is a Left Carotid Artery Technician or a Career-Based Response to the "New Careers". Journal of Allied Health, 2 (1): 10-15. 1973.

2. Oklahoma Employment Security Commission: Health Manpower Needs in Oklahoma 1971, 1972, and 1975.

3. Oklahoma State Department of Vocational and Technical Education: OTIS Cycle Three Report Supplement I; Health Manpower Needs in Oklahoma - 1971-1972.

4. Oklahoma State Department of Vocational and Technical Education: OTIS Cycle Four Report - 1972.

5. Oklahoma State Department of Vocational and Technical Education: OTIS Cycle Five Report - 1973.

6. Oklahoma State Department of Vocational and Technical Education: Oklahoma Health Manpower Needs - 1973.

7. Smith, Vivian S. "Some Factors Affecting Health Manpower Educational Programs in Oklahoma". A report. Oklahoma Regional Medical Program. 1971.

Appendix I

Agencies at the state government level in Oklahoma with responsibilities broadly related to planning for health manpower production are:

1. Oklahoma State Regents for Higher Education

Constitutional authority is vested here for program coordination and resource allocation to all state-supported institutions of higher education. Recent implementation of program budgeting will permit closer focusing on funds channeled to specific educational programs, including those producing health manpower.

2. Oklahoma State Department of Vocational Technical Education

Authority here centers on planning and implementation of training programs in a network of area vocational-technical schools. Programs are both secondary (in cooperation with area high schools) and post-secondary. Some support is provided for technical programs in junior colleges, subject to approval by the Oklahoma State Regents for Higher Education. The Research, Planning, and Evaluation Division of Vo-Tech publishes the annual OTIS (Occupational Training and Information System) reports containing demand and forecast data for technical occupations, including those in the health field. Employer surveys for the OTIS publication are done by the Oklahoma Employment Security Commission, through a contractual arrangement.

3. Oklahoma State Health Planning Commission

This agency is responsible for the development and maintenance of state comprehensive plans for health services, health facilities, and health manpower. Health manpower data are coordinated from other sources, with little primary data collection done by the Commission.

A recent legislative action placed the state comprehensive health planning agency in a new organizational framework, the impact of which remains to be assessed. The agency is now the State Health Planning Commission, with the Director responsible to three Commissioners. The Commissioners are the heads of the three largest agencies in the state which are employers of health manpower, – the State Health Department, State Department of Mental Health, and State Department of Public Welfare.

4. Governor's Office of Manpower Planning and Coordination

This office is responsible for coordinating plans for the multiplicity of technical manpower programs, to insure that area and local plans provide for an equitable distribution of state and federal resources. Coordination of entry level health manpower training program plans is part of the total effort.

5. Oklahoma Employment Security Commission

The Research and Planning Division does employer need surveys and forecasts, wage and salary surveys, profiles based on census data, etc.. Data collection from employers for use in the OTIS publication is done by this agency.

The following agencies are not a part of state government, but nevertheless play important generalized roles in relation to health manpower planning.

1. Oklahoma Regional Medical Program

Staff activity in manpower development has focused on liaison among state agencies and among educational institutions. In addition, specific support has been given to three HS/EA (Health Services Education Activities) projects, which represent the Regional Medical Program approach to the concept of Area Health Education Centers. Partial support is provided for the Oklahoma Council for Health Careers. The Manpower and Education Committee of ORMP articulated a firm commitment to the need for improved health manpower data, and laid the groundwork for subsequent invaluable financial support from ORMP for current efforts. The author as an ORMP staff member from September 1970 through January 1972, with responsibility for health manpower education program liaison, became aware of some of the potentials described in this report.

2. Areawide Health Planning Agencies

The areawide agencies are multicounty community organizations which function within the state's standard planning regions, and are responsible for area plans for health services, facilities, and manpower. About two thirds of Oklahoma is served by organized areawide health planning agencies. Although these agencies are not subsidiaries of the State Health Planning Commission, their organization and operation plans must be approved by it. Part of the responsibility of areawide staffs is data-gathering, and they have excellent working knowledge of health care facilities and educational institutions in their localities.

3. Oklahoma Council for Health Careers

As a responsible non-profit agency supported by a broad-based consortium, the Council functions primarily in recruitment, counseling, and placement. Recent efforts have emphasized alleviation of maldistribution problems. The Council produces a number of useful publications designed to serve counselors and prospective students in health careers programs, and coordinates the state MEDIHC program.

4. University of Oklahoma Health Sciences Center

As the one educational institution in the state which has as its primary mission the education of a broad spectrum of categories of health care professionals, the Center is a reservoir of information and service for use by planners. The diversity of its programs makes attunement to health manpower needs mandatory.

Appendix II

Occupational Titles on 1973 Oklahoma Health Manpower Survey List

Physician, M.D. or D.O.
Physician Assistant, Registered
Medical Assistant (Office)
Medical Secretary
Nurse, Registered (Includes Supervisors)
Public Health Nurse
Nurse Anesthetist
Nurse Educator
Licensed Practical Nurse
Nurse Aide – Orderly
Dentist
Dental Hygienist
Dental Laboratory Technician
Dental Assistant (Office)
Chiropractor
Podiatrist
Optometrist
Optician
Optical Technician
Audiologist
Speech Pathologist (Speech Therapist)
Health Educator (Public Health Educator)
Pharmacist
Pharmacy Assistant
Physical Therapist
Physical Therapy Assistant
Occupational Therapist
Occupational Therapy Assistant
Rehabilitation Counselor (Clinical)
Recreation Therapist
Music Therapist
Respiratory Therapist, Registered (Inhalation Therapist)
Respiratory Therapy Technician (Inhalation Therapy Technician)
Radiologic Technologist, Registered
Radiation Therapy Technologist
Nuclear Medicine Technologist
Medical Records Administrator, Registered

Medical Records Technician
Ward Clerk
Clinical Dietitian, Registered
Clinical Dietetic Technician
Dietary Aide
Hospital Food Service Supervisor
Cytotechnologist
Medical Technologist, Registered
Medical Laboratory Technician (Medical Laboratory Assistant)
Surgical Technician
Electroencephalograph Technician
Electrocardiograph Technican
Emergency Medical Technician
Hospital Administrator (and Assistants)
Nursing Home Administrator (and Assistants)
Community Health Worker
Epidemiologist
Biostatistican
Community Mental Health Technician
Psychiatric Technician (Psychiatric Aide)
Clinical Psychologist
Clinical Social Worker, Registered
Social Work Assistant (Case Aide)
Biomedical Instrumentation Specialist
Biomedical Equipment Technician
Sanitarian
Environmental Health Technician
Health Planner

ACCESSION NUMBER: VT102139

PUBLICATION DATE: JUL73

TITLE: NEW OPPORTUNITIES FOR WORK. INTERIM REPORT.

PERSONAL AUTHOR: JORDAN, KENNETH C.

DESCRIPTOR: *CAREER EDUCATION; *CAREER AWARENESS; *COOPERATIVE EDUCATION; *CURRICULUM DEVELOPMENT; *ELEMENTARY SECONDARY EDUCATION; INSERVICE TEACHER EDUCATION; OCCUPATIONAL GUIDANCE; FIELD TRIPS; LEARNING ACTIVITIES; FILM LIBRARIES; INSTRUCTIONAL MATERIALS; TUTORIAL PROGRAMS

IDENTIFIER: LEWISTON; MAINE; NEW OPPORTUNITIES FOR WORK PROGRAM; NOW PROGRAM

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 235P.

ABSTRACT: THE SECOND INTERIM REPORT DESCRIBES THE ACTIVITIES UNDERTAKEN DURING THE TIME PERIOD OF JULY 1, 1972 TO JUNE 30, 1973 OF THE NEW OPPORTUNITIES FOR WORK (NOW) PROGRAM IN LEWISTON, MAINE. THE GENERAL GOAL OF THE NOW PROGRAM IS TO INTEGRATE CAREER EDUCATION ACTIVITIES INTO THE ENTIRE CURRICULUM IN GRADES K-12. DURING THE SECOND YEAR OF THE NOW PROGRAM, ELEVEN MAJOR GOALS WERE PROPOSED. THIS REPORTING PERIOD CONCENTRATED ITS CAREER EDUCATION IMPLEMENTATION EFFORTS AT THE ELEMENTARY AND SENIOR HIGH SCHOOL LEVELS. THE MAJOR ACCOMPLISHMENTS DURING THE SECOND YEAR OF THE NOW PROGRAM INCLUDED THE PROVISION OF INSERVIDE TRAINING FOR LEADERS AND TRAINERS OF VOCATIONAL EXPLORATION GROUP, DEVELOPMENT OF A FILM LIBRARY SERVICE AND HUMAN RESOURCES DIRECTORY, AND FURTHER EXPANSION OF CURRICULUM DEVELOPMENT EFFORTS. A THIRD PARTY EVALUATION OF THE PROJECT ACCOMPLISHMENTS BY EACH MAJOR GOAL IS INCLUDED. (VA)

CONTRACT NUMBER: OEG-0-71-0652(361)

INSTITUTION NAME: LEWISTON SCHOOL DISTRICT, MAINE.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102139

INTERIM REPORT

Project No. 1-361-0161
Grant No. OEG-0-71-0652(361)

New Opportunities for Work

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

Kenneth C. Jordan
Lewiston Public School District
Lewiston, Maine 04240

July 1973

VT 002 139

INTERIM REPORT

Project No. 1-361-0161
Grant No. OEG-0-71-0652(361)

New Opportunities for Work

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorhsip are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Kenneth C. Jordan
Lewiston Public School District
65 Central Avenue
Lewiston, Maine 04240

July 1973

TABLE OF CONTENTS

Report Summary 1
Problem Area 5
Goals and Objectives 12
Project Design and Procedures 16
Results and Accomplishments 29
Evaluation 68
Conclusions, Implications and Recommendations 87
Attachment 1 - Vocational Exploration Groups 91
Attachment 2 - Vocational Exploration Groups-Final . . 96
Attachment 3 - STARS Contract and Proposal 103
Attachment 4 - STARS Data and Final Report 113
Attachment 5 - Field Trip Guidelines 125
Attachment 6 - Film and Resource List 134
Attachment 7 - NOW Grams 185
Attachment 8 - Human Resources 214
Attachment 9 - Rent-A-Kid 218
Attachment 10 - Staff Development Cooperatives 222

REPORT SUMMARY

A. Time Period Covered

This second Interium Report of the NOW Program covers the period from July 1, 1972 to June 30, 1973.

B. Goals and Objectives

Basically, the goals and objectives of the NOW Program remain unchanged; however, the emphasis of this year's involvement was to be directed in the area of curriculum development and change to formally include career education activities into the classroom.

Regarding this as our priority goal, the NOW Program staff in conjunction with our third party evaluation team, developed 11 sub-objectives that would align Program activities in this direction. These sub-objectives are discussed in length in the body of the report.

C. Procedures Followed

The NOW Program Staff maintained a team approach to implementation for the second action year with the variation of each member accepting areas of responsibility. These areas are geographic within the city. The three Pupil Personnel Members had a near equal teacher and student load, a similar variety of socio-economic areas, and similar facility characteristics. The rationale being to provide each member the opportunity to plan and implement career education in the various environments of public education. The learning levels varied slightly, one member was responsible for the high school and two elementary schools, the other two for a junior high and four elementary schools each. The procedures utilized by NOW Staff in their various schools were through follow-up of first year activities, direct contact with principals, attendance at teachers' meetings, and most commonly by one to one teacher contact as the year progressed. Small teacher groups, by departments and/or grade level contacts were another common procedure for planning and implementing activities. The most demanding requests were for use of equipment and career education

materials. This resulted from the distribution of a resource guide to each member of the school department staff. One other procedure that generated high interest and teacher involvement was the distribution of a weekly one page newsletter to all school department staff. This letter was informational in respect to what was happening, planned for the future, and those (teachers, administrators, and community people and places) involved.

Another procedure of significant success was in-service training sessions for teachers and students in the use of audio-visual equipment and materials.

The program staff increased the amount of involvement of administrators through more frequent visits and communications relating to the career education going-on in their schools; where as in the past administrative contacts were basically through the Program Coordinator.

A procedure quite unique to the Lewiston School Department was established this year by the Program. Teachers were permitted release time for planning and in-service training activities. In some instances the NOW Program provided substitutes.

The Regional schools were provided directories of NOW Program services, staff and their availability, resources availability, and notices of and invitations to workshops and in-service training programs. As is pointed out in the body of this report, Regional involvement was limited by staffing problems.

Basically, the noticable advancement of the Program should be attributed to the increased involvement of school personnel through these procedures.

D. Results and Accomplishments

The introduction and implementation of Vocational Exploration Group training has proven to be a very useful and effective procedure relative to the development, expansion and personalization of jobs. The Vocational Exploration Group specifically seeks the understanding of man-job relationships among job functions, job demands, and job satisfactions. The program involved 5 phases--inclusion, job inventory, job personalization, expansion, next step.

Curriculum development, although progress was somewhat slowed down by an administrative delay regarding the hiring of an activities writer, progressed remarkably well during the year. Specifically, NOW Program staff personnel were asked to participate in and assist groups of teachers relative to the introduction of career education activities into the Program of Studies to be followed during the 1973-74 school year in Lewiston Schools.

Dissemination activities have increased during the year to include a weekly newsletter regarding NOW Program and individual teacher accomplishments relative to the introduction of career education in the classroom. Other activities engaged in by NOW staff personnel included presentations and participation at local, state, regional, and national conventions and workshops. It should also be mentioned that NOW Program staff and Lewiston's teachers provided Dr. Edward Johnson, the author of a Career Education Curriculum Guide for the State of Maine, with a great deal of information and activities included in the guide. Career information guides were also produced and distributed throughout Lewiston's region. These guides included a film library service guide, field trip guidelines, material and equipment list, and a human resources directory.

Additional programs initiated and implemented by the NOW Program during the year included three career days, the STARS Program, and a Rent-A-Kid Program.

The terms Career Education and NOW Program have become a part of each Lewiston school. NOW staff and teacher involvement and evaluation of this fact indeed indicate that career education has been very meaningful and relevant to the students in Lewiston.

E. Evaluation

The NOW Program has developed many areas of evaluation. Through distribution of forms to teachers, students, resource people in the community and through analysis of program activities. The third party evaluation team is very active in program planning, implementation, and follow-up. Their report included in the body of this report is conclusive but does not emphasize their total

involvement. They have proven to be a very vital part of the program. The evaluation conducted by representatives of the United States Office of Education, Regional Office, State Department of Education, and Lewiston Model Cities is another vital part of evaluation. It is a consensus of opinion of all NOW Program staff members, that these visits should be more frequent. With sincere sympathy to each member for the work loads they carry it is felt that a more clear and concise knowledge of program accomplishments could be presented at more frequent meetings.

F. Conclusions and Recommendations

The ultimate conclusion of the program staff drawn from a majority of the teachers and other personnel of the Lewiston School Department, students, parents, and community people involved, is that the career education program NOW is one of the most dynamic and worthwhile pilot programs ever to be implemented in the schools. The resons obvious to the staff in drawing this conclusion are the ease of conceptualization of program goals, the relativeness of the concept to each person, and the common frustrations most people have experienced by the absence of career awareness, information, and preparation in their education.

Section F in the body of this report will relate to conclusions and program continuance after federal funding is terminated. The problems of the local school system and some of the implications are surfacing as a result of Program NOW implementation. There are also recommendations for continuation of federal funding. This fact is an expression of the concerns shared by program staff and school officials and have to receive immediate attention if career education is to become a part of the education.

A. PROBLEM AREA

Implementation of curriculum change relative to organized inclusion of related career education activities and information has been the major problem area confronted by the NOW Program during its second year of operation. As stated in the NOW Program proposal, "Lewiston, Maine city schools are in the initial stages of tremendous change. Traditionally the system has been an academically oriented school system within an industrialized city. For years the system has stressed college preparatory curriculum when the majority of its graduates and a large number of young people who did not make it to the completion of the 12th grade, found themselves seeking employment in the basic industries of textiles and shoe manufacture." Today, more than ever, a more diversified work force is needed and the schools are constantly being pressured by local industry, parents, and students to update and make the school curriculum more relevant to current employment needs of the community. The NOW Program staff feels that implementation of career education through activities relating to awareness, orientation, and actual work experience will enhance the school curriculum and help satisfy the demands made by the community.

Specific problem areas encountered during the year are included in this section of the report.

A major problem area confronted during the year involved the hiring of a mobile resource coordinator and an activities writer for the NOW Program. Resulting from local and state teacher organizations involvement relative to negotiations for teacher contracts,

the Lewiston School System refused to act on any request from any department concerning the hiring of any additional personnel. It was not until April 1973 that the NOW Program was permitted to hire the above mentioned personnel.

The fact that the mobile resource coordinator was not hired until April 1973 delayed the NOW Program's purchase of a mobile resource van. The combination of these two factors partially accounted for the free film library established in the fall of 1972 to have been temporarily discontinued in Janurary 1973. The free film library faced problems when films were made available, but throught the lack of an effective pick-up and delivery service, the films did not receive expected utilization. The program basically relied upon individual teacher response relative to the picking up and returning of films along with a check sheet type review of the film viewed. The responses received were less than what was determined to justify continuance of the service at that time.

During the fall of 1972 the NOW Program's initial attempt to bring Dr. Calvin J. Daane to Lewiston to conduct Vocational Exploration Group training sessions in Lewiston failed. Training sessions were scheduled to have been conducted November 27, 1972 through December 2, 1972; however, five days prior to the training to have been conducted, the NOW Program Director was directed by the Superintendent of Schools to cancel the Vocational Exploration Group training program immediately. The immediate cancellation resulted from a misunderstanding and a basic lack of information not having been provided to the principals of the schools that were to

have been involved with the Vocational Exploration Group training. In addition to the fact that the principals claimed they were poorly informed of the program, they also interpreted the initial proposal to read, "The curriculum would be changed as a result of conducting the proposal." The principals concerned felt that they would also be protecting the NOW Program staff by refusing to accept the proposal on the grounds that any curriculum change must be approved by the Lewiston Board of Education. Basically, the situation pointed out a definite need for the NOW Program staff to exercise stronger and more thorough lines of communications with teachers and school administrators prior to implementation of any new techniques which could affect or change current school policies. The initial Vocational Exploration Group proposal is attached. (See Attachment 1.)

The Vocational Exploration Group Proposal was rewritten, resubmitted, and successfully conducted February 26, 1973 to March 2, 1973. The second proposal is attached. (See Attachment 2.) The training received via Vocational Exploration Groups will be discussed in the Results and Accomplishments section of this report.

The second action year of the NOW Program was to concentrate efforts at the senior high school and the elementary schools in Lewiston. It was felt that considering the effort spent with the junior high schools during the first action year of the program that the junior high schools should have been able to carry on career education activities involving minimal NOW Program input. Having resulted from demands of both junior high schools in Lewiston for development of additional career education materials and programs,

second action year plans were revised to include more NOW staff involvement at the junior high school level. Basically, as a result of reshifting the program's intended emphasis regarding second action year activities, the concentrated efforts to have been directed at the senior high school and the elementary schools of Lewiston were lessened.

The STARS Program (Student Tutors in Achievement of Reading Skills) operated successfully, but not without scheduling and administrative difficulties. Several of the STARS expressed a great deal of dissatisfaction relative to the assignment of tutees. A few of the reasons having caused this dissatisfaction resulted from a lack of tutee motivation, poor and irregular tutee attendance, a mismatching of tutors and their assigned tutees, etc. Other problems encountered by the STARS Program resulted from not having exercised more rigid control measures regarding reporting procedures that should have been adhered to by the STARS. A copy of the STARS Proposal and a final yearly report on the STARS Program are attached (See Attachments 3. and 4. respectively)

The writing of learning activity packages and the development of a K-12 Career Education Guide were greatly curtailed by the fact that the additional NOW staff member charged with writing responsibilities was not hired until April 6, 1973. Throughout the second action year, the momentum of career education activities generated by the existing NOW Program staff made it next to impossible to develop complete learning activity packages during the school year. It is anticipated that the development of learning activity packages will be conducted throughout the summer months by the NOW Program's

recently hired activities writer and hopefully dissemination activities will be conducted in the fall.

The Cooperative Education facet of the NOW Program has been directly hindered by the existing lack of rationale and understanding between the United States Office of Education and the United States Department of Labor. Specifically, as a result of interpretation of the Davis-Bacon Act regarding wage determinations associated with federally funded construction projects, a Cooperative Education student was released from his work station. The Davis-Bacon Act specifies that the only persons eligible to receive sub-minimum Davis-Bacon wage determinations are bona fide trainees. The Portland, Maine area office of the United States Department of Labor has interpreted bona fide trainees to include only those apprentices that are registered with the Maine State apprenticeship councel. This would be acceptable providing the Maine Apprenticeship Councel would accept students as apprentices; however, business establishments in Maine are limited to the hiring of one liscensed apprentice for every five liscenced men employed. Since many of the local contractors, via sub-contracting procedures for federally funded construction projects employ between fifteen to twenty-five persons, there is very little chance for a student in a school learning situation to be employed on a school-business cooperative agreement. The basic conflict of policy arises that the United States Department of Labor has already recognized that students in bona fide school vocational programs are exempt from hazardous employment restrictions, the question that arises is, why are they recognized as bona fide trainees under one section of the United

Stated Department of Labor, but not on another, specifically as bona fide trainees with regard to the Davis-Bacon Act.

Efforts at the high school have been far from satisfactory. These problems revolve primarily around existing conditions such as: vocational programs having been filled to capacity, thus not enabling any flexibility relative to the provision of short, intensive training programs for those students about to leave school; the curriculum has been virtually locked-in and fixed so as not to allow a great deal of flexibility relative to special scheduling for students requiring special course offerings; and the departmentalization of academic vs. vocational vs. industrial arts vs. general curriculum has virtually set barriers between departments that, at this time, have been difficult to penetrate relative to the cooperation needed to implement career education activities at the high school level. A few of these problems should begin to be resolved during the coming year due to the recent hiring of an additional assistant principal at the high school charged with the responsibility of curriculum development.

Regarding the utilization of field trips and guest speakers, the current evaluation procedures, via check sheet type forms have been unsatisfactory. Field trip guidelines with check sheet forms are attached. (See Attachment 5.) The NOW Program staff has discussed this problem with the Program's third party evaluation team; however, no real satisfactory solution has been developed for this problem at the writing of this report.

The fact remains that as long as implementation, dissemination, materials, and equipment are provided by the NOW Program, career

education, per se, will be utilized by teachers in the local school system. It would be somewhat doubtful what might be done in the area of career education by a small percentage of Lewiston's teachers should the NOW Program not be available to offer its services. It is felt that this small percentage of the above mentioned teachers view the NOW Program and career education in general as a current "fad" and sort of a "grab bag" for free learning materials and sometimes simply a diversion from the daily classroom routine. Basically, this has been a problem of attitude and has provided many moments of frustration for the NOW Program staff. Attempts have been and are continuously being made to crack this attitude barrier that seems to exist in the percentage of the aforementioned teachers. It should be noted and recognized however, that it has been through the many positive contacts that the NOW Program staff has had with many teachers in the school system that has enabled the persistance of career education activities to continue in the school system as is reflected in the Results and Accomplishments section of this Interim Report.

B. GOALS AND OBJECTIVES

The main objectives of the NOW Program remain basically unchanged. The objectives relate very closely to Grant Venn's 1970 Focal Points as they relate to career education in the curriculum. The Program objectives include:

1. To establish an effective pupil personnel service with the basic function of orientating elementary and secondary level students to the wide range of work opportunities abailable.
2. To strengthen and extend vocational education opportunities in the local area by providing work experience through cooperative education activities.
3. To provide an "Open Door" policy to vocational programs which encourage students to enter occupational education offerings at any age or without previous experience.
4. To provide intensive and specific job entry training for students not previously enrolled in vocational programs just prior to their leaving school.
5. To provide intensive occupational guidance, counseling, and initial placement services for those individuals about to leave and/or those who have left school.

In reality, the general goal of the NOW Program is to integrate career education activities into the entire curriculum of Lewiston's School System in grades K- 12. Via the inclusion of organized career education activities into the entire school curriculum it is anticipated that the curriculum will become so relevant to the total

education of our youth that it will serve as a model to be followed by other cities and towns throughout the State of Maine.

Specific goals were established prior to the commencement of the 1972-73 academic year by the NOW Program staff and the NOW Program's third party evaluation team. These goals are as follows:

1. The major goal is to expand implementation of the NOW Program at all learning levels in Lewiston schools. To be accomplished by individual efforts and also team approaches by staff utilizing workshop techniques when possible through department heads, curriculum groups, learning level groups, and interest groups.
2. Regional implementation will be conducted through initial exposure of the Program to superintendents and continual communication until the mobile van is available for regional use. Services will be offered for staff participation in workshops/conference type activities and invitations will be extended to the regional schools to visit NOW activities.
3. Curriculum development will be through the development of learning packages for specific and general career areas as the year progresses. Each teacher involved with the NOW Program will be encouraged to help in this aspect.
4. The purchase and utilization of a mobile van. The van will be stocked with information, materials, and equipment for the purposes of distribution both locally and regionally.
5. The Cooperative Education Program will be expanded from 18

students participating in 1971-72 to 40 students in 1972-73. This will be accomplished utilizing current staff.

6. Intensive training programs will be established for school leavers. This goal is currently under study as minor success was difficult to attain during the first year. Facilities and staff overloads at present virtually demand that this goal be met on an individual basis and outside the school facility. The program staff will, where possible, place students/leavers, in job situations that provide such training.
7. Placement services will be expanded through closer working relation between NOW staff and Guidance Departments, Principals, Department Heads, and teachers at the junior and senior high schools. Part-time work placement services for 13-14-15 year olds will be conducted through a joint staff effort with the Community Coordinated Child Care Agency. (Rent-A-Kid)
8. Resource centers and/or information centers will be established in each school in Lewiston. These centers will be maintained jointly by NOW staff and school staff.
9. The Pupil Personnel Services staff of the NOW Program will be assigned to specific schools, the goal being to have a staff member identified by teachers as part of their school. In line with this, a staff member will be housed at the elementary level to make the program services more assessable (geographically) to Lewiston teachers.
10. To reach the goal to research, develop, and provide media

materials and information for teachers, a paraprofessional will be hired.

11. To maintain and conduct resource centers including the mobile van, a resourc center coordinator will be hired.

C. PROJECT DESIGN AND PROCEDURES

The primary function of this project is to orientate and coordinate initial training of elementary and secondary level students to the wide range of work opportunities. In carrying out this function, the following needs as developed at a National Conference on Guidance, Counseling and Placement (5) will be addressed.

Needs of students:

1. Each member of our society needs throughout his lifetime guidance, counseling, and placement assistance.
2. Handicapped and disadvantaged persons have special needs and programs must be structured with the necessary flexibility to meet these needs from grade K throughout the individual's life span.
3. Generally, children in elementary school (K-6) tend to have unrealistic concepts of the world of work. They are unable to perceive of themselves in a productive society. Therefore, there is need for educational activities which will develop a positive attitude toward the world of work; a positive self-concept; and a need to begin the development of skills essential in the process of decision-making by developing an approach to sequential educational-decision-making for career development that would be carried through to the adult life stage. The point at which many decisions are made is relatively unimportant. Of basic importance is adequate preparation to make decision, willingness to made decisions, and acceptance of responsibility for the consequences of decisions

More specifically, these needs are:

a. The need to be recognized and accepted as an individual.

b. The need for opportunities to broaden one's identity with a variety of role models and the significance of each in the community as a whole.

c. The need to experience success.

d. The need for concrete type activities that satisfy the chold's natural curiosity.

e. The need to learn how to make decisions and later the ingredients for the process.

f. The need for improved occupational exposure via textbooks, curriculum, and media.

4. During the early adolescent years (junior high school 7-9) pupils are beginning to learn to relate to the adult world. Present educational practices do not provide for sufficient training or information with which pupils may project themselves into the adult world. Therefore, an adolescent person needs information and exposure which would include educational vocational, and personal-social information. Specifically:

a. The need for experiences to explore possible occupational avenues or means-end awareness.

b. The need for prescriptions for movements from where they are to where they may arrive.

c. The need to see relevance--i.e. direct relationship with immediate occupational goals and personal future.

d. The need to relate to broad occupational areas and all factors which pertain to work.

e. The need to recognize the need to explore the question "why work?" and the relationship, if any, between work and self-fulfillment, and work and social acceptability.

f. The need to be retained in the system and to be provided with employment assistance.

5. During the later adolescent years (high school 10-12) individuals are confronted with the necessity of making decisions which will permit them to make the transition from adolescence to adulthood. Consequently, individuals need skills and knowledge in assessing their capabilities, and specific information for decision making. More specifically:

   a. The need for opportunities for self-enhancement or humanization--i.e. the implementation and articulation of self-image vis-a-vis, the socialization process.

   b. The need to recognize and enhance the contextual variables which impinge upon a decision making continuum.

   c. The need for actual support for the notion that change or indicision is not tantamount to failure.

   d. The need for an open system which will allow for the opportunity for reexamination of career goals.

To implement the needs as expressed on the previous pages it is concluded that the following sub-objectives should be attained.

Pupil, Student, and People Sub-Objectives:

1. To develop an awareness of individual differences and a knowledge of the positive relationships between individual characteristics and career development.

2. To develop self-understanding and self-acceptance.

3. To develop a positive self-image which will promote self-esteem motivation for achievement consistent with individual potential.
4. To develop an awareness and understanding of the place of work in the lives of people.
5. To develop an awareness and understanding of the increasing array of educational and career opportunities available.
6. To develop ability to make decisions and plans based upon factual information, relationships, and inferences.
7. To make educational and career decisions and plans appropriate to the individual's level of maturity and development.
8. To pursue successfully a self-planned and self-directed career.

Process (program) Sub-Objectives:

1. To develop a public awareness of the nature and process of career development.
2. To help teachers and other educators conceptualize career development as a continuous process from early childhood to retirement.
3. To train and retrain counselors, teachers, and administrators in theory and practice of education to facilitate career development.
4. To help assess and develop curricular programs and activities to maximize opportunities for career development experiences at all age levels.
5. To encourage and assist in the development of curricular materials appropriate to the career development needs of all

age levels.

6. To encourage and assist teachers in the integration of career development experiences in the regular curricular offerings.
7. To help parents and other members of the community to recognize and provide for out-of-school experiences to facilitate the career development of children and youth.
8. To involve children and youth actively in decision-making experiences appropriate to their level of maturity.
9. To develop systematic and planned vocational guidance, counseling, and placement assistance, for all age levels, that will assure timely assistance in the career development process.
10. To develop more extensive and improved ways of facilitating the career development of culturally different and educationally disadvantaged groups, including poverty groups and the handicapped.
11. To develop a team approach involving education, business, industry, labor, community, and family in the support and implementation of career development, guidance, and placement activities.
12. To establish through the senior high school guidance facilites an active and effective placement program for students to be assisted in obtaining jobs or continued vocational education opportunities.
13. To provide special programs with flexible scheduling at various times and months of the year for intensive short time, skill training for entry into specific jobs.

14. To evaluate continuously the effectiveness of program provisions in facilitating career development and to utilize evaluative feedback, including follow-up of individuals for developing new programs and modifying existing programs.

Program Provisions and Implementation Plan:

A. Personnel and Training

1. Provide three qualified vocational guidance, counseling, and placement personnel to assure adequate assistance at all age levels. A placement officer from the Department of Employment Security will be a closely linked part of the project staff as he works with the guidance staff member of this project which will be housed at Lewiston High School in placing students in jobs.

2. Develop in-service education programs for teachers, counselors, and administrators (1) to help them conceptualize career development as an integral part of their work, and (2) to improve their knowledge and skills with respect to techniques and materials to facilitate career development.

3. Develop simulated and real work experiences for teachers and counselors which will bring them in closer contact with the realities of the world of work.

4. Define functions and responsibilities for paraprofessionals and support personnel, and develop short term intensive training programs for the preparation of such personnel.

B. Program Content and Procedures.

1. Introduce in the curriculum appropriate experiences to provide career exploration, decision-making, and reality test-

ing for all elementary and secondary school students, as well as for vocational and technical education students at secondary and post-secondary levels.

2. Develop, distribute, and interpret educational media to facilitate career development experiences at all age levels.
3. Provide appropriate and sufficient vocational counseling assistance for all students, and for out-of-school youths and adults considering pursuit of vocational or technical education.
4. Provide group guidance activities specifically designed to maximize opportunities for career exploration and reality testing of career decisions, and, as needed for seeking and obtaining employment.
5. Expand and encourage the use of simulated and real work situations for career exploration and reality testing.
6. Teach decision-making skills through opportunities for and guidance in, actual participation in making educational, career, and social decisions appropriate to the individual's level of maturity.
7. Create motivation through active participation and interactions of children and youth in relating educational experiences to career exploration and decisions--make education relevant to career-life situations.
8. Develop a curriculum and procedures, including vocational counseling, that will make it easier and more rewarding for out-of-school youth and adults to reenter the educational program to acquire new technical skills directly related to employment.

9. To develop and support a program of job placement which will appropriately involve the project senior high guidance person and other education personnel (particularly counselors) in all placement action.

10. Examine the pliability and validity of test data for selection and placement in vocational curriculums and job situations. The significance of other variables, such as interests, personality, social and instructional factors should be considered in this process.

11. Institute a continuous follow-up of school leavers (graduates and dropouts) to provide information for the evaluation of program content and procedures in terms of external criteria and to provide futher appropriate assistance to individuals as needed.

12. Incorporate as many laboratory type activities as feasible to enable the student to achieve visable and concrete success as opposed to abstract and delayed symbols of success. This procedure will be investigated as a means of improving the motivation of many "hard to reach" youth.

The program design for second action year has been toward achieving the proposal design. Efforts have continually been aimed at meeting each of the goals and objectives of the original proposal. One Project objective that has not been possible to meet is: "To provide intensive and specific job entry training for students not previously enrolled in vocational programs just prior to their leaving school." The reasons are very basic. Our current high school facility is over crowded and the staff is utilized completely during the school day.

This is especially true of the vocational programs. The attitude of the NOW staff was to change the program design to compensate for this situation by increasing the emphasis of another program goal; "To provide intensive occupational guidance, counseling, and initial placement services for those individuals about to leave school." The success of this effort was noticable. However, additional findings resulted from this involvement. This is the case that exists at the high school relative to student employment assistance. It was discovered that several members of the high school staff were providing employment assistance yet there is no apparent communication or organization between the staff. Each member appears to act independently. The students generally seem to be unaware of such services, and have had to take the initiative to find out where to go and who to contact for assistance. The NOW Program staff and a member of the high school guidance department are currently conducting a study of the situation. To date information has been gathered from the principal, director of guidance, both assistant principals, and the vocational education department head. This summer a proposal will be developed and submitted to the principal for his consideration. The intent of such a proposal will be to organize the service, make it available to the student body as a definite part of the high school offerings and tie the service to the Maine Employment Security Commission Office in Lewiston, Maine.

The design utilized to meet the goals of the entire program are infered in the Evaluation Report (See Body of the Report, Section E.) The specific design was to provide NOW Program services to a definite population of students through assigning NOW staff members to specific

schools. This would establish a tronger communications system in that each administrator, teacher, and other school personnel would have one NOW staff member to work with specifically. The staff assignments were made by the coordinator after reviewing each member's background, observed attributes and desires, and after total staff discussions and planning of the design. One pupil personnel service member was assigned to the high school and two elementary schools, the other two a junior high and four lementary schools each. This breakdown gave each a nearly equal teacher load, student load, and socio-economic population. The assignment arrangement would also provide the opportunity to maintain a team effort in that each member was involved at similar educational levels. In so doing, assurances were established that in the event a staff member should leave the program a total void would not be created in a specific area. Also in the event that only a portion of the staff is retained by the school system to carry on career education at the termination of federal funding each member would be aware of the implementation aspects at all levels.

The design was developed to provide the opportunity for in-service career education workshops for teaching and other school staff. Difficulties were anticipated at the junior and senior high school level. Due primarily to the fact that the administrations and staffs of these three schools would be involved in preparing to move to new facilities--the high school to a completely new structure, eighth and ninth grades of the two junior highs to the current high school and sixth and seventh grades to an intermediate school (formally a junior high school). The program was successful in conducting several workshops dealing with career information, materials, equipment, and

in-service training for teachers at after school sessions and in one instance by providing substitute teachers. The after school sessions were conducted for groups made up from departments generally. However, several were groups with common interests in career education. Elementary workshops were conducted in a similar manner with the exception of one full workshop day being conducted early in the year. This workshop time was provided to the NOW staff by the Elementary School Supervisor.

The design or plan for involving regional schools in career education consisted of a preliminary meetings before the school year started, of each superintendent of the regional school systems by the coordinator of the NOW Program. At this meeting an indepth explanation of the program would be given, bibliographies of materials, equipment, and services would be presented for each member of the school's staff, and copies of the original proposal presented to administrators and department heads. In each bibliography there is a section with names, telephone numbers, and the location of each NOW staff member. At this meeting it was pointed out that services would be provided initially by their requesting services of us, that as the program progressed particular offerings in career education would be made. It was also strongly pointed out that we, as a staff or part there of, would be available to their systems for teacher and staff workshop presentations or community activities.

Cooperative Education would be expanded to forty students. This would be a 100 percent increase over the first action year. This expansion could be built into the design as a result of findings during the first action year. Basically, the Coordinator of Cooperative

Education had developed the program sufficiently, the community employers were very receptive to the initial year, and student demands indicated a very high interest in the program. It has also been favorably accepted by the high school administration and teaching staff. The Cooperative Ed. Program proceeded very satisfactorily throughout the year. Forty-three students were enrolled each in a career cluster compatible with his or her career abilities and goals. In several instances students pursued their education who had indicated tendencies toward dropping out of school. This aspect is not a primary goal of the NOW Program but is one that all educators are confronting daily.

The design was specifically concerned with development of hands-on experiences for students at all learning levels. To assure this tools, equipment and supplies would be obtained. Paraprofessionals would be engaged where necessary and strong emphasis would be toward utilizing teacher talents where possible. Commercially produced kits, games, and learning packages that involve hand-on activities would be purchased. The NOW Program was very successful in this segment of activities. Particularly at the elementary level where "mini-courses" such as knitting, woodworking, art, sewing, etc., were conducted. Section D Body of the Report contains a list and description of each of these activities. A very pleasing aspect of these activities is that they were conducted by existing staff in most cases. The design of the program is to utilize the existing staff when ever possible, thereby encouraging continuances of career education activities after federal funding ceases.

Generally, the design of the NOW Program for the second action

year has been effective. The permanent staff of the Lewiston School Department has accepted career education and are placing strong demands on the NOW staff to increase and expand services. The administration is highly interested in career education becoming a permanent part of the on-going curriculum. The community in general is beginning to notice the impact of career education. Students are a strong source of public relations through visits to community resources, and many citizens have been asked to come to the schools to share their career experiences with students. It has been a gratifying year in relation to the impact that the NOW Program has made regionally, statewide, and nationally. The NOW staff has made several presentations on career education to a variety of groups from many learning areas. This information has been included in Section D of this Report.

D. ACCOMPLISHMENTS AND RESULTS

Vocational Exploration Group

Students can be helped to make wise personal decisions concerning their roles as members of the world of careers and service. To assist secondary students in making these choices, NOW staff contacted Dr. Calvin J. Daane, Studies for Urban Man, Tempe, Arizona, Professor of Education at the University of Arizona, in the spring of 1972 for information about inservice training for leaders and trainers of Vocational Exploration Groups. (See Attachment 1.)

Initial planning took place during the summer to bring Dr. Daane to Lewiston. Contacts with the Superintendent of Schools in Lewiston about the proposal were made. The reaction received was encouraging. The date for training was confirmed for the last week in November. Four days before Dr. Daane's arrival, however, two administrators in Lewiston expressed serious objections to the training because of a sentence in the proposal stating: "The training program (and subsequent leading of Vocational Exploration Groups) can be designed to become an elective in the secondary school curriculum." The principals interpreted "can" as "will" and felt threatened, thinking NOW staff was dictating curriculum change that was the responsibility of administration. A meeting of the respective principals and NOW staff clarified the intent, and VEG training was rescheduled for February 1973 during school vacation week.

Dr. Daane and Dr. Murray Simon, VEG Consultant for New England States, arrived in Lewiston on February 25. The training was con-

ducted by Dr. Daane, who with his associates, had developed VEG P ogram, a process of aiding both youth and adults in small groups (5 people) toward job choices which are realistic and self-satisfying.

The goals of the VEG training in Lewiston were 1. to increase the involvement of teachers and counselors in career education activities, 2. to increase the understanding of career education activities by teachers and counselors. The teachers and counselors were employed by Lewiston and regional school systems. It was hoped that guidance services for students would be increased beyond the present status by training both counselors and classroom teachers in small group process involving job exploration.

Trained leaders conduct groups of students primarily in grades 8-12 in their exploration of job personalization and tentative job choice. The goal of the Group is for each member to understand the man-job relationship and to apply the understanding to himself and his own situation.

Twenty-four teachers and counselors including NOW staff, were trained to conduct VEG and 78 students and 31 adults experienced the process during the week. Three NOW counselors were trained as trainers. Research was conducted: pre and post test of employability perceptions and perceptions of social alienation (social distance and believability) were administered to leaders and group members during the week. (See Attachment #2.) The same instruments were administered to a control group. Results of the surveys indicated that 95.04 percent, less than 5 percent, and no respondent felt positively, neutral and negative respectively toward the VEG

experience. An evaluation by the third partyteam (Dr. Clyde Folsom and Dr. Thomas Skaggs, University of Maine in Orono is included in Section E. Evaluation.

The Maine State Department of Education and Cultural Services granted 3 credits toward recertification for the three trainers and 1 recertification credit for the twenty-one leaders who completed the training. Leaders certificates and trainer certificates were issued by Studies for Urban Man.

Since the February training was completed, students in the various schools represented by leaders have been involved in VEG experience. Students volunteer for the program from study hall and activity periods. Some teachers who are leaders conduct groups in their classrooms during the school day. Some students remain after school or return in the evening for the short (2-hour) VEG program. At least 28 additional groups of junior-senior high school students (5 per group) have been conducted in Lewiston since February. Thirty-three Lewiston teachers have experienced the VEG process in workshops.

NOW staff members have conducted VEG Demonstrationsin Freeport, Waterville and Cumberland, Maine. The NOW staff has been accepted to participate in the New England Personnel and Guidance Conference at Hyannis, Massachusetts in October where they will conduct VEG.

Shortly after school opens in Maine for the 1973-74 term, plans are being developed for contacting all VEG leaders in Lewiston and Lewiston Region to obtain information relative to the utilization of VEG kits on loan to leaders and the conduct of groups in regional schools.

Student Tutors in Achievement of Reading Skills (STARS)

An original exploratory "hands on" experience for high school students was implemented in September, 1972 and continued throughout the 1972-73 school year.

The objectives of the STARS project were 1. to help secondary school students who aspire toward social service careers or leisure time activities to assess themselves in light of their interest, ability, and personal characteristics relative to future plans, namely teaching; and 2. to help children in the intermediate and junior high school grades gain the self-confidence required for success in increased reading skills.

Procedures for conduct of the research involved recruitment and training of 15 secondary student volunteers as tutors in reading. A control group was selected for statistical comparison of change in tentative career choice.

Selection and tutoring of 15 intermediate and junior high school students who were identified by a standardized reading test as poor readers to receive individual reading assistance each week for the remainder of the school year. A control group was selected for statistical comparison of change in reading achievement.

The secondary school students were administered the Strong Vocational Interest Blank in pre and post sessions. The intermediate and junior high students were administered SRA Reading Achievement Tests in pre and post sessions.

The experimental group of STARS received 18 hours of intensive training conducted by Literacy Volunteers of the Pine Tree State, Inc., September 25 to 29, 1972. Basic reading skills and techniques

were emphasized. STARS control group received no training. Subsequent to the training STARS Experimental Group (Tutors) were matched with an intermediate or junior high tutee to teach reading in a one-to-one relationship weekly in the school the tutee attended.

NOW Program arranged transportation for STARS from Lewiston High School to the tutee's school during the school day.

Findings of the first year of the STARS Project are summarized:

Fourteen STARS were matched with tutees.

The STARS tutored a total of 217 hours during 284 sessions. (See Attachment 4) Three STARS were matched with new tutees when tutees transferred from Lewiston. Nine tutees increased in reading achievement totaling 114 months (growth range +4 to +36 months). Four tutees decreased reading achievement totaling 17 months (range -1 to -11 months).

Seven students in the control group of tutees increased their reading achievement totaling 120 months (range +11 to +35 months). Six decreased reading achievement totaling 24 months (range -1 to 10 months).

No significant differences existed between the two groups of identified poor readers in acquisition of reading skills.

Questionnaires administered to STARS and classroom teachers who utilized STARS (See Attachment 4) disclosed the following data:

STARS (12 responded) A large majority indicated that they enjoyed the training and the tutor-tutee relationship were helped by the experience, know more about the teaching-learning process and liked to tutor. Ten STARS expressed a desire to continue tutoring during the 1973-74 school year if school scheduling does not

preclude the activity.

Classroom Teachers (N=14) All teachers indicated that STARS conducted themselves professionally and that they would use a trained tutor again. Most teachers expressed highly favorable comments about the STARS' adequacy to tutor and to establish rapport in the preparation of lessons, etc. A few teachers were less favorable regarding the STARS' regular attendance and promptness in arriving.

Most teachers observed behavioral changes in the tutee in such areas as acquisition of reading skills, transfer of reading skills, increased general academic achievement, and increased self-concept. A few teachers reported no change in the tutee in academic achievement, personal growth, or attitude toward school.

STARS Strong Vocational Interest Blank Scores, Experimental and Control Groups. Pre and post are in process of being compared for change in career choice and for testing the significance of change in career choice. The findings will be reported at a later date.

Problems. During the term of the STARS Project, several serious problems were encountered. 1. "Too many cooks spoil the broth" is an apt adage in this experimental venture. The "matching" of each STAR with an appropriate tutee was accomplished at each of the two elementary and two junior highs by teachers assigned by the principal to select tutees and be responsible for tutoring sessions. In a few instances, the teachers selected tutees whose behavioral problems, attitude, and or aptitude held little promise for success on the part of the tutee or STAR. 2. STARS academic schedules and after school activities (several STARS obtained part-time jobs dur-

ing the school year) occasionally interfered with the tutoring schedule. 3. Transportation sometimes posed problems. Cabs were scheduled to deliver STARS to and from schools, and occasionally the cab was late, resulting in a shorter tutoring session and some STAR and tutee frustration.

Evaluation. The STARS project is considered a success because it provided the opportunity for 14 high school students to experience an important aspect of a teaching career. Ten of the 14 STARS expressed a desire to tutor this fall (2 graduated, but they expressed much satisfaction from the experience and said they would repeat it if they were still in school). All 14 teachers reported they would use a STAR this fall if they project continues.

Although no significant statistical difference was found between the experimental and control groups of tutees in the measured achievement of reading, the tutees and their classroom teachers stated that the tutoring sessions and relationship of tutor-tutee had a beneficial influence on most of the tutees. This, alone, constitutes justification for the project, for if 14 elementary and junior high school students in academic difficulty can experience a pleasant one-to-one learning relationship one or more times a week in a school setting, voluntatily, a successful step has been taken.

In conclusion, plans are in progress for continuing the STARS Project for one more year. Extreme caution will be exercised to reduce the problems listed above and to achieve both goals of the STARS Project to a higher degree.

Field Trips

The NOW Program was very active relative to the sponsoring of field trips in an effort to enrich career education activities in Lewiston's area schools. The primary function of each field trip was to supplement existing classroom instruction with a relationship to careers involved relative to the area of study. Many of the field trips were process and product oriented; however, resulting from diligent field trip preparation and follow-up, career exploration/orientation activities (in conjunction with the process/product) generally prevailed. The NOW Program staff developed guidelines relative to organization, conduct and follow-up of field trips. (See Attachment 5)

In-Service Training and Workshops

Throughout the second year the NOW Program staff involvement in workshops and in-service training activities increased significantly. At the local level, NOW Program staff were constantly conducting workshops relative to the use of materials and equipment for use by classroom teachers; however, relating to other than Lewiston School System presentations, the NOW Program was very active in attendance, participation, and presentations at the state, regional and national levels.

Of major significance, via NOW Program participation and input includes the development of a State Career Education Guide for grades K-12 and the NOW Program attendance and presentation at the American Personnel and Guidance Association National Convention conducted in Atlanta, Georgia. Details relative to the impact of these activities are discussed separately in this report.

Film Library Service

During the summer of 1972 the NOW staff comprised a listing of free films relative to career education and ordered these free films to be used by the Lewiston School System during the fall of 1972. The two major reasons for NOW coordination of this free film service were (1) to reach the largest, appropriate audience possible and (2) to reduce the cost to provide the most economic service possible. The free film list was distributed by NOW to the teachers at the beginning of the school year, September 1972, so that the teachers could make appropriate plans to include the films within their course content. The film list contained a brief discription of film content and the date that the film would be available to the school system. (See Attachment 6)

Play School

Playschool was part of the 9th grade Home Economics Child Care Program taught by Mrs. Celia Treworgy. The playschool was operated four times a year the last two weeks of each academic quarter. Prior to the actual playschool experience the students had the opportunity to visit various kindergartens, nursery and day care centers throughout the community. Various resource persons were also utilized in the classroom such as day care supervisors and a person from the Maine Department of Health and Welfare who trains day care aides. The NOW Program provided furniture for play school, help in obtaining resource people, and arranging visits to centers outside the school setting.

Delta Dart

Curriculum Development. Regarding progress made in the area of curriculum development, a NOW staff member and 2 teachers from Coburn School developed a unit of instruction on careers related to air travel and transportation for the 3rd grade class. The unit of instruction includes representatives from or field trips to the following agencies: Trans World Airways, Inc., United States Air Force, Lewiston School Art Department, Portland International Jet Port, and the Portland Weather Station. Equipment and materials supplied by the NOW Program included: video tape recording system, films and cameras (35mm and Kodak Instamatic), tapes, a class prepared simulated airport and material from Bowmar (Man Has Wings.)

The entire 3rd grade class participated in a Delta Dart Project. This was sponsored by the Educational Division of the Civil Air Patrol, the Federal Aviation Administration, the Hobby Industry Association of America, the National Aerospace Education Association, the National Associates of State Aviation Officials, and Aero Products Research, Inc. The Delta Dart Project involved each member of the class in the making of a model airplane, flying the airplane, and submitting flight data and findings to: Dr. Marian Wagstaff, Chairman, Secondary Education, School of Education, California State College at Los Angeles, 5151 State College Drive, Los Angeles California 90032.

The Delta Dart Program goals and guidelines are available in the Teacher's Guide for Delta Dart Educational Studies sponsored by the Education Division of the Civil Air Patrol of the Federal Aviation Administration, the Hobby Industry Asso. of America, the National Aerospace Education Asso., the National Asso. of State Aviation Officials and Aero Products Research, Inc.

Proposed New Course Offerings

At Lewiston High School, a member of the NOW staff and two teachers developed and proposed three new course offerings hopefully to be offered as part of the 1973-74 academic year.

The course offerings are not strictly career oriented, but a great deal of career information will be offered as part of the courses relating to possible career areas, levels of required training relative to specific jobs, and general exposure to jobs created via the subject to be taught. The three course titles are: Anatomy and Physiology, Environmental Studies, and Advanced Biology. Specific course descriptions follow.

Anatomy and Physiology

Course Description: Anatomy and Physiology is designed for those students either currently taking the Health Occupations Program or interested in becoming a L.P.N., Medical Secretary, or any other related medical career. Career information is provided throughout the course to inform students of those careers available in the field of medicine upon completion of high school.

Course Length: 18 weeks.

Prerequisite: Biology

Environmental Studies

Course Description: Environmental Studies is a course for those students interested in the environment and careers which are focused on the improvement of the environment. The course will include projects dealing with careers in the areas of noise, air, solid, and water pollution.

Course Length: 36 weeks.

Prerequisite: none.

Advanced Biology

Course Description: Advanced Biology is an advanced placement course for those students considering a career in the medical field, to include career information, as a Doctor of Medicine, Doctor of Dentistry, or a closely related field such as a career in nursing.

Course Length: 36 weeks.

Prerequisite: Biology, Chemistry, and teacher approval.

NOW Gram

During the month of October, a weekly newsletter was developed by the NOW Program staff. The purpose of this newsletter was two-fold:

1. To inform all principals and teachers of NOW Program activities related to career education, and
2. To provide positive public relations for the NOW Program and for the teachers involved with NOW Program activities in their classrooms.

The weekly newletter proved to be very successful relative to the above mentioned goals. As a matter of fact, teachers began to compete with each other for NOW Program acitivites to be conducted in their classrooms sometimes simply because they would want to see their name and classmentioned in the newsletter. School administrators looked forward to receiving the newsletters so they would have current printed information relative to NOW Program involvement within their respective schools.

The newsletter was officially called CAREER EDUCATION NOW. Copies of the newsletters disseminated during the 1972-73 academic year are attached. (See Attachment 7)

Classroom Involvement/Activities

During the year, the NOW Program became very active relative to classroom involvement. The services offered and conducted by the NOW Program staff included demonstrations of equipment and materials, instructional techniques relative to field trip preparation and follow-up, development and utilization of classroom, student oriented, activities emphasizing career education, etc.

All in all, it can safely be said that all schools in the Lewiston Public School System were positively influenced by the NOW Program.

A large number of Lewiston's teachers requested and received NOW Program in-put relative to their classroom presentations which included 10 elementary schools, 2 junior high schools and one senior high school.

Human Resources Directory

Since the inception of the NOW Program, many teachers requested the NOW staff to arrange for guest speakers to come into the classroom to discuss careers in related subject matter areas. The increasing number of requests led NOW staff to compile a comprehensive listing of persons willing to assist students in the exploration and pursuit of their career and educational activities. The directory serves as a reference source for the NOW staff in identifying people in local businesses, industries, materials, professions and services for an actively oriented career development program. How we developed the directory follows:

The Lewiston-Auburn Chamber of Commerce Directory was used as the initial source from which to build the listing. In January of 1972 letters were sent to more than 200 selected clubs and organizations in the Greater Lewiston area. The letter explained the objectives of the NOW Program and the part a resource person might play--the contribution he might make to students. A form was enclosed for completion and return in a stamped, addressed envelope.

Approximately 50 persons responded within a two-month period. Since that time more than 150 guests have been added to the list by telephone contact from the telephone yellow pages, newspaper articles, or through conversations with people who knew someone with the expertise teachers requested. Upon receipt of the resource person's agreement to meet with students, a card file was developed by NOW staff. The card contains the name, address, business address, telephone number, interest area, grade level preferred, source of the person's name, and date of agreement.

Teachers were informed of the availability of speakers by topic, not by name. (See Attachment 8)

Teachers request a speaker by topic. A NOW staff member identifies an appropriate resource person, contacts him, (usually by phone, sometimes by letter) and establishes time, date and classroom to be served. The teacher is then notified, and NOW staff sends a confirmation letter to the resource person. Teachers use prepared field trip guidelines to help students develop questions to ask resource persons during an orientation session held prior to the visitor's appearance in the classroom.

Some of the visitors are taped, video-taped, and pictures are taken for follow-up activities in the classroom which are or can be shared with other classrooms. Thank-you letters are written by students and NOW staff send a thank-you letter to the resource person, and enclose an evaluation form to be completed and returned. (See Attachment 8) Teachers complete and return to NOW staff a teacher evaluation sheet. (See Attachment 8)

During the first two years of the NOW Program more than 200 resource persons met with students in classrooms. Only rarely had dissatisfaction been reported by teachers, students, or resource persons in instances where the guest's contribution was perhaps too sophisticated for the developmental level of the students. NOW staff consider the human resources directory a great success in bringing together the workers and students in a sharing of career information. Recommendation: A clerical staff member be assigned to receive teacher requests, make the arrangements and keep accurate records, thus relieving NOW counselors for other professional activities.

Rent-A-Kid

In September 1972 final planning took place to implement Rent-A-Kid at the beginning of October. In conjunction with a representative of 4-C (Community Coordinated Child Care Program, a Model Cities funded agency dealing with children and youth) plans were made to find a location for an office and telephone, obtain a secretary, and set up files, provide publicity to prospective employers, and to obtain those students wishing to participate in Rent-A-Kid.

Rent-A-Kid is a non-profit program which acts as a clearing house, matching temporary jobs with youths ages 13, 14 and 15 who are interested and looking for work. The employment may be a one-time service after school, on weekends, or during school vacations. (See Attachment 9)

An office was obtained which was part of the 4-C complex but away from the main office area of the 4-C program. A secretary, (a participant of the Neighborhood Youth Corps Program dealing with youths 16 and 17 who are out of school and also out of work. NYC provides counseling, education and referrals to work stations similar to Rent-A-Kid) was obatined to begin manning the office the first of October. due to the nature of the NYC Program the secretary was to be on duty from 11 a.m. to 4 p.m. daily and would be paid by the funding of NYC (the duties of the secretary are outlines in Attachment 9).

At the outset of the Rent-A-Kid Program, NOW helped provide equipment necessary for the office, advertisement on local radio stations, and recruitment of employers and prospective student employees.

In October 1972, Rent-A-Kid made its initial impact in the community. Approximately 75 students were enrolled for prospective employment from the two public junior high schools and one parochial junior high school. During the fall months, student employees did odd-job work such as raking lawns, mowing lawns, painting, babysitting, light housework, etc. In October and November 52 students had been placed in some type of employment and others had been contacted about prospective employment but rejected the employment for various reasons. Employers seemed very satisfied with the work performed for them. During the Christmas vacation period 15 students performed part-time duties throughout the community.

In the latter part of November and the month of December, the Rent-A-Kid Program had some difficulty with having the NYC secretary present in the office so the Rent-A-Kid office was moved to a more convenient location relative to the 4-C setup in January and the services of the NYC secretary were terminated. Location of the Rent-A-Kid office in the centralized 4-C office complex made it relatively easy for the phasing out of NOW assistance though one member of the staff sill maintained an advisory role.

Rent-A-Kid continued to be a service offered to the community with basic control of the program being the responsibility of the 4-C Agency until June 1973 when Model Cities funding of the 4-C program was terminated. With the termination of the 4-C Program, another agency was needed to sponsor Rent-A-Kid and the Jewish Community Center was the agency which willingly accepted the responsibility of Rent-A-Kid, where the program is currently located.

Spring found Rent-A-Kid with 102 students who were potentially active for placement and those placed for employment were averaging between $1.60 and $1.80 per hour for services performed. Rent-A-Kid was averaging approximately 12 placements per week and had, at the end of April, obtained six full-time summer placements for the students. During the April vacation week, 23 placements occurred.

The NOW Program is proud to see the accomplishments of Rent-A-Kid and to have been an initiating force in the program. Also, NOW is proud to have worked closely with 4-C in setting up and implementing the program with an agency which was felt to be more permanent than NOW which is funded only for the three year period.

Career Days

As part of the total on-going NOW Program in career education, a one-day Career Education Day was held in the two junior high schools---Montello Junior High on February 13, 1973 and Jordan Junior High on February 14, 1973. Ninth grade students and teachers participated. On May 9, 1973 a Career Education Day was held at Frye Elementary School for all students and teachers in grades K-6.

At the 9th grade level the purpose of the program was two-fold: (1) as an in-service experience in career education for the staff, and (2) to provide greater career awareness and exploratory experienc for the students.

Objectives of the program were: (1) more teachers will become aware of career education concepts by planning and implementing a Career Education Day, (2) teachers will integrate career education components into their regular class for the one day, (3) as a result of the program teachers will integrate career education components into other phases of their curriculum during the school year, (4) the teachers will become aware of the available career education resources, (5) students will become more aware of various career opportunities.

The activities for planning, implementation, and evaluation of the program included:

1. A meeting was held between the NOW counselors and the Junior High School principals to establish format and dates.

2. An in-service meeting on career education was held with the school staff relative to objectives of career education, the ways teachers could integrate career education components and activites

into their classrooms, career education resources available from the NOW Program--career kits, audio-visual materials, sample lesson plans.

3. The teachers completed a brief outline of their objectives and activities and evaluation procedures they intended to follow.

4. The teachers completed a survey form indicating resource material and equipment they would need.

5. A Career Education Day was held at which time the teachers and students explored careers through films, filmstrips, kits, interview tapes, and in one classroom, students demonstrated practical application of job knowledge and skills by setting up a restaurant where they prepared and served finger foods. NOW Staff were available to assist where needed.

6. A survey of teachers and students was conducted upon completion of the program to determine their attitude toward career education activities and the program.

A summary of the evaluations follows:

1. Both students and teachers expressed positive comments about the experience.
2. The vast majority of the students indicated an increased knowledge about careers.
3. A large number of the students indicated a need for more information and experiences.
4. Teachers felt a course in career education should be offered 9th grade students as an elective.
5. Teachers expressed an interest and willingness to include career education activities within their curriculum.

In February 1973 planning for a career day at Frye Elementary School began by contacting the Lewiston Auburn Chamber of Commerce to ascertain the possibilities of having its members participate in a Career Day. The Lewiston-Auburn Chamber of Commerce was more than willing to participate and planning was initiated through cooperation of the Chamber's Education Committee. The Chamber members were surveyed and 23 members indicated they were willing to participate. NOW Program and Frye School Staff enlisted seven other agencies to also participate for Career Day. A total of 30 business or agencies offered their assistance by opening their doors for the student groups while others offered to make presentations at the school. On May 9, 1973 the 320 member student body of Frye School and the 30 businesses or agencies cooperated in providing a successful career education experience for all.

Participating Agencies

Lewiston Fire Department
Beal's Laundry
Lewiston Police Department
Regional Blood Bank
Bellegarde Custom Kitchens
Marcotte Chevrolet
Roak the Florist
Maine Camper Products
Philips Elmet
Seltzer-Rydholm
Robert Pacios (CPA)
Neo-Craft Sign Co.
Cable Vision
Grant & Grant Caterers
Geiger Bros.
St. Mary's General Hospital
Central Maine Power Company
Sam's Italian Shop
Central Maine General Hospital
Lewiston High School Vocational Dept
First National Store
Dr. George Bournakel
Holiday Inn
Hillcrest Poultry
Country Kitchen Bakery
New England Telephone Company
E.A.B. Recording Studios

Staff Development Cooperatives

Relative to curriculum development activities NOW Program staff members have begun to concentrate their efforts on specific career education programs to be implemented in the classroom involving hands-on activities. With regard to NOW Program activities geared in this direction, Frye Elementary School in Lewiston and Washburn Elementary School in Auburn have joined forces due to their joint receipt of a federal grant supporting Staff Development Cooperatives (SDC). The primary function of SDC was to study, plan and implement curriculum changes in each school's respective school system. The NOW Program, through the efforts of one of the Program's Pupil Personnel Services persons, has been involved with the SDC staff relative to the planning and implementation of career education activities within the design of the SDC Program. Emphasis, relative to NOW Program activities, is currently scheduled to be conducted at the Frye Elementary School in Lewiston utilizing as many student hands-on learning activities as possible. Through the utilization of career oriented mini-courses, it is expected that many careers will be explored as a result of NOW Program input into the SDC Program. (See Attachment 10)

American Personnel and Guidance Association Convention at Atlanta

The 1973 convention program was developed around the theme, "Proactivity: The Now Imperative." The format and nature of the programs were oriented toward workshops, current and future counseling problems, student programs, research, and major social concerns. From the 250 content sessions, NOW Staff members studied the program as a group and predominantly selected to attend, individually, sessions covering themes related to career education and a few programs with potential for integration into career education.

The following sessions represent a sample of the programs that seemed pertinent to NOW Staff needs and, therefore, were attended by a member of the Lewiston group.

Field Trip to Cobb County Occupational and Career Development Project: The purpose of this program is to give counselors an understanding of the role of the counselor in career development program for grades 1 through 12. The major emphasis in the program will be on opportunities to talk with counselors and teachers actually involved in such a program, one which is in its third year of development. Participants will have opportunities to visit classrooms and talk with students. The Cobb County Occupational and Career Development Project is considered by many persons working with career education to be one of the outstanding projects of its type in the country. The project staff has been called on by school systems in almost every state in the continental U.S. to hold training sessions for personnel in those systems regarding implementation of career education programs. It is a pilot project operating in a cluster of schools which together comprise grades 1 through 12 with more than 5,000 students. It is now in its 3rd year of operation, making it one of the oldest

projects in the country aimed at creating a developmental program of career development. Many ideas have been tried; many have been discarded; what remains is a tested model that can be generalized to the remainder of the school system. The Cobb County Occupational and Career Development Program, is one of orientation and information at the elementary level, information and exploration at the middle school level, and exploration and preparation at the secondary level. This is all built around a career development these, which includes the student's evaluation of self-characteristics, exploration of broad occupational areas, introduction to the economic and social values of work, introduction to psychological and sociological meaning of work, explanation of educational avenues, and development of the student's process of decision making based on the foregoing items. A unit approach is the structural framework for implementing orientation, information, and exploration activities through regular classes. Six elements are incorporated into all units on all grade levels; hands-on acitivities, subject matter tie-ins to the activities, role-playing, field trips, resource people, and introduction to occupations in the community that are relevant to the unit. This type of unit gives the student learning by doing (concrete to abstract) experiences, enable the teacher to point out the relationship and interdependence of the academic disciplines to one another and to various work roles in the community, and give the teacher a vehicle by which she can incorporate career awareness activities into the existing curriculum. At the junior high level there are career exploration programs built around simulated or real work experiences. Preparation programs in high school include both work-study and cluster

approaches. Educational or job placement services are available to students leaving school.

Field Based Process Consultation Teams--A design for Inservice Training. For the past several years we have been involved with inservice training programs for counselors as participants and also as leader-consultants. This experience has shown that the typical one-day inservice programs are not adequate to meet the needs of individual counselors and do not contribute to the development of ongoing programs. Generally, the goals and content of these programs are decided on by top administrators in school districts, and the programs are treated as isolated events rather than as a developmental process of individual skill-building or program development. We would like to present an alternate proposal for the inservice training of counselors. This model is specifically designed to help the inservice team assess their own needs, both individually and as a group. In this model, the leader-consultants are viewed as resource people rather than as experts to respond to or provide input relative to the specified needs of the inservice team. The model is designed to demonstrate how the inservice counselors can evaluate and plan follow-up activities to the inservice program and generalize the model to other planning or inservice groups within their districts. Accordingly, our program will include a presentation discussing the rationale and a working description of the process consultation model, a presentation describing how the model has been specifically applied to inservice training for counselors, a presentation describing the evaluation and follow-up method of the model, reactions toward the model by two pupil personnel service directors and opportunities for audience discussion of any of the issues presented.

Career Development: Georgia's Commitment to Action. Career education is more than an idea in Georgia. Counselors, educators, community and business leaders at all levels of educational involvement are translating the needs and philosophies of career development into a personal commitment to programs and ideas that offer students a wider base of experiences for self-understanding and career clarification. The proposed program intends to relate how such a commitment became a reality, how career education operates in Georgia, and how individuals can become involved in the process of facilitating the career development of all students. Georgia's concept of career education includes an organized, comprehensive instructional program at all grade levels designed to facilitate career development through awareness and orientation, exploration, decision-making, preparation, and placement experiences. After an overview of the underlying concepts of the state-wide effort, individuals involved in various phases of career education will present a short summary of their program and how it can be implemented. During the second phase of the program suggested for the following day, travel will be arranged for participants to visit any of the career education programs operating in the Atlanta area in order to interact with students, teachers, administrators, and businesses involved in career education. This outreach effort emphasizes member participation in the on-going process of career education.

An Effective Functioning Inschool Suspension Program. The high school dropout rate and the student who experiences difficuly are areas of everincreasing concerns. Due to a myriad of reasons such as higher sophistication level of today's students, unnecessary

curriculum requirements and materials, irrelevant school demands, and incompetent school personnel. It seems that school administrations are not as concerned with the unsuccessful student as with the successful one, and therefore, programs which speak to the needs of the former are punitive in nature. The suspension model developed by a group of educators, is designed to intervene in the life style of students potentially and actually experiencing difficulties with school and offer alternatives and vehicles for change.

Experiential On-The-Job Counselor Supervision in Employment Counseling. Much has been written about the supervision of practicum students in counselor education, but there is little material available about supervising a trained counselor on-the-job. The kind of supervision presented in this program is designed to help the counselor increase his effectiveness in helping his clients. The supervisor does this by providing instant replay to the counselor on how he is functioning as a facilitator in actual counseling interviews. The two methods used and demonstrated in this program are co-counseling and videotaping of actual counseling interviews. The supervisor as a co-counselor responds to the feelings of both the counselor and counselee as well as responding to his own feelings about the particular situation. A videotaped interview is played back to the counselor immediately upon the conclusion of the interview. The counselee is invited to watch the playback and interact with the counselor and supervisor. The development and implementation of a counseling supervisory role and function in the Florida State Employment Service will be presented and discussed.

Evaluating Career Education Programs. The Career Exploration

Programs, planned on a pilot basis for the 1970-71 and 1971-72 school years, were an attempt in Ohio to help all students in grades 9 and 10 to make better career decisions. In order to accomplish this goal, students in selected schools were provided with extensive exploratory experiences in segments of the world of work. The findings presented in this paper resulted from an attempt to determine to what extent the concept of Career Exploration Programs was successful in helping a student to learn more about himself and the world of work so that he can make wise career decisions. The specific objectives of the evaluation of the Career Exploration Programs were: (a) to help the student to develop more appropriate career interest patterns based upon knowledge of himself and the world of work, (b) to help the student to develop more appropriate educational and vocational plans and goals based upon knowledge of himself and the world of work, (c) to help the student develop a positive self-image of himself as a person and as a potential worker, and (d) to provide a program that will be considered worthwhile by the parents of the students in the program. The proposed program will focus on the presentation of techniques used and data obtained from the study. In addition, suggestions for future career education programs and evaluations will be discussed.

Contemporary Curriculum for Career Development Project, Knox County, Tennessee. Career development as a viable concept has recently gained high visibility both in writings and in statements by prominent public officials. As a result of these acitivites, legislation has provided monies for various pilot and demonstration

programs. This presentation will describe an exemplary program in career development covering grades K through 12. Special emphasis will be on curriculum reform and will offer teachers various strategies for incorporating career information and experience into their course work. An introductory sound-on-slide presentation will be offered as well as a presentation by the Knox County representatives. Questions and reactions from the audience will be solicited.

Career Education Learning Activities--A "Line Production" In-service Experience. The way people are organized in any enterprise to perform a specific job task is often called the human side of the enterprise. As a content program, 3 participants (representing a local school district and a university) will present and demonstrate how one school system created an experience for teachers and counselors resulting in the development of career education learning activities for social studies curriculums in grades 3 through 9. Presentations and visuals will demonstrate how 29 selected teachers, counselors, supervisors, and administrators spent a two-week work session to develop and improve learning activities using a "line production" approach. The human side of the enterprise provided an environment for strengthening interpersonal relationships and for developing and accepting concepts appropriate for the introduction of careers to boys and girls in the school. By using a social studies curriculum (grades 3 through 9), through classroom teacher creativeness, along with counseling resources as a team, the line production service activity followed these steps: (a) developing and accepting concepts appropriate for the introduction of career learnings to pupils in grades 3 through 9; (b) preparing learning

and behavioral objectives consistent with accpeted concepts; (c) creating career education learning activities to be used in social studies curriculums; and (d) evaluating student learning and behavioral outcomes. Through this line production inservice work, teachers and counselors developed curriculum guides, identified resource materials, and found new ways for teachers and counselors to work together in providing career education learning activities for pupils.

Job Placement: A Function of the Counselor? The principals will include such points in their presentation as the complexity of a job placement program within a high school and the importance of involving the vocational education teachers and coordinators in a team placement effort. The counselors will talk about their work with individual students in helping them prepare for the work world. Essential in the counselors' work with students is helping them to form positive attitudes toward work itself. Counselors give assistance to students in their decision to acquire additional skill training or education beyond high school. The state department representative will discuss plans which the state department has developed for expanding the job placement program throughout the state. The session will examine all the aspects of feasibility of conducting a job placement center within the counseling office of a secondary school. It will deal with the necessity or desirability of such a service, the obstacles and challenges, and the design of a school job placement office. Alternatives will be considered. The background for this program session will come from a student job placement program, entitled Developing, Operating, and Evaluating a

Local Job Placement Program, which has been developed in two of the Atlanta Public Schools during the 1972-73 school year. The program is funded through the Georgia State Department of Education (Office of Adult and Vocational Education of the State Board for Vocational Education). The participants on the panel will include those people who have been instrumental in the establishment of the Job Placement Program at Archer and O'Keefe High Schools in Atlanta.

Student, Counselor, and Computer: The DAT Career Planning Report. Specialists in guidance have noted the importance of starting career planning and exploration early and in ways which are likely to prove helpful in future decision making. The DAT Career Planning Report is the result of integrating an understanding of the student and information about occupations to produce messages which the student and his advisors will find valuable. The report reflects the knowledge of counseling experts applied to the student's aptitudes as revealed by the Differential Aptitude Tests, to his aspirations, to his school subject and occupational interests. This report should serve as a guide for the student, his parents and counselors, as they discuss and refine career plans. The panel will talk about the underlying rationale of the DAT Career Planning Report, the sophisticated planning and programing needed to produce messages easily understood to the student, and will evaluate reports of actual students.

Middle-Junior High School Counselor Workshop. In spite of the fact that one of the prime goals of education is to help students make well considered and well informed decisions and with the full realization that our society is offering increasing numbers of

options that are constantly changing, little has been done to help students learn how to make decisions. The need for developing skilled decision makers is evident at all levels of education. Perhaps a key point to introduce decision-making skills or to deal with these skills is when a student is in the middle school years. This program session will describe and demonstrate a decision-making curriculum that is currently being used by middle school students in a variety of schools across the country. The session will feature audience participation and interaction through a series of group exercises, discussions, and games. Participants in this session will learn firsthand how the program can be most effectively implemented in schools, become aware of the overall potential and implications for introducing decision-making into the curriculum, and gain insight into the teaching techniques that can be used to attain program objectives.

Child Drama--An Ego-Building Process. The program will consist of a presentation and dialogue, illustrated or highlighted by films, introducing child drama as an ego-building process. This is an activity of interest to school counselors and other guidance or psychological services personnel who work with children because of its potential as a self-concept enhancing process. The basis and scope of child drama and the structural model developed by Dorothy Heathcote, Newcastle University, England, will be explained by the presenters who have studied with Mrs. Heathcote. The Films, Improvised Drama--Part I and Three Looms Waiting, made by the British Broadcasting Company, illustrate the way a drama develops spontaneously with children and show a number of diverse groups engaged in

improvisations. The audience will be encouraged to discuss the use of this form of drama in schools or other institutions.

An Innovative Approach to Decentralizing and Individualizing Pupil Services. To provide comprehensive counseling services to all students in the 10th largest school system in the United States is the basic goal of the ESEA Title III Project. Awarded the Educational Pacesetter Award by the President's National Advisory Council on Supplementary Centers and Services in April of 1972, this project involves six major components: (a) the cluster plan for organizing pupil services; (b) a system-wide, task-oriented approach to group counseling; (c) parent understanding through learning and shared experience; (d) the career satellite program; (e) the school registrar program; and (f) evening walk-in counseling centers. This convention program will review each component of the project and discuss the implications for providing effective comprehensive counseling services.

Peer Counseling: A Training Program for Junior High Students. This program will present the specific training and research procedures being used at Pattonville Heights Junior High. Students are being trained with a Carkhuff model modified for junior high peer counselors in group settings. The goals of the program are to train junior high students to become competent in facilitative communicative skills that can be used in a peer group sounseling experience with students as leaders. The program will explain the rationale, philosophy, and procedures of a peer group training program for improving the effective communication skills of junior high students and explain the mechanics of setting up an operational

training program. Then a demonstration group training process using members of the audience as group participants will be presented. The procedures and effect of the training process through the use of videotape excerpts of actual groups in operation will be demonstrated. Finally, future plans for using trained students in leadership and counseling foles within the school systems will be explained, and the program will be opened up to questions from the audience Through this program it is felt that a dimension of counseling can be demonstrated that will enable professional counselors to increase the range of their impact by training students to be more effective in interpersonal communication.

Career Education: A Plot? Career education is the catch phrase today. All sorts of discussions are being shared across the country regarding the definitions, merits, and potentials of this new thrust in American education. Assuming that the waters will settle and models will be worked out, what does all this mean to blacks in this country? While career education could be the best thing to happen to the disadvantaged student, it is also possible for career education to have serious negative effects on future generations of black youngsters. Is career education potentially good for blacks, or is it a plot? What are the kinds of models which are appearing? Which models are being suggested for blacks and other disadvantaged students? Is career education another tracking device? With most areas selecting vocational education personnel, how can one be sure that the result will be anything other than a kind of new vocational education for blacks? These are some of the questions which the panel will deal with as they try to present a hard hitting analysis

of career education. Each person is skilled in areas which make their participation strategic in "the other side of the coin."

The American Personnel and Guidance Association Convention was a valuable experience since it provided an opportunity for NOW Staff to gain much information from others as well as permitting NOW Staff to share their career education activities with others across the nation.

Dr. Edward G. Johnson

Dr. Edward G. Johnson, Associate Professor of Education, University of Maine at Orono, and Coordinator, State of Maine Career Education Guide Project.

During the 1972-73 school year several visits were made by Dr. Johnson to Lewiston for conferences with members of NOW Staff and teachers who were actively involved in the NOW Program. The primary purpose of his visits was to obtain information regarding career activities in Lewiston--innovative and creative examples of the integration of a career focus into the curriculum--which he could use in preparing a guide on career education activities in Maine for the State Department of Education. The guide was developed to be distributed to schools in Maine.

NOW Staff complied with Dr. Johnson's request and shared descriptions of career activities as well as introducing him to Lewiston teachers who had demonstrated a high degree of visible involvement.

Using Dr. Johnson's format as a guide, Lewiston educators described their classroom activities. This follows. In June 1973, the completed guide, Maine Curriculum Guide for Career Education K-12, was distributed. NOW Program was pleased to observe 21 out of the 79 programs in Maine printed in the guide were credited to Lewiston educators actively involved in the NOW Program.

Career Education in the Classroom

1. What career related activities have you integrated into your regular classroom curriculum (or plan to or would like to)?
2. What would you hope the students would learn as a result of the integration of a career component into your subject area?
3. What procedures did you follow which contributed to helping students reach #2 (field trips, visitor, discussions, role-playing, career materials, etc.)?
4. What resources were used (or would be used)?
5. What materials were used (or would be used)?
6. What procedures did you use (or would you use) to evaluate whether the students had learned the items in #2?

In other words, describe the program. Mr. Johnson will take the information provided and place it in the form to be used in the Guide.

Cooperative Education

During its second year of operation, the Cooperative Education facet of the NOW Program was very successful.

During the student selection of studies activities conducted in April 1972, a total of 83 students filled out applications and were interviewed for potentially 20 open slots in the Cooperative Education Program. These 20 slots combined with a total of 13 continuing students would accommodate an anticipated enrollment of 33 students for the 1972-73 academic year. As it turned out, the enrollment totaled 42 students (13 continuing and 29 new) of which 23 students were scheduled to graduate in June. Upon completion of the school year in June, 1973, 83% of the seniors having graduated remained with their work station sponsors as full-time employees. Relative to the students not having graduated, 74% remained with their work station sponsors as full-time summer help, 16% were in the process of changing their jobs, on their own, for better pay and/or advancement, and 10% did not complete the academic year. The students having continued their employment through the summer with their work station sponsors are expected to be participants in next year's Cooperative Education Program.

Regarding the enrollment of 43 students, it should be noted that 28 different occupations were pursued throughout the year. Of the 28 different occupations having been pursued, 11 occupations supplemented course offerings provided by the high school curriculum and 17 occupations provided students, on an individual basis a new course offering in which to pursue their selected career objective.

E. EVALUATION

Project NOW Interview Evaluation Report
July 1973

Introduction

Dr. Charles Ryan of the University of Maine at Orono, a member of the original third party evaluation team for the Project NOW, was forced to resign from the project in the summer of 1972 because of increased demands on his time at the state level. Therefore, the third party evaluation team for 1972-73 consisted of Dr. Clyde Folsom and Dr. C. Thomas Skaggs, University of Maine at Orono.

The evaluation team was engaged in a number of activities during the year in an attempt to assess the effectiveness and impact of Project NOW on the teachers and students constituting the project's target audience. Evaluation team activities included the following: on-site visits to Lewiston schools involved in NOW activities; interviews with teachers, counselors, and school administrators concerning their impressions of the NOW Program; consultation with the NOW Coordinator and staff concerning program implementation, goal setting, research methodology, tests and measurements, and the establishment of behavioral objectives for the program; statistical analyses of data; writing evaluation reports; and presenting recommendations for improved program functioning. In order to present a systematic report of the evaluation team's findings, the goals established for the project during the 1972-73 school year will be reviewed and an evaluation of how effectively each goal was achieved will be discussed. Following the discussion of these general impressions relating to project goals, specific evaluation activities and their results are presented. Finally, recommendations of the evaluation team are reported.

Goals for 1972-73

In October 1972, the third party evaluation team was presented with a list of eleven (11) goals for the 1972-73 academic year. The list of goals was furnished by the Project NOW Coordinator, Mr. Lynn Markee, and was as follows:

1. The major goal is to expand implementation of the NOW Program at all learning levels in Lewiston schools. To be accomplished by individual efforts and also team approaches by staff utilizing workshop techniques when possible through department heads, curriculum groups, learning level groups and interest groups.

2. Regional implementation will be conducted through initial exposure of the program to Superintendents and continual communications will be extended to the regional schools to visit NOW activities.

3. Curriculum development will be via the development of learning packages for specific and general career areas as the year progresses. Each teacher involved with the NOW Program will be encouraged to help in this aspect, e.g. STARS Program, play school, language arts career exploration.

4. The purchase and utilization of a mobile van. The van will be stocked with information, materials and equipment for the purposes of distribution of some locally and regionally.

5. The Cooperative Education Program will be expanded from 18 student participants in 1971-72 to 40 students in 1972-73. This will be accomplished utilizing current staff.

6. Intensive training programs will be established for school leavers. This goal is currently under study as minor success was difficult to attain during the first year. Facilities and staff overloads at present virtually demand that this goal be met on an individual basis and outside the school facility. The program staff will, where possible, place students/leavers, in job situation that provide such training.

7. Placement services will be expanded through closer working relations between NOW staff and guidance departments, principals, department heads, and teachers at the junior and senior high schools. Part-time work placement services for 13, 14, 15 year olds will be conducted through a joint staff effort with Community Coordinated Child Care Agency (Rent-A-Kid).

8. Resource centers and/or information centers will be established in each school in Lewiston. These centers will be maintained jointly by NOW staff and school staff.

9. The Pupil Personnel Services staff of the NOW Program will be assigned to specific schools, the goal being to have a member identified by teachers as a part of their school. In line with this, a staff member will be housed at the elementary level to make the program services more assessable (geographically) to Lewiston teachers.

10. To reach the goal to research, develop, and provide media materials and information for teachers, a paraprofessional will be hired.

11. To maintain and conduct resource centers including the mobile van, a resource center coordinator will be hired.

Evaluation of Achievement of Goals

1. "The major goal is to expand implementation of the NOW Program at all learning levels in Lewiston schools..."

The evaluation data relative to the accomplishment of this goal were gathered primarily via interview techniques. Individuals interviewed by the evaluation team included school principals, teachers, guidance counselors, and members of the NOW staff.

In general, the goal as stated was achieved. Whereas the NOW Project addressed itself primarily to the Lewiston junior high schools during the 1971-72 academic year the primary target audience for the project in 1972-73 was at the elementary level. In addition, the project made significant inroads at Lewiston High School during 1972-73 as shown by increasing teacher participation in NOW Programs, increasing demand for NOW materials from school teachers, and improving levels of cooperation between NOW staff and high school faculty. Teachers at the elementary levels seemed generally favorable toward the NOW Project. The demand for NOW materials, teacher participation in NOW workshops, and consultation with NOW staff members were relatively great at the elementary level and suggest that the project staff had made a significant impact at that level during 1972-73.

The attempts to expand implementation of the NOW Program at all learning levels in Lewiston schools had some negative results. Because a great deal of effort had been made to provide service to

the Lewiston junior high schools during 1971-72 school year, several junior high school teachers and at least one junior high school principal felt that they had been neglected by the NOW staff during the 1972-73 school year. This situation resulted in some hostility toward the NOW Project on the part of the school principal mentioned above and a lack of cooperation between his administration and the NOW staff.

It is doubtful that the loss of maintenance of the NOW Program at the junior high level could have been avoided. Because there was no increase in the number of individuals serving in the NOW staff until April of 1973, it was impossible for the existing staff to increase service at the elementary levels without a loss of service at the junior high and high schools. Because each level has now been served by a concerted effort on the part of the NOW staff, the 1973-74 school year should be one in which the demands of teachers and students at all educational levels become more equalized and stable.

It is also important to mention that the NOW staff became much more active during 1972-73 in departmental meetings, faculty meetings, and in sponsoring teacher workshops. NOW staff members made sincere efforts to provide materials and lend assistance to teachers whenever requests were received. None of the teachers interviewed during the year by the evaluation team had negative comments to make concerning the NOW counselors. To the contrary, most teachers were high in their praises of the NOW staff and the benefits they had received from the total project. In summary, it seems that at this point in time, Project NOW had made "friends" with a significant number of teachers, counselors, and school administrators at all educational levels in Lewiston. Thus, the existence of "satisfied users" at each educational level should make the continued future expansion of the program easier for the NOW staff than it has been for the past two years.

2. "Regional implementation will be conducted through initial exposure of the program..."

Sincere efforts have been made to achieve this goal. In addition to newspaper coverage and special bulletins, the Project

Coordinator has extended direct invitations to superintendents and teachers in the region to visit the NOW facilities and participate in their activities. Although the response of other school systems in the region has not been as great as it could have been, this does not appear to be the fault of the Project Coordinator. And some successshas been achieved. For example, teacher and counselor participants in the Daane Workshop included invividuals from schools outside the Lewiston system and there will be in all probability a similar situation in the special workshop in career education being sponsored by the NOW staff during the summer of 1973.

There is little doubt that with the arrival of the mobile van other schools within the region will become more involved with the project. Whereas exposure to the program until now has necessarily forced schools to send representatives to Lewiston, the mobile van will make possible the visitation of NOW staff to outlying schools. That situation should result in increased participation in the program by schools within the region.

3. "Curriculum development will be through the development of learning packages..."

The accomplishment of this goal was handicapped by the lack of an Activities Package Writer until April of 1973. Because of a local political situation involving the hiring of paraprofessionals, it was not until early April that Mrs. Karen McMahon was hired for the primary purpose of writing learning packages. Since that time Mrs. McMahon has been involved in this task during a large part of each working day. Thus, it seems safe to assume that this goal will be largely accomplished during the next year.

The STARS Program, play school, and language arts career exploration have all been implemented. An attempt was made by the evaluation team and NOW staff members to carefully examine the success of the STARS program using a pre-post, experimental research design. The results of that study are discussed in detail later in this report. The play school, implemented at Montello Junior High School appears to have been a successful project. It has stimulated interest on the part of students in the school and seems to provide a work experience in child care that is valuable for the students

participating. Although implemented, the evaluation team has very limited knowledge of the language arts career exploration project.

4. "The purchase and utilization of a mobile van..."

Several problems have delayed the accomplishment of this goal. Production problems at Ford Motor Company caused the delivery of the van to be delayed until August or September of 1973. Thus, the van is not yet in the possession of the project staff.

In addition to delivery problems on the van, the same local political situation mentioned earlier delayed the hiring of the paraprofessional to drive the van. Finally, in April 1973, Mr. Donald Gay joined the NOW staff as the Mobile Resources Coordinator. Thus, the van and the paraprofessional to coordinate its use will be ready when the public schools open in September of 1973.

5. "The Cooperative Education Program will be expanded from 18 student participants..."

This goal was successfully achieved. At the close of school in June, 1973 a total of 42 students were participating in the Cooperative Education Program.

The evaluators' impressions of the Cooperative Education Program are extremely positive. The work stations are of excellent quality and the cooperation between the Coordinator and the Cooperative Education Program and employers is outstanding. Mr. Read appears to have established an excellent relationship with the students in the Cooperative Education Program and the problems inherent to the program are minimal. In many ways, the Cooperative Education Program in Lewiston is a model program and represents one of the strongest offerings in the entire NOW Project.

6. "Intensive training programs will be established for school leavers..."

This goal was not accomplished. In addition to this being a goal for 1972-73 it was included as an objective in the original proposal submitted to the federal government. The fact that this objective has not been achieved in the two years that Project NOW has been in existance is a serious concern to the third party evaluators. Since school leavers largely represent a group of individuals who are about to seek entry level positions in the job

market, it seems imperative that the Project NOW staff assist such individuals in that process. The basic purpose of Project NOW is to present students with new understandings and greater opportunities for work. Unless such a project includes special programs for school leavers, it seem doubtful that the project is accomplishing all that it was meant to.

7. "Placement services will be expanded..."

The Rent-A-Kid program was initiated by the NOW staff early in the fall of 1972. The program was effective in placing students in part-time work positions after school and on weekends. The third party evaluation team questioned the feasibility of administering the Rent-A-Kid program as part of Project NOW, however, and communicated this concern to the NOW coordinator. The Rent-A-Kid program, which was initially established in cooperation with the Community Coordinated Child Care Agency, was later turned over to that agency by the NOW staff. Thus, the Rent-A-Kid program continues to function and to serve as a placement service to junior and senior high school students but is no longer affiliated with Project NOW. The Rent-A-Kid program, because of cuts in the Model Cities budget, has recently been taken over by the Jewish Community Center and is administered by that organization.

The evaluation team felt that transferring the administration of the Rent-A-Kid to an agency other than Project NOW was an important move for the NOW staff. Because of the demands placed upon the NOW staff by school personnel in Lewiston, it was felt that staff time could be used more effectively in other programs. However, by assisting in the initial organization of the Rent-A-Kid program, the NOW staff was able to provide a community and school service that offers limited vocational experience for youth.

8. "Resource centers and/or information centers will be established..."

Montello and Jordan Junior High Schools and Lewiston High School have resource centers that are almost entirely functional. Information centers have in reality become only bulletin boards. The resource/information center concept has been implemented in approximately 75% of the Lewiston elementary schools. Unfortunately,

however, this goal has not been satisfactorily accomplished.

Part of the reason for failing to achieve this goal has been the lack of a Mobile Unit Coordinator. As mentioned earlier in this report, that individual was not hired until April of 1973. Because the resource and/or information centers are to be the responsibility of the Mobile Unit Coordinator, this goal should be achieved during the 1973-74 academic year.

9. "The Pupil Personnel Services staff of the NOW Program will be assigned to specific schools..."

This goal has been achieved. NOW counselors have been assigned to schools as was projected in the above goal and are readily assessible to teaching and administrative staff in the Lewiston schools at the various grade levels. Because of the limitations imposed by the size of the NOW staff, it was impossible to assign a counselor to each school in the Lewiston system.

10. "To reach the goal to research, develop, and provide media materials..."

This goal was accomplished only to the extent that the regular NOW staff was able to fulfill the function during 1972-73. Because the paraprofessional who is to have this function was finally hired in April 1973, the goal should be more satisfactorily accomplished during the coming academic year.

11. "To maintain and conduct resource centers including the mobile van..."

The paraprofessional mentioned in the above goal was hired in April of 1973.

The Daane Workshop

The Daane Workshop was a relatively expensive and large undertaking for the NOW staff during the 1972-73 school year. Because of this, it seems reasonable to include a detailed report of the evaluation of the Daane Project in this report.

On April 26, 1973 a member of the third party evaluation team visited the Lewiston-Auburn school systems for the purpose of obtaining subjective data relative to the Daane workshop. Opinion data were gathered via unstructured interviews between the evaluator

and a number of Lewiston-Auburn faculty members who had participated in the Daane Program. During the course of each interview, an attempt was made to assess the following factors: 1. the participant's level of satisfaction with the workshop, 2. the participant's commitment to implementing Vocational Exploration Groups with students, 3. participant's perceptions of the problems or negative aspects inherent in the Daane approach, 4. the participant's general attitudes toward the NOW Project and staff, and 5. the extent to which participants felt other teachers in the Lewiston-Auburn school system should be trained as leaders of Vocational Exploration Groups. It should be noted that the evaluator's assessments were based on interviews held with only nine individuals. Of those nine, two were trained as trainers and were members of the NOW staff, two were practicing counselors in the Lewiston-Auburn systems, four were teachers, and one was a school principal who had not personally participated in the Daane workshop. Only to the extent that these individuals were representative of other faculty and administrators associated with the project does the evaluator's impressions accurately reflect the existing attitudes and opinions within the Lewiston-Auburn school systems toward the Daane project.

Generally, each participant reported a high level of satisfaction with the workshop. Each felt that involvement in the program had resulted in personal growth and an increased awareness of the world of work. Without exception, the participants agreed that Vocational Exploration Groups would serve as valuable vehicles for initiating vocational thought and planning among groups of students.

Teachers who had participated in the workshop seemed to respond with a greater degree of enthusiasm than did the two practicing school counselors who were interviewed. Although the counselors were enthusiastic about the Daane program, their professional training had included course work in vocational counseling, educational and occupational information, and other courses dealing with the world of work. Because of this, the uniqueness of the Daane materials was probably greater for teachers than it was for counselors, thus resulting in greater enthusiasm among those participants who were classroom teachers.

The reported levels of satisfaction among participants varied greatly. One participant described it as the most meaningful professional activity she had ever experienced while another participant showed some skepticism about the intensity of training required by Dr. Daane for trainers as opposed to that required for leaders of Vocational Exploration Groups. Again, however, it must be stressed that in general the participants reported very high levels of satisfaction with their experience in the Daane workshop.

Of the eight individuals who had actually participated in the Daane workshop, five had already implemented Vocational Exploration Groups with students. Two of the remaining three were to lead Vocational Exploration Groups the week following the evaluator's visit, and the other participant was planning to become involved with such groups early in the fall of 1973. The participant who had no plans for involvement in Vocational Exploration Groups during the current academic year was a practicing school counselor. He was unable to become involved in such groups at that time because of the pressures of his regular work load. All participants reported future plans for further implementation of Vocational Exploration Groups with students.

Those who had led Vocational Exploration Groups reported that the students involved had been very enthusiastic in their response to the experience. Students involved had reported an increased awareness of themselves in relation to the world of work and had asked for similar experiences in the future, In addition, students who had participated had apparently talked with other students about their experience. The result of this has been for numerous students to ask their teachers for opportunities to participate in Vocational Exploration Groups. Thus, it would appear that student demand will eventually prompt other teachers to request training as Vocational Exploration Group Leaders so they can respond to the needs of their students.

Nearly all participants reported that the two-hour block of time needed for a Vocational Exploration Group created scheduling conflicts for students. The need for the two-hour block of time combined with the necessity of working with only five students in

each Vocational Exploration Group necessitates that several leaders be available to handle a classroom size groups of students at one time. Thus, the schedules of teachers and students need to be juggled and additional teacher coverage needs to be found for those teachers who serve as leaders of Vocational Exploration Groups. Although this problem can be handled through appropriate administrative channels, it would seem to be a serious deterrent to the large scale implementation of such programs within the present structure of the schools.

One alternative plan for offering the Vocational Exploration Groups would seem to pose fewer scheduling and administrative problems. That plan allows for scheduling five, fifty-minute periods for completion of a Vocational Exploration Group over a period of several days. Utilization of this plan eliminates the problems of adjusting teacher - student schedules and permits such programs to be offered during regular classroom periods. Even under this plan, however, the problem of finding enough VEG leaders to work with a classroom-size group of students remains. Of the few VEG leaders who had tried this alternate plan, some felt that it was not as effective as utilizing a two-hour block of time. The evaluator felt that if the VEG program is to be implemented on a large enough scale to involve a significant number of students, the plan of utilizing five, fifty-minute periods has the better chance of success. In those schools where Project NOW has minimal support from teaching and administrative staff, the probability of receiving adequate cooperation in implementing VEG programs over two-hour blocks of time does not seem encouraging.

One other problem that was reported by a participant dealt with the necessity of leaders reading verbatim the entire VEG program when leading such groups with students. The individual teacher involved felt that such a practice detracted from the effectiveness of the program and that it caused student participants to lose interest. Her complaint seemed legitimate to the evaluator. The reading of materials probably does result in both a lack of leader spontaneity and in disinterest on the part of the participants. However, if the success of the Daane program is dependent upon the verbatim reading of materials to participants, all leaders should adhere to those instructions.

If, on the other hand, the individual who stated this concern misunderstood instructions and a verbatim reading is not necessary, the VEG trainers on the NOW staff should clarify the instructions for all teachers in the Lewiston-Auburn schools who were trained as VEG leaders.

The present physical facility at Lewiston High School makes it difficult to implement the Vocational Exploration Groups in that building. The lack of space there as well as stationary furniture in the classroom makes it very difficult to schedule and implement VEG programs. Hopefully, with the completion of the new high school facility these problems will be minimized during the 1973-74 academic year.

In order for the VEG concept to be utilized to its fullest possible potential many more teachers need to be trained as leaders. The principal at the Walton School in Auburn is already planning a full-day workshop in the fall of 1973 for the purpose of training his teachers as VEG leaders. He reported that teachers at that school have indicated a desire for such training and that every possible attempt will be made to provide them with the workshop as early as possible in the fall. In addition, he seemed committed to the idea of making whatever scheduling changes are necessary for insuring that all students in the Walton School are involved in Vocational Exploration Groups next year.

Hopefully, other school administrators in the Lewiston-Auburn schools will initiate workshops of a nature similar to that planned by the principal at the Walton School. Those teachers interviewed who had already participated in the Daane project were unanimous in stating that other teachers should have similar experiences. Utilizing a one-day workshop in each school next fall for this purpose would seem to be a feasible plan for achieving the maximum effectiveness possible for the VEG concept.

In summary, the subjective data gathered via the unstructured interviews suggest that the Daane workshop was a valuable experience for the participants. Although some administrative problems need to be worked out if the VEG concept is to achieve maximum effectiveness with students, these problems appear to be minor when consideration is given to the benefits to be accrued for students when Vocational

Exploration Groups are implemented in the schools.

Evaluation of Field Trips

A large number of requests for field trips, many from elementary teachers, were received by members of the NOW staff during 1972-73. Because of the amount of time involved in the planning, implementing, and follow-up of such activities, the evaluation team made recommendations to the project staff that an evaluation be done to assess the effectiveness of field trips, especially among elementary school children.

The NOW staff indicated that the purpose of sponsoring field trips to business and industries in the Lewiston area was to broaden the students' vocational awareness and to provide more accurate knowledge about specific occupations. Thus, any evaluation of the field trip activities would have to focus on changes in the knowledge of occupations prior to and following a field trip experience. It was decided, therefore, to utilize a pre-post experimental design on a group of third grade students in an effort to get a reading on the effectiveness of the field trip experience.

One of the most serious difficulties in assessing change in occupational knowledge among young elementary school children is the severe limitations imposed by their reading and vocabulary skills. In an effort to avoid problems that could arise from such limitations, the evaluation team and NOW staff decided not to use a non-verbal pre and post test measure. It was felt that an analysis of pre and post field trip, student drawing of an occupation would provide a less contaminated, more accurate reflection of changes in occupational knowledge resulting from the field trip experience than would a verbal measure. In essence, a post field trip drawing which included more detail and which more accurately reflected conditions within the occupation would be considered evidence of positive gain resulting from the field trip. In order to implement the study, the following procedures were utilized.

Mr. Roy Bagley, NOW Counselor, visited a third grade class prior to a field trip. He instructed the students to draw a picture of the occupations they would be studying on the field trip. He then

collected the drawings without permitting the students' teacher to view them. Following the field trip experience, he once again visited the classroom and asked them to draw a picture of the occupation they had visited. Once again, he collected the drawings without showing the classroom teacher what the students had drawn. Then, after pairing each student's drawings (pre and post) on the basis of the student's name and after coding them in order to know which drawings were pre and post field trip drawings, he instructed three teachers to sort the drawings. The three teachers involved were the elementary art teacher, a junior high school teacher, and the students' third grade classroom teacher. The teachers' sortings were to be done independently and were to be based on the amount of detail and accuracy reflected in the student's two drawings. The drawings with the least detail were to be placed in one pile and the drawings with the greatest and more accurate detail was to be placed in the other. A total of 28 students were involved in the experiment.

Following each teacher's sorting of the drawings, Mr. Bagley checked them for accuracy. When a post test drawing was seen as reflecting less accuracy and detail then a pre test drawing it was assigned a negative (-) weight. When a post test drawing was given an accurate sorting, it was give a positive (+) weight. After the results of each teacher's sortings were recorded, the data were mailed to the evaluation team for analysis. The Sign Test (Downie and Heath, 1954, 208-209) was utilized in statistically analyzing the data. Results were as follows:

	Pre	Post	No Difference
Classroom teacher (CRT)	5(-)	20(+)	3
Elem. Art Teacher (EAT)	13(-)	10(+)	5
Junior High Teacher (JHT)	11(-)	10(+)	7

Formulae: $m=np$ $\quad z=\frac{x-m}{sd}$

$sd=\sqrt{npq}$

m = mean of the distribution
n = number of scores in the distribution
q = p = probability of a "+" or "-" occurring by chance
o = standard deviation of the distribution
z = standard score
x = number of "+"

CRT: $m = (25)\ (.5) = 12.5$

$sd = \sqrt{(25)\ (.5)\ (.5)} = 2.5$

$z = \frac{19.5 - 12.5}{2.5} = 2.8$

Significant at or beyond .005

EAT: $m = (23)\ (.5) = 11.5$

$sd = \sqrt{(23)\ (.5)\ (.5)} = 2.4$

$z = \frac{12.5 - 11.5}{2.4} = .42$

Not significant

JHT: $m = (21)\ (.5) = 10.5$

$sd = \sqrt{(21)\ (.5)\ (.5)} = 2.3$

$z = \frac{10.5 - 10.5}{2.3} = 0$

Not significant

The results show no significant differences between the sorting of drawings done by either the junior high school teacher or elementary school teacher. The sortings of the students' classroom teacher are statistically significant, however, and in the direction supportive of the field trip concept.

It is impossible to know why the classroom teacher was better able to discriminate between the pre and post test drawings of her students than were the other two teachers. However, the fact that she had accompanied the students on the field trip and had led the students in the study of the occupation may have caused her to be more aware of what truly existed in the occupation than were the other two teachers. In other words, the lack of significant differences in the sortings of the art teacher and junior high teacher may have been as much a reflection of their ignorance of the occupation as it was a lack of true differences between the students' drawings.

The results do offer some support for the continuation of field trip activities among elementary school children. At the same time, however, the results do contain some rather contradictory and confusing elements and should therefore be interpreted with caution. Other, similar studies at different grade levels may be necessary before the effectiveness of the field trip activities is established.

Evaluation of VEG Program Data

The evaluation of the VEG project is based on data gathered from participants and control subeects via instruments developed by Calvin Daane, originator of the VEG program. In addition, the analyses performed to date are those prescribed by Daane.

In all analyses reported in this paper a treatment group vs control groups comparison format was employed. Analyses were made via the z-statistic. Control group data for the adult participants was not available at the time of writing and is therefore not included.

Employability Perceptions Inventory

One of the instruments involved in data gathering was the Employability Perceptions Inventory and is reported by it's author as being useful to estimate the degree to which one perceives himself as being employable. The instrument is composed of three scales: Job Personalization, Movement Toward Job Personalization and Self Recognition of Work Potential and Aspiration. High scores on Job Personalization suggest a greater understanding of man's relationship to work and its critical links to job functioning, job demands and job satisfaction. Low scores on the set of questions making up the second scale reportedly indicate movement in the direction of job personalization. High scores on the third scale, Self Recognition of Work Potential and Aspiration, suggest greater potential and aspiration for work entry.

Some validity and reliability data for each of the scales is reported by the author. This data, however, is limited in its usefulness. The third party evaluators are very skeptical about the psychometric properties of the EPI and feel that decisions about the practical utility of the results that follow should be made in that context.

A comparison of EPI per post scores of the adults involved in the VEG indicates that they were significantly more aware of man's relationship to work after completion of the program than when they began. Similar results were obtained when EPI-Series I post-scores of students attending the VEG program were compared with those of a control group. That is, students who participated in the VEG exhibited a greater degree of a job personalization on the EPI than those

students who did not participate. (See Table 1)

The objectives of the VEG program suggest the hypothesis that participants will exhibit greater movement toward job personalization than non-participants and will therefore earn lower scores on EPI-Series II.

Since adequate control group data for the adult experimental group was not available at this writing, pre post scores were compared. There was no evidence to suggest that this treatment group had made a significant shift toward job personalization as a result of the VEG program.

A comparison of the post VEG Series II score of the student treatment group with Series II scores of the control students did support the hypothesis, however. VEG scores significantly lower on Series II than did the control students and are therefore, defined as indicating a greater movement toward job personalization. (See Table I)

Analysis of the results of EPI-Series III indicate that the adults in the VEG program felt much more confident of their work potential and entry aspirations after completion of the training than prior to their experience. A comparison of VEG student participants with their control group resulted in no significant differences. (See Table I)

The Alienation Perception scale developed for use in conjunction with the VEG program, contains two scales; Social Distance and Believability. The S.D. scale reportedly measures one's affective predisposition toward work symbols, such as job interview, potential employer, etc. The Believability scale was designed to measure positive attitudes of social trust toward other persons and the world of work.

Adequate control group data was not available at this writing for the adult treatment group. Therefore, no analyses were made for that group.

Analysis of treatment-control scores for the students indicate that those students who did not participate in the project earned more desirable scores than the students participating in the VEG. The control group exhibited greater feelings of comfort and safety with social others during interaction (Social Distance). (See Table 1) They also had more positive attitudes toward work related topics

(Believability). These results may come from several sources, but the most likely is a combination of lack of understanding the manner in which the instrument is to be completed and problems inherent within the instrument. Additional analysis at a later time may better explain the unexpected results.

In general, the data tend to support the success of the VEG's. However, in view of the suspect nature of the instrumentation, additional evaluation data should be gathered from those adjults and students involved in the program.

Evaluation of STARS Program

Unfortunately, due to influences beyond the control of the project staff, was misplaced and not found in time for inclusion in this report. A written discussion of the results will follow at a later date.

Summary

It is the opinion of the evaluation team that the NOW Project is making significant progress in the attainment of its objectives. We feel that NOW efforts would be enhanced by an intensive planning session involving project staff and evaluation personnel. During the session the original proposal would be discussed with possible formal revisions being developed. Also, specific activities for the 1973-74 year and appropriate evaluation techniques would result. It is recommended that this effort occur prior to the opening of next school year and early enough for implementation of the outcomes.

Table I.

Employability Perceptions Inventory

Series I

Adults: Pre $\overline{X}$ = 3.9, Post $\overline{X}$ - 4.7, $s_{\overline{D}}$ = .3; n = 31; z=2.67 ($\alpha \leq .01$)

Students:	Treatment	Control
$\overline{X}$=	2.9	2.2
sd=	1.5	1.3
n=	78	63
z=	11.8 ($\alpha \leq .001$)	

Series II

Adults: Pre X - .4, Post $\overline{X}$ - .1; $s_{\overline{D}}$ = .3; n = 31; z = .9 (NS)

Students:	Treatment	Control
$\overline{X}$ =	.6	1.1
sd =	.9	1.2
n =	78	64
z =	-17.3 ($\alpha \leq .001$)	

Series III

Adults: Pre $\overline{x}$ = 23, Post X = 26; $s_{\overline{D}}$ = .4; n=31; z=7.5 ($\alpha \leq .001$)

Students:	Treatment	Control
$\overline{X}$ =	23.2	22.0
sd =	4.5	4.6
n =	78	64
z =	1.93 (NS)	

Table II

Alienation Perceptions

Social Distance

Students:	Exper	Control
$\overline{X}$ =	28.8	26.4
sd =	4.7	6.3
n =	78	63
z =	2.53 ($\alpha \leq .05$)	

Believability

Students:	Exper	Control
$\overline{X}$ =	12.3	16.7
sd =	6.2	8.1
n =	78	63
z =	-3.56 ($\alpha \leq .001$)	

F. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Conclusions of significance related to the second action year of the NOW Program are drawn from the following facts:

The increase in requests for involvement from teachers, students, business and industrial people, and other educational systems and institutions, (local, state, and national) over last year permits the conclusion that the program has won their confidence. The Program phylosophy is generating high interest from business and industrial people. They are naturally concerned with the career information provided through the school system and the NOW Program is providing them the opportunity to express their ideas and offer their input to education. Other educational systems and institutions administrators are recognizing youth's need of career education and are looking to pilot programs such as NOW for the experti e to implement programs of their own. These include higher education institutions as well as public and private schools. It can be concluded that the increase in teacher and student involvement with the NOW Program and career education is a result of the variety of ways utilized by NOW to present information. These involve equipment, materials, supplies, people, and places that have been available but previously not organized and utilized. Through training programs on equipment use, development of guides for field trips and using outside resource people, systematizing methods of delivery and retrieval of equipment, materials, and supplies, and through communications teachers and students have become more organized and are sharing more education. As a result, the NOW Program is being continually sought after as well as seeking new involvement.

The development of the NOW Staff into a functional team as well as the individual contribution each team member makes to the program has definitely been a factor in the success of the second action year. This development is still going on. The conclusion arrived at in this respect is that development of a new program or concept can only materialize as fast as a staff can develop. In this case the staff was not specifically career education oriented and the process of development was slowed. Second action year progress was much greater and points out the need for higher education taking on the task of providing training in career education for future and current public school educators. The NOW Program has become involved with this situation through the State R.C.U. Coordinator and his associates at the University of Maine and the State Department. The implications are that this will happen. There is currently one course being offered at the University of Maine in career education. There are also implications that educators in public schools are expressing the above desire to higher education.

There are other implications that are expressed by the citizens in general. Parents, businessmen and others connected or aware of the career education program are feeding back the fact that students do benefit from the inclusion of career education in the curriculum. They also express agreement that it should begin in the kindergarten grade. Students express the relevance that career education provides to the subject matter and learning.

One of the stronger implications relating to the NOW Program is that the school administrators see it as a vital part of the curriculum. Excepting the Superintendent and Vocational Director, the

administrators basically see the program as valuable at their particular schools and age groups and have indicated so. This fact implies that their attitudes may be selfish but it also implies that there is not enough inter-level communications. An aim of the NOW Program will be to establish this inter-level communications during the third action year and through the development of a Career Education Guide for kindergarten through 12th grade.

The recommendations for the future of the program are to encourage the United States Office of Education to continue the funding of this program and similar programs in each state. The funds made available should not be for a maximum period of three years, rather to a period commencerative with the school department's ability to effectively implant career education into the on-going curriculum. Lewiston being the first program in the state has confronted problems that should not be encountered by ensueing programs and will not have progressed to a point that will satisfy the Board of Education in their consideration for continuing the program or parts thereof after federal funding is discontinued. The recommendation is for a serious review by the United States Office of Education of each "first-go-around projects" to ascertain if an additional year of funding would be desirable. There is a strong feeling in Lewiston that the program should continue, however, Lewiston is currently expanding the high school facility which includes an increase in enrollment from regional schools, an increase in the number of teachers to handle the enrollment and adding to the curriculum areas offered. Consequently, Lewiston is in the process of redesigning the entire school system. This will place great demands on all city groups and the

city government to make decisions based on basic needs. The NOW Program and career education will be included in the considerations, however, the possibilities of the school department taking over the entire staff and program is an unknown fact. The entire staff has been and will continue (with emphasis) to expose and sell the program to the decision makers. The Superintendent of Schools has asked the Director and Coordinator of the Program to submit to him a recommendation for the future existance of the NOW Program. This is currently being developed. The initial recommendations will be to retain the entire staff and program. A secondary recommendation will identify each critical phase of the program and the staffing required to carry out each phase.

Attachment 1

Vocational Exploration Groups

"The primary function of this project is to orientate and coordinate initial training of elementary and secondary level students to the wide range of work opportunities." (Proposal p.24) "During early adolescent years (junior high school 7-9)... an adolescent person needs information and exposure which would include educational, vocational, and personal-social information." (Proposal p.26) "During the later adolescent years (high school 10-12) individuals...need skills and knowledge in assessing their capabilities, and specific information for decision-making." (Proposal p.27)

Introduction to Vocational Exploration Groups

The goal of vocational exploration is the development, expansion and personalization of jobs for group members. The process is a highly structured examination of self in relation to the world of work. It helps members use the group to gain an expanded awareness of jobs, to increase the quantity of jobs each would consider appropriate for him in career planning.

The Vocational Exploration Group seeks understanding of man-job relationships among job function, job demands, and job satisfactions. The program involved 5 phases--inclusion, job inventory, job personalization, expansion, next step.

Research

During August-October 1971, 850 employment service applicants from local offices, high schools and work training programs participated in the group process. It was conducted by counselors, in-

terviewers, and coaches in 10 states with randomly assigned groups for control. Groups were given tests for employability perceptions, perceptions of social alienation (Rokeach) immediately following the experience one month later.

Experimental groups obtained twice the number of jobs during the month and showed more holding power in work training programs. All experimental groups (156) showed higher mean scores on all test variables. Employability perceptions lingered during the month and some of the reduction in alienation were also maintained. The one month later response was 85%. 195 trainers and leaders gave their attitudes and impressions on the effectiveness and functionability of program. There was 95% response with 85% positive reply.

Procedures

A training program will be conducted to implement a model for training professional and paraprofessionals to lead vocational exploration groups of secondary school students. The professions will include NOW Staff, teachers, and counselors, including the 10 regions feeding into the new comprehensive high school. This will provide group guidance to reach more students preparing for the world of work. Group guidance and counseling is preventative and can serve to decrease counseling on a one-to-one basis.

The paraprofessionals will include high school students who will serve as leaders of their peers throughout the school year.

The training program (and subsequent leading of vocational exploration groups) can be designed to become an elective in the secondary school curriculum: 1 credit for the voluntary partici-

pation of students on a regularly scheduled basis during the school day. Meetings will be held four times weekly during the school semester. Unique to the vocational exploration program has been the development of curriculum and instructional approaches particularly suited to the training of curriculum and instructional approaches particularly suited to the training of paraprofessionals. VEG is projected to become a major component of the expanded guidance services to the secondary students of the Lewiston area.

A detailed description of training components and instructional approaches follows.

Training

The training program for VEG is based upon a pyramid model. Leaders are prepared by trainers who have also been leaders. Roy Bagley, Hazel Guyler and Vincent Wills will be trained as trainers. The training is experiential--trainees learn by doing. Skills are acquired through group interaction, participative exercises developed for this program; by role playing; by observation and helping other to learn, and by actually conducting a group with "Live" members.

Activities are structured and varied. The group begins with inclusion activities (not sensitivity training) to reduce the fear of exploration, then examines the world of work via a twofold matrix of job functions (data, people, or things) and job preparation (training on the job, special skill training, or college). Next, the group shares information they have about jobs, and uses graphic materials to acquire additional job information. Following that, job demands, job satisfiers and training needs are explored by recalling past experiences and by studying job information books. The members then expand

their choices by relating one job to several others. Finally the group focused on an individual plan for each member, encompassing the occupational goal and the next step toward it. At intervals during the sequence, the members fill out a job inventory which clarifies their vocational choices and the man-job relationship underlying it. Throughout, carefully designed visual aids are employed to enhance the exploration process. The short sequence which is designed for completion in a single meeting takes about two hours with a break. The extended sequence, which is more suitable for five separate meetings, is composed of five 45-minute phases.

Phase 1. Leaders Can Become Trainers

VEG trainees of leaders go through leader training, acquire field experience with the program and then co-train a second leader group with the help of a consultant. Trainers use a specially prepared programmed manual designed to bring about the acquisition of skills through a sequence of practice tasks. Trainers are certified to conduct repeated leader training within their institution.

Phase 2. On Site Training

Programs are conducted for both leaders and trainers at the requesting institution. Training is done in groups of two to six by consultants who travel to the site. Leader training is two days (will lead five separate 45-minute meetings.) Trainer preparation is five days and includes the preparation of two leader groups.

Lewiston Responsibilities

1. Selection of trainees:

3 trainers (Bagley, Guyler, Wills)

21 Leaders (teachers and counselors in Lewiston area)

120 secondary students

2. Rooms:

Monday (1) Tuesday (3) Wednesday (2)

Thursday (6) Friday (2) Saturday (3)

Dr. Calvin J. Daane Responsibilities

Trainer, six leader kits, loan of trainer packet for each trainer (3).

Evaluation: A follow-up study will be designed to survey the post-high school educational and occupational activities of high school seniors who have participated in VEG experiences. Comments and reactions of studetns in the initial VEG this fall will be elicited during the interviews immediately following the activities.

Value of materials received by NOW: 18 leader Kits @ $165 equals $2970.00 (following training).

Attachment 2

Vocational Exploration Groups

Final Copy

Introduction to Vocational Exploration Groups

The goal of vocational exploration is the development, expansion and personalization of jobs for group members. The process is a highly structured examination of self in relation to the world of work. It helps members use the group to gain an expanded awareness of jobs, to increase the quantity of jobs each would consider appropriate for him in career planning.

The Vocational Exploration Group seeks understanding of man-job relationships among job functions, job demands, and job satisfactions. The program involves 5 phases--inclusion, job inventory, job personalization, expansion, next step.

Research

During August-October 1971, 850 employment service applicants from local offices, high schools, and work training programs participated in the group process. It was conducted by counselors, interviewers, and coaches in 10 states with randomly assigned groups for control. Groups were given tests for employability perceptions, perceptions of social alientation (Rokeach) immediately following the experience one month later.

Experimental groups obtained twice the number of jobs during the month and showed more holding power in work training programs. All experimental groups (156) showed higher mean scores on all test variables. Exmployability perceptions lingered during the month and

some of the reduction in alienation were also maintained. The one month later response was 85%. 195 trainers and leaders gave their attitudes and impressions on the effectiveness and functionability of the program. There was 95% response with 85% positive reply.

Training

The training program for VEG is based upon a pyramid model. Leaders are prepared by trainers who have also been leaders. Leader training is experiential--leaders learn by doing. Skills are acquired through group interaction, participative exercises developed for this program; by role playing; by observation and helping others to learn, and by actually conducting a group with "live" members.

Activities are structured and varied. The group begins with inclusion activities (not sensitivity training) to reduce the fear of exploration, then examines the world of work via a twofold matrix of job functions (data, people, or things) and job preparation (training on the job, special skill training, or college.) Next, the group shares information they have about jobs, and uses graphic materials to acquire additional job information. Following that, job demands, job satisfiers and training needs are explored by recalling past experiences and by studying job information books. The members then expand their choices by relating one job to several others. Finally, the group focuses on an individual plan for each member, encompassing the occupational goal and the next step toward it.

At intervals during the sequence, the members fill out a job inventory which clarifies their vocational choices and the man-job relationship underlying it. Throughout, carefully designed visual

aides are employed to enhance the exploration process. The short sequence which is designed for completion in a single meeting takes about 2 hours, with a break. The extended sequence, which is more suitable for 5 separate meetings, is composed of five 45-minute phases.

Attitude Toward Group Experience

DIRECTIONS: Circle one number for each question

1. I enjoyed the group.	Yes	5	4	3	2	1 No
2. The group helped me.	Yes	5	4	3	2	1 No
3. I have more idea about jobs NOW.	Yes	5	4	3	2	1 No
4. It is important for a person to learn about jobs and what they can give to a worker.	Yes	5	4	3	2	1 No
5. I would like to do more of this with the group.	Yes	5	4	3	2	1 No

Comments about the group experience:

Appendix B

Name_____

EMPLOYABILITY PERCEPTIONS INVENTORY

Directions: This is a survey of how people look at the world of work. I am going to read some statements to you and I want you to answer Yes, No, or Don't Know to each statement. This is a sample of what the questions will be like:

	Yes	No	Don't Know
Mechanics work with tools and machines.	___	___	___

Please answer Yes, No, or Don't Know. Do you understand what I want you to do?

			Yes	No	Don't Know
I.	1.	Jobs demand more skills than interest.	___	___	___
	2.	Most people could do three or more jobs and would like them equally well.	___	___	___
	3.	There is one right job for a worker.	___	___	___
	4.	Gaining friends and teamwork are reasons why people work.	___	___	___
	5.	Some jobs give no real satisfaction.	___	___	___
	6.	Good pay will make a worker happy.	___	___	___
	7.	Except for skills, jobs make similar demands on workers.	___	___	___
II.	8.	Nurses work with people; bookkeepers work more with things.	___	___	___
	9.	All workers need supervision to be more distant.	___	___	___
	10.	Cab drivers and cabinet makers gain craftwork satisfaction.	___	___	___
	11.	Plumbers work more with things; airline pilots more with people			
	12.	Grocery clerks need interests and skills in numbers; personal relationship are more important for court reporters.	___	___	___
	13.	Close supervision is a worker satisfaction.	___	___	___

III. Directions: Following are some statements. Mark the box on each that indicates how true the statement is for you. Mark as follows: 5 - VERY SURE; 4 - SURE; 3 - FAIRLY SURE; 2 - UNCERTAIN; 1 - DON"T KNOW

	5 Very Sure	4 Sure	3 Fairly Sure	2 Uncertain	1 Don't Know
EXAMPLE: I know what job I want.					
14. I know what interests and skills are demanded by the jobs I want.					
15. I can name three jobs for which I have interests and skills.					
16. For the job I want, I can name three skills required.					
17. I know three jobs I would want that require more training.					
18. People I know would agree with my choice of a job.					
19. Of the jobs that I want which would require more training, I know which one I would like most and which I would like least.					

Put an X in the box that is the closest to how sure you are that the statement is true for you.

Copyright © Studies for Urban Man, Inc. 1971

Apendix C

Name_____

Age_____ Sex: M F

SERIES I

Directions: Imagine that you are talking with each of the persons described below. While you are talking we want you to record two observations (Imagine the two of you are standing in an empty room):

1. The approximate distance from you that the person is standing.
2. How much you believe of what he is saying.

For No. 1 above: Mark an X along the line at the point which shows how far away the person is standing from you.
For No. 2 above: Circle the number which best represents the amount you believe of what he is saying.

Do this one for practice:

(you)
High 7 6 5 4 3 2 1 - Low

BEGIN! Mark each item with an X and a circle. Turn your paper over when you complete the final item.

1. A friend who is telling you about his/her last interview job.

(you)
High 7 6 5 4 3 2 1 Low

2. A former fellow worker who is now employed.

(you)
High 7 6 5 4 3 2 1 Low

3. A potential employer who is interviewing you for a job.

(you)
High 7 6 5 4 3 2 1 Low

4. A close friend talking about your favorite topic.

(you)
High 7 6 5 4 3 2 1 Low

5. Same close friend discussing with you the world of work.

(you)
High 7 6 5 4 3 2 1 Low

Attachment 3

CONTRACT

Between Literacy Volunteers of the Pine Tree State, Inc. and the Lewiston NOW STARS Program

August 28, 1972

Literacy Volunteers of the Pine Tree State, Inc., Agrees to:

1. Provide a workshop of five sessions to train 15 or fewer senior high school students and one or more faculty advisors to tutor inadequate readers.

2. Schedule sessions as follows:

Monday, September 25	7:55 to 11:30 a.m.
Tuesday, September 26	12:00 to 3:30 p.m.
Wednesday, September 27	7:55 to 11:30 a.m.
Thursday, September 28	12:00 to 3:30 p.m.
Friday, September 29	7:55 to 11:30 a.m.

3. Provide the following:

Screen	17 Bridging & Blending booklets
Projector	1 Textbook collection for display during workshop
Cassette Recorder	2 or more qualified Literacy Volunteers resource persons to run the workshop
Slides and Tapes	
Pertinent Hand-out Materials	
17 Teaching Guides	

4. Provide a special session and the necessary READ tests to train reading specialists to give the READ test.

5. Evaluate the workshop with Mrs. Hazel Guyler and such other persons as she may designate after the workshop has been completed.

NOW STARS agrees to:

1. Register 15 or fewer qualified senior high students for the workshop and two faculty advisors.

2. Set up the schedule for the workshops.

3. Provide the place for the workshop along with textbook materials for the trainees' kits and snacks for one break during each session

4. Provide such rooms and meals as may be necessary for the Lit. Vol. personnel according with our per diem rate.

5. Provide mileage at 10¢ per mile for the Lit. Vol. Personnel.

6. Provide a fee of $500.00 payable to Literacy Volunteers of the Pine Tree State, Inc.

Attachment

Part I. Statistical Data

Project Title: STUDENT TUTORS IN ACHIEVEMENT OF READING SKILLS

Project Director: Mrs. Hazel M. Guyler

NOW Coordinator: Lynn W. Markee

Vocational Director: Kenneth C. Jordan

Project Dates: Beginning September 25, 1972 Ending June 15, 1973

Number and Grade Level of Participants:

Experimental		Control		
Group A		Group B		
Grades 10-11	15	Grades 10-11	15	(Tutors)
Group C		Group D		
Grades 4-6	7	Grades 4-6	7	
Grades 7-9	8	Grades 7-9	8	(Tutees)

Budget Total: $650.00 (See Attached Contract)

Part II. Narrative

A. Need. One of the major needs of Lewiston, Maine schools is "to build a bridge between school and earning a living." Lewiston youths need to be helped to make wise and realistic educational and career decisions. A vehicle is needed to assist and give direction to secondary school youth and to help them become acquainted and involved in meaningful and realistic career experiences prior to graduation from high school.

A second major need of some Lewiston students is increased success in educational achievement, particularly in reading.

The project will train selected secondary students to become tutors to teach selected poor readers currently enrolled in the intermediate and junior high schools in Lewiston.

B. Research. Research discloses that many persons made unwise career choices during secondary school years. Yet, today many complete higher education programs, enter careers, and remain dissatisfied with their career choice.

Research also reveals that many students fail to achieve reading

skills in the elementary grades, skills they never seem to master, and which influence success in personal, academic, social, and career endeavors throughout life. A striking example of this fact is that in Lewiston 81 students have dropped out of school between June 1971 and June 1972. These are not just statistics--they are people, human beings who lack the basic skills for success. Success for many of these "school leavers" probably depends in part on reading and writing.

The intent of STARS is to attempt to change the curricular learning opportunities and experiences for thirty Lewiston students during the 1972-73 school year. It is anticipated that fifteen secondary school students will increase their knowledge of self in relation to a social service career or leisure activities, and that 15 elementary school and junior high school students will increase their basic skills in reading at the completion of the project.

The project is original. A serious review of the literature failed to disclose training secondary school students as tutors of basic reading skills, although many adult professionals and paraprofessionals have been trained to work in school systems. The training will be conducted by a team of professional, experienced teachers who are members of Literacy Volunteers of the Pine Tree State, Inc., headed by Mrs. Agnes T. Beckwith (A.B., Mt. Holyoke; Ed.M., Harvard University). Although the Literacy Volunteers of America have trained college students in New York, Massachusetts, and Connecticut, Lewiston, Maine will be the first school system in the United States where secondary school students will have been trained to serve as tutors of basic reading skills.

C. Objectives. The specific behavioral objectives of the project are: 1) to elp selected secondary school students who aspire toward careers or leisure activities in light of their interests, abilities, and personal characteristics relative to future plans, namely teaching; 2) to help selected students in the intermediate and junior high school grades gain success and self-confidence in basic reading skills.

D. Procedures. 1) Sample: Four groups of fifteen students will comprise the sample.

Group A. Fifteen Lewiston High School sophomores and juniors will be carefully selected from volunteer applicants to be trained as tutors in reading.

Group B. An equated reference group of fifteen Lewiston High School students who volunteer but who will not receive the training, will be drawn for statistical comparison of change in tentative career choice in the social services.

Selection of Groups A and B will be based on the following criteria: 1) stated interest, 2) social maturity, 3) personal preparation, 4) academic preparation.

Recommendation of the students will be the joint responsibility of the school principal, academic department heads, guidance counselors and teachers.

Group C. Fifteen intermediate and junior high school students will be selected to receive individual reading assistance in one or two one-hour sessions each week during the 1972-73 school year.

Group D. An equated reference group will be drawn, matched by age, sex, current grade in school, and reading achievement level. This group will not receive the tutoring assistance.

Selection of Groups C and D will be based on reading achievement as measured by a standardized reading test which has been selected and administered by the Lewiston School Department Director of Elementary Reading. Students who are reading two or more grades below the national achievement level will be considered poor readers and qualify for the tutoring assistance. Selection will be the joint responsibility of the Director of Elementary Reading, elementary school principals and classroom teachers. Two or more members of Lewiston School Department faculty will be trained who may be used to assist in the supervision of tutors if needed to serve in this capacity.

2. Training in reading. An intensive training program will be conducted on five consecutive days during the week of September 25 to 29, 1972 for Group A by the Literacy Volunteers of the Pine Tree State, Inc. Training sessions will be held for 3-1/2 hours Monday, Wednesday, and Friday mornings and Tuesday and Thursday afternoons.

Basic reading skills and techniques will be emphasized. The

special training program has been designed for the developmental level of secondary school students for utilization appropriate to the developmental level of Group A.

3. Tutoring. Subsequent to the training, Group A (Tutors) will train one or two one-hour sessions a week in a one-to-one relationship with Group C students (tutees). Compatible time and place will be arranged. Close supervision of the relationship will be maintained by the Director of Elementary Reading and qualified reading teachers to insure that beneficial results for both tutor and tutee ensue. Changes deemed necessary to the positive psychological growth of tutor and tutee will be made should the need arise.

E. Evaluation Procedures. 1. Strong Vocational Interests blanks. (TW 398 for Women and 399TM--1969 Revisions) will be administered in pre and post situations to Group A and B to measure strength, change, and direction of change of interest in social service careers. 2. Standardized Reading Test. A standardized test selected by the Director of Elementary Reading will be administered to Group C and D in pre and post treatment situations to measure reading achievement level. 3. Questionnaire. A locally produced questionnaire will be administered to elicit information pertaining to Group C and D's interests, values, and related school experiences under the supervision of the Director of Elementary Reading. 4. Conferences. Conferences will be held with each member of Group A and B to interpret the results of the Strong Vocational Interest Blanks. During the conferences information will be obtained pertaining to the increased knowledge and skills derived, student satisfaction/dissatisfaction, values, and career information. Counseling, consultations with teachers, and other concerned personnel will be available for members of Group A and C. Appropriate statistical techniques will be used to compare Groups A and B for change, direction of change, and significance of change related to constancy of tentative career choice and the tutoring experience. Results of the standardized reading pre and post situations of Groups C and D will be compared and subjected to statistical treatment for significance of growth in reading.

STARS - Classroom Teacher Survey

Name of Teacher _____ Date _____

School _____ Grade _____

Name of STAR _____ Name of Tutee _____

Since the STARS were trained last fall, we hope they have been tutoring on a weekly basis. The time has come when the N.O.W. Program is required to evaluate and report on the STARS Project. Will you please comment frankly about your observations and personal opinion of the Project? Your remarks will be used anonymously in research reporting. No individual STAR or teacher will be singled out in the report. One copy is to be returned to N.O.W. Staff. You may retain the second copy.

I. Behavioral Changes (if any) in "Tutee"

A. Acquisition of reading skills

B. Transfer of reading skills in academic subjects in general (Spelling, Social Studies, etc.)

C. Increased academic achievement

D. Increaseduse of library or other resources materials

E. Attitudinal changes toward school (attendance, disciplinary behavior, motivation, homework, etc.)

F. Self-concept (confidence, emotional depenendence, self-worth etc.)

G. Interpersonal relationship (getting along with peers and adults, etc.)

II. STAR Behavior:

A. Adequary of training in the teaching of reading skills

B. Establishment of friendly relationship with "tutee"

C. Pre-planning of lessons

D. Use of appropriate reading materials

E. Requests for help in aids, techniques from you

F. Initiative, resourcefulness, etc.

G. Dependability (promptness in arriving, regular attendance, notifying you in advance of inability to tutor, etc.)

H. Personal conduct (courtesy, respect, poise, etc.)

I. Additional comments:

Circle one number for each statement:

1. My STAR provided a valuable service. Yes 5 4 3 2 1 No

2. I would use a trained tutor again next year. Yes 5 4 3 2 1 No

3. I think high school students should have the opportunity for training to become tutors through an elective course offered by the Lewiston School Department. Yes 5 4 3 2 1 No

4. High school students should receive academic credit for training and tutoring under closely supervised conditions if such a course were available. Yes 5 4 3 2 1 No

Thank you for your cooperation in the STARS Project this year and for helping N.O.W. Staff to evaluate its effectiveness from your comments.

Please return the completed survey to your principal by_____.

N.O.W. Program
3/30/73
HMG:nmc

STAR Survey Date_____

Name_____Grade_____

DIRECTIONS: Respond briefly to the following items.

1. What knowledge, skills, and/or techniques did you acquire during the STAR training that you were able to use effectively?

2. What knowledge, skills, and/or techniques did you need and not acquire during the STAR training?

3. What techniques did you improvise on your own?

4. What instructional aids (books, art, music, etc.) did you use in addition to those materials supplied in your kit?

5. What additional materials should be provided in the training kit?

6. What interested you enough to volunteer for the STAR training sessions?

7. What interested you enough to fulfill your commitment to continue tutoring?

8. Do you think your tutee was "matched" well with you for a tutor/tutee relationship?

9. Did you find transportation, telephone, tutoring session scheduling adequate? Explain.

10. Did tutoring experience have any influence on

    A. Your future educational plans?

    B. Your future career plans?

11. Were the results of the SVIB (Interest Inventory) of any value to you? (For example, did you seek further information regarding yourself and careers?)

12. What was the greatest satisfaction to you as a STAR this year?

13. What the greatest dissatisfaction to you as a STAR?

14. If you were able to make the choice again, would you be willing to volunteer to be a STAR or participate in some similar tutoring program?

Thank you for your help.

Attachment 4

STARS LESSON PLAN

Date _____ STAR _____

REVIEW: Experience Story

NEW EXPERIENCE STORY

New Words: _____, _____, _____

Sight Words: _____, _____, _____ (get, my)

Patterned Words _____, _____, _____,

_____, _____, _____,

_____, _____, _____

Phonics: _____(e) (get, set, met, bet, my, by)

Operation Alphabet: Page _____

Pleasure: _____ (car ads)

Comments, Observations, etc.

Number of minutes of instruction and interacting with tutee today _____.

Remember that the best time to make your lesson plan for the next session is immediately after completing the current session!

Attachment 4

Stars Service Summary

Total Sessions	299 (Range 3-44)
Total Hours	217 (Average 43.2 minutes each)
Tutees Involved	16 (2 transferred-1 change requested by STAR)

TUTEES

IQ and Reading Achievement Change

Experimental and Control Groups

Experimental		Control	
56	(+9)	80	(+14)
61	(+6)	81	(-4)
78	(+18)	83	(-1)
79	(+36)	86	(+11)
80	(+4)	86	(-1)
85	(-11)	86	(-10)
87	(-1)	87	(+20)
88	(-1)	90	(+35)
92	(+7)	91	(+15)
93	(+18)	92	(+15)
99	(+8)	92	(-1)
103	(+8)	103	(-7)
		109	(+10)

One not available (transferred from Canada, not measured in Lewiston)

STARS

Experimental Group

Student	Grade	Reading 10/72	G.E. 5/73	Literacy Volunteers 5/73
1	4	4.7	5.6	4.6 - 5.0
2	4	3.1	2.9	3.1 - 3.5
3	5	2.7	2.6	2.6 - 3.0
4	5	2.3	4.3	3.6 - 4.0

5	5	3.1	5.1	4.6 - 5.0
6	5	2.9	3.9	2.6 - 3.0
7	5	2.9	3.6	up to 1.5
8	7	4.1	3.6	3.6 - 4.0
9	7	3.2	3.9	5.1 - 5.5
10	7	4.8	3.6	5.1 - 5.5
11	8	5.7	6.2	3.6 - 4.0
12	7	2.3	3.2	4.6 - 5.0
13	7	2.1	6.1	4.1 - 4.5
14	7	transferred January 1973		

9 students increased skills totaling 114 months

4 students decreased skills totaling 17 months

STARS

Control Group

Student	Grade	Reading 10/72	G.E. 5/73
1	4	3.8	4.9
2	4	3.9	3.2
3	5	2.3	3.8
4	5	4.1	3.9
5	5	4.1	5.3
6	5	4.1	3.6
7	5	3.8	3.7
8	7	2.6	4.3
9	7	5.3	7.5
10	7	4.8	6.5
11	8	5.2	4.1
12	7	4.4	4.3
13	7	2.9	6.6

7 students increased skills totaling 120 months

6 students decreased skills totaling 24 months

Attachment 4

STARS Classroom Teacher Survey May 9, 1973

	5 Yes	4	3	2	1 No
1. My STAR provided a valuable service	7	2	1	1	3
2. I would use a trained tutor again next year.	14				
3. I think high school students should be given the training to become tutors through an elective course offered by the Lewiston School Dept.	13			1	
4. High school students should receive academic credit for training and tutoring under closely supervised conditions available.	11	1	2		

STARS - Classroom Teacher Survey

N=14
May 9, 1973

1. Behavioral changes (if any) in tutee

   A. Acquisition of reading skills

   4 - none or no response

   Improved considerably in oral reading, understanding what he reads

   Shows ability to "grasp" things

   Reading has improved greatly

   His reading level on RFU test was 4.2 - a big improvement on 2.4 in the fall

   Has not shown much improvement but this is because of previous experiences (2.9 - 3.9) IQ 56

   Some

   A definite improvement in word recognition skills

   Student enjoys independent reading now

   Individual attention was what this student needed (4.8 - 3.6) IQ 85

   B. Transfer of reading skills in academic subjects in general (spelling, social studies, etc.)

   Has been using dictionary more often - whenever she come across an unfamiliar word--reading comprehension is better than in the fall (5.7 - 6.2)

Reading and penmanship better (2.3 - 3.2)

Has improved in spelling and social studies

Still has difficulty, but seems more capable than before

Her improvement has been obvious--she has begun to participate in classroom activities (2.3 - 4.3)

Has shown improvement, especially in social sciences (2.9 - 3.9) IQ 56

Some (2.9 - 3.6) IQ 61

Spelling scores have gone from a 60%ile to 90%ile (4.7 - 5.6) IQ 103

Can't say (grade 7) (3.2 - 3.9) IQ 92

Don't know (grade 7) (4.8 - 3.6) IQ85

Students were not with tutors long enough to show a drastic change (grade 7) (4.1 - 3.6)

4 - none

C. Increased academic achievement

3 - none Student left school two months ago

His grades have improved, although not markedly (2.1 - 6.1)

Able to do better when he wants to--is easily led astray (2.3 - 3.2) definitely improved--more willing to work and ask for help

Grades have improved

Markes have improved

Has improved in all areas

Does not show, but has had improvement (2.9 - 3.9)

2 - Some

His interest has improved in all subjects

Student likes to read by himself now--has discovered reading is a pleasure (4.9 - 3.6)

Insufficient evidence to report this

D. Increased use of library or other resource materials

5 - none

No evidence on his own

Has been using encyclopedia in social studies

Has shown marked increase in their use mostly because of increased motivation

Same

Has been able to turn in one book report a week using library books of a third grade level (4.7 - 5.6)

Yes --student reads for pleasure (3.2 - 3.9)

Yes

She utilizes library more extensively than other students

E. Self-concept (confidence, emotional dependence, self-worth, etc.)

4 - No response

Improved in confidence

Needs constant praising

Confidence low--a real guilt complex-Grade 7 (2.3-3.2)

Self-concept appear higher

Confidence is still low but has improved

Some improvement

Same

Definitely more confidence and self-worth felt by the tutee

None noted

No change

Attachment 4

Classroom Teacher Survey

STARS Behavior

May 9, 1973

A. Adequacy of training in the teaching of reading skills

7 - no response

3 - I did not observe her (grade 7)

2 - Very good

Good

Well trained, I would say

B. Establishment of friedly relationship with "tutee"

3 - no response

I understood the girl tried, but this is a difficult case

Tutee always looked forward to the session

2 - Excellent

They seemed to get along very well

2 - Yes

Very high

Very good

From all reports, good rapport

Did not observe

C. Initiative, resourcefulness, etc.

8 - no response

Excellent--had a good attitude toward her commitment

Hard to say

Can't say

When she ran out of materials, she was able to invent new projects

Yes

Tops!

D. Dependability (promptness in arriving, regular attendance, notification in advance of inability to tutor, etc.)

1 - no response

No advance notice--arrived fairly late in period--irregular attendance (Grade 7)

2 - very good

We seemed to experience more than the usual number of problems--I don't think she was able to devote the needed time to this project (5.7 - 6.2)

2 - Excellent

She has been prompt and regular

Attendance has been very poor, however, when she did arrive, she always was on time

She did not come regularly--did in the beginning, but has not come lately (3.1 - 5.1)

Always on time and attended regularly

Average

Good

Okay

Tutee's attendance very irregular (grade 7)

E. Personal Conduct (courtesy, respect, poise, etc.)

8 - Excellent in all areas

Always polite and responsive

Very polite, courteous--got on well with student

Very much so

By her behavior and decorum, I feel tutee changed for the better

I'd rate her very high in this respect

Very good

Fine qualifications

Attachment 4

Attitude Toward Stars Experiences	Yes	?	No
Enjoyed training	11		1
Increased my reading	2		10
Enjoyed T-T "r"	9	2	1
STAR experience helped me	9	2	1
More idea of inter-pers. "r"	10	2	
More idea about teaching process	11		1
More idea about how people learn	9	1	2
Helped clarify my career goals	5	2	5
I like to tutor	8	2	2
Would do it again	10		2

STARS Survey Results (N=12) - May 14, 1973

1. What knowledge, skills, and/or techniques did you acquire during the STAR training that you were able to use effectively?

   Most STARS listed various Lit. Vol. techniques and materials:

   phonics, words in patters, rhyming words, sight words, proper way to approach the student

   2 STARS stated that they were unable to use Lit. Vol. methods because tutees were absent and not motivated.

2. What knowledge, skills, and/or techniques did you need and not acquire during the STAR training?

   Most STARS responded "none".

   3 listed "psychology", "patience" and "motivation."

3. What techniques did you improvise on your own?

   Relating my lessons to his regular classroom lessons.

   Word games I discovered in a booklet.

   Using a tape recorder.

   Drawing pictures to go along with letters.

   Student pasted pictures and words in a notebook he took home.

4. What instructional aids (books, art, music, etc.) did you use in addition to those materials supplies in your kit?

   school books
   spelling lists
   library books
   newspapers
   Bowmar books about car racing & snowmobiling
   magazines
   worksheets
   comics
   student home work papers
   workbook
   trick and skit book
   posters
   travel book on London

5. What additional materials should be provided in the training kit?

More workbooks and worksheets

More books like Operation Alphabet (slightly advanced for older students)

Higher level of Reader's Digest

Most students thought the kit was satisfactory.

6. What interested you enough to volunteer for the STAR training sessions?

I wanted to be able to help a student with difficulty in English. I needed the help when I was younger.

I plan on being a teacher.

5-I like to tutor and help someone if I can.

I enjoy working with children.

4-I wanted to find out if teaching is for me. (One wrote "After much thought I've decided teaching is definitely not my career ambition.")

7. What interested you enough to fulfill your commitment to continue tutoring?

3 - I felt I had an obligation.

2 - I just got enjoyment from tutoring.

I was curious to see if I would succeed.

In order to help my tutee get over his negative attitude toward school.

I enjoy challenges.

Once ny tutee began to improve I wanted to help continue her progress.

It seemed to be the only thing he really looked forward to in school.

To help my student--he liked the change.

To get to know my student.

I felt he needed me.

8. Do you thinkyour tutee was matched well with you for a tutor/ tutee relationship?

yes - 7 no - 5

(STARS' requests for tutees by age and sex were not always Possible.)

9. Did you find transportation, telephone, and tutoring session scheduling adequate? Explain.

Yes - 7 No - 4 Taxis sometimes late

1 Teacher and I did not understand each other no communication

1 At times there was no place for me to go to tutor

10. Did the tutoring experience have any influence on:

A. Your educational plans? Yes - 6 No - 6

The tutoring was helpful to me in understanding children's inability in English language.

Yes. My decision to go to college is definite.

I already knew I wanted to go to college.

I won't become a teacher.

B. Your future career plans? Yes - 9 No - 3

I hand planned to go on to child care. (She graduated in June and is employed in child care.)

I don't think teaching is my line.

Yes. I learned how to help others.

I already knew I wanted to go into speech therapy.

Though I would not like to become a teacher, I think I may enjoy going into some sort of special education.

Yes. I know what kind of teacher I want to be.

I have been thinking about being a teacher. Yes, tutoring has probably strengthened the possibility.

Yes.

Yes. I won't become a teacher.

11. Were the results of the SVIB (Interest Inventory) of any value to you? (For example, did you seek further information regarding yourself and careers?)

Yes - 4 No - 8

I found out I liked may other things.

3 - I already knew what I wanted to do and the SVIB said the same things.

I'm waiting till next year.

12. What was the greatest satisfaction to you as a STAR?

4 - No response

Knowledge that my tutee's grades went up.

I gained two new friends.

2 - He was learning--and looked forward to my coming.

3 - Seeing him improve.

Being appreciated and not taken for granted.

13. What was the greatest dissatisfaction to you as a STAR?

3 - no response.

The attitude of the tutee.

Days when little progress was made.

When I could not convey a pertinent idea.

Tutee was poorly chosen

Lack of effort on the part of my tutee.

When my first student transferred and I had to start all over.

Having to end it.

I wanted to help too much.

The attitude of my associates.

14. If you were able to make the choice again, would you be willing to be a STAR and participate in some similar tutoring program?

Yes - 10 No - 2

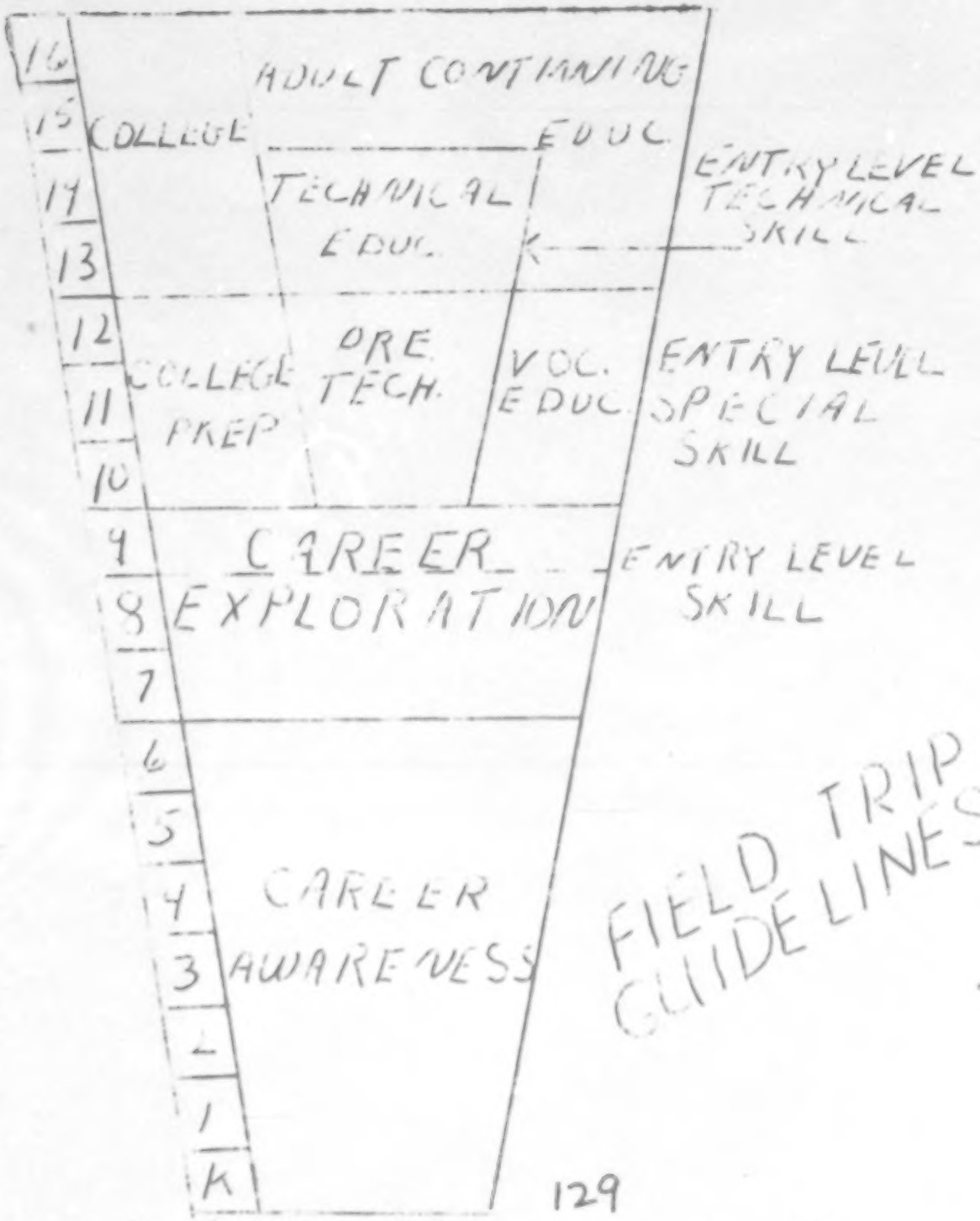
2 - I've enjoyed it very much.

I'd like a younger child. (had grade 7)

But I don't feel that I gave my tutee all that I had to offer.

ATTACHMENT 5

N. □. W.



FIELD TRIP GUIDELINES

129

CAREER EDUCATION

FIELD TRIP RESOURCES

(For NOW Office Information)

Date_____

Yellow Page Classification:_____

Name of Resource:_____
Address:_____
Telephone Number:_____

Contact Person: Name_____Title_____
Ext._____

Literature Available? Firm will mail ☐ NOW will pick up. ☐

Attitude toward prospective field trips:

☐ Excellent ☐ Good ☐ Fair ☐ Poor

Suggested group size:

☐ 5 or fewer ☐ 6-10 ☐ 11-15 ☐ Other_____
max

Teacher/Student ratio: ____/____

Frequency:

No._____ per month No._____ per semester No._____ School year

No._____ per summer

Student preparation: (hardhat, special clothing, other instructions)

_____

_____

Student questions should be directed to:

☐ Guide ☐ Workers ☐ Supervisors

Most suitable day: ☐ Mon., ☐ Tues., ☐ Wed., ☐ Thurs., ☐ Fr.

Time of day: _____ _____ _____ _____ _____

NOW Staff
9/1972
Form 1
jem

NOW Procedures for Arranging Field Trips

Date_____

Steps in process:

_____ 1. Identify firm and location from reference on file.

_____ 2. Note specific details pertaining the field trip.

_____ 3. Discuss #2 with teacher requesting the trip.

_____ 4. Establish:

Date:_____

Time of departure from school_____

ETA at resource _____

ETD from resource_____

ETA back to school_____

Number of students _____ Grade level_____

Number of adults _____ Subject area_____

Method of transportation:

☐ Bus ☐ Private auto ☐ Cab ☐ Walk

_____ 5. Confirm date and time.

_____ 6. Mail field trip information to resource.

_____ 7. Confirm transporation.

_____ 8. Notify teacher requesting trip. (Use field trip packet)

_____ 9. Complete arrangement date_____.

_____ 10. Completed field trip date _____.

_____ 11. Evaluation form received.

_____
Signature

NOW Staff
9/1972
Form 2
jem

NOW Field Trip Information for Resource Persons

Date_____

Name of resource:_____

Address:_____

Subject: Field Trip by Students

Teacher_____ School_____

Grade level_____ Number of students_____

Number of adults_____

Estimated time of arrival_____ Estimate time of departure_____

This letter confirms a field trips to your establishment on_____

We recognize that each field trip to a resource will be unique and it may not be possible to adhere to all of the suggestions written below. We do want you to know that we appreciate your service to us and hope that you will have a clearer understanding of just what we are trying to do to incorporate the career education concept into the present school curriculum. We have set forth several guidelines to help you prepare for this visit.

What qualifies as a career education field trip? Answer: Any trip that deals with a study of careers. A trip is of value if student awareness is increased in one or more of the following:

1. The dignity of all work.
2. The inter-relationships of occupations.
3. Factors of skill, preparation, personality involved in occupations.

A career education field trip should emphasize the occupations to be seen. The students expect:

1. To be interested in the worker first, product second.
2. To see work as it actually is.
3. To observe and understand human relations--worker to worker, worker to employer, worker to subordinate.
4. To develop an awareness of various occupations and various levels in each.
5. To relate the function of many different types of work involved in producing a final product or service.
6. To relate the trip to actual current academic subjects they study.
7. To observe the total individual work sceen to include time as well as actual work time.

NOW Staff
9/1972
Form 3
jem

132

Enclosure: Evaluation Sheet

Field Trip

A career education field trip must emphasize the occupations to be seem. The industry or serviceiis not the most important factor. The planning, preparation and follow-up for a career trip needs to increase occupational awareness for the students.

What Qualifies as a Career Education Field Trip?

1. Any trip which deals with a study of occupations.
2. A trip can be related to science, social studies, etc., but careers must be involved.
3. A trip that is of value in terms of increasing awareness in one or more of the following:
   a. The dignity of all work.
   b. The inter-relationship of occupations.
   c. Factors of skill, preparation, personality involved in occupations.
   d. Student examination of himself in relation to the skills, educational preparation, personality factors required by the work and the personal satisfaction which the student may gain.

Procedures in Carrying Out an Effective Trip

Most trips are cooperative efforts and teachers and NOW Staff members are both involved in:

1. Preparation of forms and acquisition of the building principal's approval.
2. Planning goals and objectives, organization, preparation of students, discussion on follow-up and evaluation.
3. Responsibility for discipline of pupils and coordination of groups during trip.
4. Carrying out follow-up discussion and evaluation; the classroom teacher may have the main responsibility for follow-up.

NOW Staff
9/1972
Form 4
jem

Orientation Information for Field Trips

Teachers are encouraged to devote some time to the preparation of students before embarking on a field trip. The purposes of the field trip and its relation to (1) the academic subject area involved and (2) exploratory career information value should be discussed. During the discussion, the following points should be stressed:

1. Suggest that students keep a continuous guidance file for future use.
2. Learn how a factory or place of business looks.
3. Observe the different kinds of work.
4. Get ideas for the kind of work students might be trained/educated for some day.
5. Listen courteously to guide and to other students asking questions or making comments.
6. Dress appropriately for warmth and for safety factors.
7. Develop meaningful questions that may be asked of the guide/employees pertaining to work skills, work opportunities, etc.
8. Students should conduct themselves appropriately:
   a. No eating or drinking on the guided tour of business unless refreshments are provided by the host.
   b. Clean-up details should be assigned to students during the orientation session to the field trip. A few plastic litter bags are suitable for this task when buses are used.
   c. Students will observe school rules regarding smoking and other personal conduct during the field trip.
   d. Students should use the school restroom facilities immediately before departing the school for the field trip.

NOW Staff
9/1972
Form 5
jem

Follow-up Suggestions

Each student should have an opportunity to look at himself in relation to the different careers observed. Some activities might include: role playing, charades, guided group discussions, sociograms, independent research.

Other activities are: Thank you letters, any type of work in art, math, science, social studies, linguistics, etc., which will promote further learning about the carrers involved and that emphasize the relationship between what is learned in school and what is required in the career, report for newspaper.

For newspaper reports the following questions should be emphasized:

1. Who went.
2. Where did you go.
3. When did you go.
4. Why did you go.
5. With whom did you speak.
6. What jobs did you see.
7. What did you learn about careers.

How To Study an Occupation

1. What are the duties of the worker?
2. Who might be interested in the occupation?
3. Where are the greatest opportunities found?
4. Does this occupation promise steady employment?
5. What level of skill is required?
6. Is the work dangerous?
7. What are the minimum and maximum wages?
8. What program of training or what education beyond high school is required to prepare the worker for a job?
9. Must the worker be able to associate and get along well with others?
10. Will he be responsible to the work of others?
11. Will he be called on to make decision?
12. Does the task require great physical stamina?
13. What are the opportunities for advancement?
14. What are the advantages to be found in this work?
15. What are the disadvantages to be found in this work?

NOW Staff
9/1972
Form 6
jem

The Teacher's Role in Career Development

A teacher of science may ask, "How is it possible for me to know all that there is to know about every occupation to which my subject might lead?" The answer, of course, is that it is humanly impossible to know everying about occupations, although many teachers have become authorities on work related to their particular fields of study. This is certainly an endeavor worthy of each one's consideration.

As a first step in getting started, the classroom teacher will want to acquire a knowledge of where to find occupational information. The sources of information which follow will prove useful to many who help to guide boys and girls in their vocational development.

1. Professional Books
2. General Bibliographies of Materials
3. Periodic Indexes
4. Occupational Briefs and Monograpns
5. U. S. Government Publications
6. Occupational Outlook Handbook 1972-73 Edition
7. Pamphlets on Vocational Planning
8. Posters and Charts
9. Vocational Textbooks
10. Biographies and Career Fiction
11. Occupational Films and Filmstrips and Slides and Tapes

pp. 47-56 Teachers Role in Career Development, Tennyson, NVGA

NOW Staff
9/1972
Form 7
jem

SUGGESTED GUIDELINES FOR INTERVIEWING RESOURCE PERSONS

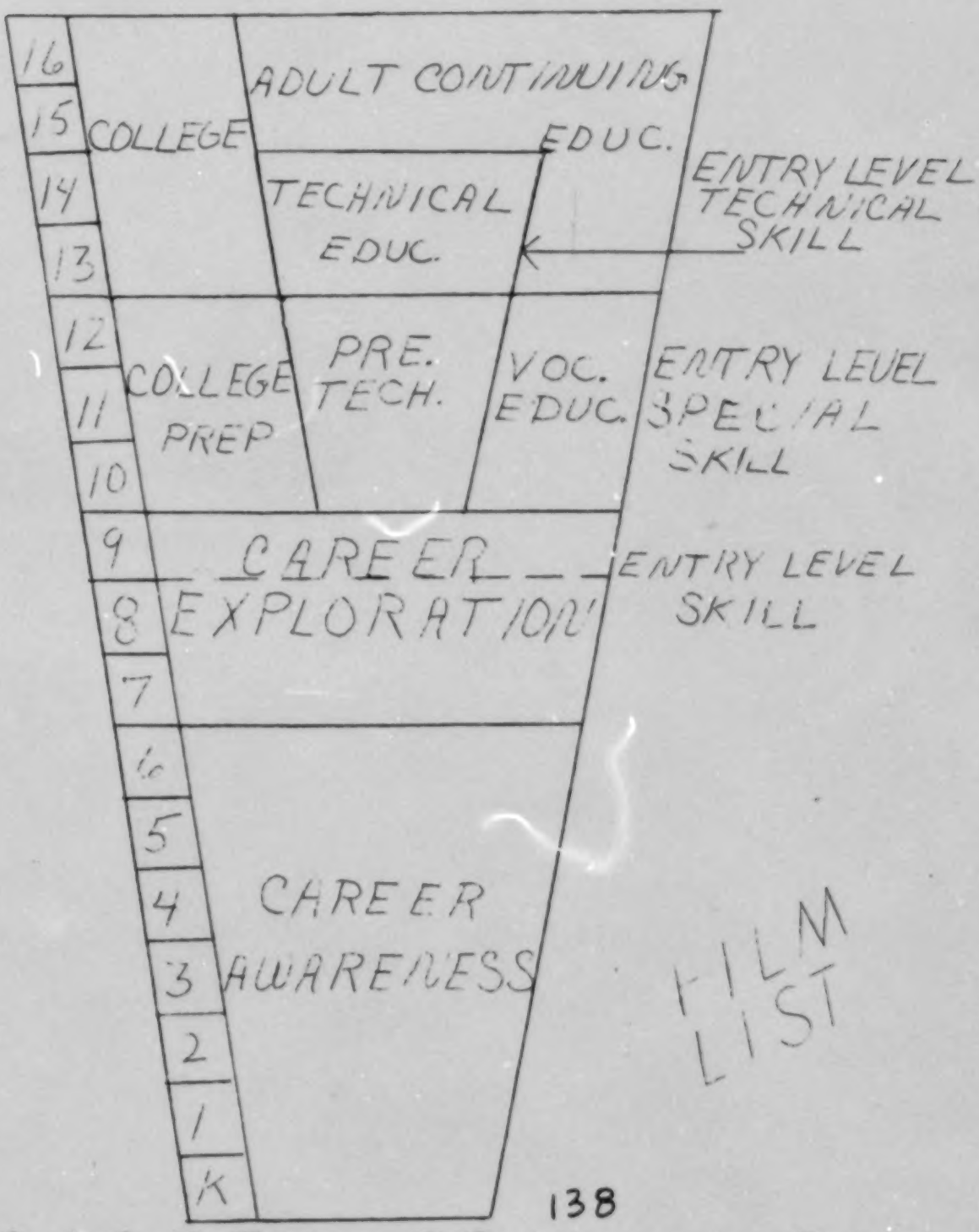
The items below may be used during the classroom orientation session by students to help them develop questions for interviewing workers, resource persons, guest speakers, etc.

1. Name
2. Title
3. Length of employment
4. How
5. Why
6. Why this town
7. Duties
8. Necessary knowledge
9. Special education/training
10. Men/women
11. Hours a week
12. Vacation
13. Job satisfaction
14. Disadvantages
15. Length of time to learn
16. Advancement
17. Pay range
18. Personality requirements
19. Union, dues, entry
20. Fringe benefits
21. Number and categories of workers
22. Nature of the work environment
23. Minimum age
24. Future
25. Recommended as a career for youth
26. Would you be willing, if requested in the future, to come to a school class or to meet with one or more students at your convenience at a place agreeable to you, to discuss further your particular work?
    If yes, get NAME ADDRESS AND TELEPHONE NUMBER. If "no" be pleasant and do not pursue.

NOW Staff
9/1972
jem

ATTACHMENT 6

N. O. W.



FILM LIST

CAREER EDUCATION

INTRODUCTION

The films listed below have been ordered for use by teachers in their classrooms. An asterisk indicates confirmation of that film during the week specified. If you wish to show any of the films, please contact the NOW Staff so that delivery can be made to you.

During the 1972-73 school year the NOW Staff is making a serious effort to coordinate the ordering and distribution of materials (including films) as a service to teachers and students. The two major reasons for NOW coordination are (1) to reach the largest, appropriate audience possible and (2) to reduce the cost to provide the most economic service possible.

Catalogs of free films and other free curriculum materials are available in the NOW Resource Center located in the Armory. Teachers are encouraged to borrow the catalogs and place orders through the NOW Staff. All materials will be delivered to teachers and any materials requiring mailing to the lending institutions will be done via the NOW RESOURCE CENTER.

ANNOTATED FILM LISTING

The Extra Step
This color film presents the correct use of the telephone in serving the public through good human relations practices. Common bad habits are contrasted with effective suitable telephone conduct which produces best customer service. 25 min.

Is a Career in Government for You?
This color film presents the enormous scope of career opportunities available in government at the local, state, and national level. The information is up-to-date (mentions 18-year-old voters) and specific in suggesting sources of additional career information. 15 min.

Films

Ordered for Viewing
during week

September 10, 1972
*Boats Need People

September 17, 1972
Fashion: The Career of Challenge
*Operator

September 24, 1972
*Is A Career in Government For You?
*The Flooring Craftsman
*The Extra Step

October 1, 1972
Dynamics of Animal Agriculture
Futures Unlimited
*The GMI Route
*Portrait of an Internist

October 8, 1972
*Auto Mechanic Technician
*Listen, Listen
*Long Ships Passing
*Mainstay of the Mail
*Vehicle Maintenance Story

October 15, 1972
Any for Art
At the Center
*Into the World
*No Limit to Learning

October 22, 1972
Auto Mechanic: It's for You
*Career Game
*A Step Ahead

October 29, 1972
Creative World of Interior Design
*Dialogue with a Young Man
*Poetry of the Polymers
It's You Against the Problem

November 5, 1972
Horizons Unlimited
How We Make A Living
*Matter of Opportunity

November 12, 1972
*Ground Breakers
*The Noble Breed
Precision Tool Making And Machining
*They Major in Missiles
*You Be the Doctor
*Message from Riyadh

November 26, 1972
*Day of Judgment
Men's Hairstyling as Your Career
Some Careers are More Rewarding
That the People Shall Know

December 3, 1972
Medical Care for Adolescents
Careers in Oceanography
Campus to Command
Self Portrait
Laser and Living Cells
Your Call to Colors

December 10, 1972
Horizons Unlimited
Go Fission
*Laboratory of the Body
Preparing for Tomorrow's World
Your Place in the Nuclear Age

December 17, 1972
*Bright Future
*Career in Bacteriology
*Career in Construction
*Laboratory of the Body
*Turn on with Color

NOTE:

If you desire the use of these films, please contact :

Exemplary Program NOW
784-1672

* Confirmed

140

Films

Ordered for Free Viewing

Act of Honor
This film, in full color, depicts the dramatic development of the Federal merit system for selecting Federal employees and points up the extensive responsibilities of Government workers today. 16mm sound 28 min.

Anyone for Art
This film, in full color, is an intriguing introduction to a special art training center where the commercial artist learns his trade. It shows how future artists are given basic and specific training in all phases of art. 16mm sound 18 min.

At the Center
This film, in full color, presents school librarianship as an important, dynamic force in our nation's total education system. This interesting and informative film promotes an awareness of the variety of abilities, talents and specialized interests of today's school library media specialist. 16mm sound 28 min.

Auto Mechanic and Technician
This film, in color, shows in detail the opportunities and rewards of a career in the vocation of auto mechanics. 23 min.

Auto Mechanic: "It's for You"
This film, in color, gives us a timely look at the opportunities that exist for a boy interested in a career in the automotive field. The film realistically portrays the experiences of a youth as he surveys the opportunities for a post high school career. 15 min.

Aviation Workshop
This film, in color, shows the many careers available to men and women in the Federal Aviation Administration. It contains sequences from previously produced Federal Aviation Administration motion pictures. These describe the activities of the Aviation Academy, Air Traffic Service, Flight Standards Service, Office of Aviation Medicine, Systems Research and Development Service.

Boats Need People
This film, in color, invites the youth of America to accept the employment opportunities in the recreational boating field. It shows the variety of year-round jobs available in boat, engine and accessory manufacturing plants, in marinas and boatyards and in retail operations. 13 min.

Breaking the Sound Barrier
This film is designed to encourage high school and college students to make a career of aiding those with hearing and speech difficulties. 28-1/2 min.

Films

Ordered for Free Viewing

Bright Future
This film is a recruitment film for the profession of Dental Hygiene. It shows the requirements for entrance into an educational program, takes the student through a typical course of study and explains areas of professional practice. 28 min.

Campus to Command
This film tells the story of Officer Candidate School and shows the life of a candidate during the course of his education.

Career Game
This film depicts the dilemma of trying to find a career, and then opens the door to the opportunities available in the profession of dietetics. 14 min.

A Career in Bacteriology
This film emphasizes that young people with good high school and college background can find unlimited opportunities in the field of bacteriology. It presents vocational opportunities in the various fields for those properly trained. It reviews the personal rewards and contributions that come to those working in this area. 20 min.

Careers in Business
This film, portrays the immediate and future need for secretaries, office workers, business machine operators, programmers and numerious other skilled occupations used in the business world. It includes an authentic glimpse of in-training activities, climaxed with on location scenes of corporation activities employing skills taught in business schools.

Careers in Construction
This film tells the story of a young Negro who helps a white boy appreciate the possibilites of a career in the construction business. 24 min.

Careers in Cosmetology
This film is a dramatization of the many career opportunities that exist in hairdressing and cosmetology. It provides facts on aptitudes, qualifications, prospective students. 13 min.

Careers in Oceanography
This film is a presentation to encourage college science students to plan careers in oceanography. It presents the challenge and adventure of oceanography and its vital importance to defense and to the economy of our country.

Films

Ordered for Free Viewing

Creative World of Interior Design
This film shows the classroom and training situations involved in learning to be an interior decorator, and then moves into the business world portraying the work of a decorator. 15 min.

Day of Judgment--Pharmacy Recruitment
This film is directed toward high school students, is narrated in part by Walter Pidgeon, and shows the various facets of a career in pharmacy. It is an ideal film for high school career days, and should be followed by a presentation by the guidance counselor or pharmacist. 24 min.

Dialogue with a Young Man
This film challenges a young man to consider the possibilities offered by the "Establishment" in the profession of selling. He gives his generation's point of view. The film also shows how to participate in a career interview. 14 min.

Did You Hear What I Said?
This film presents a realistic look at a young reporter at work. It shows how a story is developed and does its job by giving the feel of reporting, arousing an interest in journalism.

Electronics Service Technician
This film shows that the demand for qualified technicians to service TV sets, air conditioners, tape recorders, phonographs is so great that there is an unlimited career opportunity for those who can qualify through education and experience. 12 min.

Fashion: The Career of Challenge
This film takes the viewer through the jobs of the fashion buyer, display artist and fashion coordinator by visiting the stores to see things happen. 12 min.

The Feminine Touch
This film shows the ladies of the U. S. Women's Army Corps in more than one hundred military job specialties. Trained to perform their mission as a very special part of the Army team the 12,000 WAC's on duty today are in the spotlight in this film.

The Flooring Graftsman
This film tells young men about rewarding careers available as resilient flooring craftsmen. This is a skilled trade offering steady employment, excellent wages, and job development opportunities. This film shows installation specialists at work and answers questions about what a flooring craftsman does, where he works, what tools and skills he uses, his workmanship and his income opportunities. 15 min.

Films

Ordered for Free Viewing

Futures Unlimited
This film is the industry's first career guidance film for consumer electronic service technicians. This film dramatically illustrates, to the student and his parents, the excellent opportunity that a career in consumer electronics service offers.

GMI Route
This film presents a look at an unusual accredited engineering college and shows how it grooms today's youths for interesting careers. Each student is an employee of one of the General Motors operations in the U. S. or Canada, and every six weeks he alternates between his regularly assigned job and the classroom. 15 min.

Go Fission
This film is a nuclear careers film and is designed for junior and senior high school students. It answers many questions about careers in the atomic field. It makes the point that people who work in the scientific and administrative fields of atomic energy are not all geniuses, and that people who work in nuclear energy--whatever they do and wherever they are--are just people. 14 min.

Good Hand--Good Eye
This film was designed to inform young men of the opportunities and educational requirements for careers in the automotive paint and body shop. It is sponsored by the DuPont company to recruit young men for apprenticeship training in the automotive refinish industry. 17 min.

Had I But World Enough--and Time
This film is the first of a series entitled, "The Making of a Doctor." It describes the experiences of a medical student in college and the preclinical and clinical curriculum of medical school. 28 min.

Horizons Unlimited
This film presents information on a wide range of rewarding careers in medicine and allied fields. It depicts in semi-documentary style, careers in rehabilitation, social work, medical technology, dietetics, and other professional careers in hospitals as well as medical office work. 28 min.

Horizons Unlimited
This film urges young people to think carefully about their future and raises certain questions that should be considered in this regard. It shows how the growth of nuclear energy and its applications have opened the door for all kinds of career opportunities. 37 min.

Films

Ordered for Free Viewing

How About Billy Wilson?

This film answers several vital questions about career opportunities within the Federal Aviation Administration for a young minority group student. Billy Wilson learns that he can compete on a completely equal basis for one of the thousands of jobs in the Federal Aviation Administration.

How We Make A Living

This film shows how Census Bureau statistics, properly interpreted, can help a person make a better choice of a career. It shows the pattern of seasonal employment and demonstrates how the census may help to control unemployment in the future.

Into The World

This film presents the truths and realities about college and continuing education. 28 min.

It's You Against the Problem

This film is a career guidance film illustrating the role of basic research in the space program. It shows the research of Dr. Simon Ostrach and his colleagues at Case Institute of Technology. 26 min.

Laboratory of the Body

This film describes the constantly expanding scope of dental research and its relation to today's scientific community. Its basic purpose is to describe the challenge of dental research to senior high school and college students who are interested in science. It is designed to attract students who will become biologists. 28 min.

Listen, Listen

This film is aimed at high school students and is designed to provide and provoke thought about their education and careers.

Long Ships Passing

This film describes the activities of the Great Lakes vessel industry. It depicts the loading and unloading of ships, life aboard vessels, voyages from the lower lakes to the upper lake ports and return. 32 min.

Mainstay of the Mail

This film shows the importance of well-trained maintenance personnel and of good maintenance practices as applied to Post Office buildings and equipment. It emphasizes the opportunities that exist in the field of equipment maintenance, and the need that is present for trained personnel to maintain the complex mechanized equipment. 14 min.

Films

Ordered for Free Viewing

Matter of Opportunity
This film focuses on the many opportunities available to students who decide on a career in medicine. Produced specifically for members of minority groups. 27 min.

Men's Hairstyling as Your Career
This film portrays the immediate and future need for barbers and men's hairstylists. It provides a glimpse of in-training activities, climaxed by on location scenes of internationally renown hairstyling artists as they display their award-winning talents.

Moment of Decision
This film shows how the army instills the concept of leadership into Officer's Training School Candidates. The film points out how the graduates of OTS become particularly valuable to civilian businesses on the lookout for leadership material. 27 min.

The Noble Breed
This film tells the story of today's firemen---the duties, problems, his new image, and the vital role he plays in modern society. 28 min.

No Limit To Learning
This film is intended for eighth and ninth graders. It follows members of a junior high school guidance class as they visit young people engaged in or training for various occupations. Through conversations with these people, the student learns the importance of investigating the full range of post-secondary education, including junior college, technical institues, four-year college, and business education programs. A discussion guide is available for use by students and counselors as a supplement to the film. 28 min.

Operator
This film shows the work of the telephone operator. It uses footage from D. W. Griffith's silent film about old-time operators. The message: The telephone operator's job, despite its tensions and aggravating moments, is one which consists primarily of human contact and as such carries rich rewards.

Poetry of Polymers
This film portrays the career of a basic research scientist through a career guidance study of the work of Dr. Frank d' Aleio, University of Notre Dame. 19 min.

Precision Tool Making and Machining
This film tells the story of the industry behind industry, the industry where craftsmanship reaches its peak--tool and die making and machining. 25 min.

FILMSTRIPS

Ordered for Free Wiewing

Preparing for Tommorrow's World
This film opens in a high school laboratory with the physics teacher serving as narrator. The student is asked to examine his interests and abilities with a view toward taking his place in the expanding world of nuclear science and nuclear engineering. 26 min.

Pulse of a City
This film shows the operations of a large metropolitan daily newspaper. You see how reporters gather the news, how photographers cover their assignments and how skilled craftsmen assemble the equivalent of a large volume each day into a newspaper. 20 min.

Some Careers are More Rewarding
This film shows how the para-medical jobs of three girls in physicians' and dentists' offices enhance their lives 12 min.

A Step Ahead
This film presents Chet Huntley, who reports to farm youth on new careers in agriculture and agribusiness. He suggests that they are a step ahead in qualifying for exciting new jobs because of their farm background and experience. 12½min.

That the People Shall Know
This film features six top journalists who describe their careers in the vital field of communication and opportunities and challenges the field offers. 21 min.

They Major in Missiles
This film is a report on the cooperative Training Program at White Sands Missile Range. Students enrolled in this program attend classes at New Mexico State University and Texas Western College for six months of the year. During the remaining six months, they receive on-the-job training in their chosen field.

Time for Decision
This film shows why a farm boy should stay on the farm, when space exploration and a thousand and one other exciting occupations becon. This film takes such a boy on a tour of successful modernized arms and to the Farm Progress Show to prove farming today offers a challenge equal to that of any other progression.

Vehicle Maintenance Story
This film emphasizes the system used to maintain the vast fleet of vehicles needed to deliver the United States mail. It explains the various job opportunities available to vehicle maintenance personnel in the Postal Service. 13½ min.

Films

Ordered for Free Wiewing

What's So Special About Paper?
This film is a guidance film about the paper industry. It reveals the great range of jobs, for people with almost any educational background, and shows how the industry is involved in such socially important work as forest conservation and water purification. 28½min.

Wider World
This film is the third in the series entitled, "The Making of a Doctor." It shows three of the many faces of medicine--private practice, public health, and medical research. 28 min.

Within These Walls
This film is the second in the series entitled "The Making of a Doctor." It continues to follow the education of the physician in his internship and residency. 28 min.

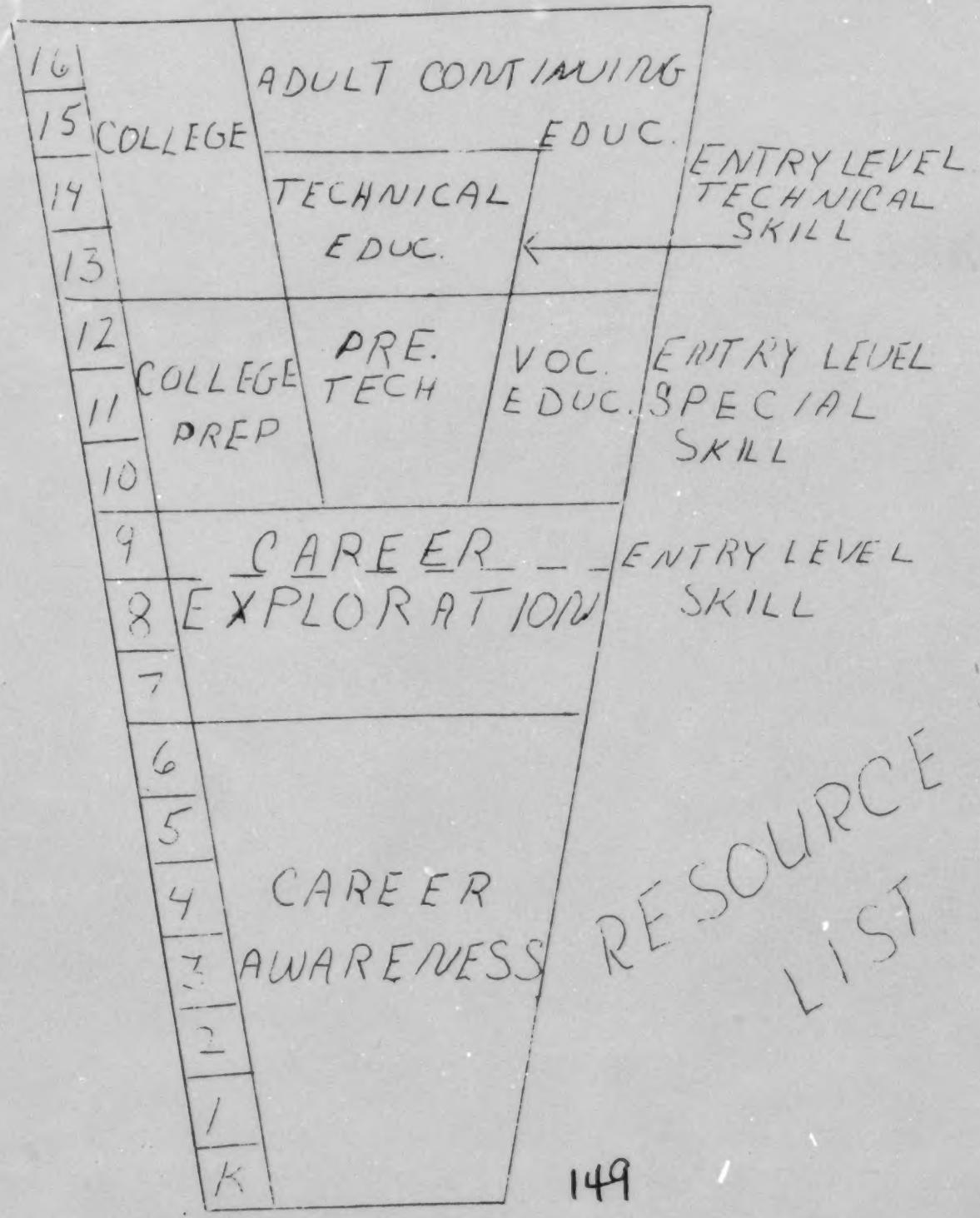
Without Warning
This film tells the story of disaster. Disaster knows no boundaries, it can strike anywhere, anytime, without warning. This is a story about disaster and people--dedicated people serving those who need help. The health professions have been described as some of the fastest-growing industries in the country, and they offer young people an enormous range of career opportunities. 16 min.

You Be The Doctor
This film explains the significance of the degree D. O., depicting the education of an osteopathic physician. It follows the education of the doctor from pre-professional training through graduation, with scenes from the esteopathic colleges and hospitals. 16 min.

Your Call to Colors
This film shows how dyes are made, what kind of skills are needed for their production and where young people can be trained to work in this challenging industry. 12 min.

Your Place in the Nuclear Age
This film gives the student a picture of the professional environment in which he sould be working if he chose a career in nuclear science or engineering. 26 min.

N. O. W.



RESOURCE LIST

149

CAREER EDUCATION

INTRODUCTION

The NOW Career Education Resource Center has quite a variety of color sound filmstrips, interview tapes, 16mm films, multi-media kits, career monographs, occupational briefs, professional and student booklets, etc., that you are encouraged to use in your classes on a loan basis for a specified period of time. Duplicates of some materials have been obtained. The materials can be reserved to serve you and your students in Lewiston and regional schools.

Some of the resource materials listed below have not been classified by teachers for grade level. Please feel free to request use of the resources and to help us determine appropriate grade level. In order to avoid repetition for the students, we will act on your recommendations following presentation and will then reserve them for a particular grade level.

NOW Staff will arrange for delivery and pickup and will provide duplicated questions for class discussion or homework assignments to be distributed to each student if you would like this service. Teacher's guides are also available for some of the materials. A short evaluation sheet prepared by NOW Staff should be completed by each teacher concerning the effectiveness and appropriateness of the materials for the grade level of students involved in the presentation(s) and activity(ies).

On the attached sheets are a listing of filmstrips we are eager to schedule on a rotating basis. Please study the list and inform us of your willingness to participate in this career education implementation.

We sincerelyappreciate the cooperation we have enjoyed from you during this past school year in Lewiston and look forward to working with you and teachers throughout the region this coming year.

THE WONDERFUL WORLD OF WORK KIT

Grades K-3, color, no captions, 33 rpm records, guides, manual, filmstrips

Getting to Know the World of Work.....ECF 101
The Newspaper Boy.....ECF 102
Junior Home-maker.....ECF 103
At Your Service .....ECF 210
Dairy Product Delivery.....ECF 108
Drug Store Workers.....ECF 109
Super Market Workers.....ECF 110
Service Station Workers.....ECF 111
Electrical Services .....ECF 104
Gas and Oil Services.....ECF 105
Telephone Services.....ECF 106
Mail Delivery.....ECF 107

Grades 4-6, color, no captions, 33 rmp records accompanying, guides, manual, filmstrips

What Else Do Fathers Do?.....ECF 201
Just What Do Mothers Do?.....ECF 202
It's In Your Hands.....ECF 203

Series: Occupational Cluster "Thumbnails"? The Utilities:
The Electrical Workers.....ECF 204
The Gas and Oil Workers.....ECF 205
The Telephone Workers.....ECF 206

Distributive Occupations:
Marketing; Salesmanship; Sales Promotion;
Transporation; Packaging; Purchasing.....ECF 207

Office Occupations:
Typing; Se'retarial; Filing; Data Processing;
Management.....ECF 208

Natural Resources:
Agri-business; Farming; Horticulture; Conservation.....ECF 209

Personal Services:
Cosmetology; Hair Dressing; Restaurant; Cleaning;
Tailoring.....ECF 210

Technical & Industrail:
Manufacturing; Engineering; Machine Shop;
Processing; Instrumentation.....ECF 211

Helping the Healing Hands:
Doctor; Dentist; Paramedics; Nursing;
Pharmacy.....ECF 213

MULTI-MEDIA KITS

Focus on Self-Development (Grades K-4)

Focus is a K-6 developmental program designed to lead a child toward an understanding of self, of others, and of the environment and its effects. The program is for use in the classroom by the classroom teacher.

Stage One: Awareness for grades K-2 (20 units) logically follow one another although they can be used in any order you feel beneficial to the class.

Stage Two: Responding for grades 2-4 (19 units)

Stage Three: Involvement will be published in fall 1972 for grades 4-6.

The kit for Stage One consists of the following components:

1 Guide	5 36-frame filmstrips with accompanying records
4 10" 33 rpm story records	20 17" X 22" photoboards (two sides)
1 easel to display photoboards	1 pupil activity book: Here I Am

Containing 23 stories, situations, or musical selection

Stage One can be used as an integral part of the curriculum because the units and the activities in them were developed to complement subjects taught in kindergarten to second grade. The necessity of reading has been purposely minimized so that the nonreader can participate fully in the activities.

The kit for Stage Two consists of the following components:

1 Guide 6 36-frame filmstrips with accompanying records
4 10" 33 rpm story records containing 23 stories, situations, or musical selection
20 17" x 22" photoboards (two sides)
1 easel to display photoboards 1 pupil activity book: The Me I Know

Stage Two can be used without having gone through Stage One. The stories and activities in Stage Two can be used with second, third, and fourth graders, and reflects the child's growing awareness of himself, his peers, and his environment.

MULTI-MEDIA KITS

Career Games - Grades 7-12

Career Games emphasizes involvement, decision making, and self-concept building. Career Games is semi-programmed and takes the individual on a career search of 166 different careers where he is confronted in a mysterious and involving manner with many decisions be must make. Designed for use in classrooms. Our experience indicates a maximum of 15 students to one teacher produces best results--for more than 15 students an assistant and a teacher are recommended. Teachers guide available. Produced by Educational Corporation.

Career Information Kit - Grades 7-12

Approximately 600 pieces of current literature reflecting NVGA guidelines have been selected from hundreds of authoritative source for use in the library. The alphabetical filing plan used in the first section of the kit reflects job families; it leads students to explore many jobs within occupational areas and provides easy reference to specific job titles. A second section provides carefully selected publications for both counselor and student in area of education, career, personality, and employment, guidance, and counseling. Produced by SRA.

Job Experience Kits - Grades 8-12

The Job Experience Kits are a collection of work simulation experiences in 20 representative occupations. Developed by a leader in the field of behavioral counseling, Dr. John Krumboltz and co-workers, each kit is designed to give students an opportunity to successfully solve problems typical of a particular occupation. Based on positive research findings, the Krumboltz kits have been generating student interst in career exploration. A maximum of 20 students with an experienced teacher will provide best results. Teachers guide available. Produced by SRA

Occupational Exploration Kit - Grades 9-12

OEK provides students with a systematic, personalized approach to job investigation. The unique OccuScan and student record books give each student the chance to explore occupations in terms of his own abilities, interests, and educational goals. Also serves as a practical and current aid to occupational investigation for a young person at a critical time in his life. Produced by SRA.

INTERVIEW CASSETTES

Cassettes of interviews with persons in many careers are available upon request by teachers. The cassettes may be used for individual, small group or total classroom exploration of the world of work.

Grades 7-12

Advertising
Appliance Serviceman
Assembler
Biologist
Chemist
Commercial Photographer
Cosmetologist
Counselor
Draftsman
Electrician
Programmer
Insurance Broker
Lawyer
Librarian
Medical Technician
Machinist
Medical X-Ray Technician
Musician
Nurse, Practical
Nurse, Registered
Physician
Pilot, Copilot
Plumber-Pipefitter
Policemen
Printer
Public Relations
Real Estate Broker
Commercial Artist
Retail Salewoman
Social Worker
Stewardess, Airline
Switchboard Operator
Technical Writer
T.V. and Radio Serviceman
Dental Technician
Secretary Teacher
Architect
Accountant
Dental Hygienist
Carpenter
Electronic Technician
Elementary Teacher
Auto Mechanic
Laundry Routeman
Stationary E gineer
Tool and Die Maker

CAREER DEVELOPMENT LABORATORY TAPES

Cassettes Grade 7-12

No. 1 Electrician
Dentist

No. 2 Actor
Fashion Model

No. 3 Buyer
Stewardess

No. 4 Policewoman
Dental Hygenist

No 5 Veterinarian
Computer Programmer

No 6 Account Executive
Radio Broadcaster

No. 7 Business Consultant
Salesman

No. 8 Personnel Counselor
Minister

No. 9 Research Scientist
Pharmacist

No. 10 Technical Writer
High School Teacher

No. 11 Telephone Operator
Court Reporter

No. 12 Physician
Dietician

No. 13 Medical Technologist
Physical Therapist

No. 14 Professor
Commercial Pilot

No. 15 Banker
Cost Analyst

No. 16 Librarian
Editor

No. 17 Commercial Artist
Theatrical Agent

No. 18 Secretary
Social Work

No. 19 Park Director
Reporter

No. 20 Nurse
Cosmetologist

No. 21 Forester
Military

No. 22 Architect
Lawyer

No. 23 Stockbroker
Waiter/Restaurant Manager

No. 24 Auto Mechanic
Electronic Assembler

No. 25 Record Producer
Photographer

No. 26 Tool and Die Maker
Teaching Assistant

No. 27 Fireman
Golf Professional

No. 28 Insurance Salesman
Accountant

No. 29 Electronic Technician
Civil Engineer

No. 30 Driver/Salesman
Realtor

FILMS 16MM

CAREERS:	Time	Grade
Communications	12 min.	7-12
Education	12 min.	"
Health Services	11 min.	"
Leisure Industries	9 min.	"
Mechanical	11 min.	"
Clerical	9 min.	"
Agri-Business	11 min.	"
Government Services	9 min.	"
Technicians	12 min.	"
General Services	9 min.	"
Sales	11 min.	"
Construction	9 min.	"
Making a Choice	20 min.	"
Are You Ready for a Job?	10 min.	7-8
Finding A Friend	11 min.	3-4
Who Nees You?	11 min.	3-4
Integrity	11 min.	2-4
Forgive and Forget	11 min.	4-6
Mothers-What They Do?	10 min.	4-5
Fathers-What They Do?	10 min.	4-5
How Friends are Made	11 min.	4-6
Big Sister	10 min.	3-4

156

NOW CAREER EDUCATION RESOURCE MATERIALS

Guidance Associates Sound Filmstrips Color, Guides, discussion questions for individual students available upon request to NOW staff. Recommended for use at grade levels by local teachers who have previewed or used them.

Grade 7

A NEW LOOK AT HOME ECONOMICS CAREERS. Filmstrip is broad overview of careers. No guide and no questions accompany the program.

Grades 7-9

TESTING, TESTING, TESTING. The filmstrip provides tips on how to take tests and the meaning of standardized test scores.

YOUR PERSONALITY: THE YOU OTHERS KNOW. The tone is personal--no preaching. The deep human importance and value of individual differences is the keynote of the discussion. Guide contains special activities.

YOUR FUTURE THROUGH TECHNICAL EDUCATION. Cassette or 33 1/3 rpm record. No guide, no questions.

YOUR FUTURE THROUGH VOCATIONAL EDUCATION. Cassette or 33 1/3 rpm record. No guide, no questions.

VOCATIONAL AND TECHNICAL EDUCATION FOR A CHANGING WORLD OF WORK. Cassette or 33 1/3 rpm record. No guide, no questions.

Grade 8

HIGH SCHOOL COURSE SELECTION AND YOUR CAREER. This program is an orientation to high school programs, course offerings, school activities and how these relate to selection and preparation for various careers.

YOUR FIRST YEAR IN HIGH SCHOOL. The purpose of the filmstrip is to present an objective and realistic view of what lies ahead.

Grades 8-9

CHOOSING YOUR CAREER. Hopefully, the student sees how a careful evaluation of his own current activities and attitudes can help him to determine the job category best for him.

HOW TO SUCCEED IN HIGH SCHOOL...BY TRYING. This program was designed to help the student understand that he is not expected to achieve success all by himself, and that he must learn to seek out services himself.

IF YOU'RE NOT GOING TO COLLEGE. The filmstrip exposes students to the wide variety of job families and occupations for which students might qualify directly out of high school. Part II introduces career alternatives.

Grades 8-10

JOBS AND GENDER. The students are directly exposed to people who have crossed the sex/work barriers. This program encourages students to explore what they really would like to be and do rather than what they think society expects them to be.

DROPPING OUT: ROAD TO NOWHERE. The filmstrip makes use of the experiences of teenagers who have themselves quit school, who have kicked around long enough on the "outside." Guide contains suggested classroom activities and assignments.

Grades 8-12

JOB ATTITUDES: WHY WORK AT ALL? The ideas presented are the most basic ones--work as a key to independence, as an outlet for energy, as a means of achieving satisfaction, and as a means of channeling hostile and aggressive drives. Guide contains activities.

GETTING AND KEEPING YOUR FIRST JOB. Students are reminded that they must set their own goals, and that the degree to which the goals are reached will depend upon the effort they are prepared to invest.

THE TUNED OUT GENERATION. The filmstrip is filled with candid interviews with mothers and fathers from a variety of backgrounds, revealing their joys, their frustrations and their deep-felt concern about their relationships with their children.

WHAT YOU SHOULD KNOW BEFORE YOU GO TO WORK. Students are reminded that this is a world in which abilities count, with an emphasis on the ability to communicate. Part II deals with aspects of the job itself--from finding and applying for it to succeeding in it.

JOBS FOR HIGH SCHOOL STUDENTS. The program offers practical advice on how to locate jobs in the community, from waiting on tables and baby-sitting to construction, retail sales, trade and industry.

Grades 9-12

PREPARING FOR THE WORLD OF WORK. Part I explores several of the ways students can begin to plan for an enjoyable and meaningful career now. Part II explains what employers expect a person to bring to the job--certain fundamental skills and knowledge.

A JOB THAT GOES SOMEPLACE. Effort, training, and experience are essential to advance.

LIKING YOUR JOB AND YOUR LIFE. The filmstrip features skilled workers speaking directly and spontaneously to students about their work and their life styles.

Guidance Associates, Cont'd

Grades 3-4

First Things Series

Introduces primary grade children to basic concepts of their social and physical environments. The fundamental objective of the series is to help each child grow in understanding of himself and as members of groups within the society.

First Things Series:

Who Do You Think You Are? On the way to school, Tony, and your students discover the excitement of exploring and defining individual identities through personal "facts and figures," actions and feelings.

What Happens Between People. Moving day provides Freddie with opportunities to explore the concept of human interaction. With him, your children discover the different types of interaction (verbal, physical, etc.), positive and negative characteristics, and various objectives of interaction.

Grades 7-12

Babysitting. Essentially an orientation to the job of babysitting, although it is also an effective means of introducing or complementing a more intensive study of child development.

I Wish I'd Known that Before I Went to College. Program discusses problems confronting most college freshmen. Written and narrated by Bill Wilson, Dean of Admissions, Amherst College, and Abraham Lass, Principal, Abraham Lincoln High School, Brooklyn, New York.

Grades 9-12

Trouble at Work. The filmstrip goes straight to the on-the-job conflicts between workers and between workers and supervisors.

Your Job Interview. Tips on how to make a favorable impression in the crucial interviewing situation.

Job Hunting: Where to Begin is designed to provide the novice job hunter with the basic information and skills needed for successfully seeking employment. It also focuses on the attitudes and problems frequently encountered during the job hunt.

An Overview of Technical Education. The program probes semi-professional vocational opportunities available in a technological society. Describes educational demands, schooling available, opportunities for advancement. Developed with the Ohio State Department of Education, Director of Vocational Education. No namual available.

Grades 11-12

On The Job: Four Trainees. Part 1, Advanced Vocational Education; Part 2, Apprenticeship; Part 3, Upgrading; Part 4, On-the-Job-Training.

Professional Resources

As They Grow/Elementary Guidance. New dimensions in meeting public needs. This program (for teachers and other professionals), a case study, live situation approach, places emphasis or developmental aspects of elementary guidance. It explores the role of the counselor in counseling youngsters, referring pupils laying foundations for career planning. No manual available.

The Role of The Counselor in the Secondary School. The program explores the counselor's interaction with teachers, course planning, career and college selection, and parent conferences. Produced in cooperation with the American Personnel and Guidance Association. No manual available.

Bowmar Filmstrips, Cassettes, Instructor's Handbook, Support Literature concerning each of five careers

Grades 7-8

COMPASSION FOR PEOPLE: Registered Professional Nurse; Mental Health Aid; Licensed Practical Nurse; Registered Orthotist; Inhalation Therapy Technician. Suggested for use by Health teacher in each school.

THE AGE OF ELECTRONICS: Electronic Technician; Electronic Assembler; Environmental Test Technician; Technical Writer; Machinist. Suggested for all Industrial Arts and other students.

M'N HAS WINGS: Aircraft Engine Mechanic; Pilot/Flight Instructor; Air Frame Mechanic; Air Traffic Controller; Passenger Service Agent.

Grades 8-12

JOBS FOR THE NOW GENERATION: Equipment Rental Assistant; Food Service Assistant; Park and Recreation Assistant; Real Estate Management Trainee.

Grades 9-12

THE MONEY TREE: Real Estate Appraiser; Investment Counselor; New Accounts Clerk; Bank Teller; Decoder Machine Operator.

CABBAGES TO KINGS AND VARIOUS THINGS: Retail Department Head; Retail Sales Associate; Specialty Retail Sales; Retail Food Clerk; Credit Counselor.

Grades 6-8

THE NATION'S BUILDERS: Heavy Equipment Operator; Carpenters; Electricians; Civil Engineering Technicians; Architectural Draftsman.

* * *

Filmstrips with captions, no sound, no guide, no discussion questions

Grades 6-8

YOUR EDUCATIONAL GOALS (4 filmstrips): Self Realization; Human Relationships; Economic Efficiency; Civic Responsibility.

STUDY HABITS AND SKILLS (3 filmstrips): Doing an Assignment; Doing Homework; Finding Information.

* * *

QED Productions. Filmstrips, 33 1/3 rpm records or cassettes, study guides.

Grades 7-10

VOCATIONAL DECISIONS. The purpose of the series focuses on choosing a vocation or simply "getting a job" by chance: An Introduction to Vocation; The World of Work; Counseling in Vocational Decisions.

CURRICULUM MATERIALS CORPORATION FILMSTRIPS

Series: Study Habits Grades 4-8

Color No Sound Filmstrips

Doing an Assignment 402
Doing Homework 403
Finding Information 404

Series: Your Educational Goals

Color No Sound Filmstrips

Grades 7-12

Note: Grade 6 teachers may find these beneficial in their classes.

Self-realization. A133
Human Relationships A134
Economic Efficiency A135
Civic Responsibility. A136

N.O.W. CAREER EDUCATION COMMERCIALLY PREPARED RESOURCE MATERIALS FOR ELEMENTARY GRADES

The materials listed below have been acquired to help teachers integrate developmental career education concepts with related academic experiences in their classrooms. AWARENESS of self and career information is the primary focus at the elementary school level. The materials are located in the Resource Center in the Lewiston Armory and are available for loan upon request to NOW Staff (784-1672).

FILMSTRIPS

CURRICULUM MATERIALS CORPORATION FILMSTRIPS--ELEMENTARY

Color Captions No Sound No Manual

Grades K-4:

- Office Workers 114
- Larry Helps the Police 118
- Firemen at Work 120
- Post Office Workers 122
- Policemen at Work 117
- The Fire House 119
- Workers for Health 121
- Airplanes A681
- Ocean Freighters A683
- Road Builders Help Us A685
- Trailers Help People A686
- Harbors and Ships A678
- How Buses Help People A679
- Passenger Trains Help Us 684
- Trucks Help People A687
- Freight Trains Help People A679
- The Bakery 111
- The Goat Farm 101
- Making Maple Syrup 99
- Factory Workers 113
- Autumn in the Country 104
- Mr. & Mrs. Peet, Dairy Farmers 102
- The Story of Corn 100
- Building a House 98
- Farm Pets 103
- The Lumber Mill 97

Grades 3-6

- Men Who Come to Your House (Community Services). A-57
- Farmer and City Man Need Each Other A-60
- What Do Fathers Do? A-86
- Mr. Storekeeper A-117

MISCELLANEOUS MATERIALS FOR ELEMENTARY GRADES

Puzzle Inlays (Jigsaw):
Construction Workers, Nurse, Doctor Grades K-1

Judy See-Quees (Sequence Boards):
Making Maple Syrup, Helping Mother (1-2)
Building a House, Story of Milk (1-2)

Ideal Crossword Puzzles for Elementary Grades 4-6

Food:	Breakfast; Lunch; Dinner; Meats; Desserts; Fruits; Vegetables
Community Helper:	Doctor; Churchmen, Policeman; Postman; Librarian; Fireman; Teacher, Dentist
Farm and City:	Farm Buildings; Workers in the City; Crops; Farm Animals; City Recreation; Farm Machinery; City Buildings; City Traffic
Occupation:	Mail; Grocer; Cars and Trucks; Early Travel & Communication; Future Travel and Communication; Weather; Druggist; Milkman
Airplane:	Airports; Things that Fly; Aviation Workers; Kinds of Airplanes; Cargo; Airplane Words--Numbers 1 and 2
Transportation and Communication:	Builder; Planes; Bus Driver; Telephone and Telegraph; Boats; Barber; Trains; Secretary; Service Station Attendant

Posters
Hayes Community Helpers (Published by Hayes School Publishing Co., Inc., Wilkinsburg, Pa.)
Set I: Crossing Guard; Dentist; Teacher; City Bus Driver; Druggist; Poultry Farmer; Carpenter; Telephone Lineman

Instructo Flannel Board Visual Aids:
Community Workers (Professional, Government Employees, Volunteer Helpers). 151
Community Workers (Workers associated with building or repairing, workers associated with food services, workers associated with general community service) 150

Student Books:
I Think I'll Be by D. J. Donovan, 1968. Published by The House of Ideas, Inc., Ohio

PROFESSIONAL RESOURCES

Book:
World of Work by Charleta J. Dunn and Bill F. Payne, 1971. Published by Leslie Press Corporation, 111 Leslie St., Dallas Texas 75207. (Occupational-Vocational Guidance in the Elementary Grades for Teachers.)

CAREER EDUCATION FILMSTRIPS

Note: The materials listed below have been excerpted from the Elementary Film Catalog which is located in each elementary school in Lewiston. These materials appear to be appropriate for use in career education lessons. Teachers are encouraged to expand their present use to include career education concepts. The materials are available at Dingley School upon request to Mrs. Griswold.

Where Our Daddies Work SS2000
B/W captions
Gr. K-2

The Policeman SS2003
B/W captions
Gr. K-2 old

Series: Community Helpers
Color captions
Gr. K-2

The Bus Driver SS2004
The Doctor SS2005
The Fireman SS2006
The Grocer SS2007
The Mailman SS2008
The Policeman SS2009

Series: A Child's Life in the Big City
Color no captions recordings
Gr. K-2

Big City Houses and Streets SS112R
Animals in the City SS113R
Travel in the City SS114R
Food in the City SS115R
Big City Workers SS116R

Series: Let's Go and Learn
Color captions
Gr. 1-3

To an Airport SS2001
To a City SS2086
To a Country Fair SS2087
To a Farm SS2088
To a Ranch SS2089
To the Seashore SS2090
To a Zoo SS2091

Let's Visit Our Friends (Service Workers) SS2002
Color captions
Gr. 1-3

The Firemen and the Fire Dept. E105
Color captions
Gr. 1-6

Series: Let's Go Visit Our Community
Color no captions recording
Gr. 1-4
Let's Go Visit a Library SS2075R
Let's Go Visit the Police Station SS2076R
Let's Go Visit a Bank SS2077R
Let's Go Visit a Post Office SS2078R
Let's Go Visit a School SS2079R
Let's Go Visit a Firehouse SS2080R

Series: Our South American Neighbors
Color captions
Gr. 2-6
Agriculture SS275
The Story of Rubber SS281
Transportation SS282
Weaving in the Highlands SS283

Series: Hawaii: Crossroads of the Pacific
Color captions
Gr. 3-6 a kit containing a record of songs, books, rock samples
Arts & Crafts in Hawaii SS158
Fishing for Food and Fun SS159
Pineapples - Growing and Canning for the World . . SS163
Sugar - Hawaii a Main Industry SS164

Series: Maine
Color no captions script
Gr. 3-6
Maine Sardines SS169

Series: Japan
Color captions
Gr. 3-6
Agriculture in Japan SS251
Commercial Fishing in Japan SS253
Industries in Japan SS254
Transportation in Japan SS259

Series: The Constitution of the U.S.
Color captions
Gr. 3-6
The Congress - The Legislative Branch SS1092
The Executive Dept. - The President SS1094
The Cabinet SS1095
The Judicial Dept & the System of Checks & Balances SS1097

Series: The American Pioneer
Color captions
Gr. 3-6
Household Handicrafts SS1116
Pioneer Artisans SS1117
Pioneer Folk Art SS1118
Pioneer Professions SS1120
Travel in Pioneer Days SS1122

Series: American History
B/W captions
Gr. 3-6
The American Spirit in Architecture SS1144
The American Spirit in Painting SS1145
The American Spirit in Literature SS1146
The Story of American Sport SS1147

Series: Then and Now in America
B/W captions
Gr. 3-6
The Airplane Changes in America SS1159

Series: Our American Heritage of Folk Music
Color no captions recordings
Gr. 3-up good
Songs of the: American Revolution FA128R
Civil War FA129R
Cowboy FA130R
Mississippi Valley FA131R
Mountains FA132R
Old South FA133R
Old Southwest FA134R
Pioneer Mid-America FA135R
Plains FA136R
Railroad FA137R
Sea FA138R
Western Frontier FA139R

Series: Alaska the 49th State
Color captions
Gr. 4 & up
Farming in Alaska SS150
Industries in Alaska SS151
Living in Alaska SS152
Transportation in Alaska SS153

Series: Regions of the U.S.
Color captions
Gr. 4 & up
The U.S. Great Plains
The Wheat Farmer SS178
The Cattleman SS179
Wealth in Oil SS180

Series: The New England States
Color captions
Gr. 4-6
Seacoasts, Shipping, Fisheries SS200

Series: Australia: A Regional Study
Color captions
Gr. 4-6
Agriculture SS214
Livestock SS215
Other Industries SS216

Series: Living in China Today (Communist China)
Color no captions recordings manual
Gr. 4 & up good
Resources, Industries, Transportation & Communication SS238

Series: Medieval Life
Color captions
Gr. 4-6
The Serf SS1006
The Fair SS1009
The Guild SS1011
Lord and Vassal SS1012

Series: American History
Color captions
Gr. 4-up
Riverboats and the Building of America SS106

Series: Life in the Middle East
Color captions
Gr. 4-6
Agriculture SS264

Series: South America (I)
Color captions
Gr. 4-up
Argentina, resources, industries, & products SS285
Brazil, industries & products SS288
Paraguay, the land, the people, the industries SS291
Uruguay, the land, the people, the industries SS292

Series: Jamestown
Color captions
Gr. 5-up
Jamestown Develops Trade 1063

People, Places, and Products

Series: The Coast Guard at Work

Color Captions
Gr. 2-up

The Coast Guard Life Boat Station.....ss 2010
A Coast Guard Rescue.....ss 2011
A Day at the Lighthouse.....ss 2012

Supplying Food for Our Cities.....ss 2013
Color Captions
Gr. 3-up

You and Your Clothing.....ss 2014
B/W Captions
Gr. primary

A Class Studies Rubber.....ss 2015
Color Captions
Gr. 4-6

The Story of Iron and Steel.....ss 2016
B/W Captions
Gr. 3-6

The Story of Coal, Oil, and Uranium (2copies).....ss 2017
B/W Captions
Gr. 3-6

The Story of American Industry.....ss 2018
B/W Captions
Gr. 3-6

Animals on the Farm.....ss 2019
Color Captions
Gr. 1-3

Animals of the Zoo.....x 3021
Color Captions
Gr. 1-3

Ann Visits the Zoo.....x 3015
Color Captions
Gr. 1-3

Janet's Ducks and Geese.....ss 3048
Color Captions
Gr. K-2

Janet Visits a Dairy Farm.....ss 3049
Color Captions
Gr. K-2

People, Places, and Products

Farm Animals and Pets.....x 3024
Color Captions
Gr. 2-4

Our Poultry Farm.....LA 815
Color Captions
Gr. K-3

Series: Animals on the Farm
(see: Language Arts--Stories for Titles)

Cattle Raising.....ss 2020
Color Captions
Gr. 1-3

Series: The American Farmer and Our Food Supply

Color Captions
Gr. 1-3

The American Farmer.....ss 2021
Corn for All.....ss 2022
Dairy Farming.....ss 2023
Fruit Farming.....ss 2024
Machine on the Farm.....ss 2025
Truck Farming.....ss 2026
Wheat for Bread.....ss 2027

How America is Clothed.....ss 2028
Color Captions
Gr. 4-6

Iron and Steel.....ss 2029
Color Captions
Gr. 4-6

Lumbering.....ss 2030
Color Captions
Gr. 3

Our Neighborhood Store.....ss 2031
Color Captions
Gr. 3-6

Maine Sardines (2 copies).....ss 169
Color no caps. script manual
Gr. 3-6

Your Daily Bread.....ss 2033
Color Captions
Gr. 3

170

People, Places, and Products

The Food We Eat.....ss 2034
Color Captions
Gr. K-2

Fire and Food.....E 107
Color Captions
Gr. 2-4

Connie, the Seeing Eye Dog.....ss 2035
Color Captions
Gr. 1-3

Pacific Salmon Run.....ss 2036
B/W Captions
Gr. 3-6

Series: American Industry
Color Captions Manual
Gr. 5-up

The Chemistry of Steel.....ss 2037
Raw Materials in Steel-making.....ss 2038
The Steel Industry: Competition and Research.....ss 2039
Money at Work in the Steel Industry.....ss 2040
The Cradle of American Industry.....ss 2041
Science, Technology, and Society.....ss 2042
The Chemistry of Iron.....ss 2043

The Fair.....ss 2081
Color Captions
Gr. K-2

The Museum.....ss 2082
Color Captions
Gr. K-2

Circus Animals.....ss 2083
Color Captions
Gr. K-2

The Greatest Show on Earth.....ss 2085
Color Captions
Gr. K-2

Circus People.....ss 2084
Color Captions
Gr. K-2

SOCIAL STUDIES

Transportation and Communication

Series: The Story of Communication
Color Captions
Gr. 3-4

Communication by Sight.....ss 2044
Communication by Sound.....ss 2045
Messengers.....ss 2046
The Mail Goes Through.....ss 2047
The Modern Means of Communication.....ss 2048
Paper and Books.....ss 2049
Signs and Signals.....ss 2050
Speaking and Writing.....ss 2051

Series: Transportation
Color Captions
Gr. 1-3

Airplanes.....ss 2052
Boats and Ships.....ss 2053
Buses.....ss 2054
The Freight Train.....ss 2055
The passenger Train.....ss 2056
Trucks.....ss 2057

Series: History of Transportation
Color Captions
Gr. 3

Transportation on Foot.....ss 2058
Animals in Transportation.....ss 2059
The Wheel in Transportation.....ss 2060
Transportation in the American Colonies.....ss 2061
Roads, Bridges, and Tunnels.....ss 2062
The Railroad in Transportation.....ss 2063
Transportation by Water.....ss 2064
Transportation by Air.....ss 2065
Modern Land Transportation.....ss 2066

Series: Modern Transportation
B/W Captions
Gr. 3-4

The Fireboat.....ss 2067
The Freighter.....ss 2068
The Harbor.....ss 2069
The Passenger Liner.....ss 2070
The Tugboat.....ss 2071

SOCIAL STUDIES

Transportation and Communication

Communication in the United States.....ss 2072
B/W Captions
Gr. 3-6

Transportation in the United States.....ss 2073
B/W Captions
Gr. 3-6

Messages Travel and are Recorded.....ss 2074
Color Captions
Gr. 3-4

Series: The St.Lawrence Seaway
Color Captions
Gr. 3-6

The Historic Background of the Seaway.....ss 109
The Seaway Power Project.....ss 110
The Seaway Travel.....ss 111

The Airplane Changes America.....ss 1159
Color Captions
Gr. 3-6

See Also: Picture Set 16--The History of Transportation
10 Black and White study prints

Accountancy - 4
Advertising - 17
Advertising Art for Women - 134
Advertising Copy Writer - 133
Aerospace Engineer - 162
Agricultural Science - 20
Agricultural Engineering - 152
Air Condition Service Technician
Airline Jobs for Women - 137
Airline-Airport Jobs - 151
Antique Shop Operation - 151
Archaeology and Exploring - 82
Architect - 12
Army - 123
Art Gallery Operation - 38
Artist - 97
Art - Teacher of - 75
Athletic Coaching - 198
Auto Accessories and Parts Retailing - 260
Automobile Mechanic and Repair Shop Owner - 211
Automotive Engineer-Technology-233
Aviation, Airline, Business, Private - 39
Aviation Mechanic - 122
Bank Trust Department Careers-267
Banking - 31
Bank Jobs for Women - 83
Baseball Pro. - 142
Beauty Shop Careers - 54
Biochemistry - Scientific & Teaching - 157
Biological Sciences - 3
Bookkeeper and Bookkeeping Machine Operator - 115
Botany - 204
Business Administration - 178
Business Machines Sales and Service - 276
Candy Store Manager-Owner - 144
Carpenter and Contractor - 138
Cartooning - 188
Chemical Engineer - 16
Chemist - Scientific Research-219
Civil Engineering - 2
Collection Agency Operation - 286
College and University Administration - 263
College Teaching--College Professor - 164
Commercial Art - 14
Communications Engineer and Technician - 248
Congressman - 288
Corporation Lawyer - 21
Cost Accounting - 98
County Agricultural Agent - 160
Credit Manager - 95
Crime Science-Criminologist-42
Dairy Farming - 79
Dental Assistant - 224
Dental Hygienist - 86
Dental Laboratory Technician-205
Dentistry - 10
Diesel Engine - 61
Draftsman - 201
Drugstore Operation - 101
Dry-Cleaning-Laundry Industry-70
Economist - 217
Editorial Work - 118
Electric Utilities - 120
Electrical Engineer - 37
Electrician - Construction, Contracting - 113
Electronics Technician - 149
Elementary School Teaching -199
Executive (Administrative)-290
Executive Housekeeping - 181
Farm Equipment Dealers - 245
Fashion Designer - 99
Fashion Model; Photo, Adv., TV - 150
F.B.I. - 125
Fireman and Fire Prevention-177
Fisheries and Wildlife Conservation, Management - 254
Florist Shop Ownership, Management - 63
Flying Careers in the Army, Navy, Marine Corps, and Coast Guard - 128
Food Products Distribution-291
Foreign Commerce - 208
Foreign Service U.S. - 18
Forestry - 23
Fur Farming - 155
Furniture Store Management-281
Geological Science-15
Geophysics and Geochemistry-182

Gift and Art Shop Operation - 87
Golf Professional - 46
Covernment Career Employment - 58
Grocery Store and Supermarket Management - 176
High School Teaching - 183
Highway Engineer - 147
Home Appliance-Equipment Retailing - 255
Home Economics for Women - 24
Home Fconomics Teacher - 283
Home Economist in the Food Field - 96
Hospital and Institutional Dietetics - 41
Hospital Management - 29
Hotel-Motel Jobs - 34
Importer - 270
Industrial Arts Teaching - 243
Industrial Designing - 107
Industrial Engineering - 206
Interior Designer and Decoratc - 5
Investment Banking 30
Jet Engine Technician and Mechanic-278
Jeweler and Jewelry Store Management - 275
Journalism-Communications Media- 19
Kindergarten Teaching - 106
Labor Relations in Industry - 246
Landscape Architecture - 13
Lawyer - 7
Law-Tax Law Specialty - 207
Librarianship - 8
Life Insurance - 40
Manufacturing - 32
Mathematics - 36
Mechanical Engineering-262
Medical Research Field - 148
Medical Secretary-Doctor's Assistant - 200
Medical Technologist - 68
Medical Doctor - 26
Men's Clothing Store Operation-117
Merchandise Buyer in Retailing-78
Merchandising - 48
Metallurgical Engineering - 76
Microbiologist - 145
Modern Foreign Languages Careers - 259
Mortuary Operation-Funeral Service - 72
Movie and Television Acting - 292
Museum Work -91
Music - 11
Musical Instrument Retailing-284
Naval Services of the U.S. - 124
News Correspondent - 269
Newspaper Publishing - 189
Newspaper Reporter - 174
Nuclear Engineer and Technician-163
Nursery School Teacher-Director-214
Nursing Opportunities Nationwide - 25
Occupational Health Nurse - 139
Occupational Therapy - 102
Office Management - 108
Office Work-Women - 135
Optician - Dispensing Technician - 146
Optometry-Doctor of - 27
Paint Store Retailing Jobs-119
Patent Attorney - 253
Personnel-Employment Management - 35
Pharmacist - 44
Photography - 47
Photo Journalism-News Photographer - 202
Photo Supply Shop Management-235
Physical Education - 6
Physical Therapy - 109
Physicist - 143
Plumbing and Plumbing Contracting - 114
Police State and County Highway - 271
Police Work - 172
Politics and Political Organizations - 169
Popular Music - 93
Practical Nurse - 191
Primary Teacher - 140
Printer-The Printing Business-141
Private Secretary - 64
Professional Cook and Executive Chef - 230
Property and Casuality Insurance - 111
Psychiatric Social Work - 190
Psychiatrist - 116
Psychologist-Men and Women - 154
Public Accountant (CPA) - 103
Public Health Nurse - 187

Public Health Service - 234
Public Relations Work - 136
Public Stenographer - 194
Publicity Opportunity-Men and Women - 186
Purchasing Agent - 94
Real Estate and Building Management - 74
Real Estate Broker, Salesman - 216
Recreation Leadership - 50
Refrigerating Engineering - 221
Research in Agriculture - 210
Restaurant Management-Ownership-Jobs in Restaurants - 69
Retail Selling - 229
Salesmanship - 33
School and College Librarianship - 159
School Music - 88
Scientific Research in Industry-85
Scientific Jobs for Women - 228
Secretary-Women Legal - 232
Secret Service Agent - 227
Securities Business - 289
Selecting a Career - 1
Service Station Operation - 197
Singer and Entertainer in Show Business - 279
Social Security System - 285
Snack Shop Restaurant - 161
Social Work - 43
Special Librarianship - 209
Sporting Goods Shop - 247
Sports Writer-Reporter-Journalist-266
State, County, and City Government Work for Women - 237
Statistician-Mathematical Statistics - 45
Surgery - 104
Tax Assessor - 287
Teacher-Business Education - 273
Teaching - 52
TV, Radio, Repair and Service-236
TV, Radio, Records, and HI FI Retailing - 121
Textile Designing - 112
Tourist Attraction-Your Own - 81
Trade and Commercial Associations; Chamber of Commerce-Careers - 66
Tourist and Travel Services-Agencies - 184
Truck Transporation - 256
U.S. Armored Force - 129
U.S. Coast Guard - 131
U.S. Department of Agriculture Careers - 242
U.S. Department of the Interior-258
U.S. Department of State - 51
U.S. Marine Corps - 130
U.S. Merchant Marine - 132
U.S. Post Office-Careers - 157
Used Car Business - 225
Veterinary Medicine - 71
Vocational-Technical Teacher - 231
WAC; WAVES; WAF; Women Marines; and SPAR - 218
Weather Forecasting Meteorological Science - 84
Wholesale Gasoline and Oil Distributor - 265
Wholesale Merchandising Careers-244
Women Careers in Retail Management-222
Women in Telephone Work - 226
Women's Apparel-Shop Management-55
Writing (Professional) - 167
Writing for Television and Radio - 153
X-Ray Technologist - 22

EQUIPMENT

1 - Slide Sorter
2 - Dukane Cassette Super Micromatic Sound Projector
1 - Kodak Loader
1 - Wallensak Tape Recorder
1 - Wallensak Cover Speakers
1 - Slide Projector-Kodak Carousel
1 - 1 - Projector Case-Kodak Carousel
1 - Slide Tray Case, Kodak Carrying Case for Kodak Carousel Slide Trays
6 - Slide Trays - 140
1 - Minolta HiMatic 7S Camera
1 - Minolta Electric Flash Unit
1 - Quick Set Custom 303 Tripod
1 - Negema Projector Stand
1 - Super 8 Bell & Howell Movie Projector 458K
1 - Bell & Howell 442G Movie Camera
1 - Bell & Howell Cassette Tape Recorder 450
1 - 40x40 Tripod Screen Dalite Wonderlite
2 - GAF Slide Projectors 1680
16 - Panasonic Tape Recorders
1 - AVC-3400 Video Camera and Corder with Postol Grip Switch, TV Zoom Lens, Videocorder DC/12 Volts with Carrying Case Shoulder Bag, AC Power Adaptor, Battery Pack, Carrying Strap.
1 - AVC-3600 Videocorder with Tape-Up Reel
1 - Camera Adaptor
3 - #666 Filmstrip Projectors
1 - Panasonic VTR Monitor Television
4 - Bell & Howell 16mm Projectors
3 - Record Players
1 - Tripod Dolly
3 - Kodak 126 Instamatic Cameras

HUMAN RESOURCES DIRECTORY

The NOW Staff is compiling a directory to serve as a reference source for teachers and students. When completed, the directory will be a comprehensive list of persons who are willing to assist students in the exploration and pursuit of career educational activities.

To date forty-four persons have agreed to be of service to individual students and/or classroom groups upon request. If you would like NOW Staff to contact one or more of these volunteers in an interest area related to your academic subject or student interest, telephone NOW office (784-1672) or ask one of us in person and we will do our best to accommodate you. Please allow several weeks from date of request to date of guest visit or field trip as these volunteers are employed and must coordinate their working hours to serve us.

Grade Level 10-12

Interest Area:

1. Accountant-Bookkeeper
2. Administration
3. Architect
4. Auto Mechanics
5. Banking
6. Business
7. Business Education
8. Commercial Banking
9. Community Education
10. Court Reporting
11. Predelinquency Counseling
12. Electrical Utilities
13. Engineering and Science
14. Farming
15. Finance
16. Fire Protection
17. Franchise Management
18. Gym and Swimming
19. Industrial Relations
20. Insurance
21. Insurance Salesmanship
22. Law
23. Law Enforcement
24. Legal Secretary
25. Mortuary Science
26. Nursing
27. Occupational Counseling
28. Photography
29. Plumbing and Heating
30. Politics
31. Recreation
32. Rocks, Sea Shells, Woods (collection)
33. Sales
34. Savings
35. Silversmith or Rockhound, Mineral collecting, Lapidary
36. Skiing
37. Social Welfare
38. Spinning, Weaving, Dyeing
39. Sports
40. Supermarket
41. T.V. Programming
42. Youth Work

Field Trips Available for Small Groups (maximum 8):

Mineral Shop--stones, jewelry, bookends, paperweights (Winthrop)
Fine Woodworking, construction of furniture, lamps, and accessories (Topsham)
Handicrafted furniture (Topsham)
Silversmith, Lapidary, mineral collecting, macrame (Litchfield)
Stone cutting and shaping (Topsham)

Grade Level 7-9

Interest Area:

1. Accountant/Bookkeeper
2. Architect
3. Auto Mechanics
4. Banking
5. Business Procedures
6. Commercial Banking
7. Community Education-Project Youth
8. Delinquency Counseling-Project Youth
9. Mineral Collecting
10. Mortuary Science
11. Nursing
12. Photography
13. Plumbing and Heating
14. Recreation-Project Youth
15. Rocks, Sea Shells, Wood collections
16. Sales
17. Savings/Banking
18. Skiing
19. Social Welfare (with film)
20. Sports

Field Trips Available for Small Groups (maximum 8)

Same as Grade 10-12. Refer to page 30.

Grade Level K-6

Interest Area:

1. Rocks, Sea Shells, Wood Collection
2. Mortuary Science
3. Savings

Field Trips:

No resource person indicated he/she preferred the elementary school students to visit. However, if you want NOW Staff to arrange a visit to a particular type of business/industry, contact us and we will do our utmost to fill your request.

BIBLIOGRAPHY

Agan, R. J., and Others, The Development and Demonstration of A Coordinated and Integrated Program of Occupational Information, Selection and Preparation in a Secondary School, Final Report, Kansas State University, Manhatten, Kansas, 1968. (ERIC)

"Agricultural Engineering and You", American Society of Agricultural Engineers, Saint Joseph, Michigan.

"Agricultural Engineering--The Profession with a Future," American Society of Agricultural Engineers, Saint Joseph, Michigan.

Althan, James W., What Kinds of Occupational Information Do Students Need, American Institute for Research, Palo Alto, California, 1966. (ERIC)

Automotive Wholesaler Counterman's Handbook, Service Corporation of A.S.I.A., Chicago, Illinois, 1972.

Bertcher, Harvey, Role Modeling and Role Playing in Employability Agencies, Manpower Science Service, Inc., Washington, D.C.

Block, A. L., Career Information A Directory of Free Materials for Counselors and Teachers, Sextant Systems, Inc., Milwaukee, Wisconsin, 1970.

Brogden, J.D., Developing Communication Skills in Non-Committed Learners, Parker Publishing Company, Inc., West Nyark, New York, 1970.

"Careers", (Monograph), The Institute for Research, Chicago, Illinois, 1969.

Career Development (7-8-9), Robbinsdale Area Schools, Robbinsdale Minnesota, 1971.

The Career Information Service: A Guide to Its Development and Use, Newton Public Schools, Newton, Massachusetts, 1968. (ERIC)

Career Opportunities--Health Technicians, Edited by Robert E. Kinsinger, Ed.D., Chicago, J. G. Ferguson Publishing Co., Chicago, Illinois, 1970.

Career Thresholds, Volume 2., U.S. Department of Labor, Washington, D.C. 1971.

Careers Without College, Wisconsin State Employment Service, Madison, Wisconsin. (ERIC)

Casey, Raymond P., An Emerging Program of Cooperative Education for the Warwick Public School Grades 9-12, Warwick School District, Warwick, Phode Island, 1965. (ERIC)

Casewit, Curtes W., How to Get A Job Overseas, Arco Publishing Company, Inc., New York, New York, 1970.

Coates, Robert H., Editor, Operation Alphabet, Book I., Noble & Noble Publishers, Inc., New York, New York, 1967.

Coates, Robert H., Editor, Operation Alphabet, Teachers Guide, Noble & Noble Publishers, Inc., New York, New York, 1967.

Cochran, Leslie H., Innovative Programs in Industrial Education, McKnight and McKnight Publishing Company, Bloomington, Illinois, 1970.

Cook, Fred S. and Lanhan, Franklin, Opportunities and Requirements for Initial Employment of School Leavers with Emphasis on Office and Retail Jobs, Wayne State University, Detroit, Michigan, 1966. (ERIC)

Counselors Desk Aid, Eighteen Basic Vocational Directions. Summary Information, Bureau of Employment Security, Department of Labor, Washington, D.C. 1967. (ERIC)

Cozine, June, Approaches to Use in Assessing Needs for, Content of, and Certain Factors to be Considered in Offering Home Economic Courses Preparing for Gainful Employment, Oklahoma State University, Stillwater, Oklahoma, 1966. (ERIC)

Cozine, June and Others, A Pilot Study for Gainful Employment in Home Economics. Final Report. Volume I., Oklahoma State University, Stillwater, Oklahoma, 1968. (ERIC)

Cross Reference, Monthly Magazine, Subscription, American Hospital Association, 1972.

Cushman, Harold R. and Others, The Concerns and Expectations of Prospective Participants in Directed Work Experience Programs, State University of New York, Ithaca, New York, 1967.(ERIC)

A Demonstration System of Occupational Information for Career Guidance, Final Report, State University of New York, Albany New York, 1968. (ERIC)

"Did You Ever Wish You Could Change the World?", American Society of Agricultural Engineers, Saint Jostph, Michigan.

"Do You Want to Be A Nurse?"., 1970

"Education for Physical Therapy", Monograph, American Physical Therapy Association, Washington, D. C.

Educator's Guide to Free Films, Educators Progress Service, Inc., Randolph, Wisconsin, 1971.

Educator's Guide to Free Filmstrips, Educators Progress Service, Inc., Randolph, Wisconsin, 1971.

Educator's Guide to Free Guidance Materials, Educators Progress Service, Inc., Randolph, Wisconsin, 1971.

Educator's Guide to Free Tapes, Scripts, and Transcriptions, Educators Progress Service, Inc., Randolph, Wisconsin, 1971.

An Economic Analysis of Maine. Pocket Data Book., Department of Economic Development, Augusta, Maine, 1970.

Elementary Teacher's Guide to Free Curriculum Materials, Educators Progress Service, Inc., Randolph, Wisconsin, 1971.

Encyclopedia of Careers and Vocational Guidance, J. G. Ferguson Publishing Company, Chicago, Illinois, 1972. 2 Volume Set.

Feingold, S. Norman and Lisk, Harold, Finding Part-Time Jobs, Science Research Associates, Inc., Chicago, Illinois, 1971.

Feingold, S. Norman and Swerdloff, Sol, Occupations and Careers, Webster Division, McGraw-Hill Book Company, New York, New York, 1969.

Ferguson, Robert, How to Make Movies, National Recreation and Park Association, Washington, D. C.

Festante, Peter and Others, A Guide for Part-time Cooperative Education Programs, Trenton State College, Trenton, New Jersey, 1965. (ERIC)

"Film Library List for Agricultural Engineering--The Profession with a Future," American Society of Agricultural Engineers, Saint Joseph, Michigan.

First at the Finish, Teachers' Edition, Readers Digest Service, Inc., Pleasantville, New York.

First at the Finish, Readers Digest, Service, Inc., Pleasantville, New York.

Gable, Fred B., Opportunities in Pharmacy Careers, Universal Publishing and Distributing Corp., New York, New York, 1970.

Gammons, Homer P., Common Sense in Guidance, Parker Publishing Co., Inc., West Nyack, New York, 1969.

Gelinas, Robert P. and Gelinas, Paul J., How Teenagers Can Get Good Jobs, Richard Rosen Press, Inc., New York, New York, 1971.

Groups in Guidance, American Personnel and Guidance Association, Washington, D. C., April 1971, Vol. 49., No. 8.

Guide to School Law, Parker Publishing Co., West Nyack, New York.

Hansen, Lorraine Sundal, Career Guidance Practice in School and Community, National Vocational Guidance Association, Washington, D. C., 1970.

Help for Out-of-Work Youth. A Manual for a Job Preparation Program in Your Community, National Committee on Employment of Yout , New York, New York, 1963. (ERIC)

Huffman, Harry, A Manual for the Further Development of Cooperative Education, Ohio State University, Columbus, Ohio, 1967. (ERIC)

Hutchins, C. L. and Others, Minicourses Work, West Laboratory for Educational Research and Development, Berkley, California.

"Informational Briefs of Courses in Physical Therapy," American Physical Therapy Association, Washington, D. C.

Isaacson, Lee E., Career Information in Counseling and Teaching, Second Edition, Allyn and Bacon, Inc., Boston, Massachusettes, 1972.

Job Descriptions and Organizational Analysis for Hospitals and Related Health Services, Washington, D. C.: U. S. Department of Labor, rev. ed. 1971.

K-12 Career Education Guide, Lakeshore Technical Institute, Sheyboggan, Wisconsin, 1971.

"Motion Quest for Plenty: The Engineer's Role," American Society of Agricultural Engineers, Saint Joseph, Michigan.

New Reading Skill Builder, Reading Level 1, Readers' Digest Services, Inc., Pleasantville, New York, 1966.

New Reading Skill Builder, Reading Level 1, Teachers Edition, Readers' Digest Service, Inc., Pleasantville, New York, 1966.

New Reading Skill Builder, Reading Level 3, Readers' Digest Service, Inc., Pleasantville, New York, 1966.

New Reading Skill Builder, Reading Level 3, Teachers Edition, Readers' Digest Service, Inc., Pleasantville, New York, 1966

Occupational Outlook Handbook, U. S. Department of Labor, Washington, D. C., 1970-71.

"Occupational Outlook Quarterly," Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

Pape, Lillie, Guidelines to Teaching Remedial Reading to the Disadvantaged, Faculty Press Products Division, Brooklyn, New York, 1967.

The Personnel Administrator, Subscription, American Society for Personnel Administration, 1972.

Pre-Law Handbook, Educational Testing Service, Princeton, New Jersey, 1971.

Program on the Teaching of Psychology in the Secondary School, American Psychological Association, Washington, D. C., 1970.

Robertson, M. S., Adult Reader, Steck-Vaughn Company, Austin, Texas, 1964.

Search, Scientific Manpower Commission, Washington, D. C.

Sherman, Vivian S., Trial and Testing of An Experimental Guidance Curriculum, American Institute for Research, Palo Alto, California, 1967. (ERIC)

Space Resources for Teachers: Chemistry, National Aeronautics and Space Administration, Washington, D. C., 1971.

Stone, Shelly C. and Shertzer, Bruce, Guidance Monograph Series IV. Career Information and Development, 8 books, Houghton Mifflin Company, Boston, Massachusetts. To include:

a. Theories of Occupational Choice and Vocational Development

b. Psychological Influences on Vocational Development

c. Students' Vocational Choices: A Review and Critique

d. College Information and Guidance

e. Occupational Information and Guidance

f. The Theory/Practice of Communicating Educational and Vocational Information

g. Decision-Making and Vocational Development

h. Innovations in the Use of Career Information

Studies in Success, A Promising Approach to the Vocational Guidance of Average High School Students, Grossmont Union High School District, Grossmont, California, 1964. (ERIC)

Test Yourself for Science, Scientific Manpower Commission, Washington, D. C.

Thomas Register of American Manufacturers and Thomas Register Catalog File, (2 volumes), Thomas Publishing Company, New York, New York, 1972.

Todd, Vivian, Edmiston and Bates, Zelpha, Development of a Junior High School Instrument for Appraising Social Readiness for Employment, California State College, Long Beach, California, 1967. (ERIC)

Vocational Education: Innovations Revolutionize Career Training, National School Public Relations Association, Washington, D. C., 1971.

"Wanted: More Women Engineers in Agricultural Engineering," American Society of Agricultural Engineers, Saint Joseph, Michigan.

Warner, Tom, Needed Concepts in Elementary Guidance, Ohio State Department of Education, Columbus, Ohio, 1969. (ERIC)

Warren, Mary A. and Others, Identification of Concepts Important for Youth Orientation to the World of Work, Oklahoma University, Norman, Oklahoma, 1965. (ERIC)

Woods, Thomas E., The Administration of Educational Innovation, Bureau of Educational Research, School of Education, University of Oregon, Eugene, Oregon, 1967.

The World Almanac and Book of Facts 1972, Newspaper Enterprise Association, Inc., New York, New York, 1972.

Workers in the Sky, Reading Level 1-2, Readers' Digest Service, Inc., Pleasantville, New York.

Workers in the Sky, Reading Level 1-2, Teachers Edition, Readers' Digest Service, Inc., Pleasantville, New York.

RECENTLY ACQUIRED MATERIALS

Anderson, Kenneth, Invitation to a Career, Research and Review Service Publication, Indianna, 1969.

Begin, Yvette, Help Yourself to a Job, Finney Company, Minneapolis, Minnesota, 1969.

Career Education--A Handbook for Implementation, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., February 1972.

Career Education--What It Is and How to Do It, Olympus Publishing Co., Salt Lake City, Utah, 1972.

Career Education in the Environment, Olympus Research Corporation, Office of Education, Washington, D.C.

Central Maine Power Company Library of Educational Sound Movies, Central Maine Power Company, Lewiston, Maine, 1972.

Dictionary of Occupational Titles, Vol. I, Superintendent of Documents, U.S. Government Print Office, Washington, D.C., 1965.

Directory of Service Agencies in Lewiston-Auburn, Maine, Lewiston Model Cities Agency, Lewiston, Maine, 1972.

Begin, Yvette, Lots of Things, Book I and II, Finney Company, Minneapolis, Minnesota.

Environmental Education-Education That Cannot Wait, Superintendent of Documents, U.S. Government Printing Office. Washington, D.C., August 1970.

Horizons Unlimited. A Handbook Describing Rewarding Career Opportunities in Medicine and Allied Fields, 8th Edition, American Medical Association, Chicago, Ill., 1970.

NVGA Bibliography of Current Career Information, 5th Edition, American Personnel Guidance Association, Washington, D.C., 1969.

Vocational Instructional Materials for Home Economics, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1971.

Film Rental Library-Instruction Films, University of Maine, Orono, Maine, 1972.

EVALUATION

Item _____

Date _____

Teacher _____

School _____

Grade _____ Number of Students _____

Recommended Grade Level (Please circle one):

1 2 3 4 5 5 7 8 9 10 11 12

Teacher Evaluation (Please circle one):

Excellent Good Fair Poor

Student Evaluation (Please circle one):

Excellent Good Fair Poor

Please list other resources used.

Which of the 14 sub-objectives listed in the multi-colored NOW brochure do you feel this activity has met. If no sub-objective is listed, would you write one below.

To avail yourself of NOW Services please bear in mind that the NOW Staff has responsibilities to all levels of Public Education in Lewiston as well as to regional schools. Lewiston teachers should contact the following staff members:

Lewiston High School, Frye, Coburn - Mr. Vincent R. Wills
784-1672

Jordan Junior High, Dingley, St. Mary's, Farwell, Wallace -
Mrs. Hazel M. Guyler
782-1677

Montello Junior High, McMahon, Holly Family, Pettingill, Wallace-
Mr. Roy Bagley
784-2035

Regional Schools call Lewiston Armory- Mr. Lynn Markee
784-1672

CAREER EDUCATION N.O.W.

DATE LINE: LEWISTON

DR. ED. JOHNSON University of Maine will meet with interested staff on Tuesday, Oct. 17th at 3:30 p.m. to discuss Career Education. The meeting will be in the high school guidance office.

RENT A KID Temporary work for 13, 14, and 15 year olds - a co-sponsored program of N.O.W. Exemplary Program and coodinated Community Child Care (4-C) will begin operation on Monday, October 15, Asylon, in the 4-C Drop-In Center at the Healy.

16MM FILMS AVAILABLE

No Limit to Learning
Into the World
Listen, Listen
A Step Ahead
Long Ships Passing

NEW RESOURCE MATERIAL

Filmstrip - Home Economics
Maine Sardines - The Floor & The Industry
Chemistry of Steel
Science
American Grows with Steel
Competition and Research in Steel Industry
Money at Work in the Steel Industry
South Africa Conservation & Development
Tricks & Treats with Macroni Foods
Booklet - Reading Incentive Language Program

CAREER EDUCATION IN THE CURRICULUM

Mrs. Cheney's 2nd graders braved the weather Thursday, October 12, 1972 to visit Lewiston-Auburn Airport.

Mrs. Robertson's 2nd graders are going to an apple orchard in Monmouth on Friday, October 13, 1973.

Mrs. Treworgy's child care students are visiting Day Care Center this week.

Developed by the N.O.W. Program

CAREER EDUCATIONS N.O.W.

VOLUME 1 # 2

OCTOBER 20, 1972

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, Tel. 784-2244

TUESDAY OCTOBER 24 Six Lewiston counselors will attend a workshop in Bangor to discuss Career Education. Programs developed in Lewiston Schools will be presented.

THURSDAY OCTOBER 26 A workshop will be conducted for Montello teachers at 2:45 in room #2.

SATURDAY OCTOBER 28 At Farmington Campus of University of Maine and in-service workshop for teachers of Farmington Public Schools -all day - national figures in Career Education. Invitation required - if interested contact N.O.W. Office.

16MM FILMS AVAILABLE THIS WEEK

American Maker -not listed in film list
The Vehicle Maintenace Story - 10/20/72
It's You Against The Problem - 11/18/72
Poetry Of The Polymer

(American Maker This film, in full color, tells the story of the American heritage to make the things we need and to take pride in the way we do it. It shows how native American craftsmanship began in colonial days: Eli Whitney's demonstration to Congress; and across-the-country panorama of today's Americans at work.

NEW RESOURCE MATERIAL

Filmstrip - Young Fashion Forecast Fall :72
L'Oeuvre De James Ensor - 11/3/72
Book - Effective Pupil Personnel Services

CAREER EDUCATION IN THE CURRICULUM

This past week Frye School started Wednesday morning activities sessions for their fifth and sixth graders. Activities included: photography, woodworking, arts and crafts, chess and other games of skill, basketball fundimentals, sewing and knitting, learning and model construction through the cooperative effort of M.S.D.C. and N.O.W.

The high school Stars (Student tutors in Achievement of Reading Skills) got off to a flying start this week with tutoring sessions with younger Lewiston students.

Mrs. Simonds and Mrs. Davis took their 2nd graders to West Breeze Orchards to explore careers in fruit farming.

Mrs. Rollins 9th graders food class went to Country Kitchen on Monday October 16, to explore careers in baking.

CAREER EDUCATION N.O.W.

VOLUME 1 #3

OCTOBER 26, 1972

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, telephone 784-2244

OCTOBER 26, 1973 Directors of Exemplary Programs are meeting at Pawtucket, Rhode Island to share ideas in Career Education.

OCTOBER 30, 1973 Cecillia Treworgy's child care class is having first hand experience in child care with the start of their playschool.

16MM FILMS AVAILABLE THIS WEEK

Dialogue with a Young Man
American Makers
It's You Against the Problem
Poetry of the Polymer

NEW RESOURCE MATERIAL

Filmstrip - What is an Applicator Mechanic?
Mig & Tig Aluminum Welding
Asphault Paving Inspector
Aspault Plant Inspector

CAREER EDUCATION IN THE CURRICULUM

Jackie Price's Media Class explored careers in the radio industry at WLAM on October 27.

Hazel Guyler and Tom Mahaney participated in the Governor's Conference on Career Education at SMVTI on October 26 and 27.

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATIONS N.O.W.

VOLUME 1 #4

NOVEMBER 2, 1972

DATE LINE: LEWISTON

RENT-A-KID Needs your support, call in your odd jobs, telephone 784-2244

16MM FILMS AVAILABLE
Message From Riyadh
American Maker

NEW RESOURCE MATERIAL
Filmstrip - All about Tea - Hot and Iced
Sigmund Freud
Your Career in Chemistry
Stagestruck: Your Career in Threatre
Leonardo Davinci
The Gay Poet - The Story of Eugene Field
O. Henry - The Story of William Sydney Porter
John Muir - Father of our National Parks
Michael Faraday - From Errand Boy to Master Physicist
Medicine From Microbes - The Story of Antibiotics

CAREER EDUCATION IN THE CURRICULUM

The N.O.W Program is planning a In-Service Workshop in Vocational Exploration Groups for November 27 to December 3. Anyone interested contact the N.O.W. office (telephone 784-1672).

Captain John Brier, Executive Airlines pilot, discussed careers in the airline industry with Mr. Dennis' and Mr. Burniers' at McMahon.

Tuesday, November 7, Bob Gardnier, Director of Development Channel 10 will discuss careers with Jacke Prices' media class.

Mrs. Mauzy and Mrs. Martel's 1st grade classes visited Bonneau's Supermarket Monday. There they saw the produce unloaded and received free apples! Parents served as escorts.

Developed by the N.O.W. Program

RWB/nms

CAREER EDUCATION N.O.W.

VOLUME 1 # 5

NOVEMBER 9, 1972

DATE LINE: LEWISTON

16MM FILMS AVAILABLE

You be the Doctor
Groundbreaker
They Major in Missles
It's you Against the Problem
Poetry of the Polymer
Message from Riyadh

NEW RESOURCE MATERIAL

Books - Pioneer Oceanographer (Filmstrip - Records
First Woman Ambulance Surgeon (Accepting Deposits
Luther Burbank Plant Magician (Being A Good Teller
World Series Thrills (Money Handling For
Effective Pupil Personnel Services Tellers

CAREER EDUCATION IN THE CURRICULUM

Mrs. Edna Wilson's grade 6th, Dingley School, visited Ward 3 Precinct 1 Election Day. Mrs. Raymond Boulet, Ward Clerk, served as guide and instructor.

Mrs. Jipon's 3rd grade, Farwell School, took a field trip to Hilltop Dairy on October 31, where they learned about Careers in Dairy Farming.

The N.O.W. Staff participated in Career Education at Pawtucket Rhode Island on November 3 and 4.

Roy Bagley and Hazel Guyler were participants in a Career Education Workshop at Lawrence High School, Farfield Maine on November 7.

Mr. Lavoie's class at St. Mary's toured the New Comprehensive High School on November 8.

Mrs. Allen's grade 3, Frye School, are going to Cottle Super Market and Friendly Ice Cream on Sabbatus.

Mrs. Pike's grade 4, McMahon School, had a visitor last week Mr. Glidden game warden discuss career in the outdoors.

Developed by the N.O.W. Program

RWB/nms

CAREER EDUCATION N.O.W.

VOLUME 1 #6

NOVEMBER 16, 1972

DATE LINE: LEWISTON

RENT-A-KID Needs your support, call in your odd jobs, telephone 784-2244

16 MM FILMS AVAILABLE

Big Game Hunter
The Space Age Sport
Skydiving
Father of Supersonic Flight
First Woman Editor
Conservation
Louis Braille
Electronics Pioneer Lee DeForest
Albert Einsteing
Marcia Private Secretary
Men Rocket and Space Rats

CAREER EDUCATION IN THE CURRICULUM

Mr. Gigure's Health Class at Montello Jr. High School had a visit from the Lewiston Fire Department. They learned about fire prevention and careers in the fire department.

Linda O'Connell's sewing class at Montello Jr. High School visited Mrs. Lebel's Bridal Salon Friday, November 15. Careers in dressmaking and ideas in sewing will be discussed.

Mr. Dunn's printing class at Montello Jr. High School got snowed out. They rescheduled a visit to Screen Printing Wednesday, to learn about careers in the printing industry.

The playschool at Montello's is over. It was a great success.

Have a good turkey day.

Developed by the N.O.W. Program

RWB/nms

194

CAREER EDUCATION N.O.W.

VOLUME 1 # 7

NOVEMBER 30, 1972

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 784-2244

16MM FILMS AVAILABLE THIS WEEK

Campus To Command
Career in Oceanography

NEW RESOURCE MATERIAL

Filmstrips/Records - Medico - A Service of Care
FDR As a Stamp Designer
NFSCS Record - Stamp Collecting

Books - America's First Woman Astronomer
The Telescope
Your Career in Medical Research
Disease Detectives

CAREER EDUCATION IN THE CURRICULUM

November 9, Mr. David Schaible, a Forester, spoke to the children in Mrs. Jordan's and Mrs. Hess's fourth grade classes about forest management tree planting. Slides, tapes, and discussion techniques were used to enrich the social studies unit.

November 15-16, NOW Staff participated in a conference on Career Education at Nashua, New Hampshire Miss Sylvia Tibbetts, counselor at Montello, also attended.

November 22, Mrs. Provencher's second grade class, accompanied by two parents, visited Mr. Alfred Labranches's woodworking shop at his residence. Mr. Labranche has models of ships, the "Chuck Wagon", horses, and many novelties made of wood that he has graciously agreed to show and discuss with students. Teachers who are interested should contact the NOW Office.

Dingley School held a Career Information Day on November 27. Students in grades 4,5, and 6 viewed filmstrips, heard tape cassettes, and engaged in discussions pertaining to a wide variety of careers.

Developed by the N.O.W. Program

RWB/nms

195

CAREER EDUCATION N.O.W.

VOLUME 1 # 8

DECEMBER 7, 1972

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 784-2244

16MM FILMS AVAILABLE THIS WEEK

The Show That Almost Wasn't
Your Place in Nuclear Age
Preparing For Tomorrow's World
Men's Hair Styling As Your Career
Go Fission

NOW Film Service is not being utilized to our expectation this past semester. For the new year should we continue this service? What films should be ordered? We are waiting to hear from you. (tel. 4-1672 we have the catalog)

NEW RESOURCE MATERIAL

Books - Clarence Darrow
Joseph Pulitizer
America's First Woman Chemist

CAREER EDUCATION IN THE CURRICULUM

Diane Bleakney's English Class at Montello had visitors, Mr. Wardwell, Sun Journal Photographer and Mr. Mitchell, Camera Service Center, who discussed photography and equipment in careers.

Peter Blake, grade 5 at McMahon, visited Bates Manufacturers to discover careers in textile industry.

Claire Bolduc visited Libby Mill in preparation for her French Class experiences.

November 5 Mrs. Harriet Bagley and Mrs. Lynette Furtado held a woodworking activity in their classrooms at Dingley. Students were engaged in making a Christmas present which will be a surprise to their parents.

November 6 Miss Fiato's second grade class at Farwell toured the Hudson Bus Lines and the Greyhound Bus Station. Slides will be available to other classrooms after they have been developed into a learning package in a follow-up activity at Farwell.

Developed by the N.O.W. Program

RWB:nms

196

CAREER EDUCATION N.O.W.

VOLUME 1 #9

DECEMBER 14, 1972

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 784-2244

DECEMBER 11-12 Mr. Deschenes, Superintendent, Mr. Connors, Principal, and Mr. Markee, N.O.W. Coordinator, visited the Atlanta Georgia Exemplary Program. An exchange of ideas and program activities with their superintendent, principals, program director, and his staff should prove very helpful to each. The Georgia Program has been in operation one year longer than Lewiston's, therefore; we bring back knowledge about implementation that is yet to be experienced.

16MM FILMS AVAILABLE THIS WEEK

Careers in Construction
Turn on With Color
Teenage Movie Competition
Your Place in Nuclear Age
Go Fission
Men's Hair Styling As Your Career

NEW RESOURCE MATERIAL

Books - Inventive Wizard
Lillian Wald Angel of Henry Street
Raymond L. Ditmar His Exciting Career with Reptiles

CAREER EDUCATION IN THE CURRICULUM

Mrs. Bealieu's 4th grade, McMahon School, finished a unit on Maine by visiting channel 8, W M T W. They learned about jobs in the television industry, in the state of Maine.

Mr. Dennis's and Mr. Bernier's 6th grade classes visited the Lewiston-Auburn Airport on December 14, 1972. They learned about the different jobs at the airport.

Developed by the N.O.W. Program

RWB:nms

CAREER EDUCATION N.O.W.

VOLUME 1 #10

JANUARY 4, 1973

DATE LINE: LEWISTON

HAPPY NEW YEAR

RENT A KID Needs your support, call in your odd jobs, tel. 784-1672

CAREER EDUCATION IN THE CURRICULUM

December 4 - Mrs. Piper's grade 8 class in Foods at Jordan Junior High School toured the Country Kitchen Bakery facility to explore careers and job demands in the culinary arts area.

December 8 - Miss Rita Rioux's grade 5 class at Farwell visited the Brunswick's Weather Station which is managed and operated by 9 students in Brunswick Junior and Senior High Schools. Following luncheon in the Neptune Room at the Brunswick Naval Air Station, the class toured the Navy station's Weather Detachment, including the Observation Tower and Radar Control Room.

December 8 - The first grade students in Miss Brennan's and Mrs. Pelletier's classes at St. Mary's made a field trip to Paragon Glass Industries to observe some of the processes involved in producing Christmas decorations.

December 11 - A dessert party was held at Happy Jack's and diplomas were awarded to the high school students(STARS) who completed the training in September in the teaching of basic reading skills. Since October, the STARS have been meeting at least once a week with a younger student to tutor in reading at Jordan, Montello, Farwell, and Pettingill Schools.

December 19 - Mrs. Kendall's and Mrs. Flynt's art students of Jordan Junior High School and Montello had a career day in Portland, December 19, 1972. A guided tour of stores in the mall by a display manager proved most informative. Portland School of Fine Art and the Portland Museum of Fine Arts were also visited.

Developed by the N.O.W. Program

RMB:nmc

198

CAREER EDUCATION N.O.W.

VOLUME 1 #11

JANUARY 11, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

January 8 - Mrs. Pelletier's first grade class at St. Mary's visited Dunkin Donuts to increase their understanding of community businesses and careers.

January 9 - Miss Brennan's first grade class at St. Mary's made a field trip to Dunkin Donuts on Lisbon Street to relate language arts to the world of work.

January 9 - The students in Mrs. Herrick's 8th grade classes at Jordan Junior High School made a field trip to Juliet Mills, Inc. at Lisbon, and a tour of the Fabric Mill Center to learn job demands and opportunities in textile and retail areas of work.

January 10 - Mrs. Judy Farley a former stewardess and now a reservations clerk at Logan Airport visited Mr. Bernier's and Mr. Dennis's grade 6 classes at McMahon School. Part of the sessions were videotaped and will be available for use by classroom teachers upon request to the N.O.W. Office.

January 11 - Thirteen students in Mrs. Herrick's 9 grade class in clothing visited Lebel's Bridal Salon to explore careers in small business management in custom made clothing.

January 11 - Mr. James Brann's computer math class at Lewiston High School visited Maine Information Service, a business oriented computer service system, to observe an actual computer based service in operation.

Development by the N.O.W. Program

HMG:nmc

199

CAREER EDUCATION N.O.W.

VOLUME 1 #12

JANUARY 18, 1973

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 4-2301

CAREER EDUCATION IN THE CURRICULUM

January 15 - Ten students in Mrs. Herrick's Clothing and Textiles Class at Jordan Junior High visited Mrs. Lebel's Bridal Salon in Auburn to explore careers using skills they learn in academic classes in Home Economics.

January 16 - Mrs. Guyler NOW Counselor, discussed NOW Program Resources and materials with teachers at Martel School during a regular teachers' meeting.

January 18 - Mrs. Piper's Class in Foods at Jordan Junior High made a field trin to Friends' Caterers to learn about the functions of workers in the catering service and to observe the many types of foods, their production, and distribution.

January 19 - Roy Bagley and Hazel Guyler, NOW Counselors, attended the winter meeting of the Maine Personnel and Guidance Association at the University of Maine at Augusta.

Several activities related to teacher workshops are being planned by the N.O.W. Staff. Please look for announcements in future circulations.

The materials on Career Education are being utilized at an accelerating rate. Please plan ahead and request early those items you will need.

THOUGHT FOR THE WEEK: "Habit is a cable; we weave a thread of it each day, and at last we cannot break it." (Horace Mann)

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #13

JANUARY 25, 1973

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 4-2301

CAREER EDUCATION IN THE CURRICULUM

January 24 - Mrs. Bagley and Mrs. Furtado's classes at Dingley visited the hobby woodworking shop of Mr. Fred Labranche to learn how to use tools and time in worthy leisure-time and career activities. The group was accompanied by three Bates College student volunteers and Mrs. Griswold.

Teachers who have NOW resource materials they are no longer using may call 784-1672 for pick-up and redistribution by the NOW Staff. Please remember to complete and return the evaluation sheets for resources used to assist us in our continuous evaluation of activities and efforts.

Bob Quellette from WLAM discussed careers in radio industry and duties of Music Librarian with Montello Library Club on January 23, 1973.

Hall Dutch from WLAM discussed careers in radio industry with Mrs. Touloumtzis's Media Class on January 17, 1973.

Library Club at Montello went to Sun Journal January 10.

THOUGHT FOR THE WEEK

"There are two kinds of failures: The man who will do nothing he is told, and the man who will do nothing else." (Dr. Perle Thompson)

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #14

FEBRUARY 1, 1973

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 4-2301

CAREER EDUCATION IN THE CURRICULUM

January 30 - Miss Fiato's second grade class at Farwell visited the post office to learn about the processing of mail and other job functions involved in postal careers.

February 2 - Mrs. Jordan's fourth grade class at Farwell visited the Auburn Museum in the Municipal Building to increase their understanding of the historical development of their culture, including tools, skills, arts and crafts.

Linda O'Connell's child care class has started to visit day care centers. Small groups go three times a week to get hands-on experience in child care.

On Wednesday, January 31, 1973 Mr. Richard Ducharme's fifth and sixth grade woodworking mini-course at Frye School visited Bradco Company, Lisbon, Maine. Bradco manufacturers unfinished pine furniture such as chairs, tables, and deacon benches. The students had a chance to observe the employees in the process of manufacturing a finished wood product. Through the mini-course, the students have been involved in the making of their own wood product before participating in the trip to Bradco.

ATTENTION: Any teacher who has a career poster from the NOW Program please return it, we need them to print more. If you leave your name we will see that you get a new one.

THOUGHT FOR THE WEEK

"One pound of learning requires ten pounds of common-sense to apply it" (Persian Proverb)

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #15

MARCH 1, 1973

DATE LINE: LEWISTON

The staff members of the N.O.W. Program who ordinarily compile information for this weekly paper have been participating in a staff development program called Vocational Exploration Groups. It was designed and developed by Dr. Calvin Daane of Temple, Arizona. The NOW Program engaged Dr. Daane to come to Lewiston and conduct the program. Twenty-four teachers and counselors (seventeen from Lewiston and seven from regional schools) have receive training to become trainers or leaders in future Vocational Exploration Groups. One-hundred-twenty students are participating in the process plus local administrators, educators from Maine Department of Education, and the University of Maine.

Below is a brief description of the program.

INTRODUCTION

The goal of vocational exploration is the development, expansion and personalization of jobs for group members. The process is a highly structured examination of self in relation to the world of work. It helps members use the group to gain an expanded awareness of jobs, to increase the quantity of jobs each would consider appropriate for him in career planning.

GOALS

1. To provide students in grades 8 to 12 (primary emphasis to be performed in grades 10 to 12) the opportunity to develop, expand, and personalize jobs. This will more effectively prepare these students to better evaluate their career preparation and direction. Satellite programs will be offered in grades 6 and 7 in order to prepare students for job exploration.

2. To train teachers and counselors as leaders to increase their understanding of career education activities, the value of this understanding to them in their work, and to increase their involvement in facilitating total student development.

3. To train the NOW Staff as trainers in group procedures for career exploration in order to reach more effectively teachers and students and to provide continuing staff development.

THOUGHT FOR THE WEEK

"Only fools and dead men don't change their minds. Fools won't. Dead men can't." (John H. Patterson)

Developed by the NOW Program

LWM:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #16

FEBRUARY 20, 1973

DATE LINE: LEWISTON

RENT A KID Needs your support, call in your odd jobs, tel. 4-2301

VOCATIONAL EDUCATION WEEK - FEBRUARY 11-16

To: Mr. Aliberti, Mr. Connors, ninth grade teachers and students. Our sincere thanks to you for your support of Career Education. Montello Junior High School teachers and Jordan Junior High School teachers conducted career activities in grade 9 on Tuesday and Wednesday respectively. Many thanks to the students who carried materials and equipment.

CAREER EDUCATION IN THE CURRICULUM

February 12 - Mr. Fred Perkins, UMO and State Department of Education and Cultural Services presented a slide program related to careers in the newspaper industry to Mrs. Hess and Mrs. Jordan's 4th grade classes at Farwell. A talk on the use of the newspaper in the classroom.

February 14 - Miss Houle's 3rd grade class at McMahon School visited the Auburn-Lewiston Airport and State Aviation Inc. to learn about careers in aviation industry.

THOUGHT FOR THE WEEK

"Brotherhood is the very price and condition of man's survival." (Carlos P. Romulo)

SECOND THOUGHT FOR THE WEEK

"Vacation is the very slice of education for teachers' rivival." (Lynn W. Markee)

WANTED:

Someone to utilize portable carrel - can deliver - will divide 3' X 5' table into six independent study areas. Call 4-1672.

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATIONS N.O.W.

VOLUME 1 #17

March 9, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

Mrs. Smith's Math class at Montello visited CMVTI. They learned about the skills they need to train for technical careers.

Bradley Peters, Public Relations Director of Maine Central Railroad, discussed the railroad industry in Maine with Miss Houle's grade 3 at McMahon.

Brian Albert, Constance Brann, Elizabeth Filliettaz at Pettingill and Paula Beleckis at Wallace took their fourth graders to Augusta this week. The students learned about the history of Maine and discovered some careers in government.

Miss Coutune, Director of Medical Records of Central Maine General Hospital, discussed her career with the Montello Library Club.

Judy Rollin's foods class at Montello visited Country Kitchen. They learned about different careers in automated bakery.

Linda Hackey's first graders had five representatives visit Country Kitchen with the Montello 9th graders. They are becoming aware of community workers.

February 27 - The students in Mrs. Bates' Grade 5 at Martel and Mrs. Jordan's Grade 4 at Farwell traveled to Augusta where they visited the Maine State Museum, the Legislature, and lunched at McDonald's. Mrs. Jordan's group were able to talk briefly with local legislators Minkowsky and Clifford. Mrs. Bates' group observed local industries and historic places and route, particularly in the Winthrop area.

March 6 - Mrs. Jordan's 4th grade at Farwell toured the Seltzer and Rydholm beverage company in Auburn where they observed the processing and bottling of soft drinks to relate job opportunities and the different kinds of work available in the local area.

Anyone interested in participating in Vocational Education Groups short process (two hours) at nights or weekends, contact the N.O.W. Office 784-1672.

THOUGHT FOR THE WEEK

"Business is like a man rowing a boat upstream. He has no choice;he must go ahead or he will go back." (Lewis E. Pierson)

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATIONS N.O.W.

VOLUME 1 #18

March 22, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

March 22 - Mrs. Hussey's Kindergarten and Mrs. Trainor's 6th grade classes were visited by Mr. Robert Aube, a carrier for the Lewiston Post Office, who discussed the duties of a mailman and explained how mail delivered is processed from the time it is written and to the recipient's home or business.

March 23 - Mr. Robert Dionne, a member of the Fire Prevention Department, Lewiston, presented a film to Mrs. Trainor's 6th grade class and discussed the work involved by firemen with Mrs. Hussey's Kindergarten class.

Both Mrs. Hussey and Mrs. Trainor are conducting lessons involving career education on a regular basis in their classrooms. The resource people who visited this week represent "Community Helpers."

March 22 - Roy Bagley, N.O.W. Counselor conducted a workshop at Montello Jr. High for teachers interested in learning how to use the video-tape recorder.

March 21 - Diane Bleakney's English class visited the South Portland Boys Training Center. They discussed careers in rehabilitation as well as careers the students are preparing for.

March 19 - Volunteers from Mike Beaulieu's History class are participating in V.E.G. (Vocational Exploration Groups).

*The books "I Want To Be" listed on the separate sheet are written for K-3 children. Try them - you'll like them!

THOUGHT FOR THE WEEK

"I am not afraid of tomorrow, for I have seen yesterday and I love today." (William Allen White)

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATIONS N.O.W.

VOLUME 1 #19

MARCH 30, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

March 16, 1973 - As part of an aviation visit, Mrs. McGrath's third grade class at Coburn had as a guest Mrs. Fran Cannon a stewardess from T.W.A. The classroom was set up as the interior of a commercial airline and Mrs. Cannon served a light lunch and performed other duties as she would on a regular commercial flight thus giving the students a first-hand look at some of the duties of a stewardess.

March 20, 1973 - Mrs. McGrath's, with the help of a student teacher Mr. Henry Aliberti, third grade class at Coburn took a field trip to the Portland International Jetport. The students observed the various activities involved with an airline terminal and saw a commercial Delta flight arrive and leave. Also some of the students saw Mrs. Cannon,TWA stewardess, as she was leaving to fly to New York so she could make the connection for her working flight schedule from New York City to Rome Italy. While at the airport the students also visited the Portland Weather Station located at the airport.

March 27, 1973 - Mrs. Piper's 9th grade class in Creative Cooking at Jordan Junior High School visited the Main Culinary Arts Center on Spring Street to explore careers in cooking. They toured the facilities and heard an interesting talk by Mr. Marsden, the instructor. Mr. Cotter, the steward explained the preparation of food and the training of student. A delicious and beautiful meal was enjoyed.

March 29, 1973 - One of Diane Bleakney's eighth grade classes at Montello went through the Vocational Exploration Group (V.E.G.) process. Several other groups of Montello students are having a V.E.G. experience.

March 29, 1973 - Jim Helms, Carol Bradford, and Roy Bagley went to Waterville to lead a class of Cooperative Educations teachers in Vocational Exploration Group.

March 30, 1973 - Joan Flynt's Art classes at Jordan Junior High visited the Maine Mall. They are working on a unit in advertising and the related careers.

March 30, 1973 - Mrs. Furtado's grade 6 boys at Dingley visited Mr.Bussell's Trades and Industry class in carpentry. The trip was arranged to related the woodworking activities the Dingley's students are engaged in.

Vocational Exploration Groups are happening everywhere!

Developed by the N.O.W. Program

VRW:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #20

April 6, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

March 30, 1973 - Each of Mrs. Furtado's sixth grade boys at Dingley were presented with a bird house that was cut and assembled in forty-five minutes by the students in Mr. Bussell's Carpentry Class at Lewiston High School. Since the NOW Gram was "in press" at the time of the visit, no mention was made of the "surprise" last week.

April 3, 1973 - Mrs. Flynt's Art students at Jordan Junior High School visited the Maine Mall to see the School Art Display. This was in conjunction with a unit in advertising.

April 6, 1973 - Mr. Dennis' class at McMahon had a register nurse visit them this Friday. The class discussed careers in the Health Fields.

ATTENTION K-3

Captain Kangaroo has a special series of four minute films on careers at 8:30 a.m. on channel 13 every Monday, Wednesday and Friday.

THOUGHT FOR THE WEEK

"We have committed the Golden Rule to memory. Let us now commit it to life." (Edwin Markham)

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #21

APRIL 12, 1973

DATE LINE: LEWISTON

CAREER EDUCATION IN THE CURRICULUM

April 10, 1973 - Mrs. Piper's ninth grade girls at Jordan Junior High School visited Augusta on Tuesday, April 10 as an activity related to Human Relations. At the State Legislature they observed the congressmen in action and were recognized publicly by Speaker of the House, Richard D. Hewes, and by President of the Senate, Kenneth P. MacLeod. Representative Joyce E. Lewis, Auburn, and Representative Georgettee B. Berube, Lewiston, personally delivered legislative materials to the girls and welcomed them. A tour of the Blaine House, Maine State Museum, and the State Library provided much information regarding a multitude of careers. The girls lunched at McDonalds.

April 12, 1973 - Jackie Bouchard and Debbie Kajohnian, Jordan Junior High School, toured Pineland where they explored work opportunities in mental-health-related careers.

April 11, 1973 - Dick Lachance, Manager of Pontiac Village Service, visited Dick Dennis's sixth grade class at McMahon School to discussed careers opportunity as a mechanic.

April 11, 1973 - Students interested in the magazine industry at Montello visited Geiger Bros. to learn about careers in the printing industry.

April 11, 1973 - A registered nurse, licensed practical nurse, and a nurse's aide at St. Mary's Hospital visited Montello's Adopt-A-Grandparent Club.

April 13, 1973 - The Language Department at Montello is putting on a play tomorrow to make students more aware of the cultural differences in different countries. The students will learn about careers in the theater and will discuss the careers in the play.

Vocational Exploration Groups are going strong!

Enjoy your vacation next week!

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #22

APRIL 27, 1973

DATE LINE: LEWISTON

Karen McMahon, the NOW Program's activities writer, is in the process of gathering information about past and current career activities. If you would like your activities documented, or would like to help develop learning packets centered around these activities, please contact her at our NOW office. (784-1672)

If anyone would like mounts, posters or transperencies made for classroom use. They may be made-up and also returned to you by calling 784-1672. For more information call the above number and ask for Donald Gay, Mobile Resource Coordinator, if any A-V materials are needed feel free to call.

CAREER EDUCATION IN THE CURRICULUM

April 25, 1973 - Sixty-two girls in Mrs. Herrick's Clothing Classes and Poise and Grooming Classes at Jordan Junior High School visited Westbrook College to explore careers in clothing merchandising. While there, they toured the campus and observed a fashion show of garments made and modeled by the college students.

April 26, 1973 - Mrs. Piper's ninth grade class at Jordan Junior High School in Human Relations joined the Senior Citizens for the Hot Lunch at St. Paul's Episcopal Church. Mrs. Aliberti, Director of the Hot Lunch Program oriented the girls on April 25 for the experience. The students prepared May baskets which were used as the centerpiece on each table. After lunch the baskets were then delivered by Mrs. Aliberti to shut-in senior citizens in Lewiston.

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #23

MAY 4, 1973

DATE LINE: LEWISTON

From now on any Audio-Visual equipment and material needed under the N.O.W. Program can be delivered to your school by Donald Gay, the new Mobile Resource Coordinator. There will be a resource van in use by next September and this will be a better system but for now anyone needing equipment, materials or information should call 784-1672 instead of getting films and equipment from the career guidance counselors.

CAREER EDUCATION IN THE CURRICULUM

May 1 - Mrs. Trainor's sixth grade class at St. Mary's School visited Pioneer Plastics Corp., Auburn to learn about careers in the community. Students observed workers involved in the manufacturing of Pionite (formica) from the initial step to the completed product ready for use and installation by the furniture industries and building contractors.

May 1 - Mr. Robert Dionne, Lewiston Fire Prevention Department visited Mrs. Piper's ninth grade Home Economics Class in Human Relations. He showed a film dealing with a babysitter's responsibilities in case of fire. Mr. Dionne returned to the class on May 3 to lead a discussion on careers in fire prevention.

THOUGHT FOR THE WEEK

"Of all the thing you wear, your expression is the most important." (Janet Lane)

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #24

May 11, 1973

DATE LINE: LEWISTON

Since the school year is drawing to a close, a resource van is being set-up. It would be appreciated if all N.O.W. A-V material (equipment and soft-ware) is returned to the N.O.W. Office by the 8th of June. If you need assistance please call 784-1672 and ask for Don Gay.

CAREER EDUCATION IN THE CURRICULUM

May 4, 1973 - Mrs. Earle has developed a unit in careers involving the military services. Her sixth grade class at Wallace heard a guest speaker from Brunswick Naval Air Station.

May 7, 1973 - Mrs. Piper's 9th grade class in Human Relations at Jordan Junior High School visited the Golden Age Boutique to observe the Senior Citizens at their work stations and engaged in worthy use of leisure time in creative activities. The 9th grade students created a colorful May pole which they presented to the Senior Citizens along with a metal planter containing beautiful red geraniums in bloom. The girls were taught to make lovely broaches from obsolete items. The visit relates to the Public Services Occupations.

May 8, 1973 - Mrs. Fournier and her 2nd grade class at Holy Family Public School have developed a unit in career education. This past week Mrs. Fournier took her class to Cottle's Food Market. Her class observed the different occupations involved in supplying and managing a supermarket. They also had first hand observation of customer services.

May 8, 1973 - Mrs. Swift's classes at Jordan Jr. High School visited the State Museum, the Legislature, and Blaine Mansion. They observed museum workers and workers in government.

May 8, 1973 - Mr. Gaston Bachand, Maintenance Department, visited Mrs. Cyr's 5th grade class at Martel School to present his extensive collection of rocks and minerals in conjunction with a Science unit. The Natural Resources Occupations are related to Mr. Bachand's expertise in his avocation.

May 9, 1973 - The entire student body (K-6) at Frye School participated in a Career Day with the cooperation of the Lewiston-Auburn Chamber of Commerce. The students visited various firms and businesses to obtain a closer look at the various careers involved. Also, several resource people made presentations at the school. It was a very busy but rewarding day.

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #25

MAY 18, 1973

DATE LINE: LEWISTON

Since the school year is drawing to a close, a resource van is being set-up. It would be appreciated if all N.O.W. A-V material (equipment and soft-ware) is returned to the N.O.W. Office by the 8th of June. If you need assistance please call 784-1672 and ask for Don Gay.

Anyone interested in a two day summer workshop to be trained as a leader in Vocational Exploration Groups please contact N.O.W. Office by dialing 784-1672 or Roy Bagley.

CAREER EDUCATION IN THE CURRICULUM

May 8, 1973 - Lorraine Fournier's grade one at McMahon School visited Cottle's for an integrated unit including careers, math, spelling, vocabulary etc.

May 14, 1973 - Students from Reta Herrick's Child Care Class at Jordan Junior High School and Mrs. Shuseldt's Child Care Class at Montello visited Day Care Centers in the city, they are developing skills for their playschool.

May 15, 1973 - Mrs. Piper's ninth grade class in Human Relations at Jordan Junior High School visited Marcotte Nursing Home to learn about health related careers and services available to residents. This week is National Nursing Home Week.

May 15, 1973 - Mrs. Cheney's second grade class at Farwell traveled by bus to New Gloucester to visit the Dry Mills Fish Hatchery. Mr. Cecil McAllister, a staff member at the station, discussed the purposes of the hatchery, careers in wild life, fish and game management. After observing the feeding of millions of fish in the outdoor troughs, the children enjoyed the actions of the bears, foxes, pheasants at the animal farm.

May 16, 1973 - Martha Gibbs' fifth grade class at Pettingill School visited the Maine Yankee Atomic Power Company and learned about the various occupations related to the atomic power industry.

May 16, 1973 - Four English teachers from Freeport High School visited the Lewiston schools to see Career Education in action.

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #26

MAY 24, 1973

DATE LINE: LEWISTON

Since the school year is drawing to a close, a resource van is being set-up. It would be appreciated if all N.O.W. A-V material (equipment and soft-ware) is returned to the N.O.W. Office by the 8th of June. If you need assistance please call 784-1672 and ask for Don Gay.

Lynn Markee, program coordinator, Vincent Wills, Roy Bagley and Hazel Guyler, career guidance specialists, and Dick Read, cooperative ed. coordinator left this week for the American Personel and Guidance Association Convention at Atlanta, Georgia. There, they will give a Career Education presentation highlighted by N.O.W. Program objectives and activities.

Mrs. Sharon Martin's Adopt-A-Grandparent Club at Montello Junior High School have explored career possibilities in the Health Occupations. Particular attention has been given to health careers involving the problems of the aged. On Wednesday, May 16th, a licensed physical therapist and two physical therapy students spoke to the club about the duties, educational requirements, personal requirements and working conditions of a physical therapist.

Miss Paula Beleckis of Wallace School, Mrs. Edith Jordan of Farwell School, and Mrs. Margaret Parker of Frye School have helped Karen McMahon, our activities writer, in developing a 4th grade social studies unit on Maine. The unit's emphasis will be on how Maine people have worked and lived together in the past and in the present. The unit activities will deal with all occupational areas in our state and will integrate regular classroom subjects as well. Suggestions will also be made for possible field trips, resource persons as classroom speakers, materials, and audio-visuals pertaining to the career areas taken up in the unit. The information and ideas needed to make an inclusive unit are far from complete. Karen McMahon will eagerly welcome any additional communications on the subject. Call 784-1672 to arrange for an appointment or material pick-up by our audio-visual resource specialist, Don Gay.

Developed by the N.O.W. Program

KJM:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #27

JUNE 4, 1973

DATE LINE: LEWISTON

The staff members of N.O.W. are curtailing classroom activities. This is due to our need for organizing and analyzing this year's activities. We are compiling all materials, information, and findings into learning packages or reports that can be used next year. Assistance is still available to you in concluding activities now going on.

We would appreciate notice of any materials and equipment you may have that you have finished using. (We will pick-up if you call 784-1672)

Mr. Reginald A. Doucette, Chief Engineer of the Lewiston Fire Department, has requested that teachers of students who are involved (or will be) in babysitting be informed that members of his staff are eager to visit classrooms. A program pertaining to babysitting responsibilities, in case of fire will be conducted in the classroom upon request to the Lewiston Fire Department. Mrs. Piper, Jordan Junior High School, reports that the fire prevention classes have been very valuable for her students.

May 30, 1973 - Brunswick Naval Air Station played host to two forth grades at McMahon School. Ronda Dube and Holly Cooney have introduced careers in the miltary. As a follow-up students will be identifing themselves with people they met on the Base.

Developed by the N.O.W. Program

HMG:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #28

JUNE 8, 1973

DATE LINE: LEWISTON

We would appreciate notice of any materials and equipment you may have that you have finished using (We will pick-up if you call 784-1672)

CAREER EDUCATION IN THE CURRICULUM

June 1 - Mr. Bernier's Mini-Course students had a career experience at Country Kitchen. Students toured the plant and talked with workers, learning about career opportunities in the bakery industry.

June 5 - Mrs. Bates' 5th grade class at Martel visited the Portland International Jetport and the Maine Central Railroad Terminal in Portland to explore careers in the transportation industry.

June 5 - Miss Fiato's second grade class at Farwell visited Merrill Haven Dairy Farm to observe workers in the agri-business and natural rescouces occupations.

June 6 - Miss Ricker's third grade at Martel visited Ft. Western, the Blaine House, and the Legislature in Augusta to relate past and present careers in government.

June 6 - Mrs. Provencher's second grade class visited Merrill Haven Dairy Farm to observe workers in agri-business and natural resources career clusters.

June 6 - Mrs. Cyr's fifth grade class visited Perham's Mineral Store and Digging Site as a culminating activity in the Geology unit they have studied recently in Science. Many treasures were bought and dug!

June 6 - The Library Club students visited Boothbay Railroad Museum and Bath Marine Museum in an exploration of careers involved in the museum field.

June 6 - The Art Club of Montello visited Boston's Art Museum and the Peabody Museum to explore careers involving their interests in art.

Developed by the N.O.W. Program

RWB:nmc

CAREER EDUCATION N.O.W.

VOLUME 1 #29

JUNE 13, 1973

DATE LINE: LEWISTON

To: All School Personnel

The N.O.W. Staff wishes to thank you for making our program progress to the point it is at today. This includes Mr. Deschenes for his strong support, all principals for the freedom given us to enter and leave their building to work with their teachers, to the aides, assistants, C.O.P. trainees and Mr. Wilcox for their active roles, also department heads, secretaries, and maintenance men, and particularly to those classroom teachers who presented Career Education to their students.

Have a restful and enjoyable summer.

Thanks again from all,

Lynn
Hazel
Roy
Vince
Dick
Karen
Don
Margaret
Joyce

Last Reminders

Last call for Vocational Exploration Groups workshop. Anyone interested in being trained as Vocational Exploration Groups leaders (Group process for job personalization) please contact N.O.W. office. The dates for the two day workshop will be arranged.

Teachers are reminded, if you desire NOW service this fall the summer is for planning and we will be available.

Any materials and equipment you have that you have finished using, we will pick-up if you call 784-1672.

Developed by the N.O.W. Program

LWM:nmc

Attachment 8

MEMORANDUM

To: Lewiston Teachers

From: Now Exemplary Program

Re: Human Resources

In February and March letters were mailed to more than 200 clubs and organizations in the greater Lewiston area to compile a compreshenvie list of persons who are willing to assist students in the exploration and pursuit of their career and educational activities.

When completed and duplicated (responses are still being received) a directory will serve as a reference source for teachers, students, and NOW staff in identifying local businesses, industry, services, professions, materials, and persons for an actively oriented career education program.

To date 26 perons have agreed by mail to be of service to individual students and/or classroom groups upon request. Many will come to school as guest speakers.

The attached sheet lists the interest area and grade level preferred by the resource person. If you would like NOW staff to contact one or more of these volunteers in an interest area related to your academic subject or student interest, telephone NOW office 784-1672 or ask one of us in person and we will do our best to accomodate you. Please allow several weeks from date of request to date of quest visit since these volunteers are employed and must coordinate their working hours to serve us.

NOW 4/13/72

Attachment 8

Grade Level 10-12

Interest Area

Electrical Utilities
Supermarket
Banking
Savings
Commercial Banking
Business Education
Insurance Salesmanship
Fire Protection
Social Welfare
Franchise Management
Farming
Business
Gym and Swimming
Youth Work
Nursing
Mortuary Science
Law
Law Enforcement
Court Reporting
Legal Secretary
Politics
Architect
T.V. Programming
Sales
Plumbing and Heating
All Sports
Auto Mechanics
Photography
Skiing
Occupational Counseling
Rocks ,Sea Shells, Woods (collections)

Grade Level 7-9

Interest Area

Social Welfare
Nursing
Mortuary Science
Commercial Banking
Savings Banking
Business Procedures
Architect
Sales
Plumbing and Heating
All Sports
Auto Mechanics
Photography
Skiing
Rock, Sea Shells, Wood (Collection)

No Preference for Any Particular Grade Level

Commercial Banking
Mortuary Science
Savings Banking
Business Procedures
Business Education
Rocks, Sea Shells, Wood (collection)

NOW 4/13/72

EVALUATION SHEET

NOW Program - Lewiston School Department

Resource Visited: Date_____
or
Resource Person in Classroom:

_____
_____
_____

To assist us in Program Evaluation we kindly request your further participation. Please indicate your appraisal and make recommendations in the spaces below.

The_____ and_____ thank you for your
Students Teacher (s)
cooperation.

_____
NOW Staff

Please indicate your appraisal of the following:

Student Interest	Ex.____	Good____	Fair____	Poor____
Student Courtesy	Ex.____	Good____	Fair____	Poor____
Program Value to Your Agency	Ex.____	Good____	Fair____	Poor____

Would you consider future participation? Yes____ No____

Do you feel the students were properly prepared by school staff?____

If not, how do you think students might be better prepared?

General Appraisal and Recommendations:

_____ Date_____
Evaluator

EVALUATION

ITEM (Or Resource Person) _____

DATE _____

TEACHER _____

SCHOOL _____

GRADE _____ NUMBER OF STUDENTS _____

Recommended Grade Level (Please circle one):

1 2 3 4 5 6 7 8 9 10 11 12

Teacher Evaluation (Please circle one):

Excellent Good Fair Poor

Please list other resources used.

Which of the 14 sub-objectives listed in the multi-colored NOW brochure do you feel this activity has met. If no sub-objective is listed, would you write one below.

ATTACHMENT 9

Rent-A-Kid

What Is It?

Rent-A-Kid is a non-profit organization which acts as a clearing house, matching temporary jobs with youth ages 13, 14 and 15 who are interested and looking for work. The employment may be a one-time service or may become a regularly scheduled service after school, on weekends or during school vacations.

Who Does It Serve?

You the student 13, 14 or 15 years of age; your parents or any prospective employer which may want to use the clearing house service.

How Does It Work?

A centralized clearing house will be established to maintain a file containing students who apply for employment and the employers who indicate they want student workers.

1. An employer calls the clearing house requesting a service.
2. The clearing house notifies prospective employee (you) of the employment opportunity.
3. If available, employee (you) contacts employer and establishes pay rates and the time with the employer for the work to be done.
4. Once the job is finished the employer will evaluate the work that was done and notify the clearing house. When the clearing house is notified of the finished job, the employee's card (yours) goes back to the active file to be notified again.

What Are Your Responsibilities?

1. Fill out the enrollment form.
2. Inform your parents of your intentions and have them complete parental form.
3. When notified of possible employment, contact the employer immediately to confirm and make arrangements. ALWAYS BE COURTEOUS.
4. Once you have accepted employment, be sure you are prompt, courteous and efficient.
5. If you have accepted employment and at the last minute are unable to make it, notify your employer immediately and explain your reason. Also, notify Rent-A-Kid so that someone else may accept the employment.
   AN OBLIGATION TO YOURSELF AND THE EMPLOY....

Possible Types of Employment

Prospective employment may include such services as listed and other jobs appropriate to age and skills.

Babysitting	Raking Leaves
Mowing Lawns	Shoveling Snow
Washing Windows	Painting
House Cleaning	Running Errands
Car Washing	Small Repair
Installing Storm Windows	Landscaping
Party Decorating	Pruning Trees
Ironing	Dusting
Washing Floors	Cleaning Attics
Cleaning Basements	Laundry Service

NAME _____

Last First Middle Initial

ADDRESS _____ TELEPHONE NO. ___

SOCIAL SECURITY NO. _____ AGE ____ HEIGHT _____ WEIGHT ___

SCHOOL PROGRAM _____ SPECIAL SKILLS _____

_____

_____

DISABILITIES _____

_____

WHAT IS THE MAXIMUM DISTANCE THAT YOU COULD TRAVEL FOR WORK? _____

_____

WHAT TRAINING COURSES HAVE YOU PARTICIPATED IN? _____

_____

WHAT WORK EXPERIENCE HAVE YOU HAD? _____

_____

_____

WHAT TYPES OF WORK WOULD YOU ACCEPT _____

_____

_____

WHAT TYPES OF WORK WOULD YOU NOT ACCEPT? _____

_____

_____

TWO REFERENCES - NOT RELATIVES

Name	Address	Telephone	Occupation

PARENTAL WAIVER AND RELEASE FORM

I, as parent and guardian of _____, do hereby recognize that Rent-A-Kid is not an employer, principal or master, but is merely a referral agency.

I further recognize that Rent-A-Kid is not to receive a fee, compensation or other material benefit either from my (son, daughter or ward) or from any prospective employer for performing employment referral services.

In consideration of Rent-A-Kid's promise to refer my (son, daughter or ward) for various employment positions according to the provisions of Rent-A-Kid's Program, I hereby agree to waive and release Rent-A-Kid from any liability of any nature whatsoever resulting from my (son's, daughter's or ward's) employment in a position or job secured by or through a referral from Rent-A-Kid.

_____
(Parent)

_____
(Coordinator)

_____
(Date)

Attachment 10

VOCATIONAL AND CAREER INFORMATION PROPOSAL

Tentative
Proposal for Elementary Vocational Training for everyday living with an emphasis on individual career information development.

I. Background.

This year at Frye school several COP trainees, with the assistance of interested teachers and the principal, set up a limited experimental program in automotible mechanics and sewing. Richard Ducharme, using his own tools and parts of engines, taught the care and handling of simple tools and the identification of engine parts. James Gondek has taught sewing with the help of Mrs. Ducharme. Together they instructed approximately eighty 4th , 5th, and 6th grade students on Friday of each week.

II. Rationale for an Expanded Program.

The enthusiasm and interest shown by instructors and students leads logically to this proposal, which seeks to expand the scope of services offered and to reach more students through the increased use of community resources (both people and material), professional faculty at Frye school and COP trainees, most of whom will have arrived at the Teacher Assistant step on the Career Lattice built into the COP program.

III. Program Objectives.

1. To increase an awareness in upper elementary school children of what skills and knowledge are prerequisites for a variety of careers.

2. To involve the community in the school in an instructional role as participants rather than as observers.

3. To enhance each students self-image by providing him with a

skills and knowledges that will not only benefit him now but will provide productive use of leisure time later in life.

4. To improve the school environment by encouraging pride in the design and manufacture of real things that would be useful in the school.

5. To seek out and maintain a strong link with Project NOW, a federally funded elementary vocational training program, by providing a model for the eventual adoption of vocational training and early career information development in all of Lewiston's elementary schools.

6. To tie in skills learned in this program's course offerings with the basic elementary curriculum in Science, Math, Language Arts, Reading and Social Studies.

IV. Curriculum and Scheduling.

Essentially project-oriented, the curriculum would consist of a series of mini-courses, some offered simultaneously, some offered in rotation. All courses would be taught on Wednesday mornings in one, two, or three hour time blocks. The duration of each course would depend on course content, objectives and outcome desired.

At this time the following courses have been suggested, have staff willing to teach them, and a student population eager to participate in them:

1. Woodworking
2. Still Photography
3. Masonry
4. Automotive Mechanics
5. Sewing - both fabric and leather
6. Art Workshop including glass cutting, ceramics, graphics
7. Independent Study, research and remedial instruction

V. Staffing

Frye school is fortunate in having a flexible administration and

staff willing to experiment with new curriculum and new methods to help children there enjoy the learning experiences essential in the elementary years. In addition, and as an example of the staff's willingness to try new approaches to learning, there are eleven COP trainees who have been and will be instrumental in making new approaches to education possible. A further example of the innovative tendencies at Frye school is the presence of the Staff Development Cooperative, funded and supported by NEPTE. Because of the favorable student-teacher ratio and the prevailing openness of attitudes and atmosphere at Frye there will be no problem in getting people to staff this program.

In addition to staff at Frye school, there exists in the Lewiston Model Cities Agency a list of retired professionals from all the areas listed in the course titles. These people are available during school time. Also, because one of the program objectives is to involve the community in every way possible and especially the parents of children at Frye, we plan to survey the parents to find those who have usable skills who would be willing to assist in the instruction of the courses

VI. Program Budgetary Requirements.

1. Equipment desired: Filmstrip, projectors, slide projectors, cassette recorders, super-eight loop film projectors, record players, tool kits, cameras, potters wheels, small print markers, and glass cutting kits.

2. Materials: Although several businessmen in the community, and the Junior Chamber of Commerce have verbally indicated willingness to locate and donate materials or sell materials at wholesale prices there will be a need for funds in this area to ensure the success of

the program. We especially will need software and hardware to develop a career information center.

3. Personnel: The only reimbursement needed here will be to the retired Model Cities residents who will work at an hourly rate when needed to instruct any given course.

Tentative Budget Requirements by Categories:

1.	Equipment:	$4000.
2.	Materials:	
	Model Cities Consultants	2000.
3.	Wages & Salaries	2000.
4.	Evaluation	500.
	Total	8500.

VII. Program Evaluation.

An evaluator chosen in conjunction with the State Department of Vocational Education will be employed to indicate whether program goals have been met and, further, what directions this program may expand in to benefit other elementary schools in the city.

Attachment

Wednesday Morning Activity Sessions

The Frye staff members in grades five and six have decided to try a Wednesday activity period. The purpose of this is to make school not only more receptive of the students' needs, but to provide occupational information and ways of better utilizing their leisure time.

It is expected that the staff will become more aware of the pupils' needs and that the students will become more aware of the options in life available to them.

All activities have been selected to be presented for one or more of the following reasons:

1. The activity is directly related to one or more subject areas.

2. The activity will provide vocational information and experience.

3. The activity will demonstrate personal responsibility and/or team work to the student.

4. The activity will aid a student in strengthening personal weaknesses. (i.e., gross motor skills, interrelationships, etc.)

5. The activity will provide options, for the student when he/she structures free time.

Students would be exposed to their choices for one month intervals. When students have become aware of the possibilities they have before them, we hope to be able to provide a more indepth presentations of their priority activities (those activities they wish to pursue).

Expansion of our program could take several directions. One would logically be with Washburn school who is trying to do similar things. However, we would also try to involve Model Cities Staff Development schools and through the NOW Program any other Lewiston schools which were interested.

Attachment 10

Mini-Courses Offered

Photography -	An insight into the care and handling of photography equipment. The taking of good pictures. Photography as an occupation.
Woodworking -	The care and use of hand tools. Designing and building small projects. Carpentry as an occupation.
Arts & Crafts -	An introduction into the field of creating. The use of the hands and minds to produce useful and decorative objects.
Chess and Other Games of Skill -	Chess and Cribbage to start with make people think ahead, count and remember things that have happened in the past. They are also useful ways to learn how to plan.
Basketball Fundamentals -	The use of sports to teach planning, co-ordination and team work as well as individual understanding. Appreciation of sports in general will also be stressed as a physical fitness opportunity.
Sewing & Knitting -	Practical application of a skill and the general usefulness will be stressed. Also it helps students learn to use their hands for small detailed work.
Learning Activities -	The development of game use for learning or practicing specific concepts or skills needed in school to help students learn faster.
Model Construction-	The use of building models (that can later be used in school) to learn how to follow directions, use their hands for detailed work, and for general understanding of the working model being built.

Attachment 10

SEWING

A sewing course gives interested children an introduction to the various procedures that must be completed before an item can be made.

Children will learn basic stitching paterns by hand, how to use a sewing machine and how to read patterns and use them on fabric. Embroidery will be taught so that children can learn how to make their clothing look more attractive. There will be various sewing projects such as pocketbooks, stuffed animals, bureau vanity sets, belts, toss pillows, doll clothes, pajama bags, pillow cases, curtains, and the children's own special products, if they want to make something special.

NOW Program may make it possible to get a sewing machine and extra fabric. NOW Program will also send a resource person to demonstrate sewing as a job in economics.

Second probable source of funding is S.D.C. which would involve at least $50.00 to run the sewing course for the year. This money would be used to purchase needles, thread, yarn, embroidery thread, extra fabric and sewing patterns.

Since I will be the only personnel teaching this activity for the moment, then my recommendation is to set up two time blocks with 10 children assigned to each block. I will need at least four weeks to develop a course. Some children may not complete their projects in four weeks. If this should happen, those children should be allowed to sign up again to finish their projects. There is no reason to have possible follow-up activities because every four weeks the course will have new children involved who will begin the course the same way as the children before them. The only difference will be allowing the children to develop their own ideas to do a sewing project. If some children should need something extra to fill their time, it will be elaboration on embroidery or making some small item.

Maybe later, some parent could help with children. Sewing is an art that many mothers can do.

Doria St.Hiliare

CRAFTS

Education purpose of the course is to have the students aware of their own creativity and how to use their hands in creating a craft.

Personnel involved - I don't want more than ten students. The reason for this is that I want the students to take their time and do the project correctly and because of the dangers of hot wax, etc.

Possible follow-up activities are field trips to craft centers, speakers coming in and showing how to make their craft. I would also like to have a craft show.

I hope to involve Program NOW, S.D.C., and COP people; also YWCA personnel and parents who are interested either to show the students how to do something or to come in and watch their children while they make something.

J. Gondek

BASKETBALL FUNDAMENTALS

Purpose:
1. To provide for basic knowledge of basketball.
2. To develop co-ordination of various movements.
3. To demonstrate personal and team responsibility.
4. To provide for strengthening personal weaknesses.
5. To develop student interest in physical fitness.

Expectations: It is expected that in four weeks a child will know the basic rules of basketball and the terms involved. Actual use of the basketball itself is only significant as it relates to the procedure. Skillful use of the ball will be taught only as it relates to purposes 1, 2, 4, and 5 above.

H. Hall

PHOTOGRAPHY

Purpose - to help students get interested in hobbies. How some people use their hobbies as their means of income and as a second income.

The length of this course will be one month. I will be the only person involved in the teaching process. The course will cover the following items:

1. The camera and how it works.
2. Film - how to pick the right type of film to get the best results.
3. How to take good pictures to get the most out of your picture.
4. Field trips - we will take short trips to photography studios, etc.

This class will have at the most 15 students. The reason being I want each person to have his own camera. Also a group this size will be easy for me to handle on a field trip.

As a follow-up I hope to get the students to use a camera in their other classes, for example: science, if they were covering a unit on clouds they might take pictures on the different types they saw. They might do a unit on pollution. They can take their own pictures

to show pollution in their neighborhood.

I hope to involve the NOW Program, COP and SDC for people and money.

R. Goulet

WOODWORKING

The course will consist of the basic hand tools of woodworking: tape measure, hammer, plane, handsaw, hand drill, and square. The proper usage of the hand tools will be explained in detail before the children are allowed to use them. When the children use these tools, they will be working on a project such as birdhouses, footstools, toys, etc.

I'm in hopes the children will obtain a better outlook of the school, if they are given a chance to work at something they like. They might enjoy woodworking as a hobby. Give him a chance to achieve a personal goal. To let him realize why math, English, science, etc., are important to learn. All these subjects tie in to woodworking. Allow him the opportunity to see what carpenters do.

R. Ducharme

CHESS

The educational purpose of this mini-course is to develop an awareness of logical thought process, concentration, and a fine motor coordination.

Personnel involved in this mini-course will consist of myself, Mr. LeClair and possibly one or two other helpers at times.

Given the proper amount of equipment we should be able to handle a class of thirty. The initial presentation of the course will be done in a lecture style therefore not creating any limitation on class size except for the size of the room. When practicing and actual playing take place, I feel two people can easily monitor a class of thirty.

Two periods of instruction should be enough to teach the basics. The rest will be used in developing these skills to a higher level of sophistication. Possible follow-up would be tournaments within the school or between schools. The funding would hopefully come from SDC.

R. McCallum

DIVERSIFIED PROGRAM OF GAMES AND CRAFTS

"• Underachievers should be encouraged to participate in projects and some of their suggestions used. Because activities and projects are

an excellent way to make concrete certain abstract principles and to develop in students a way of working with groups and manual skills and co-ordinations, they are especially helpful to underachievers."

The games and craft will involve the use of gross and fine motor skills, They will be verbally loaded to improve psyco-motor co-ordination. This should lead to improved penmanship, spelling, writing and reading.

"* The Pupil who cannot read at grade level invariably falls behind in other subjects."

The craft will also be used to change social attitudes. The first craft project will involve making things for themselves. I will then suggest group projects, such as, seasonal decorations for the school. This will give them group experience and the ego building satisfaction of doing something for someone else.

Twelve students should give me the variety of talents and personalities that I need to make the Games and Craft sessions varied and interesting.

The course can be developed as soon as consultant requested through the SDC program is made available.

Source of funding - SDC Program.

S. Batty

*, Underachievers - by Benjamin Fine, Ph.D., How They Can Be Helped, Clarke, Irwin & Company, 1968.

MODEL CONSTRUCTION

I would like to take part on activity day by teaching students to construct plastic models. The purpose of teaching students model construction are as follows:

1. To have students learn how to follow written instructions.
2. To enable students to work together as a team.
3. To develop small motor skills.
4. To develop eye and hand co-ordination.

Many of the models can be incorporated into reading, science, and social studies classes. By having students involved in making study aids, this should build up students' curiosity in the various subject areas. Students may bring their own model to class. Models will also be available in the classroom for all students. The models provided by SDC will remain in school as teaching aids.

R. Hachey

BASIC KNITTING

The educational purposes of this course are many. One is to be able to use fine and gross motor skills, eye hand co-ordination would be strengthened and the practical use of leisure time. An integral part of the course will be an ability after practice to interpret directions in various knitting pattern books.

I feel I could easily handle fifteen students at a time for one or one and a half hours. At the end of that time fifteen more students could be with me.

Four weeks would be ample time to teach the basic skills. Follow up activities could be strengthening motor skills by games or physical education of pupils who seem to have weaknesses. To have a display of finished products for parents and friends.

The probable source of funding will be SDC.

J. Snell

ACCESSION NUMBER: VT102145

PUBLICATION DATE: 73

TITLE: FOLLOW-UP STUDY OF STUDENTS EXITED FROM SELECTED VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS.

DESCRIPTOR: *FOLLOWUP STUDIES; *VOCATIONAL FOLLOWUP; SECONDARY SCHOOL STUDENTS; GRADUATE SURVEYS; DROPOUTS; *STATE SURVEYS; WORK EXPERIENCE; EDUCATIONAL PROGRAMS; *FEASIBILITY STUDIES

IDENTIFIER: NEW HAMPSHIRE

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 46P.

ABSTRACT: THE PROJECT REPORTED IN THIS DOCUMENT WAS UNDERTAKEN IN THE SUMMER OF 1973 TO DETERMINE THE FEASIBILITY OF AND PROCESS FOR GATHERING INFORMATION ON STUDENTS EXITED FROM VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS. A COMPARABLE GROUP OF GENERAL STUDIES STUDENTS WAS INCLUDED IN THE DATA BASE. THE SURVEY WAS DESIGNED TO COMPARE THE FORMER STUDENTS' EDUCATIONAL PROGRAMS AND WORK EXPERIENCE. GOALS WERE TO OBTAIN FOLLOWUP INFORMATION FOR PROGRAM PLANNING IN VOCATIONAL EDUCATION AND TO EVALUATE THE PROCESS FOR GATHERING DATA. SCHOOL RECORDS WERE USED TO SURVEY FORMER STUDENTS AND THEIR EDUCATIONAL PROGRAMS FROM SCHOOL YEARS 1968, 1970, AND 1972. IT WAS CONCLUDED THAT THE PROCESSES USED WERE A VIABLE MEANS OF PROVIDING A HIGH RESPONSE TO A STATEWIDE SURVEY. HOWEVER, STANDARDIZED METHODS OF KEEPING SCHOOL RECORDS WOULD SAVE TIME AND COSTS IN SUCH SURVEYS. SURVEY FORMS AND ANALYSES OF RESPONSES ARE APPENDED. (MF)

INSTITUTION NAME: NEW HAMPSHIRE UNIV., DURHAM.

VT 102 145

PROPOSAL FOR RESEARCH AND/OR RELATED ACTIVITIES
SUBMITTED TO THE U.S. COMMISSIONER OF EDUCATION FOR
SUPPORT THROUGH AUTHORIZATION OF THE BUREAU OF RESEARCH

Title:	Follow-Up Study of Students Exited From Selected Vocational Programs in New Hampshire Secondary Schools
Applicant Organization:	University of New Hampshire
Initiators:	William H. Annis, Professor and Chairman Occupational Education Program Area Code (603) 862-1452
	Gloria S. Cooper, Director Research Coordinating Unit 105 Louden Road Concord, New Hampshire 03301 Area Code (603) 271-3276
Project Director:	William H. Annis
Transmitted By:	Robert N. Faiman Vice President for Research University of New Hampshire Durham, New Hampshire 03824 Area Code (603) 862-2232
Duration of Activity:	June 15, 1973 to January 1, 1974
Total Federal Funds Requested:	$18,230.00
Date Transmitted:	June 11, 1973

VT 102 145

REPORT OF

FOLLOW-UP STUDY OF STUDENTS EXITED FROM SELECTED

VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS

PROJECT #400

REPORT OF
FOLLOW-UP STUDY OF STUDENTS EXITED FROM SELECTED
VOCATIONAL PROGRAMS IN NEW HAMPSHIRE SECONDARY SCHOOLS
PROJECT #400

This project was undertaken, during the Summer of 1973, to determine the feasibility of and process for gathering information on students exited from Vocational Programs in New Hampshire public schools. The survey was designed to determine certain aspects of the former student's work experience and the relationship to the education received while in school. For comparison purposes, a comparable group of non-vocational students were included in the data base.

A: Goal: To obtain follow-up information for program planning in vocational education.

Objective 1: To obtain from high school students who have exited from selected public schools, data relative to occupational choices as related to educational background.

Product Evaluation: A report of responses to a survey instrument will be provided for each participating school with cumulative state-wide responses for comparative purposes.

A-1 - Activity: Local agents at the selected sites will collect names, addresses, and phone numbers for all students who have exited from vocational programs at their schools from the classes of 1968, 1970, and 1972, along with a randomly selected group of students from the same years, who exited from a general program of studies.

A-1.1 - Process Evaluation: Names and addresses will be logged on a control sheet with codes so that no further reference will be required to specific names. The log will be maintained by the local agent and only he/she will be able to relate names to code numbers.

Findings: Use of logs (Appendix A) by local agents was hindered somewhat by the diversity of methods used in the schools for maintaining school records after they have exited. The problem of locating student names and addresses delayed the mailing of the survey at some schools.

A-2 - Activity: A single standard survey instrument will be used by all participating schools so as to provide comparative data.

A-2.1 - Process Evaluation: The instrument will be a validated survey form, or if a new one is used, will be validated by means of testing at some selection site.

Findings: An instrument was developed from a variety of state-wide surveys. Local agents assisted in the process of creating the survey. The instrument (Appendix B) was tested prior to final printing and was distributed in sequential batches to the local agents for mailing.

A-3 - Activity: A concentrated effort will be made to reach all of the students in the sample population.

A-3.1 - Process Evaluation: Posted on the log will be the status of each respondent and the number and types of contact attempted by the local agent.

Findings: These logs (Appendix C) were utilized to maintain records of the follow-up activity by local agents.

A-4 - Activity: Data gathered by local agents will be forwarded to Dr. William Annis for conversion to machine readable media (keypunched).

A-4.1 - Process Evaluation: Dr. Annis' office will log in all data as it arrives and will convert it to predesigned punch card form.

Findings: Surveys returned by respondents to the local schools were forwarded in batches to the University and logged (Appendix D). Keypunching was done by batch and verification was done after all batches had been received.

A-5 - Activity: The data gathered will be processed to provide an analytical report of the number and percent of responses to each question categorized by type of program within school with cumulative total for each school and each sending district, as well as a cumulative report by type of program at the state level.

A-5.1 - Process Evaluation: The report by school and by state, along with a guide for interpretation, will be sent to each participating school.

Findings: The data was processed by computer and reports by program within year and within school were generated (Appendix E). In addition, state-wide analyses by program and by type of respondent were provided to every school for comparative analysis (Appendix F). A workshop session was held to acquaint local agents with the interpretation of the computer printouts and to review an analysis done by type of respondents (Appendix G).

B. Goal: To evaluate the process for gathering such follow-up data for a potential statewide effort.

Objective: To compare the quality and quantity of responses to the cost in time, effort, and money.

Product Evaluation: Cost figures, time required and manpower expanded will be logged by all participating local agents.

B-1 - Activity: Each local agent will carefully record all the above data.

B-1.1 - Process Evaluation: All logs will be returned to Dr. Annis for evaluation as to cost effectiveness of process.

Findings: Records were kept on all aspects of the project (Appendix H) and an analysis was done to determine the feasibility of the project process. A relatively good response ratio was achieved through the use of the local agents approach (Appendix I). Local schools benefited from the ability to compare their own respondents with those from a state-wide sample. The cost of the project was primarily (90%) expended in supporting the local effort, such as salaries and supplies. Excluding these costs, the per respondent investment was approximately 50¢. Much of the time spent at the local level was due to the nature of record-keeping systems, and the development of a standard approach could reduce this aspect.

SUMMARY

The process used in this project is a viable means for providing a high response to a state-wide effort. Respondents tend to be more willing to provide information to their former school when familiar names are on the cover letter.

Standardized recordkeeping systems should reduce the amount of time required in constructing the mailing lists, and could reduce [illegible] so that it could become a regular part of the administrative [illegible] school and thus reduce the overhead cost to personnel and sup[illegible] experienced in this project.

BASE DATA LISTING

SCHOOL: _____ CODE: _____ CLASS: _____ PROGRAM: _____

ID	sex	cat	NAME	STREET & CITY	Telephone	Status of Response				
						Mail 1	Mail 2	Phone	Int'vw	Other

Appendix A

OCCUPATIONAL FOLLOW-UP

Nº 0123 [ ]
Do Not Write In This Space

Appendix B

I. ABOUT YOU:

Present Age – [ ] Years

Sex – ☐ Female ☐ Male

Marital Status – ☐ Married ☐ Unmarried

II. ABOUT YOUR HIGH SCHOOL EDUCATION:

Year you left High School 19____

Status: ☐ Graduated ☐ Left before Graduation ☐ Earned diploma after leaving

Type of High School program –
- ☐ College Preparatory
- ☐ General Studies
- ☐ Vocational Studies

Area of Vocational Study –
- ☐ Agriculture
- ☐ Business/Office
- ☐ Distributive Education
- ☐ Health
- ☐ Industrial Arts
- ☐ Occupational Home Economics
- ☐ Trades & Industry
- ☐ None
- ☐ Other_____ Specify

Did you have a job while in High School – ☐ No ☐ Yes

Were you in a Co-op Program – ☐ No ☐ Yes

III. AFTER HIGH SCHOOL:

Did you attend school after High School – ☐ No ☐ Yes

Type of schooling –
- ☐ Full time College
- ☐ Part time College
- ☐ On the job training
- ☐ Military School
- ☐ Adult or apprentice
- ☐ Home Study courses

Did you complete this schooling ☐ Yes

IV. ABOUT YOUR *FIRST FULL TIME* JOB:

How long after High School did you start –
- ☐ Immediately
- ☐ 1–3 Months
- ☐ 4–6 Months
- ☐ 7–9 Months
- ☐ 10–12 Months
- ☐ 1–2 Years
- ☐ Still not working
- ☐ Married and never employed
- ☐ Other_____ Specify

How did you find the job –
- ☐ Stayed on job I had in school
- ☐ High School teacher or guidance office
- ☐ School Co-op or Placement Office
- ☐ Employment Office
- ☐ Started my own business
- ☐ Thru friends
- ☐ Thru parents
- ☐ Newspaper ads
- ☐ On my own
- ☐ Other_____ Specify

In relation to WHERE YOU LIVED WHILE IN HIGH SCHOOL this job –

was located –
- ☐ In same town
- ☐ Out of town in state
- ☐ Out of state
- ☐ Out of country

required a relocation of –
- ☐ None
- ☐ 1–50 miles
- ☐ 51–100 miles
- ☐ 101–200 miles
- ☐ Over 200 miles

Relation of the job to your High School Education –
- ☐ Closely related
- ☐ Fairly related
- ☐ Slightly related
- ☐ Not related

How well did High School prepare you for your first job –
- ☐ Excellent preparation
- ☐ Good preparation
- ☐ Fair preparation
- ☐ Poor preparation

Job satisfaction –
- ☐ Very satisfying
- ☐ Satisfying
- ☐ Not satisfying

Pay Scale –
- ☐ Under $50/week
- ☐ $51–100/week
- ☐ $101–150/week
- ☐ Over $150/week

Reason for leaving first job –
- ☐ Still on the job
- ☐ Laid off
- ☐ Promoted
- ☐ More money
- ☐ More challenge
- ☐ Entered military
- ☐ Entered school
- ☐ Marriage or pregnancy
- ☐ Other_____ Specify

Continued on other side

V. ABOUT YOUR PRESENT FULL TIME JOB:

What is your current status –

☐ Employed | ☐ Unemployed Looking | ☐ Unemployed Not looking | ☐ Self Employed | ☐ Other_____ Specify

In relation to WHERE YOU LIVED WHILE IN HIGH SCHOOL this job –

is located –

☐ In same town ☐ Out of state
☐ Out of town in state ☐ Out of country

required a relocation of –

☐ None ☐ 51–100 miles ☐ Over 200 miles
☐ 1–50 miles ☐ 101–200 miles

Relation of the job to your High School education –

☐ Closely related ☐ Slightly related
☐ Fairly related ☐ Not related

How well did High School prepare you for this job –

☐ Excellent preparation ☐ Fair preparation
☐ Good preparation ☐ Poor preparation

Job satisfaction –

☐ Very satisfying
☐ Satisfying
☐ Not satisfying

Pay Scale

☐ Under $50/week
☐ $51–100/week
☐ $101–150/week
☐ Over $150/week

Do you think you will leave this job within 1 year from now –

☐ No ☐ Yes ☐ Undecided

VI. FULL TIME EMPLOYMENT HISTORY:

How many full time jobs have you had since High School – [ ]

How many of these jobs were related to your High School education – [ ]

List all full time jobs since High School –

(If you have had more than six (6) jobs, list the first three and the last three)

– List First Job First and Proceed to the Current or Last Job –

Approximate Number of Months on Job	Job Title

Thank You for Your Time and Cooperation in this Survey

SCHOOL SUMMARY SHEET

NAME: _____ DATE: _____

Name of Program	Type	Year of Gradtn	Total Number	First Mail	Second Mail	Tel.	Other	No Contact	Total

-5

DATE	SCHOOL NAME	Number of Documents				Received By	Date Returned
		1968	1970	1972	TOTAL		

02/12/74 ANALYSIS OF 0058 RESPONSES BASED ON TOTAL FOR THIS YRCODE 990200

HIGH SCHOOL 77

FEML		MALE		-NR-		MARR		UNMR		-NR-		GRAD		LEFT		DIPL		-NR-		COLL		GENL	
0039	67	0019	33	0000	0	0007	12	0051	88	0000	0	0056	97	0001	2	0002	3	0000	0	0054	93	0004	7

VOCL		-NR-		AGR		BUS		D-E		HLTH		I-A		OCC		T&I		NONE		OTHER		-NR-	
0000	0	0000	0	0000	0	0003	5	0003	5	0003	5	0000	0	0001	2	0000	0	0010	17	0001	2	0037	64

JOB-N		JOB-Y		-NR-		COOP-N		COOP-Y		-NR-		PHS-N		PHS-Y		-NR-		COL-FT		COL-PT		OJI	
0015	26	0043	74	0000	0	0047	81	0002	3	0009	16	0019	33	0038	66	0001	2	0035	60	0002	3	0000	0

MIL		ADULT		HOME		-NR-		COMPL		IMM		1-3 MO		4-6 MO		7-9 MO		10-12 MO		1-2 YRS		NOT WKG	
0001	2	0000	0	0001	2	0019	33	0004	10	0018	31	0007	12	0001	2	0000	0	0001	2	0000	0	0011	19

NEVER		OTHER		-NR-		SAME		GUID		COOP		EMPL		MY BUS		FRDS		PARS		ADS		OWN	
0001	2	0010	17	0009	16	0013	22	0001	2	0001	2	0000	0	0000	0	0002	3	0004	7	0002	3	0011	19

OTHER		-NR-		TOWN		STATE		DOS		DOC		-NR-		NONE		1-50		51-100		101-200		> 200	
0003	5	0021	36	0028	48	0006	10	0003	5	0000	0	0021	36	0022	38	0005	9	0000	0	0000	0	0000	0

-NR-		CLOSR		FAIR		SLGT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT	
0031	53	0002	3	0002	3	0005	9	0028	48	0021	36	0003	5	0007	12	0013	22	0005	9	0030	52	0007	12

SAT		N-SAT		-NR-		< $50		51-100		101-150		> $150		-NR-		OTJ		LAY OFF		PROM		MORE $	
0017	29	0010	17	0024	41	0005	9	0022	38	0008	14	0000	0	0023	40	0009	16	0001	2	0000	0	0005	9

CHAIG		MIL		SCHL		MAR		OTHER		-NR-		EMPL		LOOK		N-LOOK		S-EMPL		OTHER		-NR-	
0001	2	0001	2	0009	16	0001	2	0006	10	0025	43	0028	48	0003	5	0005	9	0000	0	0008	14	0014	24

TOWN		STATE		DOS		DOC		-NR-		NONE		1-50		51-100		101-200		> 200		-NR-		CLOSR	
0018	31	0010	17	0001	2	0000	0	0029	50	0016	28	0006	10	0000	0	0002	3	0002	3	0032	55	0002	3

FAIR		SLGT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT		SAT		N-SAT	
0003	5	0005	9	0021	36	0027	47	0003	5	0007	12	0010	17	0006	10	0032	55	0006	10	0019	33	0005	9

-NR-		< $50		51-100		101-150		> $150		-NR-		NO		YES		UNDEC		-NR-	
0029	50	0006	10	0017	29	0007	12	0001	2	0027	47	0008	14	0019	33	0002	3	0029	50

JOBS		REL	
04 00	0.0	02 00	0.0

12

Appendix E

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

02/12/74 ANALYSIS OF 0166 RESPONSES BASED ON SCHOOL TOTAL FOR CODE 900200

HIGH SCHOOL

FEML		MALE		-NR-		MARR		UNMR		-NR-		GRAD		LEFT		DIPL		-NR-		COLL		GENL	
0105	63	0060	36	0001	1	0044	27	0120	72	0002	1	0163	98	0001	1	0003	2	0000	0	0155	93	0009	5

VOCL		-NR-		AGR		BUS		D-E		HLTH		I-A		OCC		TRI		NONE		OTHER		-NR-	
0001	1	0001	1	0000	0	0008	5	0013	8	0012	7	0002	1	0002	1	0000	0	0021	13	0009	5	0099	60

JOB-N		JOB-Y		-NR-		COOP-N		COOP-Y		-NR-		PHS-N		PHS-Y		-NR-		COL-FT		COL-PT		OJT	
0053	32	0110	66	0003	2	0134	81	0005	3	0027	16	0027	16	0138	83	0001	1	0122	73	0005	3	0005	3

MIL		ADULT		HOML		-NR-		COMPL		IMM		1-3 MO		4-6 MO		7-9 MO		10-12 MO		1-2 YRS		NOT REG	
0002	1	0000	0	0002	1	0030	18	0039	23	0036	22	0013	8	0004	2	0004	2	0007	4	0017	10	0019	11

NEVER		OTHER		-NR-		SAME		GUID		COOP		EMPL		MY BUS		FRDS		PARS		ADS		OWN	
0002	1	0035	21	0029	17	0023	14	0001	1	0008	5	0004	2	0002	1	0015	9	0007	4	0005	3	0039	23

OTHER		-NR-		TOWN		STATE		DOS		DOC		-NR-		NONE		1-50		51-100		101-200		> 200	
0000	5	0054	33	0054	33	0038	23	0020	12	0000	0	0054	33	0056	34	0012	7	0011	7	0008	5	0004	2

-NR-		CLOSE		FAIR		SLGT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT	
0075	45	0006	4	0009	5	0027	16	0071	43	0053	32	0005	3	0027	16	0037	22	0025	15	0072	43	0023	14

SAT		N-SAT		-NR-		< $50		51-100		101-150		> $150		-NR-		OTJ		LAY OFF		PROM		MORE $	
0053	32	0030	18	0057	34	0011	7	0058	35	0032	19	0008	5	0057	34	0030	18	0007	4	0000	0	0012	7

CHAIG		MIL		SCHL		MAR		OTHER		-NR-		EMPL		LOOK		N-LOOK		S-EMPL		OTHER		-NR-	
0009	5	0003	2	0024	14	0007	4	0014	8	0060	36	0084	51	0006	4	0013	8	0004	2	0020	12	0039	23

TOWN		STATE		DOS		DOC		-NR-		NONE		1-50		51-100		101-200		> 200		-NR-		CLOSE	
0030	18	0039	23	0025	15	0000	0	0072	43	0034	20	0014	8	0015	9	0011	7	0010	6	0082	49	0009	5

FAIR		SLGT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT		SAT		N-SAT	
0012	7	0025	15	0051	31	0069	42	0007	4	0026	16	0029	17	0022	13	0082	49	0030	18	0052	31	0013	8

-NR-		< $50		51-100		101-150		> $150		-NR-		NO		YES		UNDEC		-NR-	
0071	43	0010	6	0031	19	0038	23	0016	10	0071	43	0033	20	0048	29	0014	8	0071	43

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0199 RESPONSES BASED ON STATE TOTAL FOR 58 COLL PREP

1	MALE		FEML		-NR-		MARR		UNMR		-NR-		GRAD		LEFT		DIPL		-NR-		COLL		GEWL	
	0114	57	0084	42	0001	1	0111	56	0085	43	0003	2	0193	97	0001	1	0003	2	0003	2	0199	100	0000	0
2	VOCL		-NR-		AGR		BUS		D-E		HLTH		I-A		OCC		T&I		NONE		OTHER		-NR-	
	0000	0	0000	0	0000	0	0019	10	0011	6	0010	5	0003	2	0001	1	0002	1	0044	22	0006	3	0183	92
3	JOB-N		JOB-Y		-NR-		COOP-N		COOP-Y		-NR-		PHS-N		PHS-Y		-NR-		COL-FT		COL-PT		OJT	
	0074	37	0122	61	0003	2	0167	84	0004	2	0028	14	0023	12	0176	88	0000	0	0155	78	0008	4	0006	3
4	MIL		ADULT		HOME		-NR-		COMPL		IMM		1-3 MO		4-6 MO		7-9 MO		10-12 MO		1-2 YRS		NOT WKG	
	0001	1	0003	2	0002	1	0024	12	0105	60	0033	17	0022	11	0004	2	0005	3	0008	4	0036	18	0009	5
5	NEVER		OTHER		-NR-		SAME		GUID		COOP		EMPL		MY BUS		FRDS		PARS		ADS		O/W	
	0002	1	0073	37	0007	4	0013	7	0003	2	0008	4	0012	6	0002	1	0023	12	0014	7	0007	4	0078	39
6	OTHER		-NR-		TOWN		STATE		OOS		OOC		-NR-		NONE		1-50		51-100		101-200		> 200	
	0020	10	0019	10	0073	37	0061	31	0046	23	0002	1	0017	9	0080	40	0016	8	0017	9	0024	12	0024	12
7	-NR-		CLOSR		FAIR		SLOT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT	
	0038	19	0016	8	0026	13	0042	21	0099	50	0016	8	0011	6	0052	26	0062	31	0044	22	0030	15	0065	33
8	SAT		N-SAT		-NR-		< $50		51-100		101-150		> $150		-NR-		OTJ		LAY OFF		PROM		MORE $	
	0078	39	0043	22	0018	9	0010	5	0079	40	0060	30	0032	16	0018	9	0062	31	0008	4	0001	1	0023	12
9	CHALG		MIL		SCHL		MAR		OTHER		-NR-		EMPL		LOOK		N-LOOK		S-EMPL		OTHER		-NR-	
	0010	5	0007	4	0027	14	0012	6	0031	16	0018	9	0147	74	0006	3	0015	8	0008	4	0012	6	0011	6
10	TOWN		STATE		OOS		OOC		-NR-		NONE		1-50		51-100		101-200		> 200		-NR-		CLOSR	
	0047	24	0058	29	0046	23	0004	2	0044	22	0051	26	0024	12	0023	12	0026	13	0017	9	0058	29	0016	9
11	FAIR		SLOT		NOT		-NR-		EXCL		GOOD		FAIR		POOR		-NR-		V-SAT		SAT		N-SAT	
	0028	14	0039	20	0073	37	0041	21	0009	5	0045	23	0052	26	0039	20	0054	27	0065	33	0072	36	0018	9
12	-NR-		< $50		51-100		101-150		> $150		-NR-		NO		YES		UNDEC		-NR-					
	0044	22	0008	4	0029	15	0077	39	0040	20	0045	23	0080	40	0046	23	0029	15	0044	22				

JOBS		REL	
10 00	1.9	06 00	0.5

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0281 RESPONSES BASED ON STATE TOTAL FOR 78 COLL PREP

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0154 55	0126 45	0001 0	0057 20	0222 79	0002 1	0277 99	0000 0	0001 0	0003 1	0281 100	0000 0

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0000 0	0000 0	0004 1	0021 7	0012 4	0013 5	0007 2	0001 0	0004 1	0047 17	0016 6	0156 56

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0090 32	0183 65	0008 3	0228 81	0008 3	0045 16	0036 13	0243 86	0002 1	0230 82	0004 1	0006 2

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0001 0	0000 0	0002 1	0038 14	0061 25	0050 18	0018 6	0011 4	0003 1	0017 6	0044 16	0032 11

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	PRDS	PARS	ADS	OWN
0001 0	0055 20	0050 18	0023 8	0000 0	0004 1	0013 5	0001 0	0031 11	0008 3	0013 5	0076 27

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0010 4	0102 36	0096 34	0054 19	0034 12	0001 0	0096 34	0083 30	0021 7	0015 5	0014 5	0010 4

-NR-	CLOSR	FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0138 49	0008 3	0016 6	0037 13	0120 43	0098 35	0007 2	0048 17	0051 18	0056 20	0119 42	0035 12

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE $
0095 34	0051 18	0100 36	0013 5	0092 33	0057 20	0017 6	0102 36	0051 18	0008 3	0002 1	0029 10

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0007 2	0002 1	0042 15	0012 4	0014 5	0114 41	0132 47	0005 2	0020 7	0008 3	0044 16	0072 26

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0060 21	0057 20	0032 11	0003 1	0129 46	0046 16	0019 7	0020 7	0019 7	0013 5	0164 58	0013 5

FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0025 9	0034 12	0075 27	0134 48	0009 3	0047 17	0046 16	0039 14	0140 50	0050 18	0070 25	0023 8

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0138 49	0005 2	0049 17	0062 22	0024 9	0141 50	0044 16	0068 24	0032 11	0137 49

JOBS		REL	
19 00	5.2	05 00	0.2

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0356 RESPONSES BASED ON STATE TOTAL FOR 72 COLL PREP

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0201 56	0155 44	0000 0	0026 7	0327 92	0003 1	0349 98	0004 1	0004 1	0002 1	0356 100	0000 0

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0000 0	0000 0	0007 2	0033 9	0009 3	0022 6	0011 3	0002 1	0007 2	0069 19	0020 6	0176 49

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0124 35	0226 63	0006 2	0288 81	0021 6	0047 13	0072 20	0278 78	0006 2	0249 70	0012 3	0006 2

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT REP
0005 1	0000 0	0002 1	0082 23	0030 11	0102 29	0034 10	0009 3	0012 3	0018 5	0015 4	0042 12

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0002 1	0045 13	0077 22	0042 12	0011 3	0004 1	0008 2	0001 0	0024 7	0020 6	0013 4	0084 24

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0016 4	0133 37	0160 45	0052 15	0021 6	0001 0	0122 34	0134 38	0028 8	0006 2	0010 3	0012 3

-NR-	CLOSR	FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0144 42	0015 4	0027 8	0039 11	0152 43	0123 35	0012 3	0064 18	0057 16	0060 17	0163 46	0060 17

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	NONE $
0094 26	0066 19	0134 38	0027 8	0144 40	0052 15	0002 1	0131 37	0061 17	0007 2	0001 0	0020 6

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0008 2	0003 1	0079 22	0004 1	0024 7	0144 40	0167 47	0009 3	0023 6	0003 1	0040 11	0114 32

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0113 32	0047 13	0024 7	0002 1	0170 48	0099 27	0032 9	0006 2	0007 2	0014 4	0202 57	0021 6

FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0026 7	0027 8	0107 30	0175 49	0014 4	0048 13	0047 13	0047 13	0200 56	0055 15	0082 23	0041 12

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0178 50	0012 3	0106 30	0051 14	0007 2	0181 51	0039 11	0105 29	0033 9	0179 50

JOBS	REL
07 00 0.8	02 00 0.1

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0129 RESPONSES BASED ON STATE TOTAL FOR 60 GEN-STUD

MALE	FEML	-NR-	MARR	UNMA	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0064 53	0059 47	0000 0	0076 61	0048 30	0001 1	0121 97	0000 0	0003 2	0001 1	0000 0	0125 100

VOCL	-NR-	AGR	BUS	D-E	MLTW	I-A	OCC	T&I	NONE	OTHER	-NR-
0000 0	0000 0	0001 1	0033 26	0001 1	0003 2	0014 11	0004 3	0003 2	0022 18	0003 2	0041 33

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	GJT
0032 26	0087 70	0010 8	0099 79	0011 9	0015 12	0074 59	0050 40	0001 1	0021 17	0006 5	0012 10

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0007 6	0002 2	0003 2	0074 [illegible]	0030 59	0056 45	0027 22	0010 8	0004 3	0001 1	0016 13	0000 0

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FROS	PARS	ADS	GHN
0000 0	0009 7	0002 2	0022 18	0005 4	0002 2	0002 2	0002 2	0010 8	0008 6	0006 5	0055 44

OTHER	-NR-	TOWN	STATE	ODS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0011 9	0002 2	0061 49	0043 34	0018 14	0003 2	0000 0	0064 51	0012 10	0005 4	0007 6	0010 8

-NR-	CLOSR	FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0027 22	0015 12	0019 15	0024 19	0040 33	0001 1	0010 8	0040 32	0044 35	0029 24	0006 5	0041 33

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE S
0061 49	0023 18	0000 0	0010 8	0079 63	0026 21	0010 8	0000 0	0020 16	0012 10	0004 3	0020 16

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0003 2	0015 12	0002 2	0024 19	0019 15	0006 5	0089 71	0005 4	0015 12	0004 3	0010 8	0002 2

TOWN	STATE	ODS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0048 37	0037 30	0020 16	0000 0	0022 18	0044 35	0025 20	0008 6	0006 5	0006 5	0036 29	0019 15

FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0018 14	0018 14	0045 37	0024 19	0006 5	0040 32	0033 26	0019 15	0027 22	0053 42	0040 32	0009 7

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0023 18	0010 8	0035 28	0033 26	0021 17	0026 21	0052 42	0017 14	0030 24	0026 21

JOBS		REL	
09	0.2	04	0.2

17

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0176 RESPONSES BASED ON STATE TOTAL FOR 70 GEN-STUD

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0099 56	0077 44	0000 0	0095 54	0081 46	0000 0	0172 98	0000 0	0001 1	0004 2	0000 0	0176 100

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0000 0	0000 0	0001 1	0049 28	0009 5	0005 3	0012 7	0004 2	0005 3	0028 16	0006 3	0057 32

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0038 22	0133 76	0005 3	0131 74	0021 12	0024 14	0103 59	0070 40	0003 2	0041 23	0007 4	0014 8

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0005 3	0002 1	0004 2	0103 59	0043 59	0072 41	0040 23	0008 5	0008 5	0008 5	0016 9	0004 2

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0006 3	0011 6	0003 2	0040 23	0005 3	0003 2	0006 3	0001 1	0016 9	0008 5	0007 4	0067 38

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0007 4	0016 9	0104 59	0038 22	0017 10	0001 1	0016 9	0074 42	0027 15	0002 1	0002 1	0010 6

-NR-	CLOSR	FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0061 35	0018 10	0025 14	0028 16	0093 53	0012 7	0008 5	0052 30	0051 29	0037 21	0028 16	0039 22

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE $
0082 47	0037 21	0018 10	0017 10	0092 52	0042 24	0011 6	0014 8	0032 18	0018 10	0002 1	0026 15

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0015 9	0018 10	0011 6	0018 10	0020 11	0016 9	0126 72	0007 4	0019 11	0004 2	0010 6	0010 6

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0068 39	0040 23	0030 17	0003 2	0035 20	0051 29	0030 17	0004 2	0006 3	0019 11	0066 38	0016 9

FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0018 10	0028 16	0076 43	0038 22	0010 6	0032 18	0048 27	0037 21	0049 28	0058 33	0057 32	0020 11

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0041 23	0004 2	0050 28	0056 32	0022 13	0044 25	0065 37	0032 18	0034 19	0045 26

JOBS	REL
15 00 1.9	04 00 0.5

01/10/74 ANALYSIS OF 0211 RESPONSES BASED ON STATE TOTAL FOR 72 GEN-STUD

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0111 53	0099 47	0001 0	0048 23	0162 77	0001 0	0206 98	0003 1	0002 1	0002 1	0000 0	0211 100

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0000 0	0000 0	0003 1	0043 20	0012 6	0003 1	0013 6	0010 5	0009 4	0032 15	0006 3	0080 38

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0055 26	0152 72	0004 2	0156 74	0022 10	0033 16	0152 72	0057 27	0002 1	0031 15	0008 4	0015 7

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0009 4	0004 2	0002 1	0142 67	0021 30	0113 54	0041 19	0012 6	0006 3	0008 4	0006 3	0003 1

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0002 1	0014 7	0006 3	0037 18	0010 5	0004 2	0006 3	0000 0	0022 10	0021 10	0011 5	0077 36

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0011 5	0012 6	0130 62	0049 23	0021 10	0000 0	0011 5	0095 45	0053 25	0005 2	0000 0	0014 7

-NR-	CLOSR	FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0044 21	0022 10	0023 11	0045 21	0106 51	0013 6	0016 8	0050 24	0069 33	0047 22	0029 14	0054 26

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE $
0107 51	0038 18	0012 6	0028 13	0125 59	0035 17	0012 6	0011 5	0055 26	0007 3	0001 0	0053 25

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0007 3	0008 4	0018 9	0012 6	0033 16	0017 8	0160 76	0014 7	0012 6	0002 1	0013 6	0010 5

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0096 45	0046 22	0029 14	0001 0	0039 18	0075 36	0042 20	0007 3	0006 3	0018 9	0063 30	0027 13

FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0023 11	0044 21	0080 38	0037 18	0014 7	0044 21	0061 29	0041 19	0051 24	0068 32	0083 39	0014 7

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0046 22	0015 7	0093 44	0045 21	0014 7	0044 21	0076 36	0053 25	0038 18	0044 21

JOBS	REL
06 00 $.5	03 00 0.4

19

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0148 RESPONSES BASED ON STATE TOTAL FOR 68 VOCATIONAL

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0042 28	0106 72	0000 0	0096 65	0052 35	0000 0	0141 95	0005 3	0003 2	0001 1	0000 0	0000 0

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0148 100	0000 0	0011 7	0039 26	0001 1	0000 0	0028 19	0001 1	0054 36	0000 0	0014 9	0000 0

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0029 20	0116 78	0003 2	0115 78	0018 12	0015 10	0074 50	0072 49	0002 1	0036 24	0006 4	0008 5

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0011 7	0008 5	0004 3	0075 51	0041 56	0076 53	0025 17	0007 5	0005 3	0003 2	0019 13	0000 0

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0001 1	0008 5	0002 1	0029 20	0011 7	0003 2	0009 6	0000 0	0018 12	0007 5	0009 6	0051 34

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0005 3	0006 4	0072 49	0056 38	0014 9	0001 1	0005 3	0074 50	0025 17	0006 4	0008 5	0009 6

-NR-	CLOSR	FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0026 18	0047 32	0034 23	0023 16	0040 27	0004 3	0026 18	0059 40	0037 25	0017 11	0009 6	0047 32

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE $
0068 46	0027 18	0006 4	0006 4	0077 52	0045 30	0013 9	0007 5	0022 15	0015 10	0002 1	0028 19

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0015 10	0021 14	0007 5	0009 6	0023 16	0006 4	0115 78	0004 3	0012 8	0004 3	0009 6	0004 3

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0056 38	0049 33	0022 15	0001 1	0020 14	0055 37	0031 21	0005 3	0009 6	0010 7	0038 26	0042 28

FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0028 19	0020 14	0037 25	0021 14	0026 18	0048 32	0029 20	0016 11	0029 20	0055 37	0059 40	0012 8

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0022 15	0000 0	0026 18	0060 41	0038 26	0024 16	0069 47	0024 16	0034 23	0021 14

JOBS	REL
15 00 2.6	04 00 1.3

NEW HAMPSHIRE VOCATIONAL-TECHNICAL OCCUPATIONAL FOLLOW-UP

01/10/74 ANALYSIS OF 0165 RESPONSES BASED ON STATE TOTAL FOR 70 VOCATIONAL

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0083 50	0082 50	0000 0	0086 52	0078 47	0001 1	0161 98	0002 1	0000 0	0002 1	0000 0	0000 0

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0165 100	0000 0	0013 8	0076 46	0003 2	0002 1	0025 15	0000 0	0033 20	0000 0	0012 7	0001 1

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0041 25	0117 71	0007 4	0126 76	0021 13	0018 11	0108 65	0055 33	0002 1	0032 19	0008 5	0009 5

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0012 7	0002 1	0002 1	0100 61	0039 60	0081 49	0030 18	0011 7	0002 1	0003 2	0021 13	0001 1

NEVER	OTHER	-NR-	SAME	GUID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0004 2	0010 6	0002 1	0031 19	0009 5	0004 2	0009 5	0000 0	0021 13	0012 7	0007 4	0054 33

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0007 4	0011 7	0082 50	0050 30	0022 13	0001 1	0010 6	0086 52	0027 16	0004 2	0011 7	0009 5

-NR-	CLOSR	FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0028 17	0054 33	0025 15	0024 15	0055 33	0007 4	0028 17	0058 35	0042 25	0025 15	0012 7	0043 26

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE S
0083 50	0032 19	0007 4	0009 5	0094 57	0042 25	0012 7	0008 5	0047 28	0019 12	0001 1	0029 18

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0009 5	0012 7	0004 2	0017 10	0015 9	0012 7	0125 76	0005 3	0015 9	0002 1	0011 7	0007 4

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0057 35	0046 28	0029 18	0001 1	0032 19	0052 32	0031 19	0005 3	0009 5	0019 12	0049 30	0045 27

FAIR	SLOT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0021 13	0024 15	0047 28	0028 17	0024 15	0045 27	0039 24	0024 15	0033 20	0057 35	0064 39	0016 10

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0028 17	0003 2	0053 32	0057 35	0024 15	0028 17	0072 44	0028 17	0033 20	0032 19

JOBS	REL
09 00 2.0	08 00 0.9

2

01/10/74 ANALYSIS OF 0184 RESPONSES BASED ON STATE TOTAL FOR 72 VOCATIONAL

MALE	FEML	-NR-	MARR	UNMR	-NR-	GRAD	LEFT	DIPL	-NR-	COLL	GENL
0091 49	0093 51	0000 0	0046 25	0138 75	0000 0	0180 98	0003 2	0002 1	0000 0	0000 0	0000 0

VOCL	-NR-	AGR	BUS	D-E	HLTH	I-A	OCC	T&I	NONE	OTHER	-NR-
0184 100	0000 0	0017 9	0077 42	0006 3	0000 0	0030 16	0001 1	0034 18	0000 0	0018 10	0001 1

JOB-N	JOB-Y	-NR-	COOP-N	COOP-Y	-NR-	PHS-N	PHS-Y	-NR-	COL-FT	COL-PT	OJT
0026 14	0153 83	0005 3	0103 56	0067 36	0014 8	0136 74	0047 26	0001 1	0037 20	0003 2	0008 4

MIL	ADULT	HOME	-NR-	COMPL	IMM	1-3 MO	4-6 MO	7-9 MO	10-12 MO	1-2 YRS	NOT WKG
0002 1	0000 0	0002 1	0132 72	0014 27	0096 52	0031 17	0009 5	0005 3	0006 3	0005 3	0003 2

NEVER	OTHER	-NR-	SAME	OVID	COOP	EMPL	MY BUS	FRDS	PARS	ADS	OWN
0004 2	0017 9	0008 4	0040 22	0011 6	0009 5	0004 2	0000 0	0026 14	0009 5	0010 5	0057 31

OTHER	-NR-	TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200
0003 2	0015 8	0096 52	0058 32	0013 7	0001 1	0016 9	0098 53	0035 19	0004 2	0002 1	0005 3

-NR-	CLOSR	FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT
0040 22	0066 36	0027 15	0026 14	0053 29	0012 7	0040 22	0052 28	0049 27	0025 14	0018 10	0044 24

SAT	N-SAT	-NR-	< $50	51-100	101-150	> $150	-NR-	OTJ	LAY OFF	PROM	MORE $
0087 47	0039 21	0014 8	0018 10	0112 61	0033 18	0008 4	0013 7	0055 30	0012 7	0000 0	0037 20

CHALG	MIL	SCHL	MAR	OTHER	-NR-	EMPL	LOOK	N-LOOK	S-EMPL	OTHER	-NR-
0007 4	0006 3	0019 10	0013 7	0017 9	0018 10	0150 82	0003 2	0010 5	0004 2	0006 3	0011 6

TOWN	STATE	OOS	OOC	-NR-	NONE	1-50	51-100	101-200	> 200	-NR-	CLOSR
0087 47	0047 26	0023 13	0002 1	0025 14	0079 43	0037 20	0005 3	0002 1	0010 5	0051 28	0051 28

FAIR	SLGT	NOT	-NR-	EXCL	GOOD	FAIR	POOR	-NR-	V-SAT	SAT	N-SAT
0027 15	0019 10	0062 34	0025 14	0033 18	0038 21	0043 23	0033 18	0037 20	0047 26	0088 48	0020 11

-NR-	< $50	51-100	101-150	> $150	-NR-	NO	YES	UNDEC	-NR-
0029 16	0004 2	0100 54	0043 23	0011 6	0026 14	0064 35	0041 22	0050 27	0029 16

JOBS	REL
09 00 5.4	05 00 0.7

22

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: II QUESTION: DID YOU HAVE A JOB WHILE IN HIGH SCHOOL?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
JOB-Y	61	70	78		65	76	71		63	72	83
JOB-N	37	26	20		32	22	25		35	26	14
-NR-	2	5	2		3	3	4		2	2	3

Appendix G

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: II QUESTION: WERE YOU IN A CO-OP PROGRAM?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
COOP-Y	2	9	12		3	12	13		6	10	36
COOP-N	84	79	78		81	74	76		81	74	56
-NR-	14	12	10		16	14	11		13	16	8

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: III QUESTION: Did you attend school after High School?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
PHS-Y	88	40	49		86	40	33		78	27	26
PHS-N	12	59	50		13	59	65		20	72	74
-NR-	0	1	1		1	2	1		2	1	1

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: III QUESTION: TYPE OF SCHOOLING-

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
COL-FT	78	17	24		82	23	19		70	15	20
COL-PT	4	5	4		1	4	5		3	4	2
OJT	3	10	5		2	8	5		2	7	4
MIL	1	6	7		0	3	7		1	4	1
ADULT	2	2	5		0	1	1		0	2	0
HOME	1	2	3		1	2	1		1	1	1
-NR-	12	59	51		14	59	61		23	67	72
COMPL	60	59	56		25	59	60		11	30	27

26

4

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: How long after High School did you start -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
IMM	17	45	53		18	41	49		29	54	52
1-3 MO	11	22	17		6	23	18		10	19	17
4-6 MO	2	8	5		4	5	7		3	6	5
7-9 MO	3	3	3		1	5	1		3	3	3
10-12 MO	4	1	2		6	5	2		5	4	3
1-2 YRS	18	13	13		16	9	13		4	3	3
NOT WKG	5	0	0		11	2	1		12	1	2
NEVER	1	0	1		0	3	2		1	1	2
OTHER	37	7	5		20	6	6		13	7	9
-NR-	4	2	1		18	2	1		22	3	4

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: HOW DID YOU FIND THE JOB?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
SAME	7	18	20		8	23	19		12	18	22
GUID	2	4	7		0	3	5		3	5	6
COOP	4	2	2		1	2	2		1	2	5
EMPL	6	2	6		5	3	5		2	3	2
MY BUS	1	2	0		0	1	0		0	0	0
FRDS	12	8	12		11	9	13		7	10	14
PARS	7	6	5		3	5	7		6	10	5
ADS	4	5	6		5	4	4		4	5	5
OWN	39	44	34		27	38	33		24	36	31
OTHER	10	9	3		4	4	4		4	5	2
-NR-	10	2	4		36	9	7		37	6	8

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV

QUESTION: IN RELATION TO WHERE YOU LIVED WHILE IN HIGH SCHOOL THIS JOB WAS LOCATED -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	11	184
TOWN	37	49	49		34	59	50		45	62	52
STATE	31	34	38		19	22	30		15	23	32
OOS	23	14	9		12	10	13		6	10	7
OOC	1	2	1		0	1	1		0	0	1
-NR-	9	0	3		34	9	6		34	5	9

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV

QUESTION: IN RELATION TO WHERE YOU LIVED WHILE IN HIGH SCHOOL THIS JOB REQUIRED A RELOCATION OF -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
NONE	40	51	50		30	42	52		38	45	53
1-50	8	10	17		7	15	16		8	25	19
51-100	9	4	4		5	1	2		2	2	2
101-200	12	6	5		5	1	7		3	0	1
>200	12	8	6		4	6	5		3	7	3
-NR-	19	22	18		49	35	17		47	21	22

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV

QUESTION: RELATION OF THE JOB TO YOUR HIGH SCHOOL EDUCATION -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
CLOSR	8	12	32		3	10	33		4	10	36
FAIR	13	15	23		6	14	15		8	11	15
SLGT	21	19	16		13	16	15		11	21	14
NOT	50	53	27		43	53	33		43	51	29
-NR-	8	1	3		35	7	4		35	6	7

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: How well did High School prepare you for your first job?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
EXCL	6	8	18		2	5	17		3	8	22
GOOD	26	32	40		17	30	35		18	24	28
FAIR	31	35	25		18	29	25		16	33	27
POOR	22	20	11		20	21	15		17	22	14
-NR-	15	5	6		42	16	7		46	14	10

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: JOB SATISFACTION -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
V-SAT	30	33	32		12	22	26		17	26	24
SAT	39	49	46		34	47	50		26	51	47
N-SAT	22	18	18		18	21	19		19	18	21
-NR-	9	0	4		36	10	4		38	6	8

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: PAY SCALE -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
<$50	5	8	4		5	10	5		8	13	10
51-100	40	63	52		33	52	57		40	59	61
101-150	30	21	30		20	24	25		15	17	18
>$150	16	8	9		6	6	7		1	6	4
-NR-	9	0	51		36	8	5		37	5	7

34

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: IV QUESTION: REASON FOR LEAVING FIRST JOB -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
OTJ	31	16	15	_	18	18	28	_	17	26	30
LAY OFF	4	10	10	_	3	10	12	_	2	3	7
PROM	1	3	1	_	1	1	1	_	0	0	0
MORE $	12	16	19	_	10	15	18	_	6	25	20
CHALG	5	2	10	_	2	9	5	_	2	3	4
MIL	4	12	14	_	1	10	7	_	1	4	3
SCHL	14	2	5	_	15	6	2	_	22	9	10
MAR	6	19	6	_	4	10	10	_	1	6	7
OTHER	16	15	16	_	5	11	9	_	7	16	9
#NR-	9	5	4		14	9	7	_	40	8	10

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V QUESTION: WHAT IS YOUR CURRENT STATUS?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
EMPL	74	71	78		47	72	76		47	76	82
LOOK	3	4	3		2	4	3		3	7	2
N-LOOK	8	12	8		7	11	9		6	6	5
S-EMPL	4	3	3		3	2	1		1	1	2
OTHER	6	8	6		16	6	7		11	6	3
-NR-	6	2	3		26	6	4		32	5	6

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V QUESTION: IN RELATION TO WHERE YOU LIVED WHILE IN HIGH SCHOOL THIS JOB IS LOCATED -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
TOWN	24	37	38		21	39	35		32	45	47
STATE	29	30	33		20	23	28		13	22	26
OOS	23	16	15		11	17	18		7	14	13
OOC	2	0	1		1	2	1		1	0	1
-NR-	22	18	14		46	20	19		48	18	14

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V

QUESTION: IN RELATION TO WHERE YOU LIVED WHILE IN HIGH SCHOOL THIS JOB REQUIRED A RELOCATION OF -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
NONE	26	35	37		16	29	32		27	36	43
1-50	12	20	21		7	17	19		9	20	20
51-100	12	6	3		7	2	3		2	3	3
101-200	13	5	6		7	3	5		2	3	1
≥200	9	5	7		5	11	12		4	9	5
-NR-	29	29	26		58	38	30		57	30	28

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V QUESTION: RELATION OF THE JOB TO YOUR HIGH SCHOOL EDUCATION -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
CLOSR	9	15	28		5	9	27		6	13	28
FAIR	14	14	19		9	10	13		7	11	15
SLGT	20	14	14		12	16	15		8	21	10
NOT	37	37	25		27	43	28		30	38	34
-NR-	21	19	14		48	22	17		49	18	14

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V

QUESTION: HOW WELL DID HIGH SCHOOL PREPARE YOU FOR THIS JOB?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
EXCL	5	5	18		3	6	15		4	7	18
GOOD	23	32	32		17	18	27		13	21	21
FAIR	26	26	20		16	27	24		13	29	23
POOR	20	15	11		14	21	15		13	19	18
-NR-	27	22	20		50	28	20		56	24	20

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V QUESTION: JOB SATISFACTION

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	156	N	281	176	165	N	356	211	184
V-SAT	33	42	37		18	33	35		15	32	26
SAT	36	32	40		25	32	39		23	39	48
N-SAT	9	7	8		8	11	10		12	7	11
-NR-	22	18	15		49	23	17		50	22	16

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V QUESTION: PAY SCALE -

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
<$50	4	8	0		2	2	2		3	7	2
51-100	15	28	18		17	28	32		30	44	54
101-150	39	26	41		22	32	35		14	21	23
> $150	20	17	26		9	13	15		2	7	6
-NR-	23	21	16		50	25	17		51	21	14

42

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: V

QUESTION: DO YOU THINK YOU WILL LEAVE THIS JOB WITHIN ONE YEAR FROM NOW?

	1968				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
YES	23	14	16		24	18	17		29	25	22
NO	40	42	47		16	37	44		11	36	35
UNDEC	15	24	23		11	19	20		9	18	27
-NR-	22	21	14		49	26	19		50	21	16

43

FOLLOW-UP ANALYSIS

% RESPONDING TO

PART: VI QUESTION: How many full time jobs have you had since high school?

	1966				1970				1972		
	COL	GEN	VOC		COL	GEN	VOC		COL	GEN	VOC
RESPONSE	199	125	148	N	281	176	165	N	356	211	184
JOBS (LEFT)	10	9	15		15	15	9		7	6	9
JOBS (RIGHT)	1.9	2.2	2.6		1.2	1.9	2.0		.8	1.5	1.4
How many of these jobs were related to your High School Education?											
REL (LEFT)	6	4	4		5	4	8		2	3	5
REL (RIGHT)	.5	.8	1.3		.2	.5	.9		.1	.4	.7

PROJECT ANALYSIS SHEET

School: _____ Name: _____

DATE	ACTIVITY	TIME EXPENDED	COMMENTS

PROJECT FOLLOW-UP
1973

ANALYSIS OF RETURNS
Sept 20, 1973

RATIO OF RETURNS TO DISTRIBUTED

	'68	'70	'72	TOTALS
College	$\frac{121}{139}$ = 87%	$\frac{164}{239}$ = 69%	$\frac{196}{283}$ = 69%	$\frac{481}{661}$ = 73%
General	$\frac{124}{156}$ = 79%	$\frac{160}{252}$ = 64%	$\frac{197}{229}$ = 86%	$\frac{481}{637}$ = 76%
Vocational	$\frac{231}{528}$ = 44%	$\frac{296}{460}$ = 64%	$\frac{323}{560}$ = 58%	$\frac{850}{1548}$ = 55%
Totals	$\frac{476}{823}$ = 58%	$\frac{620}{951}$ = 65%	$\frac{716}{1072}$ = 67%	$\frac{1812}{2846}$ = 64%

BEST PROGRAM RETURN:

General - 76%

BEST YEAR RETURN:

'72 - 67%

RATIO OF YEAR/PROGRAM TO TOTAL DISTRIBUTED

	'68	'70	'72
College	$\frac{139}{823}$ = 17% / $\frac{139}{661}$=21%	$\frac{239}{951}$=25% / $\frac{231}{661}$=36%	$\frac{283}{1072}$ =26% / $\frac{283}{661}$=43%
General	$\frac{156}{823}$ =19% / $\frac{156}{637}$=25%	$\frac{252}{951}$=26% / $\frac{252}{657}$=40%	$\frac{229}{1072}$ =21% / $\frac{229}{637}$=36%
Vocational	$\frac{528}{823}$=64% / $\frac{528}{1548}$=34%	$\frac{460}{951}$=49% / $\frac{460}{1548}$=30%	$\frac{560}{1972}$ =52% / $\frac{560}{1548}$ =36%

↓ / →

Key:
Direction in which % add to 100% (±1% error due to rounding)

Ratios: $\frac{\text{Program}}{\text{Year}}$ / $\frac{\text{Year}}{\text{Program}}$

RATIO OF YEAR/PROGRAM TO TOTAL RETURNED

	'68	'70	'72
College	$\frac{121}{476}$=25% / $\frac{121}{481}$=25%	$\frac{164}{620}$=26% / $\frac{164}{481}$=34%	$\frac{196}{716}$=27% / $\frac{196}{481}$=41%
General	$\frac{124}{476}$=26% / $\frac{124}{481}$=26%	$\frac{160}{620}$=26% / $\frac{160}{481}$=33%	$\frac{197}{716}$=27% / $\frac{197}{481}$=41%
Vocational	$\frac{231}{476}$=49% / $\frac{231}{850}$=27%	$\frac{296}{620}$=48% / $\frac{296}{850}$=35%	$\frac{323}{716}$=46% / $\frac{323}{850}$=38%

ACCESSION NUMBER: VT102149

TITLE: DEVELOP A PRE-VOCATIONAL PROGRAM FOR FRESHMEN STUDENTS IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL. EVALUATION REPORT.

PERSONAL AUTHOR: WEST, B.R.

DESCRIPTOR: *PROGRAM EVALUATION; *CURRICULUM EVALUATION; *PREVOCATIONAL EDUCATION; *GRADE 9

IDENTIFIER: HAMMOND; INDIANA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 33P.; SEE RELATED DOCUMENT VT 102 009 IN THIS ISSUE.

ABSTRACT: AN EVALUATION OF A PROJECT DESIGNED TO DEVELOP A PREVOCATIONAL PROGRAM FOR NINTH GRADE STUDENTS IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL IN HAMMOND, INDIANA IS PRESENTED. THE EVALUATION IS BASED UPON THE CURRICULUM DEVELOPMENT ASPECT OF THE PROJECT AND THE PREDICTION OF WHETHER OR NOT THE MATERIALS WILL ACCOMPLISH THE STATED PROJECT GOALS. BOTH NEGATIVE AND POSITIVE OBSERVATIONS ABOUT THE INSTRUCTIONAL UNITS ARE OFFERED. THE METHODOLOGY EMPLOYED BY THE PROJECT IS ACCEPTED AS A VIABLE AND VALID ONE. A RECOMMENDATION IS MADE TO EXTEND THE TIME FRAME FOR THE PROJECT IN ORDER TO ALLOW FOR FIELD TESTING, REVISING MATERIALS, AND IMPLEMENTATION STUDIES. (VA)

SPONSORING AGENCY NAME: INDIANA STATE DEPT. OF PUBLIC INSTRUCTION, INDIANAPOLIS. DIV. OF VOCATIONAL EDUCATION.

VT 102 149

EVALUATION REPORT

PROJECT 61-73-C

DEVELOP A PRE-VOCATIONAL PROGRAM FOR FRESHMEN STUDENTS

IN A COMPREHENSIVE AREA VOCATIONAL SCHOOL

Prepared For

Mr. W. E. Parson, Director

Submitted by

Dr. B. R. West, Evaluator

VT 102 149

EVALUATION REPORT

PROJECT 61-73-C

Introduction

This project entitled "Develop Pre-Vocational Program For Freshmen Students In A Comprehensive Area Vocational School" (hereinafter refered to as the Project) was approved and funded for $19,217 January 1, 1973, for a period of one year to end December 31, 1974. The contract period was later extended twice--once to June 30, 1974, and again to August 31, 1974.

The stated purpose of the Project was". . . to develop and implement a prevocational program for the ninth grade students which would focus primarily on occupational information and career choice, and secondarily on developing work habits, attitudes, and life style within the accepted individual and group values." It was further stated: "Curriculum will be designed that will include suggested areas and concepts to be covered, suggested time schedule, appropriate teaching techniques, and sources of resource material and available community personnel." Quarterly reports have been submitted to the Vocational Education Division, State Department of Public Instruction pursuant to the Division's policy. The contracting LEA has agreed in their proposal to make available all materials developed so that they may be disseminated by the Vocational Education Division. Mr. W. E. Parson, Vocational Education Director for the School City of Hammond, Indiana, is the director of the Project.

Goals And Objectives

The Hammond Technical and Vocational High School has been serving the vocational education needs of the Hammond community for over 50 years; and, in the past, it has been the locus of many innovative programs which have served as models in vocational education. It is now believed by the administration that it might be more educationally appropriate to shift the 9th grade program emphasis from the industrial arts rationale to that of career education which stresses providing the student with career and personal information which would facilitate career choices and decisions with the attendant considerations of helping the student to develop good work habits and helping him to structure a satisfying life style commensurate with his self concept. The purpose of this Project, therefore, was to develop a "transitional vehicle" at the ninth grade level that would shift the program emphasis.

Following are the stated goals and objectives of the Project. It will be noted that these are rather broad, longitudinal statements that imply that a great deal of intermediate work, such as developing the curriculum delivery system, would need to be done before the ultimate goals might be realized.

Objectives

1. Students will be more knowledgeable in the area of career information and thus better able to make wise career choices.

2. Students will develop better work habits and attitudes.

3. Students not ready to begin vocational training at completion of ninth grade will have an interim program available between ninth and eleventh year.

4. There will be increased involvement of the community in vocational education.

These objectives are further explicated in a statement from the Project Director, The career Development Program will help students:

1. Develop an awareness of occupational types of information.

2. Recognize that occupational information which is related to his capabilities and interests.

3. Apply, in terms of involvement, a broad course of action or occupational direction.

4. Analyze skill development as part of information base to determine awareness of skills and attitudes needed for the cluster.

5. Recognize the occupational skills that are compatible with his capabilities and interests.

6. Evolve a commitment to the skill levels within the occupation of his choice.

An inferred objective not stated specifically in the objectives section but alluded to in the Background and Procedures sections of the proposal is the designing and developing of a curriculum and a delivery system for the program. It is felt by this evaluator after talking with the Project Director and other Project participants that this inferred objective was considered a necessary prerequisite and tantamount to the stated ones. It was recognized that the successful accomplishment of the stated objectives rested upon prior development of a sound curriculum.

METHODOLOGY

The following tentative time schedule was presented in the proposal:

January, 1973--select principal investigator

January to June 1973--preliminary meetings of the staff to present and explore the purpose and parameter of the project and to train teachers in the development of curriculum materials.

June 11 to August 3, 1974--complete teacher training and begin development of curriculum materials

August through December, 1974--Implement program through field testing.

January, 1974 and forward--Evaluation.

It was not possible for the Project to adhere to the time line for reasons that have been given in quarterly reports to the Vocational Education Division and ones that will be presented in this report.

It was realized by the project director soon after the beginning of the curriculum development phase (June 11 to August 3) that insufficient time had been allotted for materials development; and, consequently, the implementation schedule was postponed until the second semester, January, 1974. A request for an extension of time was approved by the Vocational Division.

It is felt by this evaluator that the personnel selected by the project director to implement this project were capable practitioners in their respective areas and represented sound choices. Their backgrounds included many years of classroom teaching experience in the public schools as well as practical work experience in their respective fields in industry. With this best of two worlds in their backgrounds, the materials to be developed could logically be expected to be current, relevant, and pedagogically viable.

In addition, there was a director of guidance on the team with experience in research and student counseling and placement. Training in the development of curriculum materials was provided by a representative of Purdue University.

The Procedure

The developmental system and theory employed by the Project is felt to be valid and viable and one that has been used successfully by numerous vocational curriculum development projects throughout the United States. It is based on sound curriculum development models (recognizing necessary local needs and administrative deviations) and could be supported theoretically by such national curriculum research studies as HumRRo, Project Able, Project PLACE, et. al.

The following operating procedure which was followed by the Project seems sound and has produced numerous curriculum packets in four areas for field testing.

1. A professor from Purdue University was employed to train the staff in the areas of task analysis of occupations; generation and writing of measurable goals and objectives; preparation of teacher-centered curriculum packages, including test construction, instruction sheets, and audio-visual materials development and utilization.

2. The four areas which the Project felt needed development were construction, electricity-electronics, metals, and graphics.

These specific cluster areas were selected for development because they represented over 90% of the program areas in the vocational program. Since

these vocational offerings were originally chosen on the basis of employment opportunities and student interest, these two factors may be considered as the basic criteria for choosing these 4 areas for development.

3. A tentative list of occupations available in the Calumet area was prepared for each of the occupational clusters.

4. After the specific occupations to be taught were selected, an analysis was performed on each job title to determine what knowledges and skills were essential to the successful performance of this job. It is felt that for the purpose of this Project, providing exploratory materials, the in-depth analysis performed might have been somewhat excessive since only the very basic and generalizable skills and knowledges were intended to be taught and these merely to provide the student with a "feel" of what it might be like to function in a particular job capacity. The analysis performed for each job in each of the clusters shows the duties performed, knowledges and skills required, and the teachable elements. Exhibit A illustrates the process.

5. Instructional objectives were than developed for each cluster and teaching units structured that would hopefully enable the learner to achieve the predetermined goals.

6. At the conclusion of the curriculum development phase, the materials were to be field tested beginning in the Fall of 1973. However, for reasons cited elsewhere, the field testing was delayed until second semester of academic year 1974 and then in only three of the four clusters identified for development.

7. Project evaluation was planned to begin in the Spring of 1974.

The results of the procedural steps one through five were the construction of teaching units in the identified occupational clusters. It should be recognized that these materials are teacher centered and not intended as individualized delivery systems. As such, provision for individual differences is limited; but it is felt that these teaching units will be very beneficial, indeed, to the teacher as he prepares his lessons.

RESULTS

Following are the goals as they are stated in the proposal of Project 61-73-C. These goals are stated in terms of student achievement rather than in terms of Project accomplishments, but it might be possible to infer from the curriculum materials developed to whether or not these goals might be reached by the student after completing the educational experiences provided in the packets. This is to say that the goals as stated here are attainable, measurable, and therefore subject to evaluation only after the curriculum materials are written, field tested, revised, and implemented longitudinally in the classroom. Therefore, since the Project's efforts have concentrated primarily in the curriculum development phase the evaluation of the Project will center in this area specifically and inferentially to whether or not these materials might be effective in allowing the student to reach the stated goals.

Goal 1: (The student will) develop an awareness of occupational types of information. Even though a thorough analysis of each occupation in a cluster was made, relatively little of the information aside from the cognitive realm of skill related capabilities and knowledges were incorporated in the "planned" lesson units. Scant information from affective domain, how to prepare for the job, educational requirements of the job, future outlook, salary expectations, working conditions, possible career ladders, or resources for further student exploration were included in the materials. A protion of this goal has been satisfied, however, by providing information in the cognitive knowledge

areas and the skill domains. The learning experiences in these areas will surely affect the student's feeling about a given occupation within a cluster or about the total cluster.

Goal 2: (The student will) recognize that occupational information which is related to his capabilities and interests. The same inferences cited in goal 1 above might apply here. While the teaching units do not address this goal directly, it is intended that the teacher augment the packet with occupational information and sources of information so that this goal might be satisfied. In addition, it should be noted that cognitive and skill experiences do provide the learner with critical information related to one's capabilities and do much to shape one's interests.

Goal 3: (The student will) apply in terms of involvement a broad course of action or occupational direction. Again the assumption is that the developed lesson plans will be supplemented with teacher input of other career-centered materials and will provide the student with a sufficient date base for preliminary career planning.

Goal 4: (The student will) analyze skill development as a part of an information base to determine awareness of skills and attitudes needed for the cluster. It is felt that student-teacher interaction around these curriculum materials will lead the student to achieve this goal. The student experiences provided in these learning environments if internalized and learned by the student should ultimately enable the student to measure his capabilities against those required for the job cluster. It might be difficult, however, to measure whether or not the student comprehended in an affective way the "attitudes" needed for the cluster.

Goal 5: (The student will) recognize the occupational skills that are compatible with his capabilities and interests. It is believed that the experiences provided in the curriculum developed should enable the learner to make this comparison of self with job requirements.

Goal 6: (The student will) evolve a commitment to the skill levels within the occupation of his choice. This goal recognizes that career choice is a developmental process. The experiences gained through the packets developed should lead the learner to either higher levels of exploration and skill development in a specific area or lead him to alter his career decision and pursue another cluster.

Based on the curriculum materials developed by the Project, the following conclusions are reached regarding the four objectives.

Objective 1: Students will be more knowledgeable in the area of career information and thus better able to make wise career choices. It is felt that the package experiences alone are insufficient to allow the student to reach this objective. Information other than skill related experiences are believed to be necessary for intelligent, reasoned career choices. However, it should be pointed out that the experiences provided in the materials do satisfy the letter of the objective..."more knowledgeable in the area of career information" since these experiences represent one kind of information necessary for wise career choice.

Objective 2: Students will develop better work habits and attitudes. This objective might be reached by students using these materials if sufficient teacher input is made. It is felt that work habits and attitudes is a person-to-person thing evolving around a work-learning setting.

Objective 3: Students not ready to begin vocational training at the completion of the ninth grade will have an interim program available tetween the ninth and eleventh years. Providing these experiences for students identified as such should satisfy this objective.

Objective 4: There will be increased involvement of the community in vocational education. This objective is a perpetual one for any vocational education program, and the Project has initiated the practice by utilizing the community as one resource base for its curriculum development efforts.

Curriculum Development

Perhaps it needs to be mentioned again that the greatest effort this year has been in the area of curriculum materials development (see Exhibit B) The results to date are as follows:

1. Programs in electricity and metals have been completely written and field tested during the second semester, academic year 1973-74.

2. In the graphics area outlines have been prepared for drafting and printing. Most, but not all, of the drafting units have been prepared and field tested. About half of the printing units have been prepared but not tested since equipment has not been received.

3. The construction curriculum outlines have been developed. All of the units have been prepared and about half of them have been used in the classroom.

4. Industrial mechanics was dropped and replaced by the graphics area.

It is felt that this represents a sufficient output given the time dimensions in which 4 developers worked 10 weeks in the summer of 1973, 2 developers worked the summer of 1974, and then on their own.

time during the school year) and the scope of the task undertaken. The teachers were visited in their classrooms and interviewed concerning the program and the materials. They seemed to feel that the materials were serving the student well, but there was a need for some revision and modification, especially with affective materials. It was felt by the evaluator that while an informal kind of curriculum materials evaluation was helpful, a more structured and formal evaluation procedure was needed. A systematic plan for information gathering would be desirable.

By the way of summary, it is felt that the materials developed are potentially valid as teacher-centered delivery systems, but they should be field tested more rigorously and revised before being adopted as the foundation for the program and disseminated throughout the State.

DISCUSSION AND RECOMMENDATIONS

It should be repeated that this evaluation is based upon the curriculum development aspect of the Project and the prediction of whether or not these materials which are to form the base of the program will lead to the accomplishment of the Program goals which have been stated as the Project goals. Therefore, the following observations are recorded and some recommendations offered.

Observations--Negative

1. Regarding some of the teaching units--the congruency between the objective, practice, and testing is not immediately obvious. A field test will determine if this observation, if valid, will hinder student achievement of the objective.

2. The instructional objective in some units does not describe what the student is to learn or what behavior, other than writing on a test, he is to demonstrate to indicate that he has changed behavior as a result of interaction with the materials.

3. The time dimension on the tests seems to be unnecessary and defeating because it does not allow for individual differences in test-taking abilities.

4. The stimulus presentations do not recognize individual differences.

5. While not necessarily negative, the effectiveness of the teaching units is dependent upon the effectiveness of the teacher-presenter.

Observations--Positive

1. The teaching unit format is excellent. It should be easy for a competent teacher to follow, and it seems to be inclusive of all the elements of a learning situation.

2. The content seems to be adequate in each unit but dependent upon teacher competency for effective delivery.

3. All learning environment components are provided.

4. The small group activities are good, but the instructions in some units may be inadequate.

5. Explaining the study format to the student is good practice.

6. Providing tactile experiences in the units is good practice, especially for students at this level.

Recommendations

1. The materials depend heavily upon verbal presentations which will vary with the individual teacher's interpretation and background. It might be desirable to include a wider range of stimulus presentations including films, tapes, slides, filmstrips, video-tape, field trips, etc.

2. Maximum lecture times might be specified to lessen student boredom.

3. Criterion referenced tests should be developed.

4. Develop an instrument (s) and a plan for field testing, evaluation, and revision.

5. Develop a list of evidences to support goals and objectives statements.

6. Provision needs to be made for individual differences in learning.

7. Instruments should be developed to collect data on changed student behavior in regard to career awareness, tentative career selection, and self-concept evolvement.

It is recognized, in conclusion, that the methodology employed in this research project seems to be a viable and valid one. It begins with an identification of job clusters, analyzing tasks to determine course content and

instructional methodology, planning and developing teacher-centered lesson plans, field testing these, and finally revising and implementing the program. At this writing it seems that only phases I, II, and III (identifying job clusters, analyzing tasks, developing lesson units, and some classroom utilization) are completed. The time table needs to be extended to allow for field testing in a systematic manner, revising materials, and implementation studies.

The packets are systematically developed and should aid the teacher in preparation of classroom presentations. They seem to be flexible in that additional materials and experiences may be added. Perhaps most important, an objective has been stated, based on the real world of work, and a criterion referenced test can now be developed to determine student competency.

In closing, the purpose of the Project--"to develop a 'transitional vehicle' at the ninth grade level that would shift the program emphasis from that of industrial arts to that of career education"--is now closer to reality because of the curriculum development phase. Since this is the first phase, it is recommended that the Project be pursued to its ultimate conclusion.

A - OCCUPATIONAL ANALYSIS - SAMPLE

ELECTRICAL OCCUPATION ANALYSIS

SKILLS: A WIRE CONNECTIONS; B READING SCHEMATICS; C BASIC MATH; D USE OF HAND TOOLS; E CIRCUIT TRACING; F BASIC ELECTRICITY; G TEST EQUIPMENT; H SAFETY; I BASIC AUTO ELECT. SYSTEMS; J ELECTRICAL CODES; K LAYOUT TOOLS; L LAYOUT PROCEDURES; M WIRE SOLDERING; N INSTALLATION METHODS; O MAINTENANCE METHODS; P BASIC MATERIALS; Q SIMPLE OPERATIONS; R SIMPLE MACHINE; S RADIO

OCCUPATIONS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
RADIO DISPATCHER																			
EQUIPMENT INSTALLER																			
EQUIPMENT REPAIRMAN																			
ELECTRICAL REPAIRMAN																			
CONSTRUCTION ELECTRICIAN																			
ELECTRONIC TECHNICIAN																			
ELECTRONICS ASSEMBLER																			
APPLIANCE REPAIRMAN ELECT.																			
TRANSMISSION MAN																			
POWER PLANT OPERATOR																			
REFRIGERATION MECHANIC																			
CABLE SPLICER																			
ELECTRICIAN SHIP + BOAT																			
ELECTRICAL FOREMAN																			
LINEMAN																			
AUTOMOTIVE ELECTRICIAN																			
ELECTRICAL CONTROL ASSEM.																			

KNOWLEDGE: 1 TYPES & METHODS; 2 SYMBOLS; 3 FRACTIONS & DECIMALS; 4 CARE & METHODS OF TOOLS; 5 METHODS & MATERIALS; 6 LAWS & THEORY; 7 METHODS & MATERIALS; 8 WIRING & WIRING; 9 SAFETY & EQUIPMENT; 10 SAFETY OF OPERATIONS; 11 TYPES & FUNCTIONS; 12 MATHEMATICS & FORMULAS; 13 OPERATION & TYPES OF EQUIPMENT; 14 MEANING & TYPES; 15 METHODS & TYPES; 16 METHODS & TYPES; 17 METHODS & TYPES; 18 THEORY OF OPERATION; 19 TYPES & FUNCTIONS; 20 OPERATION & TYPES; 21 LAWS & THEORY; 22 PROCEDURE & SERVICE; 23 THEORY & LANGUAGE; 24 METHODS & METHODS

A - OCCUPATIONAL ANALYSIS - WORK SHEET

OCCUPATION	D.O.T.	DATA - (4 DIGIT)	WORKER TRAIT GROUPS PEOPL
ELECTRONIC TECHNICIAN	003.181	Coordinating - Determining Time & place.	No Relat
ELECTRICIAN, CONSTRUCTION	824.281	Analyzing - Examining & evaluating data	NO Relat
ELECTRICAL REPAIRMAN	829.281	Analyzing - Examining & evaluating data.	No Relatn
ELECTRICAL APPLIANCE REPAIRMAN	829.281	Analyzing -	No Relatn
ELECTRONICS ASSEMBLER	726.781	No significant relationship	No Relatn
ELECTRICIAN FOREMAN	829.131	Coordinating -	Supervising
REFRIGERATION MECHANIC	827.381	Compiling - Gathering, classifying Information	No Signif
ELECTRICIAN Ship & Boat Bldg.	825.381	Compiling - " " "	"
IGNITION REPAIRMAN AUTOMOTIVE	825.281	Analyzing - Examining & Evaluating Data	"
DISPATCHER RADIO	372.168	Compiling - Gathering, classifying Information	Speaking - Si
EQUIPMENT INSTALLER & REPAIRMAN	822.281	Analyzing - Examining & Evaluating Data.	No Signific
LINEMAN	822.381	Compiling - Gathering, classifying, Information	No Significa
CABLE SPLICER	829.381	Compiling - "	"
TRANSMISSION & POWER PLANT OPERATOR	952.782	NO Significant Relationship	No Significa

WORKER TRAIT GROUPS		
IT)	PEOPLE (5TH DIGIT)	THINGS (6TH DIGIT)
rmining Time & place.	No Relationship	Precision working - selection of appropriate tools, objects, materials, etc
g & evaluating data	No Relationship	- Adjustment of tools to the task requires considerable judgement
& evaluating data.	No Relationship	-
	No Relationship	Precision working "
ship	No Relationship	"
	Supervising - Assigning specific duties	"
ing, classifying Information	No SIGNIFICANT RELATIONSHIP	"
" "	"	"
	"	"
ing & Evaluating Data		
ing, classifying Information	SPEAKING - SIGNALING	No SIGNIFICANT relationship
ng & Evaluating Data.	No Significant relationship	Precision working
g, classifying, Information	no Significant relationship	Precision working
"	" "	" "
lationship	no Significant relationship	" "

A - OCCUPATIONAL ANALYSIS - SAMPLE

SCHOOL CITY OF HAMMOND
Hammond, Indiana
HAMMOND TECHNICAL VOCATIONAL HIGH SCHOOL

Electronic Technician

I. DUTIES PERFORMED

A. Works with engineers and scientist
B. Engaged in research and development work
C. Help with design and construction of experimental models
D. Work with inspection, testing, and assembling

II. KNOWLEDGE AND SKILLS

A. Basic electronics theory
B. Mathematics
C. Reading schematic diagrams
D. Understand technical publications
E. Need color vision, manual dexterity, and good hand-eye coordination

III. TEACHABLE ELEMENTS

A. Basic electronic theory
B. Electronics math
C. Test procedures (equipment and procedure)
D. R ading schematics
E. Soldering and electrical connection
F. Use of simple hand tools
G. Nomenclature

APPENDIX B - LIST OF COMPLETED UNITS

METALS

1 - ORIENTATION TO METALS

2 - WORK DRAWINGS

3 - LAYOUT TOOLS

4 - FILES AND FILING

5 - DRILLS AND DRILLING

6 - HAND HACKSAW

7 - SHEET METALS

8 - ARC AND OXY-ACETYLENE WELDING

9 - FORGING

10 - LATHE WORK

11 - SHAPER

12 - MOLDS AND MOLDING

ELECTRIC

1 - BASIC ELECTRICITY

2 - CONDUCTORS AND INSULATORS

3 - WIRE CONNECTIONS

4 - WIRE CONNECTIONS

5 - SOURCES AND EFFECTS

6 - BASIC MEASURING INSTRUMENTS

7 - KIRCHOFF'S LAWS AND CELL CONNECTIONS

8 - ELECTRICAL RESISTANCE

9 - RESISTANCE MEASUREMENTS

10 - SYMBOLS AND SCHEMATIC DIAGRAMS

GRAPHICS

COMMUNICATIONS

1 - INTRODUCTION TO GRAPHICS

2 - PLANNING, AND ART AND COPY PREPARATION

3 - COMPOSITION

4 - PROOFING - LOCKUP - IMPOSITION

5 - PLATEN PRESS

OFFSET

1 - OFFSET PRINTING

2 - OFFSET PRINTING INDUSTRY

3 - COLD TYPE COMPOSITION

4 - JOB PLANNING AND LAYOUT

5 - CAMERA COPY

6 - LINE PHOTOGRAPHY

7 - DARK ROOM PROCEDURE

8 - LAYOUT AND STRIPPING THE FLAT

9 - PLATE MAKING

10 - FUNDAMENTALS OF OFFSET PRESS

11 - OPERATION OF OFFSET PRESS

GRAPHICS CONTINUED

DRAFTING

1 - INTRODUCTION TO LETTERING

2 - SCALES AND MEASUREMENTS

3 - INSTRUMENTS

4 - FREEHAND SKETCHING

5 - ORTHOGRAPHIC PROJECTION

6 - SIZE DESCRIPTION

7 - PICTORIAL DRAWINGS

8 - SECTION USE

9 - AUXILIARY VIEWS

CONSTRUCTION

INTRODUCTION

1 - SAFETY AND YOU

2 - MEASURING AND YOU (TERMINOLOGY)

3 - UNDERSTANDING BLUEPRINTS

4 - MEASURING AND YOU (TOOL IDENTIFICATION)

5 - USE OF HAND TOOLS

6 - TOOL CARE AND STORAGE

CONCRETE AND MASONRY

1 - HISTORY - CHARACTERISTICS - MANUFACTURING

2 - MORTAT INGREDIENTS

3 - MATERIALS

4 - TOOLS AND EQUIPMENT

5 - APPLICATION

CARPENTRY

1 - MAKING A MITTER BOX

2 - BUILDING A MODER GARAGE

CONSTRUCTION CONTINUED

PIPEFITTING

1 - CUTTING PIPE

2 - REAMING PIPE

3 - THREADING PIPE

4 - MAKING UP PIPE WORK

HEATING AND VENTILATING

1 - SUBJECT EXPOSURE

2 - INSTALLATION

B

SCHOOL CITY OF HAMMOND
Hammond, Indiana
HAMMOND TECHNICAL VOCATIONAL HIGH SCHOOL

ELECTRICITY-ELECTRONICS

LESSON PLAN-1
Suggested Time-2 Periods

BASIC ELECTRICITY

OBJECTIVES:

The student will, upon completion of this lesson be able to:

1. Describe the elements of basic electricity in a 20 minute quiz, passing with a score of 70 percent.

PREPARATION:

Teacher

Equipment:

Chalkboard, eraser, chalk
Overhead Projector and Screen
Oscilloscope
Capacitor
AC and DC Power Supply

Teaching Aids (in order of introduction in course):

1-1-T	Objectives for lesson
1-2	Outline
1-3-T	Complete Atom
1-4-T	What is electricity
1-5-T	Static and Dynamic electricity
1-6	Post test

References:

Exploring Electronics, Gerrish, Howard H., Goodheart Wilcox, 1971, Chapter 1.

Exploring Electricity and Electronics, Rollain, Phillip J. and Kraus, Thomas E., 1971, Chapter 2.

Basic Electricity and Electronics, Steinberg, William B., and Ford, Walter B., 1962, Unit 6A.

Learner

- Read in text Unit 6A, pages 32-34.
- Ask question, "Now that you are all enrolled in Electricity, who knows what electricity actually is?"

1-1-T - Cite objectives

OBJECTIVES

THE STUDENT WILL, UPON COMPLETION OF THIS LESSON BE ABLE TO:

1. DESCRIBE THE ELEMENTS OF BASIC ELECTRICITY IN A 20 MINUTE QUIZ, PASSING WITH A SCORE OF 70%.

COURSE OUTLINE
(Lecture - Demonstration)

PRESENTATION:

I. INTRODUCTION - Matter and Electron Theory

A. Explain to the student the importance of what electricity is: (EXAMPLE: As in any form of energy person who works with it can do a better and more economical job if he knows why and how it works.)

(EXAMPLE: automobile mechanic)

B. Acquaint the students with the format to be used in this presentation.

1-2 1. Hand out 1-2

II. BASIC ELECTRICITY

A. Nature of matter

1. Definition - anything that has weight and occupies space
2. Structure - (EXAMPLE: salt)
   a. Compound
   b. Element
   c. Atom

1-3-T

B. Electron Theory

1. Discuss electrical charges
   a. Negative
   b. Positive

1-4-T

2. Identify laws of electrical charges
   a. Refer to handout 1-2
3. Have members of class tell you:
   a. Flow of electrons
   b. Direction of electrons

C. Identify types of electricity

1-5-T

1. Static - Demonstrate with capacitor and paper showing how electricity is stored.
2. Dynamic - Demonstrate showing electricity in motion with light bulb.

D. Explain kinds of electricity

1. Refer to handout 1-2
   a. Alternating
   b. Direct current
2. Demonstrate showing what AC and DC look like on an oscilloscope.
3. Field questions

APPLICATION:

I. Organize students into small groups no larger than five (5).

A. Select leader and recorder

II. Give each group a question on which to report collectively.

(EXAMPLES: 1. Does the normal atom have an electrical charge?

2. Explain and give examples of static electricity.

1-2 3. Explain the laws of electric charges and cite examples of these.)

III. Group recorder restates question and then gives their summary. Then teacher clarifies or asks questions to bring out other pertinent information.

IV. Question class on questions at bottom of Hand out 1-2.

EVALUATION:

1-6 I. Assessing outcomes

A. Administer test

B. Collect and critique test having students participate in answering

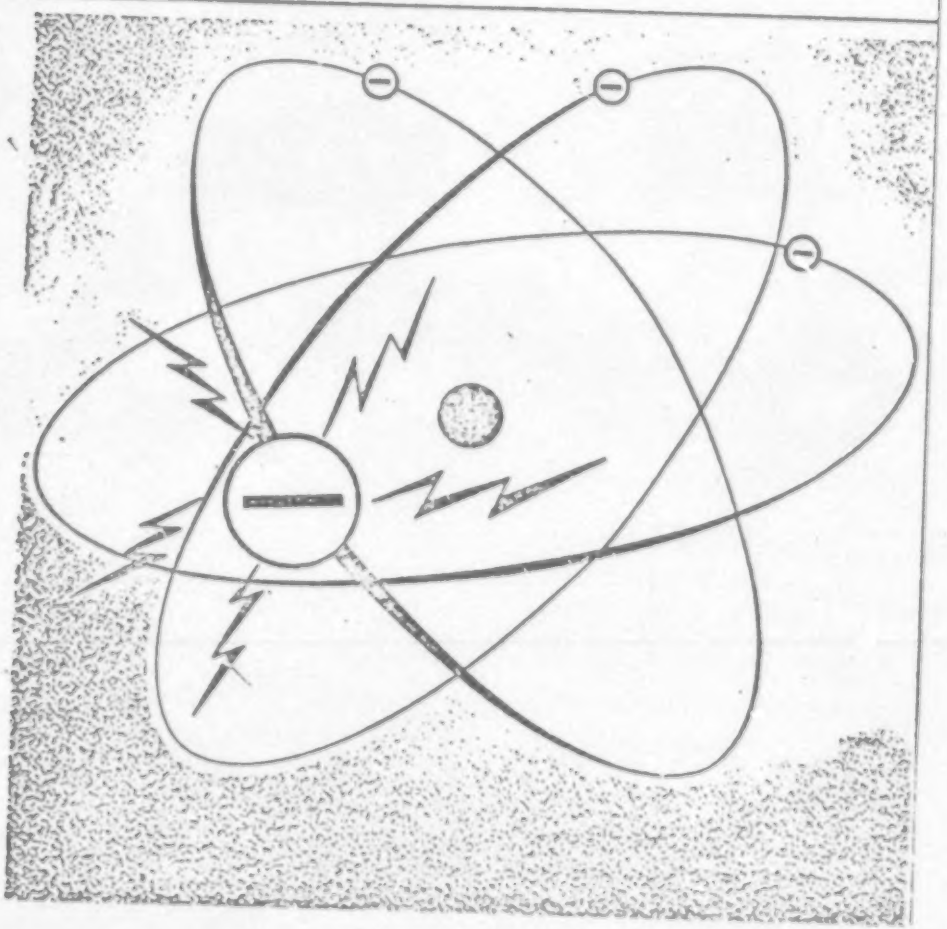
1-1-T C. Refer to Handout 1-1-T and have student make his own assessment.

D. Summary

1. Review Handout 1-2

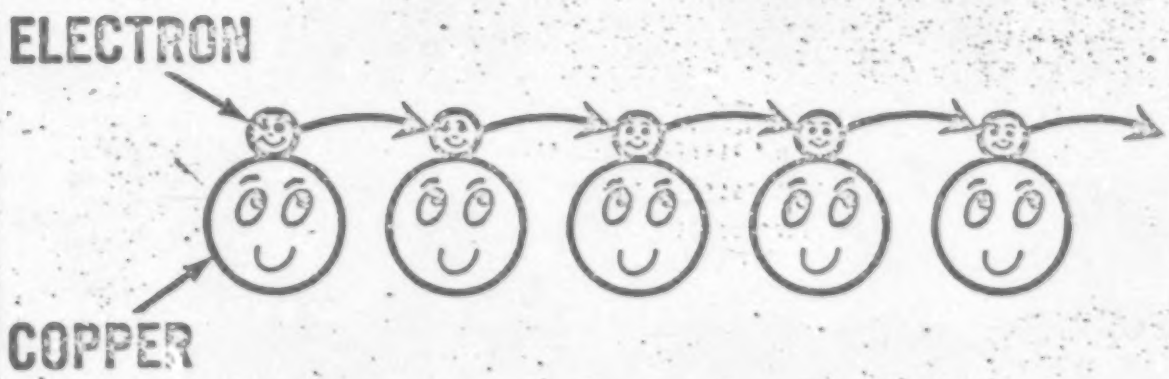
2. Solicit questions from members of class.

THE ELECTRON IS ELECTRICITY

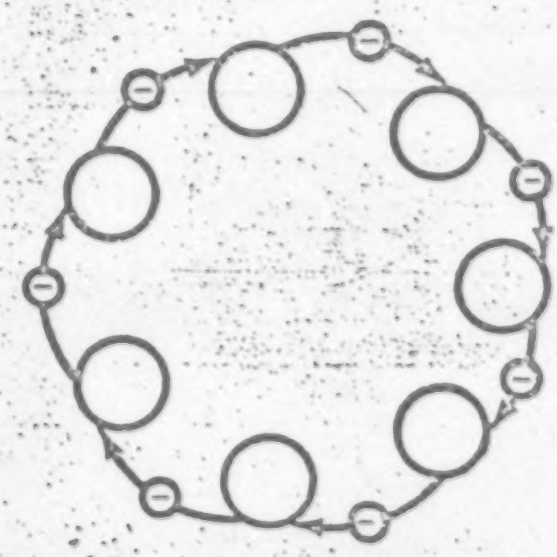


WHAT IS ELECTRICITY?

ELECTRICITY IS THE FLOW OF ELECTRONS!



WHAT HAPPENS AT THE END?

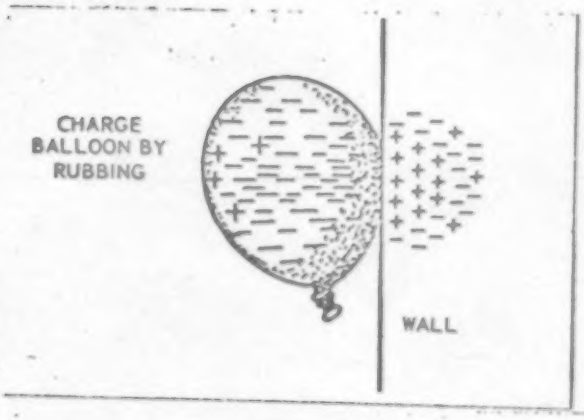


ELECTRICITY ALWAYS*
FLOWS IN A CIRCLE

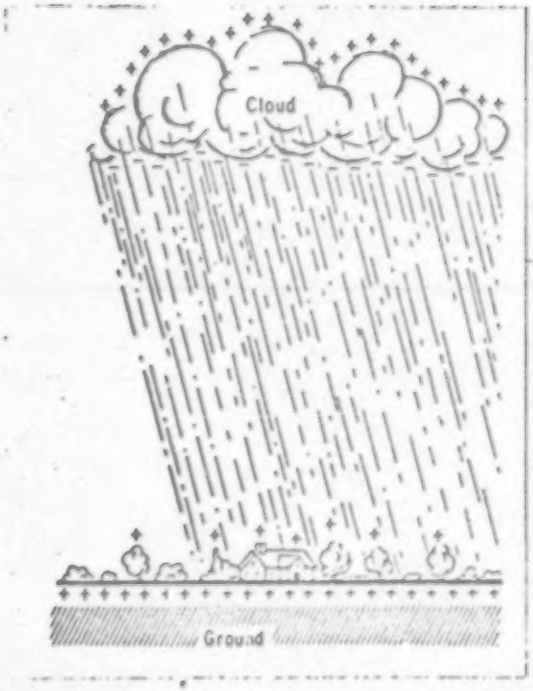
(*ALMOST ALWAYS)

© COPYRIGHT 1964 BY MINNESOTA MINING AND MANUFACTURING CO.

STATIC AND DYNAMIC ELECTRICITY



A balloon is attracted because unlike charges are produced by the charged balloon.



Distribution of electrical charges on a cloud and on the earth beneath it. Sometimes the charges are reversed so that the underside of the cloud is positive and the ground is negative. Yet the same whether the excess electrons start flowing from the cloud to the ground, or from the ground to the cloud.

SCHOOL CITY OF HAMMOND
Hammond, Indiana
HAMMOND TECHNICAL VOCATIONAL HIGH SCHOOL

Name _____ Date _____ Mark _____

BASIC ELECTRICITY

DIRECTIONS: In the following statements or questions select the correct answer and circle the letter in front of the correct response.
(EXAMPLE: An example of dynamic electricity is:
A. Lightning
(B). A motor operating
C. A dead light bulb
D. An unused battery)

1. An electron has:
   A. a negative charge
   B. no charge
   C. a positive charge
   D. either positive or negative charge

2. Electrons drifting from atom to atom in a material:
   A. are free electrons
   B. are bound electrons
   C. go in opposite directions
   D. have a positive charge

3. Electric current is considered to be the movement of electrons
   A. from a positive point to a negative point
   B. in orbit around a nucleus
   C. from a negative point to a positive point
   D. in a random fashion

4. Direct current flows
   A. in alternate directions
   B. in one direction in a particular circuit
   C. from negative to positive
   D. from positive to negative

5. The following is a compound.
   A. iron
   B. copper
   C. water
   D. oxygen

6. The nucleus of an atom contains
   A. an electron
   B. an electron and proton
   C. a proton and neutron
   D. a proton

7. If a negatively charged material came near a positive material it would

A. attract it C. have no effect

B. repell it D. depend on their strength

8. When electrons have motion

A. they move in a straight line

B. you call this static electricity

C. you call this current

D. they form a compound

9. If you took the compound salt and divided it into its principal parts; you would have

A. two atoms C. salt

B. two elements D. a molecule

10. Alternating current differs from direct current because

A. it changes direction

B. it flows from negative to positive

C. half way through it reaches zero

D. it is not portable

11. Most all atoms in their normal state

A. have a negative charge C. repell each other

B. have a positive charge D. are neutral

DIRECTIONS: Answer the following questions with a short statement or word.

12. Of what is all matter made? _____

13. What do we call loosely held electrons? _____

14. How do electrons move through a material? _____

15. What are five (5) examples of matter?

(a) _____ (b) _____

(c) _____ (d) _____ (e) _____

16. Explain in your own words what is electricity?

ACCESSION NUMBER: VT102155

PUBLICATION DATE: 74

TITLE: THIRD YEAR ASSESSMENT OF CAREER EDUCATION PROJECT. BRIDGEPORT CITY SCHOOLS BRIDGEPORT, CONN. APRIL 29, 30, MAY 1, 1974.

DESCRIPTOR: *CAREER EDUCATION; *OCCUPATIONAL GUIDANCE; *PROGRAM EVALUATION; *SUMMATIVE EVALUATION; *ELEMENTARY SECONDARY EDUCATION; EVALUATION METHODS; FIELD INTERVIEWS

IDENTIFIER: BRIDGEPORT; CONNECTICUT

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 139P.; SEE RELATED DOCUMENTS VT 102 010, VT 102 011, VT 102 154 AND VT 102 012 IN THIS ISSUE.

ABSTRACT: THE THIRD YEAR ACTIVITIES OF THE BRIDGEPORT, CONNECTICUT, CAREER EDUCATION PROJECT ARE ASSESSED IN THIS EVALUATION REPORT. DATA AND INFORMATION CONCERNING ALL ASPECTS OF THE CAREER EDUCATION PROJECT WERE OBTAINED BY THE TEAM OF EVALUATORS DURING A THREE DAY ON-SITE VISIT. ADDITIONAL DATA EXAMINED BY THE STUDY TEAM WERE OBTAINED FROM PROJECT REPORTS AND QUESTIONNAIRE-RECORDED ATTITUDES OF INDIVIDUALS. INTERVIEWS WERE CONDUCTED WITH PRIVATE AND PUBLIC AGENCIES, ADMINISTRATORS, FACULTY, EMPLOYERS, STUDENTS, AND PARENTS. THE RESULTS OF THE EVALUATION ARE PRESENTED TO ENHANCE THE USABILITY OF THE REPORT FOR ALL INTERESTED PERSONS. THE STUDY TEAM CONCLUDED THAT THE BROAD STATEMENTS OF PHILOSOPHY AND THE SPECIFIC OBJECTIVES OF THE BRIDGEPORT PROJECT WERE MET AND IN MANY INSTANCES EXCEEDED. RECOMMENDATIONS FOR THE CONTINUED EXPANSION OF THE CAREER EDUCATION PROGRAM ARE PRESENTED. (VA)

CONTRACT NUMBER: OEG-0-71-0679(361)

INSTITUTION NAME: NERDEN (JOSEPH T.) AND ASSOCIATES.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 155

THIRD YEAR ASSESSMENT

OF

CAREER EDUCATION PROJECT

BRIDGEPORT CITY SCHOOLS
BRIDGEPORT, CONN.

APRIL 29, 30, MAY 1, 1974

ASSESSMENT CONDUCTED BY JOSEPH T. NERDEN AND ASSOCIATES

Research and Development Project
in Career Education

Grant No. OEG-0-71-0679(361)

Conducted Under
Part D of the
Vocational Education Amendments of 1968

VT 102 155

TABLE OF CONTENTS

Page

I INTRODUCTION - THE ROLES OF SUPERVISION IN MAINTAINING AND FURTHER IMPROVING CAREER EDUCATION 1

BIBLIOGRAPHY 18

II THE STUDY TEAM 19

III METHODS AND PROCEDURES IN ASSESSING CAREER EDUCATION PROGRAM 21

IV FINDINGS AND OBSERVATIONS

A. THE ADMINISTRATION OF THE PROGRAM

INTRODUCTION 25
CITY ADMINISTRATION AND ITS INFLUENCES 29
CLIMATE AND ATTITUDES 33
SUPERVISION PROVIDED, QUALITY 34
FACILITIES, EQUIPMENT, MATERIALS 36
FINANCE 38
CAREER EDUCATION BUDGET 39
PUBLIC INFORMATION 39
ADVISORY COMMITTEE ACTIVITIES AND REACTIONS 40
PARENT REACTIONS 43
PARENT REMARKS 44
REACTIONS OF TEACHERS, PRINCIPALS, ADMINISTRATORS . . . 45
REACTIONS OF EMPLOYERS 47
LONG-RANGE AND SHORT-RANGE PLANS 49
SUMMARY OF FINDINGS AND OBSERVATIONS 51

B. GUIDANCE SERVICES

INTRODUCTION - THE ROLE OF GUIDANCE IN CAREER EDUCATION 67
INTERPRETATION OF CAREER EDUCATION AMONG COUNSELORS . . 68
ACTIVITIES AT THE ELEMENTARY AND MIDDLE SCHOOLS 69
ACTIVITIES AT THE HIGH SCHOOLS 71
COORDINATION OF SPECIAL PROJECTS 73
INTERACTION WITH THE BUSINESS COMMUNITY 74
COMMUNICATION WITH BULLARD-HAVENS VOCATIONAL TECHNICAL SCHOOL 75
CAREER INFORMATION 76
SUMMARY 77

Page

C. CAREER EDUCATION IN GRADES 1 THROUGH THE MIDDLE SCHOOLS

INTRODUCTION 79
ATTITUDES AND REACTIONS OF TEACHERS AND PRINCIPALS . . 79
ATTITUDES AND REACTIONS OF STUDENTS 80
EXPLORATORY AND "HANDS-ON" ACTIVITIES 81
KNOWLEDGE OF OPPORTUNITIES PROVIDED WITH REGARD TO WORLD OF WORK CLUSTERS AND SPECIFIC OCCUPATIONS . . . 83
CURRICULUM MATERIALS IN USE 84
NEW AND INNOVATIVE LEARNING ACTIVITIES AND EXPERIENCES 85
ARTICULATION OF CAREER EDUCATION WITH SUBJECT MATTER 87
ARTICULATION WITH OTHER GRADES 88
ARTICULATION AND EVIDENCES NOTED 89

D. CAREER EDUCATION IN THE HIGH SCHOOLS

INTRODUCTION 91
CONTRIBUTIONS OF INDUSTRIAL ARTS AND HOME ECONOMICS TO CAREER EDUCATION 101
VOCATIONAL EDUCATION IN THE HIGH SCHOOLS 102
CURRENCY AND ADEQUACY OF EQUIPMENT, CURRICULUMS AND MATERIALS 104
FACILITIES 106
ARTICULATION BETWEEN MIDDLE SCHOOLS AND HIGH SCHOOLS 106
SCHOOL-EMPLOYER RELATIONS 108
PLACEMENT OF GRADUATES FROM VOCATIONAL PROGRAMS 109
COOPERATION WITH THE BULLARD-HAVENS REGIONAL VOCATIONAL TECHNICAL SCHOOL 110

V SUMMARY AND RECOMMENDATIONS

A. GENERAL SUMMARY 113

B. ADMINISTRATIVE RECOMMENDATIONS 120

C. GUIDANCE RECOMMENDATIONS 123

D. MIDDLE SCHOOL RECOMMENDATIONS 126

E. RECOMMENDATIONS CONCERNING CAREER EDUCATION IN THE HIGH SCHOOLS 128

I INTRODUCTION

THE ROLES OF SUPERVISION IN MAINTAINING AND FURTHER IMPROVING CAREER EDUCATION

I INTRODUCTION
THE ROLES OF SUPERVISION IN MAINTAINING AND FURTHER IMPROVING CAREER EDUCATION

During the two decades past, several urgent issues in education have been brought to the attention of the American public generally; some have become the urgent and often "all-consuming" concern of teachers, supervisors and administrators in the public schools. Behind the banners or "thrusts" of accountability, relevancy, cost-benefits, meaningfulness in education, individualized education, measurable objectives, program evaluation, self-paced instruction, multi-media techniques and methods, mosaic programming and other similar valuable concepts and/or procedures, education in our schools has been influenced for varying periods of time. Much of the leadership and the motivation needed to encourage local, state and regional educational agencies to engage in activities designed to achieve the anticipated benefits and educational advantages were supplied from national agencies, chiefly the U. S. Office of Education. However, with changes in political administrations and with rapid changes in Office of Education leadership, the targets and thrusts proposed for American education have likewise undergone changes and/or modifications. Some of the most potent drives sponsored by national agencies have receded somewhat or have been incorporated in other newer and more appealing or contemporary "thrusts." Thus, with the advent of the Career Education concept, strongly advocated by former Assistant Secretary of H.E.W., Sidney Marland, an all-inclusive vehicle was provided educators which enabled them to incorporate philosophy, objectives, product and process in a single national

movement. The rationale and the logic of Career Education in our schools caught and held the enthusiasm of educators, the lay public, planners and organizers of education, but more especially the parents of in-school youth. Under skillful direction, many Career Education programs got underway in the schools, and involved extensive community participation. Supported by federal grants and through state and local funding, Career Education established itself as a viable means to the achievement of goals and objectives long desired by students, parents, communities and professional educators. Evidences of goals achieved such as career awareness in elementary school children, occupational orientation in high school youth, curriculums designed for meaningful and concept-relevant experiences became plentiful in the schools. It is safe to predict that solid achievements in the schools will be retained and even expanded to include other facets of Career Education even as national, state (and often local) immediate targets tend to direct the attentions of educators and their communities toward new banners, new mottoes and new thrusts. The comprehensive nature of Career Education, its relevance to the many needs of each youth and adult and its jointure with socio-economic influences in communities indicate Career Education as a "concept of the whole," can and will persist. As the vehicle for providing assistance in achieving the "thrusts" of the past, and for possibly for "thrusts" that may appear in the future, Career Education will be retained in the great majority of schools where its efficiency and viability have been amply demonstrated.

Career Education did not just happen, however. It was carefully analyzed, planned for and organized, and energetically guided into profitable educational channels by intelligent educational administrators and supervisors. Where successful Career Education programs have matured, many of the successes achieved have been those directly attributable to the wisdom, energy and professional competence of the supervisors. These key individuals provided the urgently needed bridges between school and community, administration and teachers, and above all between conceptualization and practical realization.

As educators look to the future it would be well to assess the successes and limitations of the past in Career Education projects, and to plan carefully the roles of its supervisors in the task of maintaining and further improving Career Education in America's schools.

> "New occasions teach new duties,
> Time makes ancient good uncouth.
> They must upward then and onward
> Who shall keep abreast of truth."

This quatrain penned by James Russell Lowell many years ago speaks quite clearly to contemporary educators. It speaks of change, the alterations and obligations that change demands; it challenges educators to replace the outdated with the new, and it reminds them that gains are bought with effort. All of these "truths" must become activated by supervisors in the Career Education movement. If it is to succeed, educators must indeed redirect their thinking and change some of their procedural operations. They must be

willing to discard that which is ancient and supplant it with that which is innovative and exciting to the thousands of students who now sit in the classroom of the nation, and who are often not certain about why they are there.

The amount of change will be in proportion to the supervisory efforts expended, and the efforts must be planned and paced. Often, there is danger in too much talk, too little planning, and trying to move too fast. Favorable outcomes of a Career Education program will depend upon careful planning, and the wisdom to work each of the segments of the plan at its opportune time.

The role of the supervisor will continue to be critical. Since instruction must be adapted to new emphases, teachers will need much help and support, not only in acquiring new knowledge and expertise, but also in changing personal attitudes. It has been unreasonable to assume that all teachers would immediately accept the Career Education concept, although Dr. Sidney Marland gave it top priority in the U. S. Office of Education during his tenure. Hence, it is apparent that the supervisor should be enthusiastic and skillful, as well as the possessor of pertinent knowledges and supervisory techniques. He should strive to be a planner, a coordinator, a consultant, a manager, and a group leader who works through and with teams of people to accomplish the purposes of an educational program.

How will such a supervisor of Career Education effect so many roles? The answer to this must lie in a conglomerate of answers to other questions, such as: What various functions will the supervisor perform? How will he make certain supervision is a cooperative

enterprise? What mechanisms will he use in supervision? How will he promote articulation among the various levels of the program? How will he involve the community? What kinds of knowledge will he need to possess in order to effectively supervise a career education program?

Much has been written about the roles of supervisors in our school systems. Some of the roles advocated for supervisors are clouded with misunderstandings, but there are other roles which enjoy general agreement among educators. For example, the supervisor is a "helper-of-teachers"; he usually takes the leadership role in building or modifying curricula; he initiates evaluative procedures; he assists in matters of equipment and facilities; and he is a reservoir of intelligence in connection with teaching methods and techniques. Each of these roles contributes to the specific purpose for which supervision exists: to improve the quantity and the quality of instruction. This general purpose, however, can never know ultimate fulfillment; it is as the tomorrow which never comes. Thus, the Career Education supervisor must direct his attention to more specific, achievable and immediate objectives which are within reasonable limits of accessibility and attainment--yet which contribute to the ultimate general purpose indicated above.

A long list of goals and specific objectives may be identified, but the following ones are pertinent to Career Education supervisors:

(1) <u>To help teachers develop an understanding and acceptance of the purpose of Career Education</u>. Without this, all administrative

efforts may well be fruitless. There are a number of ways the supervisor can assist teachers to achieve this understanding and acceptance, if he takes time to clarify his objectives and plans accordingly. Of prime importance is his own attitude. He must accept the concept himself--totally. There is no place in a Career Education program for a supervisor who segments the concept and then rejects some of the segments. If the supervisor is not totally committed, it is unlikely that the instructional staff will develop understandings and the acceptance that the Career Education concept requires.

Another way the supervisor can help effect a personal attitude change in teachers is by allowing time for change to take place. New ideas, like plants, must have time and be properly nurtured before they can grow and blossom. Given time, materials, in-service education, confidence, and support as they are needed, classroom teachers will react favorably in an environment which encourages acceptance of the Career Education concept and its procedures for facilitating its introduction and nurturing.

(2) To assist teachers in gaining the knowledge and skills needed to foster the growth of a Career Education program. It is naive to assume that all teachers recognize the career implications of the subjects they teach. Many of them have never known any practical work experience outside the classroom and a philosophy of work and its relationships to life are often vicarious understandings. Provisions must be made for them to gain the understandings they do not have, and to secure the knowledge and skills they need. The support and cooperation of administrative

personnel, leaders in business and industry, labor, community agencies, and the citizenry in general are imperative to the teachers faced with this particular problem.

There exist many ways that the supervisor can approach this problem. The first one that educators commonly think of is in-service education. This is very effective if it is planned well, takes place at opportune times, and is an involvement experience rather than a "being-told" one. Ideally, if a school system plans to implement the Career Education concept, a pre-school workshop of several weeks' duration should be held. This is a logical time for the supervisor to secure the services of the state staff, specialists, and/or career education consultants to help lay a solid foundation on which all concerned with program operation can build. Generally, teachers are more receptive to new ideas and major changes in programs during the time preceding a new school session or the early part of the school session than they are later; and since they do look to the State and Local Departments of Education for direction, some of their initial help and information should come from members of that group.

The supervisor, along with other staff members--including an adequate representation of teachers--must plan wisely and carefully for in-service education meetings, workshops or conferences. There must be ample opportunity for individuals to ask questions as they meet in small groups with state agency personnel or specialists. The philosophy underlying Career Education, the key concepts, and why it is needed should be skillfully interwoven into all activities. Lectures by the experts should be avoided, but a sharing of ideas for action encouraged.

In-service education can also occur in the classroom in the form of demonstration lessons or specialists working with teachers. It can occur outside the classroom as the supervisor works with the individual teacher, as teams of teachers develop curriculum guides and instructional aids, as teachers avail themselves of observational opportunities in the world of work, as they read current books and periodicals and research reports. The supervisor has the responsibility to plan for a wide variety of experiences in order to provide in-service education. In addition and recognizing local regulations, he may be able to arrange for some teachers to have actual work experience outside the realms of the educational institution. These experiences can broaden the teacher's knowledge of activities outside of the classroom.

(3) To help teachers revise current learning activities to incorporate the Career Education emphases. Unless vital, meaningful changes are made in instruction, the tenure of career education could be as brief as that of "life-adjustment education" some years ago. Teachers embarking on a new program need to experience a measure of success fairly early, else they may revert to traditional stereotyped teaching. One possible way to avoid this is by making the transition to the new and untried as painless as possible. To help teachers do this is clearly one of the roles of the supervisor.

It is obvious that the very thoughts of major curriculum or learning activity revision may be difficult for many teachers. It will be time consuming, and the supervisor in spite of his zeal for efficiency and action, should not be impatient. He must be

cognizant that most teachers cannot make all the needed changes during a regular school term. (Indeed, some summer weeks will need to be invested in the planning of Career Education activities and preparation of materials.) The supervisor should be aware that attitude changes and the gaining of new knowledge may come concurrently with curriculum revision and the development of instructional materials.

It can be assumed that there will be a number of "specialist" teachers who work with students in grades 7 - 14; the task of curriculum revision will be most acute for the teachers of young grade school children, since such teachers have a much broader curriculum responsibility. Although the supervisor should encourage teachers to be self-directive in curriculum revision, he will need to locate and make available to teachers many materials. These will include suggested learning activities developed in other Career Education programs, as well as instructional aids, books, human resources and reasonable quantities of effective instructional materials which teachers may wish to adapt to the needs of their particular students.

Teachers of the academic disciplines throughout the junior and senior high schools also need assistance in continuing the modification of curriculums to accommodate the Career Education concept. The supervisor will need to meet with these teachers individually and in groups, and plan cooperatively with them suggested plans, activities, curriculums, and learning activities.

Although curriculum revision may not be quite as acute for "specialist" teachers, some will need to be done nonetheless.

Instead of teaching as many specifics, teachers may need to broaden their instruction to include the cluster concept. Those charged with the responsibility of skill training will need to revise curriculums often in an effort to keep current. The duty of the supervisor in all instances should be to stimulate and coordinate the efforts of the teachers through such activities and services as: (1) providing visibility, (2) listening to requests for assistance, (3) arranging for individual and group conferences, and (4) suggesting or providing current instructional aids to supplement daily learning activities.

(4) To assist teachers in selecting and developing appropriate teaching materials, locating resource people, and planning activities to implement the Career Education emphasis. Although teachers may be well prepared in planning for learning activities, teaching techniques, and handling problems common to the classroom, the Career Education supervisor is in a unique position to assist teachers in developing and locating aids to give added meaning to instruction. The key word in this context should be assist. Very often, teachers are innovative and the supervisor should stimulate their innovative efforts by recognizing resultant accomplishments. He should determine where teachers are in their thinking as it relates to a need for help, and then seek the best methods to provide the help desired. He should avoid situations that include "telling" them which procedures or instructional materials to use; rather, he should suggest. When he encourages and stimulates the teachers to be self-directive, the best results occur. This is not to ignore the fact, however, that there are many activities which a supervisor

of Career Education may be required to initiate, in order to be of most assistance to teachers as they replan and rebuild curriculums. For example, a supervisor could suggest that a selected group of teachers make a list of service agencies in the community and their respective services, and then widely distribute this information to all instructional personnel. He might also encourage the formation of a committee to identify the various specialists in the school community. Others could analyze community action clubs and outline a plan for relating their services to the Career Education concept. Also, some groups would need to make a comprehensive list of all occupations represented in the area and the implications of each for the Career Education program.

In addition to the responsibility for helping teachers identify community resources, the supervisor should be responsible for acquainting the teachers with new teaching materials, and learning aids as they are developed. This would include those prepared by pioneering teachers in the system, as well as those prepared by commercial sources. Also, the supervisor should provide the means by which teachers may develop audiovisual materials that incorporate a local slant. He should encourage them to develop a storehouse of instructional materials such as pictures, slides, games, books and charts. At the same time, he should establish a central location for materials which will be shared, and work with the teachers in arranging transportation for field trips, arranging radio and TV programs, securing on-the-job training for students as needed, and arranging for introductory skill experiences and vocational skill experiences.

(5) To provide effective leadership and maximum opportunities for teachers to develop leadership potential. The Career Education supervisor will not be able to divorce his role of supervision from his role as a leader. By the very virtue of his position, he should be a leader. Providing coordination among the work of individuals and groups and promoting unity of purpose among them requires leadership ability.

What should be his major functions as a leader? First, he should promote group conscience by exemplifying the democratic philosophy of it himself. He should respect all individual staff members and their unique contributions to the Career Education program. He should be willing to seek help, to delegate responsibility, communicate, make decisions, and involve many people in his plans for solving problems and promoting the program. Secondly, he should provide leadership and promote leadership training through stimulating group action. For example, if a school is interested in developing plans and implementing one major Career Education activity in order to involve the entire school, the supervisor should urge the staff to meet as a group, help them to establish "ground rules," and to organize for action. In this manner, he should strive to become a participating member of the group. His responsibility should be to try to release the potential ability of the members of the group, to arrange for consultant services, and to assist the group in being self-directive. Third, the supervisor should coordinate the efforts of the group. The total Career Education program is important; no one element, segment or level is of greater worth than another. Thus, the supervisor should be

very careful not to favor any one facet over another. He should be knowledgeable about the total program and strive for unification of individual and group efforts as each relates to the whole. Last, he should be responsible for promoting appraisal by individuals, groups, and as a total effort.

(6) To promote articulation among the various facets represented in a Career Education program. In order to assure the continued success of Career Education, each facet must blend into the next with a smoothness which leaves one almost unaware that a transition is being effected. Each level of instruction should complement the other; all professionals should work together to achieve the common purpose. No facet should operate as a subsystem of the greater system, but rather as an integral part of the whole. Achieving this as a result will require development of coordinated approaches which involve personnel on each level, and which will require their working together to produce continuity of instruction and articulation of the parts. Such an arrangement should prevail from the lowest grades to the highest, and should promote unification of the total program by cutting across grade level lines. It should also provide for a cross-fertilization of ideas and eliminate duplications of efforts.

Another very viable way to promote articulation is through the work of an advisory council on Career Education. The supervisor should be instrumental in the appointment of a council which would not only advise on occupational training requirements, but would also be able to furnish information on needs and issues as they exist in the academic elements of the school, and make suggestions

for obtaining the active participation of the community. The occupational community should be well represented on this advisory council, along with parents, members of the educational staff, students, and teachers from phases of the program. As teachers and other staff members work with the advisory council, they should become increasingly cognizant of the total program, and as a result lend force to the achievement of articulation. The supervisors should assure through their activities that both vertical and lateral articulation can be achieved. Each should make efforts to coordinate and unify activities in the total Career Education program, as well as among the various levels of it. If components of the program are treated as separate entities, there is every likelihood that there will be too little communication and too much duplication, either of which could retard the development of the Career Education program.

Finally, articulation involves counselors, and supervisors should make every effort to involve counselors from the start. The supervisor should involve them in planning at all levels, and have them meet regularly with the in-school committees. Unless the right hand (counselor) knows what the left hand (teacher) is doing, the counseling facet of the program cannot become as pivotal as it should be. The importance of coordination of efforts between teachers and counselors needs to be stressed, and the supervisor is the individual best equipped to stress it.

(7) <u>To initiate opportunities for appraisal of teachers' efforts, both individually and collectively</u>. Evaluation is an integral part of supervision, and it can be very profitable for

all who participate in the process. In fact, unless teachers and supervisors recognize strengths and limitations, the need for continual improvement of instruction may become a stagnated concept. The Career Education supervisor should take action to see that this doesn't happen. One of his major objectives as it relates to evaluation should be to work with teachers to critically analyze their instruction in terms of recognized aims. As a tactful supervisor approaches this sensitive area of evaluation, he may recognize that probably the best way is to encourage teachers to concentrate on the successes they have attained. Once a teacher is aware of his achievements, he may not feel as vulnerable to evaluation, and should be more willing to identify the limitations which constrain his efforts. For example, suppose that a teacher should realize that one of his strengths has been in the utilization of resource persons in the classroom, but on the other hand he recognizes a limitation in his hesitancy to arrange for field trips. The supervisor should assist him to identify the causes of his problem. Once identified, steps can be taken to eliminate the conditions that produce a limited program, and the instructor can be motivated to continue evaluation with the objective of improvement to instruction. Supervisor should conduct their activities in order that evaluation of instruction becomes a teacher activity promoted by the supervisor, rather than a supervisory activity promoted by the administration.

If a school system has formal evaluations which take on an aspect of legality; that is, they are ratings which become a part of the teacher's personnel record, the supervisor should arrange

for the teachers to formulate the criteria by which they expect to be evaluated. This places an important segment of the responsibility for improvement on teachers. The supervisor should have the responsibility to initiate group evaluations and total program evaluations. Representatives of all concerned (Advisory Council members, teachers, students, parents, administrative staff) should participate in the evaluative efforts. Provisions for such should be built into the plans originally developed for the implementation of the Career Education program. Arrangements should be made for some evaluation by a local group working independently of the system. In any event, those persons involved in the appraisal should be very familiar with the goals of the program and be able to measure progress or a lack of it in relation to the goals.

8. To provide supervision through visibility. Quality supervision has a prerequisite that the supervisor be out where the action is. He should schedule visits to classrooms, shops, laboratories, and any school-related educational programs outside the school. This is a very effective way to maintain contact with the Career Education program, and should be utilized as the major means of discovering needs and elements of improvement to the program.

Visibility in the school should take the form of frequent classroom visitation, attendance at committee meetings, attendance at school functions (particularly those that feature any sort of Career Education display prepared by students and teachers), or just stopping by a teacher's classroom long enough to clue him in on a new instructional aid. The important point is that supervisors

will uncover needs for advice and services, only to the extent that are readily available to teachers. He should get around in the occupational community, too. There are businesses and industries to visit, representatives of labor to talk to and consultants and specialists to secure. Since Career Education is a home-school-occupational community enterprise, however, the success of it may depend to a large extent upon the ability of the supervisor to communicate frequently and effectively with those outside of the school.

JOSEPH T. NERDEN
May 1974

BIBLIOGRAPHY

Adams, Harold P. and Dickey, Frank G. 1953. Basic Principles of Supervision. New York: McGraw Hill Book Company.

Briggs, Thomas H. and Justman Joseph. 1952. Improving Instruction Through Supervision. New York: The Macmillan Company.

Hoyt, Kenneth B., et. al. 1972. Career Education, What It Is and How To Do It. Salt Lake City, Utah: Olympus Publishing Company.

Marland, Sidney P. 1972. "Career Education: Every Student Headed for a Goal" in American Vocational Journal. March, Vol. 47, No. 3, pp. 34-36.

U. S. Dept. of HEW. 1971. "Career Education." Washington, D. C.: U. S. Government Printing Office.

II THE STUDY TEAM

II THE STUDY TEAM

The third year of the *Bridgeport Career Education project was* marked by growth in all directions. Faculty involvement, development of curriculum materials, numbers of students activated and extension of activities into all grades and levels of public school education were characteristics that were significant. Hence, it was proposed to the Career Education Project administrator that the identical team that conducted the assessment in May of 1973 be reassembled for the third assessment in May of 1974. This was proposed chiefly because the team would be fully cognizant of successes and limitations reported a year earlier, and be thereby enabled to move swiftly into the growths, successes and other characteristics that could be attributed to the 1973-74 year. Approval of the proposal was given. As in earlier years of assessment, it was agreed that practical experience in the fields of public school teaching, guidance, supervision and/or administration would lend credence and authority to the final assessment report. The following annotated listing of study team members indicates the competencies and expertise of each, and the relationship to the major elements of the Bridgeport Career Education project.

*Mrs. Rachel Cline

Coordinator of Career Education in the Caldwell County (N.C.) Career Education Project. Many years as teacher and supervisor in the public schools, particularly in the grades through 9; expert in elementary education programming and curriculum, and in effecting

articulation between grades and within the subject matter areas of the respective grades; Principal of large elementary school.

*Dr. David R. Hill

Coordinator of Curriculum for the First Supervisory District, B.O.C.E.S. Buffalo, New York. Extensive experience in the field of guidance, curriculum organization and production, long range planning of education, and student personnel services.

*Mr. Walter J. Raines

Former member of the state supervisory staff of the Virginia State Department of Education. Presently Executive Director of Technical Education Center, Charleston, S. C. Has been extensively involved in educational planning and organization at both state and local levels. Long experience in private business, public school teaching, and particularly in planning and organizing of the teaching and supervising functions in education.

Dr. Joseph T. Nerden (Chairman)

Professor, School of Education, N. C. State University, since 1964. Teacher of mathematics, physics and chemistry, and for many years a visiting professor during summer sessions at leading universities in the nation. Long experience in teaching, supervision and administration of public and college education. Former Connecticut State Director of Vocational and Technical education, and member of Connecticut State Department of Education, 1941-1964.

III METHODS AND PROCEDURES IN ASSESSING CAREER EDUCATION PROGRAM

III METHODS AND PROCEDURES IN ASSESSING CAREER EDUCATION PROGRAM

During the three day period on-site, the team of evaluators obtained data and information concerning all aspects of the Career Education project relating to personnel involved, school-community activities and support, learning activities and projects, curriculum units and materials, teacher attitudes, and many other factors. These data were readily available, since planning many months earlier had identified sources from which data should be requested, in addition to that contained in the excellent monthly topical reports and the quarterly reports. To facilitate the data gathering activity, suggested instruments developed for Career Education were provided the project administration in Bridgeport; these were duplicated and distributed on a broad basis. Thus, information and data were obtained by the Bridgeport Career Education staff on a "pre-basis" and augmented by comparative information and data obtained nine months later. Such information as was obtained and summarized by the staff derived from students, teachers, administrators, coordinators, parents, lay citizens and others. Some of the data examined by the study team were obtained from the quarterly reports, plus questionnaire recorded attitudes of individuals concerning the values in Career Education activities as provided in Bridgeport. Other aspects of the data obtained from the records in the staff offices provided significant information on changes that had occurred during the year of program operation. The project director and staff were responsible during the year for the assembly of data and summarizations after having first taken the suggested instruments and modified

them for the unique purposes of the Bridgeport schools. Study team members reviewed the results, and on the basis of study and analysis produced conclusions and recommendations for further consideration. These appear throughout the body of this report, after having been discussed during conferences with knowledgeable and responsible Career Education personnel in Bridgeport.

Several other major sources of data were also tapped, and these data when added to the total, either reinforced or modified the results, conclusions and/or recommendations obtained from the data and information provided the study team by the staff. Major sources of data included teacher groups, classes of students, parents, employer groups, occupational education personnel, Employment Security Agency personnel, and workers in the community. Interviews with groups and individuals such as the foregoing provided opportunities to explore and determine in depth some of the Career Education aspects related to school-community understandings and attitudes related to Career Education, relevance of the education program to the world of work, aspirations of parents for their children, school recognition of changing societal-technological forces, and suggested activities to further develop and improve Career Education in Bridgeport. From subjective information obtainable from interviews with as many individuals and groups as was possible in three on-site days, and from observable learning activities, it was agreed that the evaluation which would be of most value to Bridgeport public schools would place little emphasis upon statistical analyses of assembled data. Rather, it was accepted that the report would provide narrative aspects of all phases and characteristics of the Career Education

project, accompanied by suggested procedures, activities and modifications of the project that had recognized possibilities for maintaining and further improving Career Education in the Bridgeport schools. Further, it was recognized that the evaluation report could have very complimentary effects within the community, if it could be easily read and digested by the people whose support of Career Education needed to be maintained and stimulated. Thus, no attempt was made to assemble data specifically for the purpose of making statistical analyses and determining levels of significance, since it was agreed that a report so constructed would limit the intent of the city administration to produce an evaluation document which would contain valued suggestions for school personnel and readable information for the lay public.

With the assembly of the data, the several pertinent backgrounds of study team members were brought to bear upon the analyses and recommendations, calculated to maintain and further improve the Career Education program. On the third day of the on-site visitation, an initial draft of the major findings and recommendations for consideration was prepared, with particular attention given to those steps, activities, organizational modifications and curriculum changes that were feasible for the Career Education staff and the city educational administration to consider. The draft of these matters was presented to the project staff, and opportunities provided for corroboration, modification and discussion. Several valuable observations were made by the project staff and suggested for incorporation in the final draft of the report. Then, since general

agreement appeared to prevail regarding the major findings and recommendations, the complete evaluation report was prepared by the team of evaluators during the six weeks following the on-site visit.

The final document reporting the evaluation of the third full year of the Career Education project was delivered to the Bridgeport office of the project by the contractually stipulated date.

IV FINDINGS AND OBSERVATIONS

A. THE ADMINISTRATION OF THE PROGRAM

B. GUIDANCE SERVICES

C. CAREER EDUCATION IN GRADES 1 THROUGH MIDDLE SCHOOLS

D. CAREER EDUCATION IN HIGH SCHOOLS AND VOCATIONAL TECHNICAL CENTER

IV FINDINGS AND OBSERVATIONS

A. THE ADMINISTRATION OF THE PROGRAM

INTRODUCTION

The Bridgeport Public Schools Project in Career Education, identified approximately three years ago as an exemplary project by the State Department of Education, and also by the Office of Education (HEW), was seen in its final stages of development. When it began approximately three years ago, the middle schools were clearly the prime target area, with much effort devoted to curriculum development and the organization of teachers, supervisors and administrators into closely working teams of individuals needed to carry on the broad concepts and the specific elements of the Career Education program. At that time, only slight reference was made to the elementary grades and the senior high schools. During subsequent years of operation, the efforts of the central staff concerned with Career Education supervision and administration carried the Career Education program into the elementary schools and into the high schools, with the results that over 20 schools in Bridgeport of the 37 in the public school system, and over 3200 students, were involved and were actively engaged in carrying out some phase of Career Education for the students, teachers and supervisors. A year ago, the central office staff reported that teachers, supervisors, administrators, parents and students were increasingly involved in Career Education aspects in the three high schools, nine elementary schools and five middle schools. In addition, at that time one parochial elementary school and the Bullard-Havens Technical

School were also reported as involved in the Career Education effort, and there was also strong evidence that articulation was being effected between the public schools and the Norwalk State Technical College in Norwalk, Connecticut, and also with the Housatonic Community College nearby.

During the 1973-74 school year the project staff which made such a marked contribution to Career Education was maintained at about the same level, for the early part of the school year. However, the counselor-coordinator, Mr. George Palermo, who had earlier been responsible for coordination of the Career Education program in the three high schools in the city, left the central office staff and removed to Greenwich, Connecticut. This resulted in some reorganization, but with the high school elements of the Career Education program added to the many duties of the project director, Mr. Bonitatebus. The new arrangement had some very obvious detriments, since any activity which required the full time professional assistance of one man could not equitably be transferred to the director of the total Career Education project whose responsibilities already required him to expend full time and energy to matters of supervision and administration.

During the early months of the career education project, special efforts were made to develop evaluation instruments which would apply to all levels of education in the Bridgeport public schools. Many such instruments were developed, but since the project made a late start in the first school year of the project, the questionnaires were merely tested and to some extent modified to more nearly meet the eventual requirements of the Career Education project.

During the second year of the project, extensive use was made of the questionnaires and considerable information was derived from both the statistical information and the comments supplied by the individual respondees. The questionnaires were those that were developed for use on students, teachers, parents, supervisors, administrators, lay personnel and others. Thus, after several years of adjustment and modification, the questionnaires were used in the third year of the project and revealed some very interesting and exciting information. In general, students were highly complimentary about the content of the Career Education program in the various grades where they were involved in one or another aspects of Career Education; parents and teachers indicated that their observations concerning Career Education regarding the students was by and large a wholesome one and highly encouraging. It was noted that much of the information that was returned on the questionnaires was of a subjective nature, and other than numbers of teachers, numbers of students and numbers of schools involved in Career Education, the subjective information contained in the replies of the respondees to the respective questionnaires indicated a high degree of confidence in the Career Education planning, programs, and outcomes. The instruments that have been designed for Bridgeport and were used over the several years were intended to tap for reaction, critique and insight as many persons as could be contacted during the year. The questionnaires, of course, were not intended to be complete in the sense that they had been validated for a wide field base, but were intended to be used by the Career

Education program personnel as devices for supplying to the central organization such information as would assist the central staff in constantly adjusting the program to meet the needs of the youths that were participating, and the needs of the teachers for direction, curriculum materials and methods of appraisal. With instruments of the foregoing type under constant modification, it was expected that the Bridgeport Public School System would be able to gather data annually, subject them to close examination and analysis, and thereby adjust the Career Education program well into the succeeding years. In this way, it was expected that the Career Education program which began as an exemplary project would persist into the years after the federal support for the particular project had been terminated.

In accordance with many of the valuable suggestions that had been made by the team of evaluators during the 1972-73 school year, some of the instruments were redesigned and made available for utilization during the 1973-74 school year. In early September of 1973, the initial efforts of the school year were made to obtain data from the wide variety of individuals (students, teachers, supervisors, administrators, parents and lay citizens) and the data thus acquired banked for comparative use later in the year when a similar data gathering process was carried out. The questionnaires were again used in the spring of 1974, and some new data obtained, to a limited extent, and made available to the team of evaluators upon its arrival in Bridgeport on April 29, 1974.

CITY ADMINISTRATION AND ITS INFLUENCES

The Bridgeport Career Education program was in the third and final year of operation as a federally funded research and development project. The Project Director for this Career Education project was Mr. Joseph Bonitatebus. In moving from a pilot program as an exemplary project into an established segment of the curriculum in the Bridgeport city school system, the administration indicated that Mr. Bonitatebus would provide the leadership for Career Education in Bridgeport. The Bridgeport city school administration was organized so that five assistant superintendents reported directly to the Superintendent of Schools. Each of the assistant superintendents was assigned to a district containing a number of elementary schools, middle schools, and a majority of the assistant superintendents had the responsibility for at least one high school. In addition, these assistant superintendents had responsibility for at least one city-wide administrative activity, such as school plant planning, business affairs, pupil personnel services, etc. The Career Education Director reported to Dr. E. J. Smith, District Assistant Superintendent of Schools. Dr. Smith was responsible for District 3, all middle school education, and pupil personnel services. Also reporting to Dr. Smith was the Director of Guidance, social services center, special education, psychological services, speech and hearing, and the center for interim education. The Career Education project's staff reporting directly to the Project Director was composed of a project coordinator, guidance specialist, and three vocational guidance counselors. The Career Education Director was also responsible

for the supervision of three high school department heads, the work experience coordinators, two home economics teachers, and a supervisor for home economics. In addition, the staff included the following support personnel: an executive secretary, a clerk typist, and three para-professional aides. The executive secretary position was vacant; however, the position was projected for fiscal year 1974-75. The Director indicated that the position would be filled. The Career Education aides worked directly with the vocational counselor. The local budget for continuation of Career Education projected one additional aide for fiscal year 1974-75 and six additional Career Education teachers. The proposed budget also provided for two additional home economics teachers and one work experience teacher. The Career Education project continued to involve the services of the three district superintendents of schools, the director of guidance, the supervisor for upper elementary schools, and the supervisor of the lower elementary schools. It was significant that the continued involvement of these administrators was projected as a continuing part of the regular responsibility of each of the administrators and not based on any funding pattern or source of funds. The Project Director also had the responsibility for coordination of the Career Education program with other program supervisors such as industrial arts, art, math, etc.

The evaluation team, through interviews with the city level education administrators, concluded that the Career Education staff had accomplished much in the past year in gaining the involvement, understanding, and support of the central administration staff.

Several examples of good support and involvement in administration at all levels were in evidence. One such example reflecting wide involvement of administration, as well as teachers and several community agencies, was the Career Guidance Institute. The Career Institute was initiated by the Director of Guidance and was attended by Bridgeport city schools guidance counselors and principals. The National Alliance of Business, the Chamber of Commerce, and the advisory committee for Career Education presented a program to the counselors outlining the career opportunities for young people in the Greater Bridgeport area and discussed the qualifications that business and industry were seeking in recruiting employees.

Other activities which exemplified the support received by the central administration and of which also required involvement of administration at the school level were as follows: a reassignment of Career Education counselors to schools and school districts due to the reorganization of the counselor's duties; a meeting of principals and counselors at East Side, John Winthrop, Reed, and Blackmon Middle Schools relative to the support Career Education would provide to the regular school curriculum; and the implementation of secondary Career Education programs at Bassick and Harding High Schools in academic areas of business, English, and social studies. These meetings required the active involvement of the assistant superintendents, program supervisors, principals, and counselors in planning and conducting these activities. The introduction of the Cooperative Education programs at Bassick, Central, and Harding High Schools to serve 250 students also required the active participation of many administrators as well as teachers. Other examples

which are indicative of the support by administrators in the Bridgeport city schools include meetings with administrators and teachers from Holy Rosary School in the planning and implementing of the Career Education program at the seventh and eighth grades, the participation of the Project Coordinator in the planning of programs to be presented by the State Department of Education to Career Education personnel throughout the state, and the administration allowing the staff to meet with the Mayor of Bridgeport, Comptroller, and Board of Education members in planning facilities to house a teenage-parent program, and the Career Education staff's involvement in the planning and implementing of state sponsored workshops for career guidance specialists and teachers from local school systems throughout Connecticut.

Further examples which attest to the administration's willingness to encourage contact with outside agencies included meetings with representatives from the American Association of University Women to actively engage them as resource people for Career Education, meetings with Bridgeport Regional Mental Health Clinic personnel, meetings with the Chamber of Commerce and representatives from the Armed Services for planning and implementing the use of the Armed Services vocational aptitude battery for all students in the high school, the coordination of the program with the Model City Agency, and finally paving the way for representatives from the New York Times as teaching resources in the Cooperative program. Interviews conducted with several principals and teachers further supported the fact that the administration was actively involved in the planning and implementing of Career Education projects. Such

activities as working with Greater Bridgeport Personnel Association to develop a program of orientation for minorities for students in business and industry, cooperating with representatives from the Boy Scouts of America and conducting a career interest survey for high school students, the purchase of two mini-buses for field trips, the introduction of Career Education into the special education programs are all representative of the support received by the administration of the school system. Finally, there was consensus among the evaluation team members that there was much more evidence of local participation and interest as evidenced by the above activities as well as the favorable comments gained through interviews with administrators and teachers.

CLIMATE AND ATTITUDES

The evaluation team procedures followed a similar pattern to the previous year and conducted interviews with private and public agencies, administrators, faculty, employers, students and parents. It was reported last year that many of these individuals viewed the Career Education project as a vehicle of change in the Bridgeport school system. This year it was revealed that these groups continued to view Career Education in the same light; however, the greatest change in attitude was the feeling that Career Education was now becoming a permanent part of the curriculum of the Bridgeport school system.

The project staff and city level education administrators were secure in their opinions that the Career Education program would continue in the future and that the program would be supported

financially at the local level. This attitude and view was supported by the fact that the school board had requested the appropriation of a sizable increase in local funding for the continuation of the program for the 1974-75 fiscal year. The positive action of the Board of Education was expected to remove the uncertainty of the future of the program and particularly of the staff members. The administration, including the central level staff and principals had changed somewhat over the past year from acceptance to a position of realizing that the Career Education program had indeed brought about a number of very visible changes within the school system. Principals and teachers, particularly at the elementary level, were requesting that they be included in Career Education program participation as the program expanded in the Bridgeport city schools. There was a general awareness by principals, central administrative staff, and parents that more options would have to be developed for students moving from middle schools to the high school, especially options for vocational education preparation.

SUPERVISION PROVIDED, QUALITY

There was evidence of significant improvement in the quality of supervision provided for the Bridgeport Career Education project for the 1973-74 school year. Several factors have contributed to this improvement. A most significant factor was the involvement of the assistant superintendents, general supervisors, principals, and teachers in many Career Education activities. Another important factor was teacher acceptance of Career Education as an

established facet of their curriculum. Several activities required widespread involvement of the Career Education staff, general supervisors, principals and teachers in planning, implementing, and follow-up. A concrete example of the close cooperation was the introduction of the exploratory or mini-course in cosmetology being introduced into the four middle schools. This project required the four principals, the Career Education staff and the general supervisors to spend much time in planning and implementing this project. The implementation of the alternate high school program was another example of an activity that required the involvement of several local educational personnel in planning, implementing and supervising.

In organizing for supervision, the Project Director continued to make staff assignments on the basis of grade levels in schools, with each staff member assuming specific responsibilities for the operation of the Career Education project within those schools. Interviews with principals, supervisors, and assistant superintendents indicated that effective supervision was being provided by the project staff. There was some indication from the standpoint of central staff administration, that as the Career Education project moved from a research and development phase into an established part of the total education program that inter-staff communications would have to be improved. Discussions with the individual staff members revealed that they still enjoyed the right to develop their own plans of supervision and operation within their area of assignment. Staff assignments were the same as reported last year with three counselors working with K-8 grade level programs involving

twelve elementary schools and five middle schools. The counselors were again assisted by three para-professionals. The Career Education Coordinator was assigned the responsibility for working with the middle schools. The Career Education Coordinator position for the three high schools was vacant. The responsibilities of this position were assumed by the Project Director which appeared to create an overload for him. There was some question as to when this position would be filled by a new person. This vacancy took on added significance when it was considered that a great deal of planning would be required to further develop the Career Education program to reflect a broader scope of career options for students at the secondary level.

With the central administration, the Career Education staff, and the assistant superintendents projecting that Career Education would be part of the total curriculum in the Bridgeport city schools, the need to develop a long-range plan to clearly outline the roles and responsibilities of those involved, as well as outlining the requirements for supervision, was clearly an issue of paramount proportions.

FACILITIES, EQUIPMENT, MATERIALS

Some concrete improvements were noted by the evaluation team in the area of providing facilities, equipment, and materials. The administration added two mini-buses as transportation for Career Education students to field trip sites. The Resource Material Center continued to receive attention with positive reactions by teachers and supervisors in regard to the services of the Center.

However, it was noted that the resources of the Center were being taxed since the program was expanded to include more teachers and more students. The Center was providing such materials as film strips and curriculum materials to the teachers on a weekly basis. In general, the interviews with the teachers revealed that there was an adequate supply of equipment and materials available and that these materials were disseminated on request. However, when the program is introduced into other schools and expanded in existing schools, there will be an ever-increasing demand placed on the Resource Material Center. It appeared advisable that the Career Education staff would need to begin their planning on a purchasing, storage, and retrieval system to meet the demands of the expected growth. Discussions with the Career Education staff and teachers pointed toward good utilization of the community resources.

The facilities at the elementary and lower school levels seemed to be adequate since the Career Education program was operating as a part of the total curriculum at this level and required only the regular use of such facilities as classrooms and laboratories. The facilities and equipment at the high school level was totally inadequate to meet the demands placed on them. This problem was further compounded by the fact that students now in the elementary level and particularly those students in the middle schools will move to the high school and demand to enroll in programs that are currently nonexistent or enroll in programs that are currently offered but cannot accommodate sufficient numbers of students due to lack of space. The space problem appeared to be critical in the vocational area where some of the industrial programs were operating

in mobile units where space was totally inadequate for proper provision of equipment or instruction. The problem of accommodating students in the vocational area was further complicated by Bullard-Havens Vocational Technical School which was accepting only a small number of students from Bridgeport. The evaluation team leader discussed this problem with the Superintendent of Schools and the Chairman of the Board, and it appeared that the Superintendent and the Chairman of the Board were now cognizant of the magnitude of the need to provide additional space for the vocational programs if they are to meet the demands of the students now and in the immediate future. Consideration should be given to conducting a feasibility study to identify facility requirements for vocational education in Bridgeport.

FINANCE

A review of the budget with the Superintendent and the Project Director revealed that the level of funding for the 1973-74 school year was adequate to carry out the Career Education project activities. Subsequent discussions with several administrators, principals and teachers supported this conclusion. The most significant factor in the area of finance was the fact that the Career Education was expected to be continued and funded locally. A review of the 1974-75 budget which was approved by the Bridgeport city government revealed that the level of funding would be increased to provide for the Career Education project's staff, additional teachers and materials. The following chart reflects the expenditure of local funds for the 1974-75 school year.

CAREER EDUCATION BUDGET

1973-74 and 1974-75

Item	1973-74 Appropriation	1974-75 Projected Cost
Salaries	434,666	462,839
Office Supplies	1,000	1,500
Transportation	3,300	3,630
General Supplies	2,500	3,000*

*Represents city contribution. A total of $85,000 is projected to come from the State Department.

In the interview with the Superintendent of Schools, he indicated that the administration was committed to the Career Education concept and that he was equally committed to working toward providing the necessary funds to support the Career Education program in the Bridgeport city schools.

PUBLIC INFORMATION

It appeared that the Career Education project staff was dedicated to keeping the Bridgeport city community aware of the development of the Career Education program in the city schools. The staff had utilized all the available media in Bridgeport to transmit project activity. In addition, there was evidence of good active contact with the various public and private businesses and industrial agencies and groups in Bridgeport. The staff was publishing the Bridgeport Action Career Education News which was disseminated to various groups in the city as well as to parents. The

Chamber of Commerce newsletter continued to provide space for Career Education news releases in an effort to keep the businesses aware of the Chamber's involvement in the Career Education program. Many of the projects themselves contributed to good public information. Several examples serve to support this. One activity was the "Careers on Wheels" which was a student tour of several businesses and agencies in the same career clusters. Another activity was the career days in several schools. In general, the Career Education staff projected steady improvement in the area of public information, since it appeared that the city education administrators, the supervisory staff, principals, and teachers would benefit from receiving continuous information on project activities in order to keep abreast of the development of the Career Education program.

ADVISORY COMMITTEE ACTIVITIES AND REACTIONS

The Chamber of Commerce for the Greater Bridgeport Area continued to serve as the general advisory committee for the Career Education program with the responsibility of working with the schools being assigned to the education committee. The evaluation team met with the Chairman of the Chamber of Commerce Education Committee. It was noted that the Chamber of Commerce Education Committee was indeed active in its support of the Career Education program with good involvement at the superintendent's level as well as with the Career Education Project Director, principals, and teachers. The Education Committee was involved with the Board of Education's Subcommittee on Curriculum Revisions, and the Chairman of the Education Committee reported that the sub-committee was very responsive to the

notion of infusing Career Education into the total curriculum of the Bridgeport city schools. The advisory committee had worked with the Director of Guidance in planning and conducting the city-wide guidance institute for counselors where the advisory committee had the opportunity to share with counselors the personnel requirements of business and industry. The advisory committee worked with the Career Education staff and principals in planning and conducting the Career Education days held in several schools. Good evidence of advisory committee support was in the School Program and Career Education Program (SPACE) where a total of 45 students were placed on a cooperative basis with businesses in the Bridgeport area. In 1973 the Chamber of Commerce developed and administered a survey to determine the level of skills required for employment and the opportunities for employment in the Bridgeport area. The Chairman of the Education Committee reported that through meetings with the Board of Education, principals, general supervisors, and the Career Education staff, positive results could be reported for this study. The Chairman indicated that as a result of the study, there was an expansion of the business curriculum in the high schools, there was more guidance involvement as evidenced by the Guidance Institute, and finally teachers were becoming aware of job opportunities for students in the Bridgeport area. The Chairman of the committee indicated that communications between business and education had opened up, but further development in this area was required.

A visit was made to another member of the advisory committee. This member held the view that more must be done to provide opportunities for youth to develop the proper attitudes and skills

necessary for entry into employment. He indicated that the Guidance Institute was the first step; however, he did express the concern that some of the counselors may have reacted adversely to the committee's discussion of business requirements. He also expressed the opinion that counselors and parents continued to be college-oriented and that a new and continued thrust should be started to get teachers and counselors prepared to provide career guidance information to students. The discussion with the advisory committee members indicated that the Chamber of Commerce was sincerely interested in working with the schools in an advisory capacity, to assist the schools in whatever manner possible in meeting the needs of the students in their quest for careers. The advisory committee had expanded its efforts in working with the schools from K-8 but only through the special activities such as the Career Education day, etc. It appeared that they were continuing to place their emphasis and concern on the vocational offerings at the high school level.

The Career Education Project Director appeared to be the only Career Education staff member maintaining frequent contact with the advisory committee. Discussions with the Career Education staff, principals, parents, and employers appeared to point to the need to obtain more advice from a broader segment of the community than that as represented by the Chamber of Commerce Advisory Committee. Some thought is expected to be given to the expansion of the advisory committee to effect these suggestions, and to the need to provide for active involvement of the Career Education staff and teachers with the advisory committees. In addition to the general

advisory committee, serious consideration is expected to be given to establishment of advisory groups for the special programs such as SPACE, CEVO, the cooperative work experience programs, and each vocational offering. Consideration will also be given, it was reported, to the establishment of an internal advisory committee with membership drawn from the teaching staff, counselors, principals, parents, and possibly students.

PARENT REACTIONS

A conference was arranged for the purpose of obtaining parent reaction to the Career Education program and was attended by parents, the Career Education staff and the evaluation team. The general reaction from the parents was much the same as last year's group with that of expressing support and appreciation for the Career Education program in the Bridgeport schools, and with many indicating high interest and desire to become more involved. However, this year's group of parents expressed some real concerns as the program continued to move from the pilot stage to an established part of the total school curriculum.

One major concern was the question of what happens to the student moving from the middle schools with a career objective in mind and then finding that he cannot continue in his chosen area because he cannot get into vocational-technical school, or that the high school was not offering that particular curriculum. The parents appeared to feel that the high schools were equipped to serve those students that were embarking on the professional career choices which required strong academic preparation. There

was a general feeling among the group that the high schools did not provide enough options for those students who chose to enter occupational education. Their big question appeared to be, "What is to be done about career preparation in the skill areas when the opportunity doesn't exist now or where there are gaps in the offerings which would require a student to wait until his junior or senior high before being allowed to pursue his career choice?" The parents explained that there was a parent advisory committee which met with the Board of Education and indicated that these questions and concerns would be communicated to the Board of Education. The parents discussed the questionnaires that they completed earlier in the year. The questionnaire indicated that parents were not well enough informed about Career Education, with fifty reporting that they were quite ignorant of the program and its objectives. With this reaction, the Career Education staff indicated its intention to continue to develop participation and to plan on new ways to keep parents informed of the Career Education development.

Random samplings of parents remarks from the questionnaire for parents were somewhat parallel to the reactions from the parents in the evaluation team-parent meeting.

PARENT REMARKS

"My son enjoyed the program very much."

"Are you sure Sheradon School has a Career Education program?"

"I don't feel that parents are really aware of the Career Education program. Also, my second grader seems to be greatly involved, whereas my fourth grader is not. I am very much in favor of the program."

"I think there should be more information on what is happening in this program sent to each parent. I would like to participate."

"A step forward for the Bridgeport public school system."

"Prior to receiving this letter, I had no knowledge of the work program. I think it is a terrific idea and I am willing to support this program in any way I can."

"I would like more information on this program, all about it really. It really has never been explained to me in full."

"My daughter has enjoyed her Career Education program. Her school has improved, and she misses working and wishes she could continue working in Blackmon School. It's too bad that this is only a six month course."

REACTIONS OF TEACHERS, PRINCIPALS, ADMINISTRATORS

The evaluation team made an effort to talk with as many educational personnel as possible in the Bridgeport city school system, and had opportunities to talk to most teachers, principals, and district superintendents directly involved in the Bridgeport Career Education program. There were many varied views and concerns expressed by the individuals in this group. In general, the statements were very positive with those expressing concerns directed toward requirements for improving the Career Education program. One assistant superintendent indicated that steps were being taken to infuse the Career Education program into the total curriculum, therefore assuring permanency and that, as a district superintendent, there was the opportunity to have input into the process of curriculum revision. Further discussion with district superintendents indicated that they were involved with the Career Education staff in selecting schools where the Career Education program would be introduced, and also in the selection of teachers to participate

in the Career Education program. Further, the superintendents worked with the Career Education staff and general supervisors in arranging supervisory patterns for those teachers involved. It was indicated that they also were involved in curriculum development for Career Education. One superintendent expressed a need for additional counselors, particularly Career Education oriented guidance counselors, because so many students do not receive full benefits from guidance.

One district superintendent declared that the services of the Learning Resource Center or Materials Resource Center should be available to all schools and all teachers. He recognized that this would mean additional financial support for this area, but indicated that many of the teachers were asking the question, "Why not?" In addition, he expressed the opinion that these services could serve as a springboard for gaining wide involvement and support of the teachers in the Bridgeport city schools.

A principal at the high school level indicated that he was pleased with the increased amount of activity and involvement of the community brought about by the Career Education program. He stated that it was particularly significant that the Chamber of Commerce was invited in to work with the teachers, citing the participation in the Career Day programs, the Armed Services interest surveys, and the Career Guidance Institute. He also stated that as a result of the Guidance Institute, the Career Education staff should consider working on a program to arrange for faculty visitations to industry, and emphasized that the initiative in planning this must come through the Career Education program. The

principal indicated that there was a healthy attitude among the faculty toward Career Education and that he felt the existing program now operating was sound, but that Career Education must be expanded so that more students can take advantage of wider offerings. This principal emphasized that additional facilities and staff would have to be provided before much future growth and expansion could be realized. Another high school principal indicated that the Career Education program was a good addition and, as a result, guidance counselors in the school were working closer with the faculty and the Career Education staff; this principal was particularly pleased with the widespread involvement of the faculty in special projects such as the fashion shows, career days, etc., and he also emphasized the need for additional facilities for occupational training.

REACTIONS OF EMPLOYERS

The evaluation team met with employers and students of the SEVO program, which is an exploratory program at the eighth grade level. The teachers assigned to conduct this special program appeared to be very enthusiastic and expressed their opinions that the program was very successful. Discussions with the teachers resulted in the evaluation team's conclusion that there was general agreement among the participating teachers that the Career Education program was providing good results. The teachers commented that students were showing an increased interest in school and that they were becoming aware of career opportunities at an early age; the teachers were using resource people from the community

in their classrooms. In general, the climate appeared to be good and the timing right for further development of the Career Education program in the Bridgeport city schools.

The evaluation team had the opportunity to interview several employers of students in the Bridgeport Career Education program. Employer support of the SPACE program, the SEVO program, and the work experience program was a good indicator that the business community recognized the need to cooperate with the schools in providing opportunities for, and training of, students for eventual employment and/or further training within the career field of their choice. In addition to the interviews, the monthly report submitted by the Project Director to the Superintendent, State Department of Education, and the U. S. Office of Education contained many examples of business and industry support. Examples of programs and activities requiring the support of business and industry included the following: the School Program and Career Education (SPACE) program at Bassick High School involving 45 students; the Cooperative Education program at Bassick, Central, and Harding High Schools implemented this year with 250 students involved; the Distributive Education program at the high schools was expanded to include 180 students; and finally the SEVO program. All of these activities required that employers work directly with the students in an on-the-job situation. The monthly report also reflected meetings with IABS, the Chamber of Commerce, Urban Coalition, the advisory committee, representatives of the New York Times, and others.

In an interview with the personnel manager of a large department store, the conclusion was drawn that business and industry were willing to work with the schools in providing occupational opportunities for students and graduates of the high schools. A banker who was employing two work experience students was interviewed. The banker was extremely pleased with the progress of the two students employed on a part-time situation with the bank. It was further indicated that the students were receiving good supervision by the bank and by the work experience coordinator. In addition, the banker served on the advisory committee and indicated there was widespread interest in developing more occupational opportunities for students in the Bridgeport schools. The employers working with the eighth grade exploratory program (SEVO) appeared to be excited with the opportunity to work with students at this level. A general conclusion was reached that employers and citizens are becoming more aware of the objectives of the Career Education program and were increasingly willing to lend support to the schools in further development of the Career Education concept.

LONG-RANGE AND SHORT-RANGE PLANS

The planning of the Career Education program had been confined to meeting the objectives of the Career Education project proposal and to limited continuance of the program in subsequent years. As reported by the evaluation team last year, the Superintendent of Schools expressed a commitment to not only meeting the objectives of the pilot project, but to continue the program on a permanent basis. Now that the Career Education program had aroused the

interest of students to the point that they had embarked on a path of Career Education, it appeared to be raising within administrative circles, the question of how the school system will go about providing the required facilities, staff, materials, and curriculum offerings to meet the demands of these youngsters. The Superintendent and the Chairman of the Board of Education for Bridgeport City Schools recognized the need for developing a long-range plan to meet the needs of the youth and adults in Bridgeport, and the evaluation team concurred.

SUMMARY OF FINDINGS AND OBSERVATIONS

1. To the extent that time was available to the team members, the attitudes concerning Career Education held by public school administrators in the Bridgeport public schools were sampled. This particular aspect of the evaluation appeared to be extremely necessary, since with the conclusion of the current school year, federal funding of the exemplary project would terminate. The expectation was expressed in most of the administrative circles that the gains that had been achieved during the three-year period during which time the exemplary project was in operation would persist and be maintained throughout the Bridgeport Public School System. Discussions with the administrators evidenced a reasonably high level of enthusiasm for the Career Education project and its outcome. The most encouraging aspect of the entire administrative study in the school systems was evidenced by the placement in the projected school budget for the 1974-75 school year of more than $400,000 to carry on all aspects of Career Education. Discussions held with

the Superintendent of Schools, Dr. Rosenstein, and others connected with the City Board of Education, the administration of the high schools, the middle schools and elementary schools, indicated that Career Education had made its mark upon the total public school educations program and that it should be retained and expanded in the years ahead. The team of evaluators was very much encouraged by this particular evidence, since it appeared likely that the Career Education project, funded with approximately $1,000,000 of federal funds, would persist well into the future and would be highly valuable to the youth of Bridgeport in formulating plans for a wide variety of career opportunities.

2. The advisory committee attached to the Career Education project had been organized early in the Career Education activities which started approximately three years ago. Connected directly with the Chamber of Commerce, and referred to frequently as the Education Committee of the Chamber of Commerce, the advisory committee on Career Education reflected a high level of intelligence, appreciation and determination upon the part of the membership of the committee. Also, the Urban Coalition has functioned as advisory to the project. The advisory committee had continued during the current school year to work very closely with the administrative and supervisory staffs of the Career Education projects and had made not only a great many valuable suggestions to improve the program, but had engaged in a great many new and expanded activities intended to bring the values of Career Education closer to the needs of the youth in the public schools. These

additional activities provided a wide range of resource speakers available to the public schools, field trips, "hands on" experiences and activities that were reflected in the "Alternate high school program," the "SPACE" program, and other similar activities. While many of these activities were devoted largely to the upper grades in the high schools, the advisory committee appeared to be extremely interested in what transpired in the lower grades and the middle schools, and indicated that during the next school year (1974-75) steps would be taken to extend the activities of the advisory committee downward into these additional levels of education. The hope expressed by the Chairman of the Advisory Committee was that vertical articulation would take place and that that which began at the lowest grade levels of education in Bridgeport would reach fruition during the high school years when youth would be able to make valid decisions concerning eventual career objectives, and possibly to engage in activities which would bring them into direct "hands on" contact with selected careers in the Greater Bridgeport community.

3. As the 1973-74 school year neared completion, it was clearly evident that all aspects of Career Education in Bridgeport were being brought to bear upon the needs of all levels and all grades of youth. The very notable aspects of the Career Education program during previous years which provided services to the mentally retarded group received additional attention, as well as the Career Education activity which was provided for special needs, disadvantaged and other groups. Much planning in the administrative offices, and considerable attention by the supervisory staff

had resulted in the broadest possible application of Career Education activities to all youth in Bridgeport. Even though the total Career Education project had not enveloped every school in the city, it was evident that adequate experimentation and exemplary activities had touched all areas of education, and that it would require only the persistence of the School Board and the accompanying appropriations to extend the Career Education activities to all youth and all teachers in the public school system.

4. The breadth of the Career Education program and its obvious positive outcomes were revealed as partially due to the excellent relationship that had been established with the community. However, as is the case in most educational ventures, a considerable amount of time and energy must be applied to a community relations program, in order to firmly establish "bridges of information" with the people whose public tax dollars support education. The Chairman of the Advisory Committee for Education of the Bridgeport Chamber of Commerce pointed out significantly that the bridge between the schools and the community has always needed effective building and maintenance efforts. He pointed out that there was a critical need at the present time for further building of bridges between school and community, now that the federal funds were soon to be terminated, and the city of Bridgeport would be called upon to maintain its own Career Education program. The Chairman pointed out that the Chamber of Commerce believed that Career Education was not only successful in the schools, but that members of the community that had been tapped for information and reaction had indicated the hope that Career Education would be

continued long into the future. He pointed out that once the communications bridge had been firmly built, and regularly administered to from the standpoint of maintenance, the dollar support for Career Education would be enhanced. He further reported that through the efforts of the advisory committee, constant contact with employers in the Greater Bridgeport Area would be maintained and that employers would be encouraged to work closely with the Career Education staff in the central office. As evidence of the need of this particular kind of coordination, the Chairman of the Advisory Committee pointed out that in Connecticut, 35,000 jobs for skilled personnel were still open, and that there were not now enough skilled people being prepared in the state to fill this void. During his meeting with the evaluation team, the Chairman of the Advisory Committee on Education revealed that the Chamber of Commerce had felt that the character of Bridgeport was now undergoing change. Formerly a highly "blue collar" type of community, many professional, corporate and other "white collar" types of personnel were moving into the area. With a growth of this nature in prospect, it was clear that the Chamber of Commerce would be active in promoting skills not only of a production and operating order, but also those which would contribute to the greater business and professional aspects of the community. He felt that with the unemployment rate now down to approximately 5 1/2% from an astonishing 11% of a year ago, attention to the occupational needs of Bridgeport on a broad scale would need some extensive planning, coordination and carrying out for the future.

5. Career Education programs in the high schools appeared to be one of the most difficult aspects of program development. Largely because of the compartmentalization of education by departments of high school study, the infusing of the Career Education objectives and concepts with regular academic high school subject matter still presented problems upon which the Career Education staff would have to spend more time. The plans for the 1974-75 school year anticipated more frequent involvement of high school teachers in in-service education programs designed to acquaint them with methods which might be used to effect coordination and infusing.

6. A relatively new program called the "Alternate High School Program" for approximately 45 juniors and seniors in the high schools had been put into operation during the 1973-74 school year. The students that were selected to participate in the program were those that had indicated interest in such broad career possibilities as architecture and business. The space for the alternate high school program was the University of Bridgeport. The advisory committee of the Chamber of Commerce had notified all 1,000 members of its organization of the intent of the alternate high school program, and had received rather enthusiastic replies from a small number. It was expected that as the alternate high school program grew and matured in Bridgeport, it would be more adequately representative of all of the employment and career interests in the Greater Bridgeport Area. Students who were selected to engage in the program agreed on their own volition, and were assigned to career business, architecture and other interests in the community which would provide for them approximately one-half day each day

of participatory experience. It was viewed by the Chamber of Commerce that such a program, cooperative in nature, would have strong Career Education elements and that students would ultimately identify their interests with the experiences provided for them. A few of the University of Bridgeport professional personnel were employed on a part-time basis to guide the program, and much hope was being expressed for the broadening of program during 1974-75 school year. It was also expected that the city of Bridgeport would fund the alternate high school program well into the future, and that it would become an entrenched segment of the total education program in Bridgeport.

7. With the passage of the Comprehensive Employment and Training act of 1973, (CETA) it was expressed in administrative circles in Bridgeport that there was need now for immediate action (and continuing action well into the future) to cooperate with the State Labor Department and its subsidiary interests in the Bridgeport area. Since CETA was being funded by the federal government for upwards of $2,000,000,000, and with the operation of all training conducted under CETA by the labor departments of the several states, it was clear to the Career Education staff, and also to its advisory committee, that steps would have to be taken at the earliest possible moment to make plans with the Labor Department with regard to the training potential in the public high schools particularly. Initial steps had already been taken, and it was expressed by the administrative staff that succeeding steps would be taken in the very near future to bring the school departments into close coordination with the State Labor Department

and with the employment security people in the Greater Bridgeport Area.

8. One of the most exciting characteristics of the Career Education program in the Bridgeport public schools concerned the broadening aspect of career units developed by the teachers and under the supervision, coordination and stimulation provided by the central office Career Education staff. Many of these projects or curriculum units included opportunities for youth to become involved in the broadest career targets such as agriculture, trades and industry, business and distribution, health and allied areas of employment. It was clearly evident to the evaluators that much original teacher and student labor and ingenuity went into the production of the units, and it was equally evident that the teachers who were using these units in the instructional programs were pleased with the outcomes in terms of student learnings.

9. Industrial arts and home economics education in the Bridgeport public schools have long been a strong characteristic of the academic program. During the three years of the Career Education project, efforts were made to involve the general education segments of home economics and industrial arts for Career Education purposes. To some extent, the middle schools had been more successful in this effort than had been the high schools. There still remained a residual antipathy between industrial arts and some aspects of Career Education at the upper levels which begin to take on vocational preparation aspects. It was clear to the team of evaluators that here was an area that would require continuing attention during succeeding years if the full potential of industrial arts,

and also that of home economics, is to be brought to bear upon the Career Education needs of students.

10. All of the teachers in the 20 schools involved in the Career Education project during the current school year appeared to be making extensive use of materials, curriculum devices and, particularly, teaching techniques and methodologies appropriate to the needs of the Career Education project. Their involvement in the development of guidelines for teacher participation in Career Education projects showed up in many ways, and it appeared to the evaluating team that teachers were unusually competent in creating and modifying teaching techniques in accordance with the demands of individual students, small groups of students and classes.

11. During the 1972-73 school year, an extensive Career Education curriculum center was established at the Shelton School. Considerable growth in the curriculum materials center, and also in the use made of the materials provided by the center, was noted by the evaluation team. However, as the Career Education program continues to grow, and as it expands to include all students and all teachers in the Bridgeport system, the demands upon the curriculum center will far exceed the present capabilities of the center. Some attention will undoubtedly have to be given to additional space and to personnel to staff the center, conduct institutes for teachers, and provide advisory services throughout the system. Some thought will have to be given to all of the foregoing; the growth problem has already begun to receive the attention of the central supervisory and administrative staff.

12. The public high schools in Bridgeport have set up a relatively effective procedure for making it possible to provide actual vocational preparation for many of the youth attending high school. On the one hand, two of the high schools have had implaced portable buildings on their campuses which provide beginning experiences for vocationally minded individuals, chiefly in the areas of electronics, health services, welding and the quantity food trades. These were viewed as valiant attempts to meet the needs of high school youth, but the schools have taken additional steps to work with the Bullard-Havens Regional Vocational Technical School, situated close by the Eastside Middle school, to furnish additional opportunities for high school youth. This arrangement, which has been quite successful for a relatively small number of high school youth, involves the use of the Bullard-Havens Technical School facilities between 3:00 PM and 6:00 PM daily, five days per week. In this manner, it was reported that four specific vocational shops are maintained in operation, along with special instructors to provide the learning experiences for the high school enrollees. This arrangement has some very obvious difficulties in that many of the high school youth leave home on the school bus about 7:30 AM and, after the completion of the "second shift" instructional program at the Bullard-Havens Technical School, arrive back at their home at about 7:00 PM. This appeared to be an unusually long day for high school youth and some efforts were noted as needed to be made during the 1974-75 school year to adjust or modify the programs of instruction in the high schools to enable more youth to participate in the "second shift"

program at Bullard-Havens. Conferences with the administrative staff of the Career Education project, and also with the administration of the Bullard-Havens Technical School, indicated that approximately 110 high school youth enrolled in the late afternoon program at the beginning of the school year, and that at the time of the Career Education evaluation, approximately 75 youth were still enrolled. It should be noted that the 35 students that left the late afternoon program either dropped out of the program because of the excessive long hours required of them each day, or because the training provided at the Bullard-Havens Technical School enabled them to go directly into employment.

13. It was reported by the central Career Education administrative and coordinating staff that extended efforts had been made to establish wider community action programs in the Greater Bridgeport Area. While the Chamber of Commerce had taken strong steps to initiate employer-school-community relationships, and had inaugurated several very fine programs connected with industry and the technical occupations in the area, similar action had been taken by the Career Education staff to establish equally strong community action programs with such areas as business and the health and allied areas. For example, nurses drawn directly from the St. Vincent Hospital were being used on a regular basis as lecturers and as resource people to aid the Career Education program. Many of the nurses had evidenced real interest in the Career Education program and had volunteered their services to work cooperatively with the Career Education staff. It was estimated that the program would double and triple during the next few years, largely because

because no costs were involved, and very obvious advantages would accrue to the students who were favored by working with specific resource persons.

14. Consultations held with Dr. Smith, the Assistant Superintendent of Schools for Bridgeport, indicated that his concern for the Career Education program was a sincere one, but that care should be taken not to evaluate totally the results on the basis of three years of participation in the exemplary program. He pointed out that government funds made available for a three-year period are not always adequate to produce the results anticipated in the early days of the proposal writing. He reflected his belief that the Career Education program had been firmly established and that it would require more than the minimal support which the city of Bridgeport was prepared to provide. He amplified his position by indicating that continuing federal support on a cooperative basis with the city of Bridgeport would be required if the program was to reach its ultimate potential for career information, orientation, exploration, and actual vocational preparation for all of the students in the city school system. He suggested that it would require constant attention and regular budgeting in order for the city of Bridgeport to hold onto the gains that have been made in Career Education. He noted with enthusiasm that the commitment of the city of Bridgeport to Career Education had already been displayed by its inclusion in the 1974-75 school budget of allocations in excess of $400,000. This, he pointed out, was evidence of sincere support.

15. One of the interesting programs in the upper levels of the Career Education project involved the SPACE program, which enabled 16 students to take on responsibilities at full salary in connection with the public utilities companies in the area. Chiefly because of the influenced wielded by the Chairman of the Educational Advisory Committee of the Chamber of Commerce, 16 high school youth had been carefully selected by teachers, counselors and others, and employment was made available to them in the telephone company, the power company, and other similar public utilities. It was the hope expressed by the Chamber of Commerce through the Chairman of The Advisory Committee that the SPACE program would be broadly expanded to include manufacturing agencies also, in order to serve many more youth in the high schools. Begun as an experiment, the Chairman of the Advisory Committee expressed the belief that the successes of the program were clearly evident, and volunteered information concerning the satisfaction of the employers and the students with the procedures which originated with and were developed by the Chamber of Commerce. The Career Education central staff was also in strong support of the activity and had worked cooperatively with the advisory committee. In an effort to more effectively meet the needs for vocational preparation expressed by students in the three high schools in Bridgeport, much attention had been given to cooperative aspects of work-experience programs. At the Warren Harding High School, a full-time coordinator had been given the responsibility for the placement of students on work-experience kinds of jobs, and this coordinator placed the students in profitable career-related activities while arranging

for the continuance of the students' academic high school program. At Bassick High School, a full-time coordinator was employed and, because of the large enrollment at the Central High School, two coordinators had been employed. These four individuals had a very responsible activity to conduct, all of which enabled students to move along toward career decision-making and ultimate choice, while at the same time enabling them to earn sufficient funds to remain in school. It was suggested by several of the coordinators that without the income which the work-experience students acquired, further attendance in their high school program might be impossible. In a sense, the work experience program acted to retain individuals in the high schools at a time when it was most necessary for them to be prepared and trained for entrance into the labor market at the conclusion of their high school program.

16. It was clearly evident to the evaluation team that by virtue of the successes enjoyed by the city of Bridgeport Public School System in connection with Career Education, more youth at the high school level would continue to demand actual job preparation through vocational education procedures. Discussions held with parents, counselors, students and teachers indicated a high level of enthusiasm for Career Education and the possibilities which the Career Education project evidenced for effective entrance into the labor market in the Greater Bridgeport Area. Thus, after having expended the better part of $1,000,000 made available by the federal government for the purposes of the Career Education exemplary project, the city of Bridgeport now faced a very critical problem. Thousands of youth had seen the wisdom of engaging in

Career Education activities ranging all the way from attitudinal changes through occupational information and on to career decision-making. Now that the decisions had been made by many of the youth at the high school level, Bridgeport was faced with the necessity for providing not only the facilities in which Career Education activities of a vocational preparation nature must be provided, but also providing for the personnel, equipment, and other peripheral elements of vocational preparation for an increasing number of high school youth. While valiant attempts had been made to place portable units on the campuses of two of the high schools, this was being viewed as a relatively token or "band-aid" treatment. Each of the portable units offered instruction in three or more vocations, but examination of the facilities clearly indicated that the space in one of the portable units was quite insufficient for even one quality vocational program. Reliance upon the Bullard-Havens Technical School, the state-conducted regional vocational program for the Greater Bridgeport Area, was regarded as useless. Conferences held with the Bullard-Havens administrative staff indicated that the school could accept 250 students from the total region, of which approximately 50 would be from the Bridgeport public school system. At the present time, the administration revealed that over 950 applications had been received, all of which further complicated the problem to be faced by Bridgeport in administering to the needs of its own public high school students. Clearly, the $1,000,000 of federal funds made available for Career Education activities in Bridgeport had yielded results beyond the hope of the proposers of the program, prior to its start three

years ago. Now, with a burgeoning number of high school youth demanding vocational preparation, the city of Bridgeport was faced with the urgent need to do something far more than it had done in the past in providing facilities, equipment, teaching staff, and other elements of the upper levels of career preparation. All of the foregoing was realized by the Superintendent of Schools and by the School Board for Bridgeport. On a number of occasions, attempts had been made to establish in Bridgeport its own vocational training center, but these attempts met with little or no success. The evaluation team believes that as the pressure from parents and students continues to grow, the School Board in Bridgeport (and certainly the taxpayers in the Greater Bridgeport community) will recognize the gravity of the situation and move toward a city-controlled vocational facility. The evaluating team believes that it would be foolhardy for the public school system in Bridgeport to await further development of the Bullard-Havens Technical School's facilities, since over the past eight years attempts of a similar nature have been made and have been unsuccessful. At the present time, a relatively small addition to the Technical School is being constructed, but the doubling of the facilities still hangs in abeyance. Until such time as the State of Connecticut decides to offer bonds for sale and proceeds with the development of the Bullard-Havens Technical School facility to accomodate approximatley 600 additional students, there appeared to be little likelihood that the Bullard-Havens Technical School could accommodate any more than a token number of Bridgeport high school youth who need vocational preparation. Discussions with

the Superintendent of Schools and the Chairman of the School Board for Bridgeport revealed that the very conservative number of 700 high school students that needed vocational training immediately represented a problem of severe proportion, and one which would demand long-range planning and immediate action on the part of all administrative school personnel in Bridgeport.

17. From the standpoint of curriculum development, the matter of facilitating new acquisitions and extending the uses made of auxiliary teaching-learning materials, the staff was making great efforts prior to the withdrawal of federal funds. They were involved with the Sub-committee of the Board of Education on Curriculum Revisions to infuse Career Education into the total curriculum. The Career Education central staff paved the way to involve the advisory group in curriculum decisions at the policy-making level. This appeared to be a good step toward broader involvement of the staff and community groups into the Career Education program.

B. GUIDANCE SERVICES

INTRODUCTION - THE ROLE OF GUIDANCE IN CAREER EDUCATION

The impact of the Career Education movement was evident throughout the educational community, and in no phase of education was this impact felt more than in the area of guidance services. Although many of the concepts of Career Education had been part of the basic philosophy of guidance and counseling for many years, counselors were not finding many new allies among the teaching and administrative members of the educational team. It also appeared that they were experiencing a subtle change in community pressures. Parents were beginning to question the "college equals quality" syndrome which had been typical of the last few years, and were increasingly interested in having their sons and daughters exposed to a wider variety of career options from which they could choose.

The result of these changes was an emerging new role for counselors. Teachers and administrators were looking more and more to counselors as resource persons and consultants in the area of careers. Students and their parents were no longer looking for expertise just in the area of college admissions, but also had expectations that counselors would have a broad understanding of the tremendously wide variety of careers available in today's world of work. The counselor, therefore, had become a central figure in the total Career Education program and the success of that program was, to a large degree, clearly dependent upon the quantity and quality of the guidance services provided. Although the Bridgeport

Career Education project was primarily a curriculum-based program rather than a guidance-based program, it appeared important for the future development of the program that guidance personnel be deeply involved in its planning and implementation. It was recognized that if counselors were not committed to the Career Education concept or were not equipped to provide the kinds of new services required, neither the teachers nor the students would be provided with the information or the options necessary to make Career Education a success. Any evaluation of a Career Education program had to, therefore, attempt to determine the degree of commitment to the program on the part of the counseling staff, and some measure of the degree to which they were carrying out this commitment. The findings and observations which follow were based on interviews with counselors, teachers, students and administrators in the Bridgeport Central Office and in the following schools: Blackham Middle School, Blackham Elementary School, East Side Middle School, Warren Harding High School, Bassick High School, Central High School and Bullard-Havens Vocational Technical School. Interviews were also conducted with the counselors and para-professionals on the Career Education Project staff. Parents, advisory council members, and CEVO project community sponsors were also interviewed to solicit their reactions and concerns.

INTERPRETATION OF CAREER EDUCATION AMONG COUNSELORS

There was considerable difference in interpretation of Career Education between the elementary and middle school counselor-coordinators attached to the project and the regular counselors in

the middle schools and high schools. Those personnel attached to the project had accepted the concept of Career Education as being inherent in the total educational program and were doing an admirable job of facilitating the integration of Career Education concepts into the entire curriculum. This was particularly true at the elementary level and indicated that this portion of the project was successful.

However, at the secondary level the counselors seemed to have a rather narrow concept of Career Education. They did not, for the most part, identify it as a concept which should be infused throughout the entire educational program, but conceived of it instead as a few scattered courses such as distributive education, health services, food services, and in some cases industrial arts. Although they spoke very highly of these programs and appeared to be involved in a number of cooperative activities with the teachers of these programs, they generally did not see themselves as having a significant role to play as Career Education consultants to other members of the teaching staff. Their priorities appeared to be in the areas of college admissions, student scheduling and, in a few cases, personal counseling. Career development activities seemed to be rather low on most counselor priority lists.

ACTIVITIES AT THE ELEMENTARY AND MIDDLE SCHOOLS

The elementary and middle school counselor-coordinators who were attached to the Career Education project seemed to feel more comfortable with their roles and seemed to have more of a sense of direction than was the case last year. Their enthusiasm was

contagious and the success of the program at these levels appeared to be, in large measure, due to their dedication to young people and to the concept of Career Education and its place in the total educational effort in the Bridgeport schools. They appeared to be faced with a very real problem, however. The program had been so successful and was growing so rapidly that they had to make some judgements in terms of how they could best spend their time. Teachers who had been involved in the program continued to make demands while teachers and building administrators who wanted to become involved were also making new demands on their time and energies. Basically, the counselor-coordinators seemed to be feeling more comfortable with what they should be doing (their role in Career Education) but were beginning to feel a sense of frustration because they did not have adequate time to do it.

A second potential problem seemed to be developing at the middle school level where elective courses in Career Education were being offered. Student reaction to such programs was mixed. Some seemed to be quite enthusiastic about their experiences while others were very negative about what appeared to them to be just another academic class. The dangers in such an approach appeared to be twofold. First, if students perceived Career Education as a separate subject much like any other academic subject, there would be a tendency to view the whole concept of career development as segregated from the other activities of the educational program. Second, teachers in other subjects would also feel that they were "off the Career Education hook." They could feel that they had a ready-made excuse for not including Career Education concepts in their curriculum, since it was "being taken care of in that other class."

One of the most successful programs at the middle school level was the CEVO, or student volunteer, program. Activities in conjunction with this program were observed at both East Side Middle School and Blackham. Students appeared to be quite enthusiastic about the program and community sponsors were equally enthusiastic about having the young people participate. Of particular interest was a brief interview with the program director at a nursing home where two eighth grade students had volunteered. This director indicated that she had been quite hesitant to become involved in the project because of some past experience with older high school students. She indicated, however, that the younger students had worked out extremely well and had made a real contribution to her program at the home. In addition, she indicated that she felt the students had gained some valuable insights into the needs of other people and the career possibilities in health related fields. Although there appeared to be considerable interest in the CEVO program on the part of the regular middle school counselors, they seemed to view the program as the major responsibility of the Career Education counselor-coordinators and were not as involved in the total planning and implementation of the program as they could have been.

ACTIVITIES AT THE HIGH SCHOOLS

High school counselors appeared, in general, to be a conscientious group of professionals, genuinely concerned with young people. On the other hand, they seemed to be extremely frustrated in what, at times, appeared to be impossible situations. A number of

factors probably contributed to this sense of frustration: lack of sufficient counseling staff, limited clerical assistance, what appeared to be a lack of financial commitment to the guidance program, and accountability based on numbers of students going to college and numbers of schedules completed on time rather than on their ability to serve the needs of students are a few. Also contributing to this sense of frustration seemed to be a history in Bridgeport of starting programs for youngsters and then dropping them after the federal or state funds were no longer available. As a result counselors had, it appeared, understandably developed an apathy toward new programs and they did not extend themselves to find out much about them until they looked like they might have some stability and longevity in the system. In general, the counselors seemed to be extremely supportive of some of the elements of the Career Education program which they felt were providing students with more realistic options, were preventing dropouts, and were contributing significantly to the development of self-worth in youngsters who had previously a limited feeling of accomplishment. However, counselors seemed to be hesitant to become totally involved and committed to Career Education until they were certain that it was not just another "passing fad."

One of the factors which no doubt contributed to the lack of understanding and enthusiastic support for Career Education at the secondary level was the loss of the secondary program coordinator during the 1973-74 school year. The failure to replace him had, it appeared, resulted in some loss in the momentum which was developing during the 1972-73 school year. Although the Career

Education Project Coordinator met regularly with the Director of Guidance Services and had met with the regular guidance staff on occasion, the lack of a full-time coordinator to continually monitor secondary Career Education activities and supply supportive services for teachers and counselors appeared to limit the potential growth of the concept at the secondary level.

COORDINATION OF SPECIAL PROJECTS

The Bridgeport schools were participating in a wide variety of excellent special projects which contained elements of Career Education. One of the problems that faced counselors and teachers, however, was the fact that many of these programs were not well described and articulated. There was no single source to which an individual could turn for information concerning such programs as the Alternative High School, Project ACT, Project SPACE, CEVO, the Career Education Project, the Bullard-Havens after-school program, etc. This problem was further compounded by the fact that these projects, even though they had a common Career Education thread running through them, were coordinated by a variety of individuals, some of whom appeared to have very little identification with the Career Education movement. As a result of these limitations some counselors and other personnel appeared to be somewhat confused about the philosophy and objectives of the programs, student qualifications desired, credit awarded, etc. No doubt some students who could have profited by participation in these programs were being denied opportunities to participate because of these limitations.

INTERACTION WITH THE BUSINESS COMMUNITY

In two of the secondary schools, members of the Bridgeport Chamber of Commerce had taken time to visit with counselors and teachers and begin some dialogue concerning industry-education cooperation. These visits were a direct result of the efforts of the Career Education Project staff and advisory council and were supported by the counselors interviewed. However, they cautioned that failure to follow-up on these meetings with further discussions could result in a widening of the communications gap between industry and education rather than a closing of the gap. The feeling seemed to be that some of the businessmen had come to the schools to tell them what was wrong with education but were unwilling to listen to the problems faced by the educational community. The profit-orientation of industry and the people-orientation of education apparently seemed, at times, to be in conflict and there was not enough time for in-depth dialogue on this topic.

The Career Guidance Institute showed considerable promise in 1972-73 of providing a good forum for industry-education interaction. This program, which had received considerable support from the Career Education Staff, did not seem to be receiving as much emphasis in 1973-74, apparently as a result of a cut in financial support from the National Alliance for Businessmen. There was evidence, however, that the Institute program was being revived.

COMMUNICATION WITH BULLARD-HAVENS VOCATIONAL TECHNICAL SCHOOL

There appeared to be a number of side-effects of the Career Education project which were being felt at the Bullard-Havens Vocational-Technical School in Bridgeport. One of the most obvious was the increase in requests for field trips to Bullard-Havens from elementary and middle school teachers and counselor-coordinators. Although students of all ages had been taken on such tours, there appeared to be some concern developing about their value for very young students. It was suggested that those students in the upper elementary and middle grades seemed to be profiting the most by their exposure to the types of training opportunities which would be available to them in the next few years. Younger students, although causing no particular problems for Bullard-Havens, seemed to be having some difficulty in understanding the implications of what they were seeing for their future career development.

Another side effect of the Career Education Project on Bullard-Havens was that the personnel at the vocational-technical school were beginning to realize the value of the various cooperative work-study programs operated by the city schools and were exploring ways to institute such programs. The Bullard-Havens students would not, in all probability, be competing for the same jobs as the city school students because of their advanced vocational training. However, the potential for a misunderstanding concerning this appeared to exist and could cause some concern.

There appeared to be a communications gap between the Bullard-Havens Vocational-Technical School and the Bridgeport public school

counselors concerning the late afternoon vocational skills program. This program provided for the use of the vocational training facilities between the hours of 3:00 PM and 6:00 PM for public school students who had not had the opportunity to enroll in a full-time vocational program. All expenses were paid by the State through Bullard-Havens. The counseling staff at Bullard-Havens expressed some concern about the quality of students enrolled in the program and what appeared to be a lack of flexibility on the part of the public schools to adjust student schedules to accommodate these students. It was mentioned that many of the program participants attend school from 8:00 AM to 6:00 PM. The public school counselors also expressed some concerns about what appeared to be a lack of sympathy for the problems and feelings of the students on the part of the Bullard-Havens staff. Both groups were concerned that too many students were using this special program to earn extra points for graduation rather than for career preparation. This program appears to have considerable potential for alleviating some of the pressure to provide vocational training for an increasing number of secondary students, but lacks careful cooperative planning and regular communications.

CAREER INFORMATION

The Career Education Materials Center continued to provide valuable services to the Bridgeport schools and there was evidence of extensive counselor use of the information and materials available through the Center. Notable among the additions to the secondary counselor's guidance tools were some key pieces of hardware

such as the 3M Microfische reader-printers and the accompanying career information materials. Probably because of the loss of the secondary Career Education Coordinator, the secondary counselors did not appear to be having as much input into the selection of materials which were appripriate to the needs of their student body as they had at an earlier stage in the program. With the replacement of this staff member for the coming year, however, this input will no doubt increase again.

SUMMARY

It was apparent that Career Education had matured considerably in Bridgeport during the 1973-74 school year. Elementary counselor-coordinators had been so successful in "selling" the concept that they were faced with a problem of increasing demands for their services and lack of time to provide the services. Students, parents, teachers and counselors at the elementary and middle school level were obviously highly motivated and involved; many of them commented that education in Bridgeport had, in some cases, taken on a new aura of relevance that had been unknown in the past. Career Education at the secondary level, while making progress at a slower rate, was, nevertheless, also demonstrating its relevance and its potential for meeting the needs of a large number of Bridgeport young people. The basic problem at this level appeared to be a hesitancy to get one's hopes up too high for fear "the Career Education rug would be pulled out from under the students." The need to build Career Education concepts into all elements of the curriculum appeared to have been recognized. The

need to provide expanded vocational training opportunities for secondary students was also recognized. Unfortunately, however, the ability of the schools to provide these services appeared to be questionable because of limited finances. Until there appeared to be a firm commitment to continuing financial support, it would take a very creative, dedicated Career Education staff to achieve the kind of involvement necessary to make Career Education an integral part of the secondary school program.

C. CAREER EDUCATION IN GRADES 1 THROUGH THE MIDDLE SCHOOLS

INTRODUCTION

In the Bridgeport Career Education Program, there were almost 80 teachers and over 3,200 students involved. According to grade level, the involvement included eight teachers in kindergarten, eleven in second grade, twelve in third grade, ten in fourth grade, ten in fifth grade, nine in sixth grade, eleven in seventh grade, and ten in the eighth grade. Most of these teachers had been involved in the project since its inception two years ago. Two new schools and a few new teachers were added in 1973-74, however. The reason given for the small increase was an apparent administrative preference to maintain the project on a pilot basis. During the 1973-74 school year the instruments that had been designed previously were applied. A study of the summaries of the instruments revealed high levels of interest and approval for the Career Education concepts.

ATTITUDES AND REACTIONS OF TEACHERS AND PRINCIPALS

The teachers were very obviously excited about their successes in the Career Education project and interested in its further development. The enthusiasm displayed by the majority of teachers who were visited had a high level. Most teachers concurred that it was a very worthwhile program and they revealed genuine concern, sympathy, and empathy with its overall objectives. They expressed the feeling that school had become more meaningful for students and that they themselves had acquired a great deal of new knowledge

about the world of work. Many teachers expressed the desire for the program to be expanded to include all teachers in their buildings. One teacher who had not been involved stated that it was unfair to the students who were not in the program. She felt that they were being denied the experiences that many of the other students were having. The principal of one of the schools which was not in the program was also very adamant about her desire to be included next year.

The evaluating team was satisfied with the display of the positive attitudes by the teachers and principals, who appeared to be pleased that they had been chosen to participate in the project. One middle grade principal stated that with the advent of Career Education in his school, discipline problems had been reduced 98%. He contributed this to a more relevant program for students, stating that now school was beginning to "make sense."

ATTITUDES AND REACTIONS OF STUDENTS

The acceptance by students of the Career Education project was very conspicuous. Students were especially enthusiastic about the field trips and CEVO. They volunteered much information about their experiences and their desire to continue what they were doing. They stated that school was more meaningful and that the opportunity to talk with people involved in so many careers was especially helpful in making decisions about what they might want to do later in life.

One group of students noted their approval of Career Education because "It had brought so many interesting visitors to their

school." The young people stated that resource people had provided encouragement to students by furnishing more information about particular career opportunities in which they had shown specific interest. In a sense, students indicated that relevancy was the most appealing aspect of Career Education; they were able, in many cases, to associate their work in academic classes with potential career goals.

Without exception, the elementary children were highly commendatory about the Career Education program. Many of the children were observed at work in Career Education activities and vied with each other for opportunities to explain how much they enjoyed working on the project, the people they had talked to, the booklets they had produced, and the field trips they had taken. Students also reported that field trips were more meaningful this year because, in many instances, they were involved in planning the trips and choosing where they would visit. In most cases smaller numbers of truly interested students participated in the trips.

EXPLORATORY AND "HANDS-ON" ACTIVITIES

Many activities were planned and carried out to make it possible for children at a relatively early age in their school life to have experiences which would enhance their own special interests in careers, as well as develop an awareness of many other occupations. In kindergarten and first grade, parents came to the school and helped make cookies, doughnuts, popcorn balls and candied apples. In second grade, movies were made of community helpers. In third grade, using a unit on transportation, the

students planned a trip overseas and learned about all the careers involved in their trip. They worked very closely with a travel agency. The unit was culminated by a visit to the ocean-liner Michelangelo. In fourth grade, the students wrote letters to various city and state officials. In addition, many officials were interviewed and booklets which described the interviews were kept. They visited the State Capital where they talked with the representative from their district. In fifth grade, a simulated assembly line in candy-making was used to acquaint students with the process of manufacturing. In another project, comparisons were made between the time it took to make artificial flowers by hand with the time it took to make them on an industrial assembly line. In sixth grade, units on marine careers and environmental careers were combined, and students talked with a marine biologist and the harbor master. The study concluded with a visit to the fish hatchery and the salt flats. In addition, almost an entire day was spent aboard a boat.

While studying careers in the recreation cluster, seventh graders were visited by a representative from a sporting goods store who talked about careers and equipment involved in various recreational careers. They then visited Powder Hill, a ski resort, where they discussed the advantages and disadvantages of recreation-oriented businesses.

Career Days were held in most of the middle schools. Teachers and principals reported that this had been a most effective experience. Students were appreciative of the fact that people from the community had given their time to talk with them about various

careers. One principal suggested that next year the Career Day should be scheduled in the fall of the year instead of the spring because it was such "a great motivator" for his students.

Since teachers reported that most children learn more readily by using all of their senses, they felt that hands-on experiences extensively utilized had served to provide substantial improvement in student learning competencies.

KNOWLEDGE OF OPPORTUNITIES PROVIDED WITH REGARD TO WORLD OF WORK CLUSTERS AND SPECIFIC OCCUPATIONS

Community resource people provided excellent opportunities for students to receive first-hand information about the world of work. During their visits to the schools, they provided numerous experiences for students, often bringing with them articles used in their respective work areas. There were numerous advantages reported in having resource persons visit the schools. Students, when in their familiar surroundings, tended to be more relaxed and consequently were able to converse more readily and ask more pertinent questions. Visits to the schools by these persons also enabled them to reach many more students during one visit than they could accommodate at their places of business.

Field trips played a very important role in providing opportunities for students to learn about the world of work, and the trips produced a wide variety of classroom activities and many opportunities to correlate activities with subject content. They were of great significance in that they lent themselves to the gathering of knowledge which was often unattainable through conventional means.

CURRICULUM MATERIALS IN USE

In 1972-73 the K-8 segment of the program was provided with two curriculum units for each grade level. This year it was heartening to note that there had been an increase to three units per grade level and that they were being fully utilized. The additional units were constructed during the summer by teachers in the pilot program who worked from three to five additional days. All the Career Education units were highly commendable in connection with related Career Education activities. These units had given teachers an opportunity to capitalize on student interest and appeared to have resulted in an improved overall performance in school.

The teachers had been extremely resourceful in providing experiences, reading materials and class discussion time for the edification of the students. They drew upon all kinds of materials from the multi-media resource center and made extensive use of the items and materials. The multi-media resource center was located in Shelton School where teachers could browse and select materials appropriate for their classes. Counselors were also called upon frequently to deliver materials. Additional materials were constantly being added and there was evidence that teachers were being involved in the selection of materials. Each principal had been supplied with a "package" of curriculum units to share with his teachers. These were available if the principal and his teachers wished to have Career Education in their school.

It appeared to the evaluating team that materials had been used to enhance and enrich the curriculum. They stimulated student

interest and a desire to search for additional information in many instances, all of which appeared to result in teacher-student involvement in identifying career possibilities for each student.

NEW AND INNOVATIVE LEARNING ACTIVITIES AND EXPERIENCES

One of the most outstanding facets of the Bridgeport project was the Career Experience Volunteer Opportunity (CEVO) program. It had increased tremendously in the 1973-74 year, expanding to all the middle schools and involving approximately 130 eighth graders. East Side Middle School had seventy students involved; Read Middle, fifteen; Maplewood, fifteen; Blackham, fifteen; and Winthrop, fifteen. CEVO students were placed in various businesses and schools within the city for the purposes of observation and work experience for one day a week extending over approximately five weeks. In many instances, the employers had asked that the time be extended. Businesses such as grocery stores, a tool and die shop, real estate agencies, a cabinet shop, a pet store, the animal shelter, a dentist, a dental laboratory, and others, cooperated with the program. The counselors stated that almost 100% of the businesses participating in the program last year had asked for CEVO students to be placed with them again this year. Following their CEVO experiences, sessions were held at which time students reported on and shared experiences. The evaluating team members felt that this program provided an excellent opportunity for students to become very well acquainted with the working world.

Another innovative learning experience initiated this year for eighth graders was the "Career on Wheels." Students from the five middle schools chose five clusters of work they would like to investigate and study, and a specific career from each cluster was selected to be intensively studied. Ten students from each school were identified for the task of observation, and they submitted an application in limited detail concerning why they should be chosen. Selections were made from these "applications." After the visitation the students shared their observations with other students, and led discussions.

A new experience for first graders this year was the interchange of students in Bridgeport with other school systems. One Career Education curriculum unit utilized in the first grade is "School Helpers." In order for first graders to see helpers other than the ones in their own school, they were taken to a school in another town. Interviews were conducted, ideas exchanged, and much peer interaction took place. All of the foregoing was regarded as highly beneficial to the students.

In two instances intercity visitations were conducted because the respective schools were so different. An example of this was the visit of a seventh grade to an eighth grade. The visiting students toured the school and talked with other students about CEVO, in which they were extremely interested.

Services to special education children were expanded this year, particularly in the use of community resource people. Seventeen student nurses from St. Vincent Hospital participated in Career Education activities at the schools one-half day a week for

eight weeks. Many careers at the hospital were discussed, as well as demonstrations performed, to illustrate duties of various hospital personnel. Teachers and students felt that this was a most worthwhile undertaking and expressed a desire for it to be continued next year. St. Vincent Hospital also expressed the desire for it to be continued. A luncheon was given for the student nurses to express appreciation for their help and to honor them for services rendered. Excellent relationships had been established. As a result of the activity, plans have been discussed about involving the health service students at the high schools in a similar project.

In fifth grade and eighth grade classes during Black History Week, students visited and talked with present day Black leaders in business, education, and law. Thus, the Career Education project in Bridgeport provided many opportunities for students to improve their attitudes and overall outlook of the working world.

INTEGRATION OF CAREER EDUCATION WITH SUBJECT MATTER

Evidence was presented that integration of subject matter with the Career Education concept had been broadly facilitated in the Bridgeport city schools. Because the existing school curriculum was used to interweave Career Education into subject matter it was more easily accomplished. With the help of the supervisory staff and counselors, teachers were able to change their approach to include career elements, thus providing relevancy in all study areas.

The evaluation team discovered that true integration had been more successful in the earlier grades and not quite as good at the

more subject-oriented levels. In order to expose students at these levels to more Career Education concepts, teachers had been employed to teach Career Education. There were two teachers at East Side Middle School, one at Blackham, and one teacher was shared by Winthrop and Read Schools. Certain clusters were especially emphasized in these classes. Students were able to elect whether they would be in these classes and the classes lasted for one semester.

It was evident that classroom activities which expanded the world of the student were employed to teach content areas. The Career Education concept provided opportunities for teachers to introduce their students to new situations, thereby expanding the classroom to include the home, school, community and nation. This had been accomplished through the use of the multi-media approach--literature, visual aids, hands-on activities, field trips, and speakers from a wide variety of occupations.

ARTICULATION WITH OTHER GRADES

Evidence was presented that extensive articulation with other grades had occurred during the year. Most of the eighth graders in the middle schools visited the high schools before matriculation occurred, and were enabled to note the relationship of their middle school activity to the choice they would eventually make at the high school. However, there was need, it was reported, for more coordination between the middle schools and the high schools in order that a fully functioning and effective program could become city-wide. Articulation activities also took place when

seventh graders from one school visited eighth graders in another school to discuss all aspects of Career Education, especially CEVO. Such positive interaction as the foregoing appeared to motivate students in accomplishing worthwhile activities and, at the same time, assist them in acquiring valuable information related to school life, both present and for their future. It was clear that Bridgeport teachers were convinced that an effective program of articulation was essential in order to inform students of the occupational and career opportunities in succeeding stages of their educational development.

ARTICULATION AND EVIDENCES NOTED

The evaluation team noted with high approval the progress made in the area of articulation since last year. Occasions such as first graders visiting other first grades in the Bridgeport system, as well as in other systems, were noted as very valuable horizontal articulation designed to assist young people share their career experiences. The grade level meetings that were held with all the teachers involved in the project were also highly commendable. Teachers from grades K, 1, and 2; 3, 4, and 5; and 6, 7, and 8 met at different times to share their methods and techniques, materials used and problems encountered. All of the meetings were reported as useful and productive. At some of the meetings, evidence was presented that field trips were being heavily scrutinized this year to see that duplication was not taking place.

In many instances other classes were invited to observe the culminating activities of a particular Career Education curriculum

unit, and the results of subsequent discussions disclosed that class interfacing will continue into succeeding years.

D. CAREER EDUCATION IN THE HIGH SCHOOLS

INTRODUCTION

All three of the public high schools in Bridgeport were concerned with Career Education; however, because of the nature of the instructional program which was primarily compartmentalized by subject matter areas, some of the subject areas were making far greater progress in the infusing of the Career Education concept than were other departments or subject matter areas. Many of the teachers that were queried about their activities of a Career Education nature indicated that they were seeking every possible means to make more relevant to the world of work the subject matter that they were responsible for teaching. However, as indicated above, some of the subject matter areas provided the basis for more readily locating and using applications and illustrations from the world of work than did other subject matter areas. A great deal of interest was expressed in the high schools by teachers with regard to Career Education, particularly where students had received stimulation in the Career Education activity prior to their arrival in the high school. These young people had had opportunities to explore a variety of occupations, and to acquire a wealth of occupational information.

In general, the participation of the high school in the Career Education program appeared to have been maintained at about the same level as in the previous year. There was some doubt expressed by teachers and by administrators that the growth of the Career

Education concept within the high school instructional program could be as rapid as in the middle schools. When prompted for the reason why such a slower development would occur in the high schools than in the other schools, the individuals that supplied reactions seemed to feel that "less interaction between departments on the high school level takes place than in any of the other schools." Thus, a teacher of English might not find reason to confer with individuals in the Mathematics Department or in the Home Economics Department to the same extent as in the middle schools. Also, with the loss to the high schools of the counselor-coordinator, Mr. George Palermo, the position had been left unfilled. The urgent need for someone to work closely with the high schools appeared to be one of the points on which many of the high school professional personnel felt was being overlooked. It was pointed out that with the loss of the counselor-coordinator to another school system, Mr. Bonitatebus had to assume the responsibilities formerly discharged by Mr. Palermo, in addition to his other many duties. Obviously, the same kind of assistance to teachers, department heads and principals earlier provided by Mr. Palermo could not be provided by anyone else on a part-time basis.

In the high schools the principals appeared to be active in their responsibilities to further encourage the development of the Career Education infusing process. However, with their growing experience in the Career Education field, one or two of the principals were beginning to see on the horizon many problems that would shortly become major concerns. They pointed out for example,

that the differences in philosophy held by departments in the school presented a basic problem to the development of Career Education in their respected institutions. As an example of this they indicated that industrial arts and its relevance to Career Education was a matter that needed almost immediate attention, since there appeared to be a conflict in the philosophical bases. Thus, Career Education would be hampered in its development so long as the industrial arts personnel in the City of Bridgeport believed that what they were doing was essentially the same as what was occurring in Career Education. Further, the problem of providing adequate space, equipment and personnel for the upper levels of Career Education that deal with vocational preparation had all of the principals concerned. The evaluation team believed that concern for all of these matters and problems, and particularly the concern being evidenced by the principals to reach satisfactory solutions in connection with each of the problems, was a good sign. However, it was volunteered that the further growth and the persistence of Career Education in the high schools would depend on the extent to which attention was given now and continuing activity was developed by the central staff in the area of problem solutions as envisioned by the high school principals.

Another problem which was apparent in the public high schools, and which had become a problem of major proportions for the administrators concerned the upper levels of the Career Education ladder relating to vocational preparation. Now that the K through 8 Career Education program had been judged so very successful in

reaching thousands of students and almost 80 teachers in the Bridgeport Public School System, and now that career orientation, exploration and occupational information had been so plentifully provided students and teachers alike, the problem of greatest magnitude to be faced by the high school segment of the Career Education program in the future was that dealing with the provision of actual vocational preparation for growing numbers of students. In a sense, during the last three years when Career Education had been receiving the attention of so many professionals in Bridgeport, students had been the recipients of much occupational information, and opportunities to arrive at decisions based upon their own knowledge and to some extent their experiences. These students, now estimated to be upwards of several hundred young people in the high schools were making urgent requests for the opportunities to prepare themselves for jobs in the Greater Bridgeport area. These 700 high school students needed occupational preparation, and obviously the number would increase with each year and the problem would become one of the most demanding and formidable problems that would have to be coped with by the administration of the Public School System.

Many very encouraging aspects of Career Education were evident in the work experience program, the SPACE program, the alternate high school program and the cooperative program. All of these efforts to engage young people in profitable experiences of a career nature were the bases for high commendation, since they represented good Bridgeport attempts to provide for the needs of the students at a time when these needs had become uppermost in the minds of youth.

The instruments that were designed three years ago and modified last year, and were applied in an effort to measure student interest and teacher interest in Career Education in the high school, were again used this year. The results of these instruments, while recognized as being highly subjective, are interspersed in this report. In general, the questionnaires returned from the high schools indicated a reasonably high level of enthusiasm and interest, and the willingness to move ahead on the infusing of the Career Education concept wherever possible. However, as indicated earlier, traditional compartmentalization of the education program would continue to be a problem, and might understandably tend to retard the speed with which Career Education would move through the high school.

Visitation to the classrooms, laboratories and shops of the high schools disclosed teaching techniques used by teachers that were innovative, unusual, creative and oftentimes motivating to the students. These techniques which were particularly of value in connection with the infusing of the Career Educational concept were reported by teachers as being highly productive and motivating to the youth in their respective classes. For example, in the Department of English, the head of the department in one of the high schools was conducting a mini-course, and using The New York Times newspaper as the focal point of the teaching technique. The New York Times was reviewed by the students, and then on an individual career choice basis, students took elements from the newspaper and constructed letters, reports, replies to the editor and a wide variety of other tasks. Students who were contemplating

careers, and who would need a college preparatory program to prepare for the eventual career, often selected items of high interest dealing with national economics, international economics, history, law and other elements. Other students whose interests were more appropriately business-oriented careers discovered elements in The New York Times that were of most concern to them and using the information developed exercises in English which improved their letter writing, their composition, and to some extent their comprehension. In all, 370 students in the English Department were involved in this particular innovative teaching technique. Besides the department head, eight teachers and 13 classes were served with The New York Times Career Education device.

Discussions with the high school principals revealed the need to make certain that Career Education elements provided in the high schools were integrated with the continuing education objectives of many of the youth. Thus, many of the high school youth who were contemplating moving on into the community college system in Connecticut, or were planning to go on to a four-year university needed to be helped to understand the continuing elements of education, and the extension of Career Education from the high school into the post high school levels. Efforts were made in those high schools to provide occupational information relative to offerings on the post high school level, and to encourage youth whose capabilities and interests tended to lie in that direction.

The cooperative education programs conducted in the high schools, largely distributive education and business education,

were conducted by instructors who were high in their praise of the support given their programs by the principals of the high schools. They indicated that materials, funds, and other services were made available to the cooperative programs they conducted, and to a very considerable degree these services and funds contributed to the ultimate successes achieved. In general, the cooperative education personnel reported that the support from the high school administrative group was both enthusiastic and continuous, and that the best characteristics of the cooperative programs they were conducting would undoubtedly persist long into the future, even with the termination of the federal funds at the end of the present scholastic year.

The evaluation report for Career Education for the school year 1972-73 indicated that the enrollment situation at the Bullard-Havens Technical School was a serious matter. This would have its effect upon the high schools in Bridgeport in that only a small number of high school youth would be accepted by the Bullard-Havens Technical School where they would receive preparation for jobs in the labor market. Consultation with the director of the Bullard-Havens School, Mr. Buchli, indicated that the situation had worsened during the school year 1973-74, to the extent that he now had in excess of 950 applications for admissions to the Bullard-Havens Technical School for September 1974, with the likelihood that at a maximum the school would be able to accept only 250. Since the Bullard-Havens Technical School is one which serves the entire region, including cities such as Fairfield, Stratford, and many of the towns bordering upon the City of

Bridgeport, there appeared to be little likelihood that many more than 50 Bridgeport youth would be admitted to the programs offered at the Bullard-Havens Technical School. Mr. Buchli further explained that the million dollar addition presently being built onto the west end of the school would not solve any of the enrollment problems anticipated for September of 1974. The addition would merely provide adequate space for shops and laboratories that had long been overcrowded, but would not in any way allow the school to take additional students. He also explained that the expansion to the school which would enable it to accept 600 additional students was still being held up, pending the sale of state bonds to finance the expansion program. When complete, if the addition is ever funded, the new structure will be south of the present Bullard-Havens Technical School, and located on a hill overlooking the original building. Mr. Buchli reported that additional curriculums in the health area and expansion in some of the shop and laboratory areas currently located in the original Bullard-Havens Technical School buildings were anticipated for the new building.

Most important of all facts uncovered in connection with the state-operated technical school was the high level of willingness and cooperation evidenced by its director in making the necessary efforts and carrying through on the development of the programs to meet the needs of Bridgeport high school youth. Mr. Buchli was very much concerned with Bridgeport's youth, and indicated he would do anything possible to press the facilities of his buildings into use 24 hours a day, if it would better serve the needs

of high school youth in Bridgeport. However, he pointed out that while four shops were currently being used from 3:00 to 6:00 p.m. each day on a "second shift" basis, that while instructors were given responsibilities for teaching classes in these four shops, and while consumable supplies were being used up at a considerable rate, the total expense for the operation was being underwritten by the State of Connecticut through its operations at the Bullard-Havens Technical School. Mr. Buchli urged that at the earliest possible moment the Bullard-Havens Technical administration join hands with high school administration in Bridgeport and prepare a long-range plan which would best meet the needs of high school youth, and at the same time recommend the procedures for the funding of programs that would take place outside of the public high school in Bridgeport.

Discussions with personnel in the high schools indicated that the Career Education program was continuing to meet significant and vital needs of students for entrance into the job market. At the same time, one principal indicated the Career Education program was fully meeting the needs of the college bound youth who were intent upon engaging ultimately in careers which would require four years of college preparation. The breadth of the Career Education program was applauded by this particular principal, and he further commented that the best effect of the Career Education could be continued without any appreciable extra funding process. One of the administrators of the high schools pointed out that the Career Education infusing concept was sufficiently near to the broad mission of the total school guidance program, such that

guidance would need to be refocused in the immediate future and efforts made to assure guidance of its relevancy to careers. He expressed his own preference for the direction and refocusing of the guidance activity by saying that he hoped that guidance would take on largely the aspects of "vocational guidance of an earlier year." To the extent that this particular principal is able to effect changes in the guidance program, he expected to begin the review of the general objectives of guidance for his high school and to work cooperatively with the guidance counselors in the school to bring about "a change of target," as he called it.

The growth of the Career Education infusing concept in the high schools would depend, one individual reported, upon the extent to which teachers saw the favorable outcomes achieved by their colleagues. For example, the English Department indicated (in an earlier comment here) that it had achieved some rather encouraging outcomes, and the other departments in the school concerned with academic subjects were considering ways and means to reorganize their instructional program to achieve similar outcomes. For example, both the Department of Mathematics and the Department of History in one of the high schools was moving strongly to change its program sufficiently to include large elements of "vocational mathematics" and "history for vocational majors." The principal of the particular high school where this movement was taking form commented that growth of this nature in the Career Education field was far more effective than any other type of growth. He pointed out that when advantages were recognized by teachers, and when they forthwith made changes in their curriculum

and in their operating procedures to achieve desirable outcomes, there was far greater likelihood of success.

The high school evidenced strong desires and to some extent planned activity with the Greater Bridgeport community in providing community resources in connection with Career Education elements of the instructional program. For example, the Heart Association in Bridgeport during the year made extensive loan of its models and equipment to the Health Occupations Center on one of the high school campuses. These expensive anatomical models, accompanied by professionals from the Heart Association demonstrated and carried on discussions and teaching sessions wherever the instructor in charge of the Health Occupations Class so desired. This kind of community cooperation was applauded by the instructors, and by the principals of the high school also.

CONTRIBUTIONS OF INDUSTRIAL ARTS AND HOME ECONOMICS TO CAREER EDUCATION

While it was reported in one of the high schools that there are still some internal differences in philosophy relative to the missions and contributions of the Industrial Arts and Home Economics segments of the school instructional program, it was clear that the work going on in these two major high school activities contributed a great deal to the infusion of the Career Education concept in the total school instructional program. There were reports that the Career Education program was instrumental in helping youth to acquire broader knowledge of occupations, while at the same time affording many youth opportunities to obtain "hands on" experiences with regard to broad clusters of occupations.

While the industrial arts program was strongly oriented toward helping students achieve an awareness of the world of technology, the home economics program was oriented toward the fundamental concepts needed to make and conduct a home effectively. Other aspects of the home economics program dealt with wage earning occupations for which instruction in the broad field of home economics would be valuable. The home economics program at the high schools was of a general education nature, and not intentionally vocationally oriented. However, from the standpoint of Career Education, all of the instruction in both the home economics and industrial arts programs in all three of the high schools was functional and relevant to careers. Discussions with numerous administrative personnel in Bridgeport seemed to indicate that there was need for greater interaction between the proponents of Career Education, and the industrial arts and home economics segments of the high school program. Hopefully, an understanding of the missions of each of these several areas would serve to bring about a desirable level of cooperation.

VOCATIONAL EDUCATION IN THE HIGH SCHOOLS

Indicated earlier in this report was the estimate of approximately 700 Bridgeport public high school youth who were desirous of receiving instruction which would prepare them for entrance into wage earning jobs in the Greater Bridgeport community. It was clear that the responsibility of the City of Bridgeport to meet the needs of youth who had made such decisions could not be met, since the vocational facilities in the high schools were

inadequate. Portable classroom buildings erected at Warren Harding High School and at Central High School were clearly inadequate to meet the needs of such large numbers of 700 high school youth. These classroom buildings were each subdivided into three separate shops, making it impossible for classes in any one of the subdivided shop areas to accommodate any more than 8 to 10 individuals satisfactorily. Discussions with the instructors in each of these situations indicated that far more high school enrollees wished the instruction that was being offered than could be accommodated. In an effort to make the best possible use of the facility in each case, classes enrolled in the vocational shops were scheduled for two hours at a time, and the maximum use that might be used of any one facility would be three times per day in each scheduled two-hour block. Vocational education offerings included welding, electronics, health education, and food trades. However, in the major high school buildings, other vocational aspects were conducted by the business education department and by the distributive education coordinators. Both teachers and students were highly enthusiastic about the programs in which they were involved, even though the facilities were exceedingly limited for space, and the equipment contained in the respective facilities was often minimal. Wherever discussions were held, there was the general feeling that with more space and more equipment the numbers of students that could be served would be doubled or even tripled, and there was hope that in the next year or ~~two~~ the urgent needs for space and equipment would be met by the school administration. Even where the vocational program was being conducted within the main school

building, space was at a premium. For example, during the evaluation of Bassick High School last year, it was pointed out that the vocational distributive education program that was being used for about 30 students was extremely crowded. However, during the year, the facility was expanded and some additional space was found for the distributive education program.

CURRENCY AND ADEQUACY OF EQUIPMENT, CURRICULUMS AND MATERIALS

The equipment situation with regard to Career Education in the high schools varied from school to school somewhat. Up to the point where the Career Education ladder pointed upward into vocational preparation, there was no serious lack of equipment, consumable materials or suggested curriculum materials. The central office of the Career Education project had had sufficient funds to enable it to supply all of the requirements for a quality level Career Education program, wherever the request had been made by a high school. However, where the Career Education activity merged into vocational preparation on the upper high school levels, the situation with regard to equipment became serious. As indicated earlier in this report, business education and distributive education were conducted within the main building of the high school and appeared in general to be reasonably equipped. As a matter of fact, in two high schools the distributive education activity actually made use of a "store" as part of its central facility and appeared to be equipped adequately to conduct a full series of experiences calculated to prepare individuals for entrance into the distributive occupations. The same was true in

the business education departments where adequate laboratories containing computational equipment, typewriters, transcription equipment and other important items of equipment and materials were in ample supply. However, as indicated earlier, where the occupational preparation moved into the trade, industries and technical levels of instruction, these had to be conducted out in the portable buildings on the high school campuses. In each case, the equipment that was in use in each of the several occupational preparatory areas was appropriate for the cramped facilities, but nowhere near the complement of equipment that would be required to conduct full and quality level programs of preparing young people for entrance into the labor market. Even had the equipment been available, there was no place to put it to use, since the shops were so small that approximately eight to ten students crowded the shop facility unreasonably. However, it should be noted that whatever equipment was in use in these vocational shops was of high quality and of recent vintage.

The curriculum resource center located at the Shelton School also appeared to have grown considerably in its supplies and materials. Numerous new items were added beyond those that had been stocked last year, and it would appear that this resource center will continue to grow in usefulness and in service to the teachers and students engaged in the Career Education project. It was obvious, however, that additional funds will need to be expended in the curriculum center from time to time, to accommodate the needs of the rapidly spreading Career Education program in the Bridgeport schools. Many more sets of the same kinds of

materials will have to be purchased as more teachers in the elementary schools, middle schools and high schools become involved in infusing Career Education in their respective programs of instruction.

FACILITIES

Facilities for Career Education varied in character, when considered with each of the aspects of the high school program. Where teachers of regular subject matter infused Career Education into their regular teaching procedures and learning activities, no additional facilities appeared to be needed. However, as indicated earlier in this report, where the Career Education activities begin to merge into the vocational preparatory experiences needed by youth in the high schools, facilities become a major consideration. These have been commented upon earlier in this report, but it was clear to the team of evaluators that the need for more and better facilities in the years ahead had already become a major problem. Some thought will have to be given to securing adequate facilities for the vocational preparatory elements; these facilities will have to be far greater in square foot size, and of far different character than those presently located on the campuses of the several high schools.

ARTICULATION BETWEEN MIDDLE SCHOOLS AND HIGH SCHOOLS

During the school year 1972-73 a period of adjustment occurred, during which the transition of the students in the middle schools to the high schools took place at the same time that the

teachers were attempting to develop smoothly operating relationships between the middle schools and the high schools. At that time, there was some feeling that the articulation was not operating as smoothly as it might have been. However, during the 1973-74 school year many of the difficulties that had appeared last year were eliminated, and all who were active in the transitionary aspects of the Career Education program admitted to greater satisfactions. For example, teachers in the middle schools had heard that mini-courses would be needed to help orient the new student arrivals in the high schools with regard to broad clusters of occupations with which they would need to become reasonably familiar. Rather than providing instruction on a half-year or full-year basis, the recommendation was to facilitate the offering of mini-courses, and to adapt the mini-courses to the specific needs of as many different individuals arriving from the middle schools as was possible. This was done in the high schools to some extent, and the result appeared to be very satisfactory.

Another aspect of articulation which provided evidence of success was the continuous follow-up provided for the middle school student arriving at the high school. As these students arrived and took their places in the high school curriculums, data and information was assembled on them, and their progress was closely watched throughout the school year. On the basis of the information obtained, it was judged that the transition with regard to Career Education from the middle schools to the high schools was being conducted on a successful level.

SCHOOL-EMPLOYER RELATIONS

Wherever possible in Greater Bridgeport, employers and individuals in the community were interviewed with regard to the Career Education program. By virtue of the cooperative program, the SPACE program, and the work experience program, relationships between the universities and the high schools had been improved. The coordinators assigned to the three high schools had made vigorous efforts to keep employers and members of the general community aware of the career aspects of the several programs, and had in their own way established bridges to the community. By virtue of the work experience program, relationships had to be established with employers and automatically required teachers to work closely with employing firms in the region and with specific members of these firms with regard to program design and supervision. Employers concerned with the work experience program were reportedly most enthusiastic about opportunities to cooperate with the Bridgeport Public Schools, and evidenced the wish to continue this development in the future, but with additional expansion to several of the programs into other areas of employment that at the time of the evaluation appeared to be untapped. The evaluating team was convinced that the successes in the Career Education program were partially the result of much effort on the part of school personnel to develop extensive school-employer contacts and to keep the general Bridgeport community fully aware of the status of the Career Education program.

PLACEMENT OF GRADUATES FROM VOCATIONAL PROGRAMS

For many years, the business education program conducted in the high schools in Bridgeport had made a major contribution to the business community. Graduates of the business education program were successful in entering business firms in the region, and in succeeding in their chosen vocations. This continued to be one of the strong aspects of the vocational preparatory program. The same was true of the field of distributive education, where annually the graduates of the DE programs enter employment in the Greater Bridgeport area and make successful careers of their chosen vocations. The school played an important role in the placement of these graduates, and particularly was this so where the distributive education teacher-coordinator played out his important role of making effective contacts with employers during the training period, and in assisting the students to make the transition into permanent employment upon graduation. The record of the high schools was good in connection with placements in both the business and distributive education activities.

Even though the facilities for providing job training opportunities for those planning to go into the trade, industrial and technical occupations appeared to be rather inadequate for the large numbers of students desiring this kind of preparation, the results achieved by individuals completing the program was most satisfactory. Students that graduated the high schools after having completed vocational preparatory programs in the trade, industrial and technical areas were absorbed by the industries in the Greater Bridgeport area. Much of the success in placing students

on good jobs, and in enabling students to perform well on the job was attributed to the instructors in the several vocational curriculums. As indicated above, while the facilities were quite inadequate and the equipment was quite limited, the successes were notable and commendable! Further, each of the teachers of the vocational preparatory curriculums was convinced that the graduates from his particular curriculum were competent to move into a job and to continue to grow in employment. Many of the students had been counselled to think carefully about entering employment and in seeking additional higher education at the Housatonic Community College close by, or in the Norwalk State Technical College, or in special programs or regular curriculums conducted by the Bridgeport Engineering Institute, or the University of Bridgeport.

COOPERATION WITH THE BULLARD-HAVENS REGIONAL VOCATIONAL TECHNICAL SCHOOL

Earlier in this report, it was pointed out that the facilities at the Bullard-Havens Technical School were quite inadequate to serve the needs of the entire region, but more specifically the 700 or more high school students in Bridgeport who are critically in need of vocational preparation. The expansion to the Bullard-Havens Technical School was long overdue, and while there appeared to be evidence that the larger expansion program would be underway soon, it would be at least three years before the facility would be able to enroll increased numbers of students from Bridgeport. In the meantime, the high schools in Bridgeport would continue to need additional space and facilities for the vocational preparation needs of their own students.

Discussions with the director of the Bullard-Havens Technical School indicated that should air conditioning be provided in all of the Bullard-Havens Technical School facility, both in the present building and in the anticipated $6 million addition, the school could then be used the year around and serve approximately one-third more individuals on a staggered basis. The director of the school, Mr. Buchli, expressed his earnest hope that something of this nature would be done and that more of the Bridgeport high school youth would then be served. Requests had already been made to the State of Connecticut to supply these additional facility modifications, and the requests were being considered by the Department of Public Works for the state.

The "shared time" type of program being conducted at the technical school operated between 3:00 and 6:00 p.m. daily. Over 100 students began in this program in September, and approximately 75 were still left in it, with some of the leavers having gone into employment. The director of the technical school expressed the feeling that "had there been more cooperation and more cooperative activities established between the high schools and Bullard-Havens far better results could have been made of the present facilities." He pointed out that instead of 100 plus students entering in September on a shared time basis, he felt that four or five times that number could be accommodated. However, he also indicated that the increasing costs to support the personnel needed to teach, and the increased cost of consumable supplies, power, light and other commodities required that a cooperative arrangement would have to be established between his institution

and the three high schools in the City, in order to share the cost of operation. For example, in addition to the teaching staff engaged in providing vocational preparation for high school students, several members of the counselling staff of the Bullard-Havens Technical School worked with the shared time students and coordinated the programs needed by these youth. Still further, a clerk had been designated whose activities had to be supported entirely from Bullard-Havens School appropriations.

It was the feeling of the evaluating team that more effective use of the facilities in the Bullard-Havens Technical School could be provided, if some improved level of flexibility could be built into the high school programs in order to enable students to attend the Bullard-Havens Technical School from 3:00 to 6:00 p.m. This would be a major matter, and one on which the high school and the technical school would need to coordinate efforts.

V SUMMARY AND RECOMMENDATIONS

A. GENERAL SUMMARY

B. ADMINISTRATIVE RECOMMENDATIONS

C. GUIDANCE RECOMMENDATIONS

D. MIDDLE SCHOOL RECOMMENDATIONS

E. HIGH SCHOOL RECOMMENDATIONS

V SUMMARY AND RECOMMENDATIONS

A. GENERAL SUMMARY

At the time when the initial project for the City of Bridgeport's Career Education program was approved by the Office of Education, HEW, the objectives of the project were clearly defined and the operating philosophy under which Career Education would be conducted in the Public Schools of Bridgeport appeared to be clearly understood. However, during the three years of the project's duration, a number of modifications to the original program took place, all of which were positive in nature and beneficial to the individuals who took part in the Career Education program. During its three days of on-site evaluation, the study team visited as many of the schools as was possible, talked with as many people as had information to provide, and examined all of the literature, documents and records of the Career Education project. As a result, the study team was satisfied with the extent to which the original planning for the Career Education project and its specific objectives were being met. Following is a brief summarization of the high points concerning the Career Education project and specific recommendations concerning the means that should be considered in enabling the Career Education project to continue, since federal funding will terminate at the end of the school year. Throughout the on-site visitation, much of the concern of the evaluating team had to do with the extent to which the Career Education project would persist after the termination of federal support for the project; the summary and recommendations which follow indicate this concern.

1. Considering the modifications that were made to the original proposal, and the extension of the Career Education program into areas that were not originally anticipated for growth, the study team was satisfied that the broad statements of philosophy and the specific objectives of the project were met and in many instances exceeded.

2. In order to conduct an expanded program of Career Education, the administration of the project appeared to be cognizant of the need to construct and conduct a closely coordinated central office staff administration. This appeared to have been done. However, with the loss of the counselor-coordinator for the high schools, the staffing pattern appeared to have suffered a considerable loss. Growth of the project into the years ahead will require considerably more in the way of central office supervisory and administrative staff, in order to accomplish the results anticipated for an all-school-wide program encompassing all students and all teachers.

3. Funds made available to the Career Education project were administered wisely and the appropriate allocations of funds for supplies, materials and other necessary Career Education materials were made in accordance with the needs of the teachers and students.

4. The supervision and the coordination which were provided by the project staff, and also by the individual school administrative and coordinating personnel appeared to be meeting the needs of the project. However, as the Career Education project continues to grow in Bridgeport, there will be the need to be concerned about additional personnel, or possibly reorganization of the administrative-

supervisory activity that would ultimately provide teachers and school personnel with the consultation, help and advice needed to maintain the project at an even higher level of efficiency.

5. Although it was the hope in the beginning of the project that the entire City of Bridgeport Public School System would be encompassed in the Career Education project, approximately 20 of the 37 schools in the City System were finally involved in Career Education. All of the teachers, all of the counselors, and all possible personnel in the remaining schools were involved in workshops and other activities designed to bring the remaining schools into the Career Education orbit. However, because of time, lack of sufficient administrative-supervisory staff, and because of the limited funds provided, it was not possible to reach out and encompass the total school population. Plans for the future should certainly anticipate further growth of the Career Education program, and the necessary financial backing provided to facilitate such expansion.

6. Both teachers and students evidenced interest, satisfactions and significant learnings from the Career Education program. Students were concerned with the wide range of occupations that existed within specific job clusters, and displayed intimate knowledge of occupational information and the possibilities surrounding specific job opportunities to which they might aspire. Teachers indicated that they were now making full use of the many applications and illustrations connected with the world of work, as their regular teaching proceeded. In this way, they explained that students appeared to be getting far more value from the usual academic

instruction, at the same time that they learned something more about the many occupations in the fields of work.

7. The success of a program of Career Education is often marked by the approval gained for such a program in the region served by the school. In Bridgeport, bridges between the school and the community, and involving many of the employers in business, health activities, industry and the utilities have been built to the credit of the Career Education project. Real effort had been expended by the personnel in the Career Education administration office to establish these close links with elements of the Greater Bridgeport community, and the positive results of such activity were noticeable.

8. Career Education in Bridgeport appeared to the study team to be an excellent example of how all parts of the Career Education model can be facilitated. Beginning at the very lowest grades where the youngsters should be concerned with the acquisition of desirable work attitudes, the instruction all seemed to be providing that kind of opportunity for the attitudinal acquisitions and the teachers appeared to be most satisfied with the results. As the Career Education model was facilitated in its other aspects, occupational information, "hands on" experiences, and finally vocational preparation were all being exemplified in the Bridgeport Public Schools. With over 20 schools of the 37 in the City active in some phase (or all phases) of the Career Education project, there was ample evidence on every hand of the efforts made by the central administrative staff to implement each part of the Career Education model. Not all parts were as well conducted as others,

but this was not for the lack of effort on the part of the central staff. Often, a lack of facilities as in the case of the vocational preparatory segment, hampered the central staff in carrying out the full intent of the model.

9. Bridgeport, as a highly industrialized community where the greater number of employed persons were working in manufacturing operations and in the business field, represented an excellent example of how a Career Education project could administer to the needs of the industrialized community. The high schools in the Bridgeport Public School System recognized the need to assume the responsibility for providing vocational preparation for some of its enrollees. Working with the Bullard-Havens Technical School, a small number of high school youth found it possible to engage in vocational preparatory curriculums during a 3:00 p.m. to 6:00 p.m. "second shift" arrangement. Also, at two of the large Bridgeport high schools, portable buildings were placed on the campuses and some limited space made available for the teaching of those occupations in which students had registered considerable interest. Neither of the foregoing activities met the needs of large numbers of Bridgeport youth that were evidencing needs for vocational preparation, and other activities tended to supplement these purposes. A work experience program, a cooperative program, and a SPACE program enabled youth to prepare for foreseeable employment in the Greater Bridgeport community through cooperative activities established by the businesses and industries in the region. These programs were eminently successful, but administering to a relatively small number of youth. As the needs for

vocational preparation of Bridgeport youth continues to grow, greater efforts will have to be made to expand the cooperative types of programs, at the same time as arrangements are made for larger numbers of Bridgeport youth to prepare for work during the regular high school day, either at the Bullard-Havens Technical School, or within the main buildings of the three high schools.

During its three on-site days in Bridgeport, the evaluation team was made fully cognizant of the extent to which the Career Education project had developed. However, it was equally evident that with additional funds and with opportunities to employ a larger central office staff, considerably more might have been done during the three-year period during which the project was funded by federal dollars. The uses made of the federal funds were optimum, and these optimum results were achieved largely through the high degree of ingenuity, creativeness, dedication and resourcefulness of all who were concerned with the administration, supervision, coordination or teaching in the Career Education project. Students also evidenced high levels of creativity themselves in connection with developing Career Education materials, projects, units and other instructional devices.

The recommendations which follow are supplied chiefly as a guide to the Career Education project personnel as the project moves into a new phase. With the termination of the federal support, and with the full funding of Career Education activities in Bridgeport to be underwritten by the City School System, the evaluation team believed that it would be wise not only to comment on the extent to which the Career Education project had achieved results

in terms of what it proposed to do, but also to supply suggestions for further improvement to facilitate further growth and further efficiency of operation. Each of the following recommendations has its direct implication for local policy making, action and coordination; however, many of the recommendations also imply action that should be considered relative to the state education program, chiefly at the Bullard-Havens Technical School. Local and state influences should be weighed carefully; involvement of all who will be affected by the changes should be sought and assured.

B. ADMINISTRATIVE RECOMMENDATIONS

1. As the Career Education program continues to grow and develop in effectiveness by virtue of its introduction into all the schools in the City, it is strongly recommended that the central Career Education staff engage in the long-range planning activity needed to facilitate and implement growth. Tasks which will need to be engaged in include the identification and redefinition of the organizational structure for effectively supervising and administering the expanded program. As a part of the task, there will be the need to identify the roles and relationships of each of the central administrators with respect to missions, objectives and job responsibilities relative to Career Education.

It should be clearly understood by the central staff for Career Education that the long-range planning must take place immediately, since all the elements of urgent problems to meet the continuing needs of youth are already clearly apparent. What began three years ago as an exemplary program has grown and matured into a dynamic program of significant career thrust for hundreds of youth in Bridgeport. Successes achieved in the grades K-8 have generated major problems for the high schools that now must meet the demands of the youth that have been motivated to identify careers for themselves. The recommendation here is that the central staff take the initiative and address itself to the whole task now! The long-range plan should specify the mission of Career Education, its planned objectives, and then the very important organizational structure that will be needed to conduct a full-blown

Career Education project for all the schools. Everything in the Career Education concept and program, from additional encouragement in the kindergarten to the coordination that must occur between the high schools and post-high school institutions, will have to receive attention and action in the development of the final long-range plan. Not the least of the considerations must be the facilities and equipment that will be needed to accommodate the occupational preparatory demands of high school youth. Attention will have to be given and recommendations passed up to the Board of Education for action (via the Superintendent of Schools) concerning whether a new vocational high school is desirable and needed, or whether an area vocational service center is needed, or whether some other facility arrangement would be more efficient.

2. Several central office administrators pointed to the need for in-service training at the administrative level geared toward gaining a better understanding of Career Education. Some preparation should be made for a late spring conference to facilitate this need. Several worthy in-service activities for the staff were in evidence this year; however, it appeared that need still existed for a structured and planned in-service program in which all administration would have adequate opportunity to input into this type of activity.

3. In planning and implementing the growing City-wide program of Career Education, further consideration and planning will be required and naturally followed by the expansion of the services offered by the Resource Materials Center. Many teachers

appeared to be depending on the Center as a source of required hardware and software for teaching.

4. As the system-wide Career Education program continues to develop, more citizens and community groups will need to become involved. In order to effectively work with and benefit from contacts with these groups, attention should be given at this time to the many additional lines of communication that will have to be established. Consideration should be given to the extended and planned involvement of the Career Education staff with community groups such as the advisory committee, the Urban Coalition, PTA, and any others that appear to be feasible to the Career Education program.

C. GUIDANCE RECOMMENDATIONS

1. Since there still appeared to be differing interpretations of the role of guidance and counseling in Career Education, efforts should be continued through regularly scheduled meetings and workshops to involve the counselors at all levels in the Career Education project. Mutual support for both the Career Education project and the on-going guidance program should be the goal of these meetings.

2. Since the addition of Career Education staff members at the elementary and middle school levels seemed unlikely, some decisions should be made relative to the use of the time and expertise represented on the present staff. These decisions should include an understanding of roles of the principals and the elementary and middle school supervisors in the total Career Education picture. The possibility of some of the middle school counselors assuming some of the supervisory responsibility for the CEVO program should also be explored as a way to relieve the Career Education coordinators of some of their supervisory burdens. Methods of capitalizing on the experience and expertise represented on the teaching staff should be carefully considered.

3. The separate Career Education classes at the middle school level appeared to be receiving mixed reactions from students and teachers and should be the subject of an intensive study. This study should be directed toward finding an answer to the question of whether these classes are counter-productive to the major objective of infusing Career Education concepts into all phases of the curriculum.

4. Since Career Education seemed to be moving more slowly at the secondary level than at the elementary and middle school levels, major efforts should be made to evaluate present activities, and to plan for an integrated program at that level. Counselors should play a major part in establishing the goals and objectives of the secondary program; their involvement would be critical to the ultimate success of the program.

5. The wide variety of special projects such as the Alternative High School, Project ACT, etc. all showed promise of alleviating some of the pressure to provide career exploration and training for secondary students. An effort should be made, however, to provide a catalogue of special programs of a Career Education nature, whether they be officially under the supervision of the Career Education Project Director or not. This catalogue should also be supported by information sessions for counselors, designed to answer questions and solve problems relative to the programs.

6. Methods of continuing the dialogue between industry and education should be explored. This dialogue should be carefully structured so that one group does not always tell the other group what's wrong with them. Means to cooperatively solve the problems which affect the whole community should be the objective of such efforts. Some communities have experimented with the idea of an industry adopting a school as a method of improving communications. Other ideas such as Business-Industry-Education Days should also be explored. Every effort should also be made to re-establish the Career Guidance Institute as an on-going program.

7. Cooperative planning with the staff of Bullard-Havens Technical School should be instituted as soon as possible so that the potential of the after-school program and other cooperative efforts can be fully realized. None of the differences of opinion concerning the present after-school program appeared to be irreconcilable, but they are unlikely to be resolved unless the people involved take steps to look at the problems and plan solutions cooperatively. These efforts should also include plans for long-term program development and use of facilities as well as the immediate problem of the after-school program. It may be discovered that, in order to provide quality Career Education and vocational training at the secondary level in Bridgeport, there will need to be some restructuring of the present programs to make better use of existing facilities in the area.

8. Efforts to expand the services of the Career Education Materials Center to the secondary counselors should be continued. Methods of involving the counselors more in the selection of materials might also be considered since they are probably the most knowledgeable staff members concerning the career information needs of the students in their respective buildings.

D. MIDDLE SCHOOL RECOMMENDATIONS

1. In planning for the project expansion next year to include more teachers, it would be helpful to conduct a principals' workshop this summer to help principals more clearly understand the concept and objectives of Career Education, and also to motivate the principals to take an increasingly active role in supervising and conducting career education in their respective schools.

2. If the program is maintained at the same level or is expanded next year, a cooperatively developed plan should be put into operation whereby the project staff would give a greater proportion of time and help to the newer teachers and to those schools that will engage in the program for the first time.

An excellent job was done by the counselor-coordinators in providing individualized assistance to each teacher, but with the growth of the program to include all teachers and all schools in the system, a change of roles should be considered wherein the counselors would withdraw to a more supervisory position with regard to the presently Career Education engaged schools, while at the same time placing emphasis and time upon the newest entrants into the program. Such a role change might anticipate the identification of lead resource personnel for Career Education in each school, working closely with the immediate on-site supervisor of all Career Education activities in the school--the principal.

3. More frequent staff meetings with the project staff and other City School supervisory and administrative personnel should be considered in order to help strengthen lines of communication, as well as provide for imminent problems to be clarified, tentative

solutions to be agreed upon, and to "brain storm" Career Education ideas.

4. The three full-time Career Education teachers should develop mini-course specialties, and then on an itinerant basis travel through the schools where there are sixth through eighth grade students. Such a procedure would provide more specialized services to increasing numbers of students.

5. A special in-service workshop should be provided for all teachers in the Career Education project, as well as new ones coming into the project. The workshop should emphasize the special Career Education curriculum units, trips, projects and Career Education materials available to teachers; it should also provide for the necessary discussions relative to teaching techniques in the utilization of curriculum resources.

6. Consideration should be given to involving the coordinators in activities that will bring them into contact with the high school program, thus providing for some elements of continuity, K-12. These activities would help facilitate vertical articulation, and enable counselors to be fully aware of the impacts of middle school Career Education activities upon student choices that are being made at the high school level.

7. There should be more involvement of the advisory committee with the staff members K-8. There appears to be more emphasis by the advisory committee upon high school and vocational education aspects of Career Education, and while this is regarded as valuable and extensive, the growth of the Bridgeport project is such that attention should be focused at this time upon the contributions to careers that can be made in the grades through eight.

E. RECOMMENDATIONS CONCERNING CAREER EDUCATION IN THE HIGH SCHOOLS

1. With the wealth of industrial and business organizations in the Greater Bridgeport area, steps should be taken by each of the high schools to expand their cooperative and work experience programs. With approximately 700 youth in the three high schools needing vocational preparation of one kind or another, coordinators in the high schools should be provided in the number required to meet this growing emergency. Coordinators so designated should work closely with the businesses, health and industrial elements of the community and develop training plans, supervisory plans and procedures for engaging many more high school youth in cooperative learning experiences that are now being accommodated under the present plan.

2. The vocational aspects of the Career Education project are those which will require greatest attention during the next several years. At the earliest possible time, a council of high school administrators and the administrator at the Bullard-Havens Technical School should meet and plan how best to serve the needs of Bridgeport youth with vocational preparatory experiences. Suggested for the concern of such a council would be items such as:

a) how to expand the high school program

b) how to divide the responsibilities for vocational preparation between the high schools and the Bullard-Havens Technical School

c) how to share the cost for conducting vocational preparation of high school youth at the Bullard-Havens Technical School

d) how to obtain valid and reliable information from the community relative to emerging occupations for which high school youth might be prepared

3. With the growing emphasis upon vocational preparation, at the upper level of the Career Education ladder there will be a continuing need for established personnel at each high school to be delegated responsibilities for coordinating all aspects of vocational education. Such an individual could conceivably be a coordinator, a regular high school appointee, a central office designee, or some other arrangement. The matter should be studied carefully at the earliest moment and steps taken to place in the hands of one person in each of the high schools the full responsibility for the broadening of the vocational education effort, its coordination with the Bullard-Havens Technical School, its extension into the community, and responsibility for coordination of all work experience and cooperative programs. Such an individual placed at each of the high schools should be provided supervision by the central Career Education office, in order that all youth in Bridgeport who desire and are capable of profiting by the instruction will have such instruction made available to them, thereby enabling them to prepare for the world of work.

4. The industrial arts program in the high schools can serve several purposes. However, because of some conflicts in the thinking which has been generated by the industrial arts personnel, and as it appears to be opposed to the thinking of the Career Education movement, there is an urgent need to seek an accommodation of

philosophy. Steps should be taken at the very earliest moment to bring these two major philosophies into harmony.

5. Discussions with members of the Bridgeport industrial community appeared to indicate that there is a growing need for larger numbers of individuals to enter employment at the "service level." In a sense, this reflects the growing need in Bridgeport for more yough entering employment at less than the skilled craftsman level. A study should be made of the Greater Bridgeport area, and compared with the data and statistics available from the Employment Security Agency for the region in order to determine the extent to which the numbers of youths in the high schools who need vocational preparation should receive it at a lower level. When that has been decided, then the possibility of making further use of the industrial arts facilities in each of the high schools should be facilitated. Many youth can be supplied with entering skills for immediate employment, using the facilities of a well-equipped industrial arts department in a high school. Learning to operate a single machine or several machines would open up possibilities for immediate employment. Such a vocational preparatory effort should not be confused with the highly skilled type of preparatory experiences provided by institutions such as Bullard-Havens Technical School. It is conceivable that less than one year of such "entering skill" preparation could be provided by a high school industrial arts program, thereby enabling graduates of the high school to enter employment at a lower level of skill.

6. Not all high school personnel (including administrators) are firmly convinced of the validity of the Career Education movement. Some personnel explained that Career Education had always been integral with regular academic instruction and that special efforts to infuse Career Education into the total instructional program in the City School program was unnecessary. These same individuals felt that with the cessation of federal support for the program, little would persist of the Career Education project. It is recommended that the points of view expressed by the individuals indicated here be further studied, and the central office staff make a special point of supplying to such individuals oral and printed advice concerning the objectives and procedures under which Career Education can be conducted. The points of view which the dissenters expressed were judged by the study team to be genuine, even though they appeared to be incorrect, and to some extent the result of ignorance concerning Career Education. This will be a major concern as the program continues to grow in the high schools, and particularly if vocational preparation continues to be an urgent need of the student. Many of the traditional high school personnel believed that vocationalism had no part in a public high school, and so out of hand tended to reject the emphasis upon that aspect of the Career Education model.

7. Traditional academic education in a high school tended to resist change. In spite of the fact that in several of the important academic departments of the high school where evidence was ample to demonstrate that efforts were being made to make the instruction offered in the respective classrooms relevant to

the world of work, there was still a large untouched field of instruction that continued to need attention in the same respect. Many teachers were reported to be continuing their instruction in traditional fashion, and claiming that there was scarcely time enough to do what they had to do without introducing Career Education infusing activities. Changes to be brought about in the conduct of the teaching provided by such teachers will need to be a continuing effort, but the central organization of the Career Education project will need to give special attention to this particular activity. Through workshops, personal consultation, literature of a variety of kinds and the offer of assistance by a proposed school Career Education coordinator could do much to bring more of the high school teachers into the Career Education orbit. Hopefully, such an effort would provide high school teachers with information concerning the steps taken in the early grades to achieve favorable results with regard to the acquisition of attitudes by grade school children, occupational information and both "hands on" experiences by middle grade students and the need for high school instruction to have some degree of relevancy to its usefulness in the world of work. A clear concept provided for high school teachers should be helpful in inducing them to shift slightly and to carry on their traditional instruction, but with additional increments of career application.

9. The relative successes achieved in the middle schools produced a problem of growing proportions for the high schools. Career Education activities of a variety of types and kinds excited and motivated youth in the middle schools such that their

arrival in the high schools made them aware of the possibilities for vocational education. Not all youth were concerned with immediate preparation for the world of work. Some, by virtue of the successful middle grade program in Career Education appeared to be convinced of the validity of their career choices which will demand that they acquire a college education for professions such as medicine, dentistry, law and other areas. However, where youth were provided adequate opportunities to learn about occupations which they may enter at the completion of a high school program, their demands upon the high school authorities for opportunities to pursue preparation for employment became numerous. Limited facilities at the high schools, and limited possibilities for engaging in work experience programs and in cooperative vocational enterprises will continue to make the vocational aspects of the Career Education program more urgent and more critical with each succeeding year. The central career education staff should make it a major concern of its subsequent operations to keep information flowing toward the Bridgeport Public Schools Superintendent and his Board of Education relative to the needs in the high schools for providing vocational preparation. The public school system in Bridgeport should be helped to realize that the program of vocational preparation is a major concern for the City School System, and that full reliance upon an institution such as the Bullard-Havens Technical School cannot possibly serve the needs of Bridgeport at the present time or at any time in the foreseeable future. As a Bridgeport problem, the Career Education staff should emphasize the need of the Board of Education to assume full responsibility and to make plans for high school vocational training programs.

10. The program of articulation that was put into operation between the middle schools and the high schools two years ago made excellent progress during the school year 1972-73. It made further progress during the 1973-74 school year, but will require further study and attention in order to make certain that the articulation is relevant to personal growth, curricular experiences, curriculum feedback, follow-up data and other similar factors. This is one of the most important segments of the Career Education model for Bridgeport and it should be strengthened to the limit that time and funds can be made available.

11. The efforts made by the Career Education central staff to infuse Career Education elements into the traditional high school courses and curriculums have been both valiant and determined. However, with the loss of the counselor-coordinator for the high schools, and with the transfer of this individual's responsibilities to the director of the Career Education project, less effort was made in the area of infusing. With successes achieved in the middle schools and in the grade schools, the last important area of concentration appeared to be the area of infusing Career Education in the high schools' curriculums. Study of the situation would undoubtedly show need for replacement of the original counselor-coordinator for the high school, and possibly the employment of additional personnel to facilitate the "infusing." Some immediate concern for this element of the Career Education program might be valuable in terms of retaining some of the excellent gains in the infusing effort achieved in the high schools during the past several years. Care should be taken now that

these gains are not dissipated by lack of personnel to administer to them.

12. One of the most successful means to achieve infusing of Career Education objectives in the high school curriculum is that of involving high school teachers in the design and in the development of modified curriculums. To the extent that funds can be allocated for this purpose, it is recommended that special short-term curriculum workshops be established by subject matter areas in Bridgeport to facilitate the production of new and innovative high school curriculum designs. In a sense, the basic elements of the curriculum would be maintained, but would be appended thereto by suggested devices, speakers, activities, field trips, films, and other paraphernalia that could be used by teachers and students to effect the best elements of the Career Education objectives.

ACCESSION NUMBER: VT102157

PUBLICATION DATE: JUN75

TITLE: VOCATIONALLY COORDINATED CURRICULUM FOR GENERAL EDUCATION. PROGRESS REPORT.

DESCRIPTOR: *COURSE OBJECTIVES; GENERAL EDUCATION; *COMMUNICATION SKILLS; *HUMAN RELATIONS; INTEGRATED CURRICULUM; *TECHNICAL INSTITUTES; INTERVIEWS; SURVEYS

IDENTIFIER: MORAINE PARK DISTRICT; WISCONSIN

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 85P.

ABSTRACT: A SIX-WEEK STUDY WAS CONDUCTED DURING MAY AND JUNE, 1974, BY THE MORAINE PARK TECHNICAL INSTITUTE TO OBTAIN INFORMATION FROM EMPLOYERS AND EMPLOYEES ABOUT COURSE OBJECTIVES FOR COMMUNICATIONS, HUMAN RELATIONS, AND MATHEMATICS/SCIENCE SKILLS FOR RESTRUCTURING GENERAL EDUCATION COURSES TO BECOME MORE APPLICABLE TO VARIOUS OCCUPATIONS. MORE THAN 200 EMPLOYERS AND EMPLOYEES IN THE MORAINE PARK DISTRICT, INCLUDING INSTITUTE GRADUATES, WERE SURVEYED. INTERVIEWEES WERE SELECTED TO CORRESPOND TO OCCUPATIONS IN THE VOCATIONAL-DIPLOMA PROGRAMS. THE STUDY PROVIDED DATA FOR DEVELOPING COURSE OBJECTIVES AND FOR IDENTIFYING UNITS OF STUDY SUPPORTIVE TO THE VARIOUS SKILL AREAS. THE SURVEY INSTRUMENT LISTED VOCATIONAL PROGRAMS AND CALLED FOR RATING THE DEGREE OF KNOWLEDGE NECESSARY IN EACH OF 18 AREAS OF COMMUNICATIONS, EIGHT AREAS OF HUMAN RELATIONS AND ECONOMICS, AND 10 AREAS OF MATHEMATICS AND APPLIED SCIENCE. THE COLLECTED DATA WERE TABULATED AS BEING ESSENTIAL TO COURSE CONTENT, ADVISABLE, OR A POSSIBLE ELECTIVE. CONTINUATION OF THE PROJECT WILL PROVIDE FOR WRITING BEHAVIORAL OBJECTIVES FOR THE COURSES STUDIED, DEVELOPING INSTRUCTIONAL MATERIALS, AND DESIGNING A PILOT PROJECT TO IMPLEMENT THE NEW CURRICULUM. (MF)

INSTITUTION NAME: MORAINE PARK TECHNICAL INST., FOND DU LAC, WIS.

VT 102 157

Made Partially from Recycled Fibres

PROGRESS REPORT

Project 10-044-151-224

Vocational Ed. Amendments of 1968

VOCATIONALLY COORDINATED CURRICULUM FOR GENERAL EDUCATION

June, 1974

MORAINE PARK TECHNICAL INSTITUTE
Fond du Lac, Wisconsin

Robert P. Sorensen, Ph.D.
District Director

VT 102 157

PROGRESS REPORT

Project 10-044-151-224

Vocational Ed. Amendments of 1968

VOCATIONALLY COORDINATED CURRICULUM FOR GENERAL EDUCATION

June, 1974

MORAINE PARK TECHNICAL INSTITUTE
Fond du Lac, Wisconsin

Robert P. Sorensen, Ph.D.
District Director

VOCATIONALLY COORDINATED CURRICULUM

FOR GENERAL EDUCATION

Participants in Project:

Daniel Buretta, Math Instructor

Jane Capelle, Math Instructor

Flora Gebhardt, Communications Instructor

Paul Haworth, Math-Science Instructor

Don Kenyon, Math Instructor

Marliss Koepke, Psychology Instructor

William Reinhardt, Communications-Human Relations Instructor

Gerald Rickman, Economics Instructor

Lee Sauer, Communications-Human Relations Instructor

Harold Knueppel, Department Chairman, General Education

Phyllis Nagler, Special Projects

MORAINE PARK TECHNICAL INSTITUTE

VOCATIONALLY COORDINATED CURRICULUM

FOR GENERAL EDUCATION

Table of Contents

I. Summary

- Background
- Problem
- Objectives
- Findings and Conclusions

II. Methodology

- Schedule
  - Division of Moraine Park District
  - Contributing Information
  - Survey Instrument

III. Analysis of Data

- Summary of Interviewees
  - Location
  - On-the-job Experience
- Communications-Human Relations
- Mathematics-Science

IV. Evaluation

- Meeting with State Staff-Agenda
- Follow-up Letter to Participants

V. Continuation of Project

- Objectives
- Schedule

SUMMARY

During a six week period (May to June 30, 1974), Moraine Park District conducted a study to obtain pertinent information from employers and employees relative to course objectives in communications, human relations and mathematics. The information was categorized into a form that contributes to the restructuring of general education courses. All general education staff members participated to some degree in the six week concentrated effort.

Because of the study, the participating staff now has data for developing relevant objectives for their courses and for identifying units of study supportive to the various skill areas. The project as conducted verified a study that had been made earlier involving students and program advisors at Moraine Park Technical Institute. A survey instrument was designed to question students and program advisors about the needs and interests which they would identify as adding support to the program skills.

BACKGROUND

In 1968 the report made by the Advisory Council on Vocational Education to the president of the United States noted that the inability of students to perceive the value or need of the informational content among a number of programs - "The lack of relevancy in teaching of isolated disciplines causes many to lose interest and motivation."

Concurrence with the findings as presented by the Advisory Council was found in Vocational, Technical and Adult Education District 10 (since Moraine Park District), especially in the area of General Education, specifically in vocational type programs. It was recognized where a need existed to change course content into learning experience considered valid by the student. It was agreed that a new approach was needed which resulted in the proposal to justify general education offerings in the vocational program. The result was a proposal to study a flexibly scheduled vocationally coordinated curriculum for general education courses.

The proposal from the onset differed from the attempts by other VTAE districts in that its restructuring did not presuppose a given instructional methodology but reserved the decision to employ whatever methodology fits the subject matter, and the abilities and interests of the students would elect it. It was not meant to focus on and mean merely a calendar revision. Several factors were considered as contributory to the changes that were being suggested.

The project proposal was scheduled to extend over a period of years.

PROBLEM

The present structure of the general education curriculum cannot fully accommodate the wide range of student ability and achievement and does not identify the behavioral objectives in the general courses in our one and two year diploma programs because:

1. It does not allow students to pursue their personal needs and interests which vary according to:

   a. their particular vocational goals.
   b. their past levels of achievement in other educational experiences.
   c. their immediate needs for knowledge and skills to successfully pursue vocational-technical training.

2. It does not fully provide the opportunities for the implementation of methodology such as team teaching and individualized instruction.

3. It lacks a flexible scheduling which would allow for more appropriate timing of instruction to their immediate needs and interests.

OBJECTIVES

1. To restructure the general education curriculum (Communications, Human Relations and Math) to become more applicable to the various occupations it serves in our one and two year diploma programs.

2. To provide flexibility in:

   a. application of subject matter.
   b. method of instruction.

3. To explore opportunities for innovative methods.

4. To coordinate general education curriculum with needs of the student and employer.

5. To coordinate general education curriculum with the objectives of vocational programs.

6. To coordinate the implementation of the general education curriculum with the counseling process.

7. To investigate the applicability of the general education curriculum to other VTAE districts.

Over two hundred individuals were contacted and invited to respond to a questionnaire on a one-to-one basis in interview style. The individuals surveyed included graduates of Moraine Park Technical Institute and employees and employers representative of business and industry in Moraine Park District. Interviewees were selected to correspond to jobs for which vocational-diploma programs prepared workers.

In addition to gaining the necessary information for restructuring the general education courses supportive to vocational/diploma programs, data was collected for associate degree and less-than-one-year diploma programs as well. Opportunity to use the information in restructuring this type of program is a future possibility.

The opportunity for the general education staff to meet with industry, business and past graduates in actual on-the-job situations provided an enriching experience for the staff. The project also served as an excellent publicrelations tool, opening channels of communication that did not previously exist.

The general education staff interpreted the data collected and made application to individual programs. Communications, Human Relations, Math and Science were (1) broken into units of study, (2) identified as supportive to the program and (3) given rank order as to importance.

The study revealed units which were common to all programs and indicated units which were unique to particular programs.

FINDINGS AND CONCLUSIONS

The reactions from the participants in the project were indicative of the success of the project. The involvement of the staff was in evidence throughout the project. Prior to the activities involved, the staff initiated the need to restructure courses, identified the method by which the goals would be accomplished.

Finally, the findings and conclusions were jointly agreed upon. There was consensus of opinion.

Conclusions recognize the ability to unitize and develop a mini-course approach to the teaching of general education subjects. It has been further concluded that the approach is not only possible but more beneficial than the present traditional system.

It is recommended that the project be continued with the intent to create and implement a mini-course system. Evaluation of the project was established through a time frame for marking progress. Regular meetings of the participating staff were held throughout the project to reestablish goals.

An invitation was extended to state staff members for formal review and critical analysis of the project and its methodology. This provided opportunity to compare the project with other studies which have been conducted in the state. Comparisons were made to reinforce the findings of the Moraine Park project.

Recommendations developed by the participants in the project to restructure General Education were as follows:

1. The actual survey was good public relations for vocational-technical education and Moraine Park District in that it showed local industry the interest in their recommendations and gave them general information about our system.

2. The experience of interviewing different industries and occupations was an excellent learning experience for the individual teachers in the General Education department.

3. Many areas of general education identified by the survey are essential in the training of the one and two year vocational students.

4. Much of the course content, as indicated by the survey instrument, was complete and beneficial; however, some aspects or subject areas could be deleted for a more concentrated approach to the essential areas.

5. Needs in general education subjects vary from department to department, program to program, and individually within programs.

6. Some units of instruction, rated as essential, proved common to many programs.

7. The material listed in the survey instrument is well suited for a unitized mini-course approach.

METHODOLOGY

A timetable was designed to guide the activities and to establish objectives. The timetable was prepared by staff participants involved in the project. The schedule established checkpoints to determine progress and provided basis for evaluation.

May 20	Orientation to Project 1. Review objectives of project 2. General discussion - collection of data/form 3. Participant mechanics (1) Time slips (2) Mileage
21	Development of Survey Instrument 1. Divide into two general areas (1) Communications, Human Relations (2) Mathematics, Science
22	Evaluation of Questions Staff - joint meeting
23	Test Survey Instrument - Trial 1. Refinement of survey instrument 2. Organize areas to be surveyed (1) List of previous graduates (a) Employers (b) City-town, etc. (2) Letter to employer (advance)
24	Printing of Survey Call for appointments - whom to contact? (1) personnel manager (2) graduate
May 28-31) June 3- 7) June 10-14)	Conduct Interviews
June 17-21	Summarize Data
June 24-28	Analysis - Conclusions

It was determined that each interview/survey contact lasted approximately 35 minutes, although in some cases employers chose to discuss their educational concerns, criticize programs or comment on Moraine Park Technical Institute in general; therefore, some interviews took as long as an hour and a half. In some instances the employer invited the MPTI representative to tour their business or industry.

The public relations aspect of this project must be recognized. The telephone interview was discouraged as a means of collecting data. Representative business and industry was selected to include both supervisor and employee, firms producing a product or service according to location and length of employment of interviewee.

In general, math responses to survey questions were more specific than those in communications and human relations. A consideration for the future, should a project of this type be repeated, might be to use a Q-sort approach for communications and human relations.

In summarizing the data, it was questioned whether or not the data would be computerized. It was decided that hand counting enabled the participants to familiarize themselves with the information collected, enabling better usage of the collected information.

SURVEY MATERIALS

1. Pre-survey Letter

2. Division of Moraine Park District for survey

3. Contributing information to develop cross section of interviewees

4. Survey instrument
    - (1) general data sheet
    - (2) subject area information
        - a. communications/human relations
        - b. math/science

Moraine Park Technical Institute

District Office 235 North National Avenue, Fond du Lac, Wisconsin 54935 (414) 922 8611

May 13, 1974

Dear Sir:

The General Education Department of the Moraine Park Technical Institute, in an effort to enrich our courses and to meet the needs of the students in our district, has been granted a federal project that will enable some of our staff members to call on industries in our district. We hope to discuss with employers, employees and former students now in your employ, things you feel should be included in courses to make them more meaningful to the student and more applicable to the type of employment found in the industries of our district.

We will be calling on industries in the district between May 20 and June 30, 1974, and individual staff members may be contacting you for an appointment to visit your industry. It is hoped that this letter will serve as an informal introduction to our staff members.

We would like to take this opportunity to thank you in advance for your cooperation, and I am certain that the information we can gather will be most helpful to us as teachers and to our students as well.

Sincerely,

Robert P. Sorensen

Robert P. Sorensen, Ph.D.
District Director

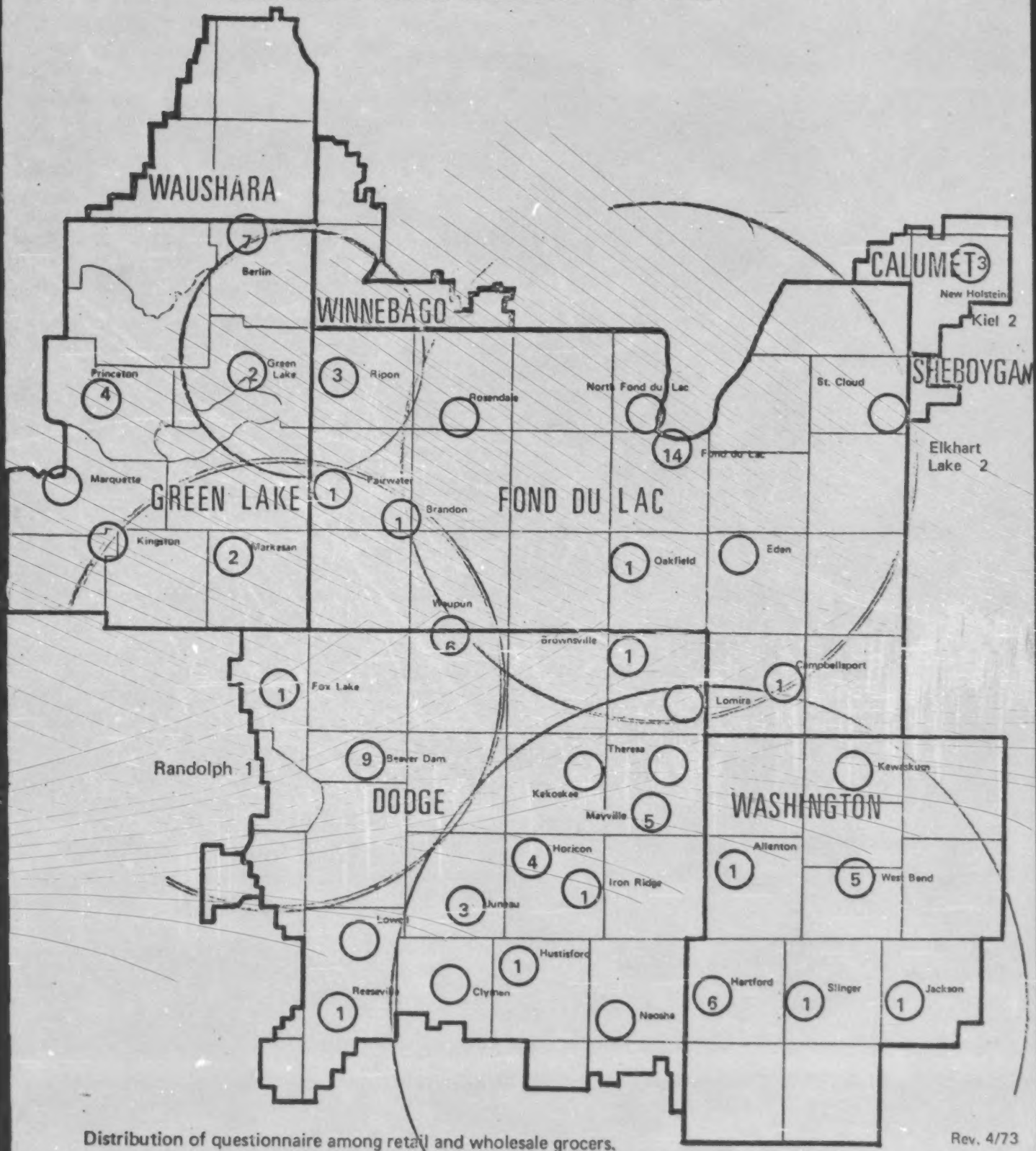
RPS:HPK:mw

12

Moraine Park Vocational, Technical and Adult Education District
Robert P. Sorensen, Ph. D.
District Director

MORAINE PARK VOCATIONAL, TECHNICAL AND ADULT EDUCATION DISTRICT

A DIVISION OF MORAINE PARK DISTRICT FOR SURVEY



Distribution of questionnaire among retail and wholesale grocers.

Rev. 4/73

CONTRIBUTING INFORMATION TO DEVELOP CROSS SECTION
OF BUSINESS AND INDUSTRY FOR INTERVIEWING

PLACEMENT OF GRADUATES
1973 and 1974

FOND DU LAC

ACCOUNTING

C. R. Hagedorn, CPA
Kiekhaefer Aeromarine Motors
Combined Insurance
Ralston Purina Co.
Tractor Supply Company
Giddings and Lewis
J. C. Penney Co.
Grossman Lumber Co.
King Brothers Machine Co.
Fond du Lac Clinic
Wisconsin Dept. of Taxation
Jet Stream Car Wash

ACCOUNT CLERK

Steenberg Mobil Homes

AGRICULTURAL MECHANIC

Calif. Canners & Growers

AUTO BODY

North Main Auto Body Shop

AUTO MECHANICS

Sterling Custom Homes
Mercury Marine (3)
Terry Blazer (Service Station)
J. C. Penney Co. (3)
Annen Brake Service
Gordon's Mobil
Olson's Service
R.P.M., Inc.
Gibson Chevrolet
K.I.T. Garage
Chicago & Northwestern R.R.
(North Fond du Lac)

CLERK TYPIST

Giddings & Lewis (3)
Galloway-West
Tobin Tool & Die Co.
Hornung's Pro Golf Sales
Wisconsin Power & Light Co.
Fond du Lac County
Moraine Park Technical Institute

DATA PROCESSING

Larry Wachs
Associated Physicians
A. C. Nielsen Co.
First Federal Savings & Loan Co.

ELECTRONIC SERVICING

Fred Christ TV (North Fond du Lac) (2)
Mercury Marine
Giddings & Lewis Machine Tool Co. (2)
Hansen Refrigeration Machinery Co.

FOOD MANUFACTURING

Fond du Lac Health Department

MACHINE TOOL OPERATION

Damrow Co.
Mercury Marine (2)
Wells Manufacturing Co.
Giddings & Lewis (3)

MANUFACTURING TECHNOLOGY & MANAGEMENT

Giddings & Lewis Machine Tool Co. (2)
Mercury Marine (3)

MARKETING

Holiday Olds, Inc. (2)
Fond du Lac Reporter (2)
Edith's
Firestone Co.
Condon Oil Co.
The Sport Shop
Copp's Dept. Store
Hornung's Pro Golf Sales
Laux Studio
Mercury Marine
Musicland
J. C. Penney Co.
Tru-Valu Hardware
H. C. Prange Co.
Tempo Department Store
A & P Food Store

PLACEMENT OF GRADUATES
1973 and 1974

FOND DU LAC

MECHANICAL DESIGN

Mercury Marine (3)
Giddings & Lewis Machine Tool Co.

MECHANICAL DRAFTING

Damrow's

OPERATING ROOM ASSISTANT

St. Agnes Hospital

POWER MECHANICS

Mercury Marine
Modern Motors

PRACTICAL NURSING

Fond du Lac Mental Health Center
St. Agnes Hospital (36)
Rolling Meadows
Care Center East (7)
Dr. D. A. Smith
Lutheran Home (2)
Maple Manor Nursing Home
Dr. D. K. Shahrokh
Dr. H. J. McLane

PRE-SERVICE NURSING ASSISTANT

St. Agnes Hospital (15)
Sears Roebuck & Co.
Maple Manor Nursing Home
Care Center

SECRETARIAL SCIENCE

T. E. Ahern, Inc.
Mercury Marine
Giddings & Lewis (3)
Thomas Petri, Attorney
Co-ord., Ltd.
Specialty Office Machines (2)
Moraine Park District Office
St. Agnes Hospital
C. Hagedorn, CPA
Tobin Tool & Die

SMALL ENGINE-CHASSIS MECHANIC

E. M. Walgenbach
D. J. Lavey
Mercury Marine (2)

WARD CLERK

St. Agnes Hospital (6)
Lutheran Home
Care Center Nursing Home
Wiley-Smith Clinic

WELDING

Vulcan Mfg. Co.
Jacob Brenner Co.

PLACEMENT OF GRADUATES

1973 and 1974

RIPON

ACCOUNTING

Jahnke & Schultz Trucking Service
Bloedels Inc.
M & I Ripon Bank

AUTO MECHANICS

B & B Auto Service
Laurie's Standard Service
Colonial Ford

CLERK TYPIST

Speed Queen
M & I Ripon State Bank

ELECTRONIC SERVICING

.ber Radio & T.V.

MECHANICAL DESIGN

Speed Queen

PRACTICAL NURSING

Parkview Nursing Home (3)
Ripon Hospital
Ripon College

PRE-SERVICE NURSING ASSISTANT

Parkview Nursing Home

SECRETARIAL SCIENCE

Ripon Savings & Loan
Ripon Hospital

- - - - - - - - - - - - - - - - - - - -

HARTFORD

ACCOUNTING

Chrysler Outboard Marine (4)

AGRICULTURAL MECHANIC

Hartford Implement Co.

AUTO BODY

Central Chevrolet-Olds

AUTO MECHANICS

rtford Auto Parts

CLERK TYPIST

CDM Tool & Mfg. Co.

ELECTRONIC SERVICING

Rich's TV (Part-time)

MACHINE TOOL OPERATION

Curt Witte

MECHANICAL DRAFTING

Chrysler Outboard
Wacker Corporation

METAL FABRICATION

Chrysler Corp.

PRACTICAL NURSING

Hartford Memorial Hospital

PLACEMENT OF GRADUATES
1973 and 1974

WAUPUN

ACCOUNTING

Waupun School District
Stoffel Drug Store

AGRICULTURAL MECHANIC

Maly Implement Co. (John Deere)

CLERK TYPIST

Wisconsin State Prison
National Rivet & Mfg. Co. (2)

DATA PROCESSING

Central State Hospital

OPERATING ROOM ASSISTANT

Waupun Memorial Hospital (3)

PRACTICAL NURSING

Waupun Memorial Hospital (4)

PRE-SERVICE NURSING ASSISTANT

Waupun Memorial Hospital

- - - - - - - - - - - - - - -

PRINCETON

ACCOUNTING

J. F. Weinke Sons

AUTO MECHANICS

Gilbert Dreger

- - - - - - - - - - - - - - -

KOHLER

ACCOUNTING

Kohler Co.

SECRETARIAL SCIENCE

Kohler Co. (2)

ACCOUNT CLERK

Kohler Credit Union

- - - - - - - - - - - - - - -

HUSTISFORD

AGRICULTURAL MECHANIC

Strassburg Bros., Implement Co.

PLACEMENT OF GRADUATES
1973 and 1974

KIEL

ACCOUNTING

Household Utilities

CAMBRIA

AGRICULTURAL MECHANIC

Fall River Canning Co.
Donald Hendrickson

ELECTRONIC SERVICING

David Williams

RANDOLPH

AGRICULTURAL MECHANIC

Devries Prairie Farm Store

PRACTICAL NURSING

Continental Manor

PRE-SERVICE NURSING ASSISTANT

Continental Manor

WATERLOO

AGRICULTURAL MECHANIC

Conrad Hansen

BEAVER DAM

AGRICULTURAL MECHANIC

Henry Meis (2)

AUTO BODY

Herb Lidtke

AUTO MECHANICS

Don Hewitt
Banes Auto Body

CLERK TYPIST

School District No. 1

DATA PROCESSING

Beaver Dam Community Hospital (2)

FOOD MANUFACTURING

Green Giant Canning Co.

METAL FABRICATION

Metal Fab.

POWER MECHANICS

Spangler Sales, Inc.

PRACTICAL NURSING

Beaver Dam Community Hospital (3)

PRE-SERVICE NURSING ASSISTANT

Beaver Dam Community Hospital (6)
Hillside Unit (2)
Family Heritage Home
Lakeview Nursing Home

PLACEMENT OF GRADUATES
1973 and 1974

WATERTOWN

AUTO BODY

Horonite Pontiac-Cadillac-Buick

AUTO MECHANICS

Miller Auto Parts

MENOMONEE FALLS

AUTO BODY

David Lembke

SMALL ENGINE-CHASSIS MECHANIC

Systems, Inc.

WARD CLERK

Community Memorial Hospital

MAYVILLE

AUTO BODY

Mayville Metal Products
Oskophf Ford

ELECTRONIC SERVICING

Pieper TV Sales & Service
Bauer's TV

MECHANICAL DESIGN

Maysteel Products (2)

PRE-SERVICE NURSING ASSISTANT

Wilford Vining

WEST BEND

AUTO BODY

Ted Lauck Chevrolet

AUTO MECHANICS

Sud's Volkswagen

CLERK TYPIST

West Bend Company
McGraw-Edison
West Bend Marine Bank
B. C. Ziegler Co.

DATA PROCESSING

West Bend Co.
West Bend Mutual Insurance Co.

ELECTRONIC SERVICING

Len Carroll TV
Exclusive Co.

MACHINE TOOL OPERATION

Weasler Engineering

MACHINE TOOLING TECHNICS

Arm Tool & Metal Products

MARKETING

West Bend Co.

MECHANICAL DESIGN

Pick Automotive Corp.

(West Bend cont'd.)

PLACEMENT OF GRADUATES

1973 and 1974

WEST BEND (cont'd.)

MECHANICAL DRAFTING

West Bend Co.

MERCHANDISING

West Bend Co. (2)
Schultz Bros.
Tennies Buick

PRACTICAL NURSING

St. Joseph's Community Hospital
Samaritan Home & Hospital (4)

PRE-SERVICE NURSING ASSISTANT

St. Joseph's Community Hospital (2)

SECRETARIAL SCIENCE

Frankow & Grundahl Clinic
West Bend Co.

WELDING

West Bend Equipment

MARKESAN

AUTO MECHANICS

Fall River Canning Co.

CLERK TYPIST

Fall River Canning Co.

PRACTICAL NURSING

Riverdale Manor

PRE-SERVICE NURSING ASSISTANT

Riverdale Manor

ST. CLOUD

AUTO MECHANICS

Feldner Chevrolet

THERESA

AUTO MECHANICS

Gordon's Auto Repair

MONTELLO

AUTO MECHANICS

Fox River Coop.

SMALL ENGINE-CHASSIS MECHANIC

Midland Coop.

LOMIRA

AUTO MECHANICS

Ron Luedtke Trucking

MARKETING

Kindt Corp.

PRE-SERVICE NURSING ASSISTANT

Calif. Canners & Growers

PLACEMENT OF GRADUATES
1973 and 1974

HORICON

AUTO MECHANICS

Pahl's Service

SMALL ENGINE-CHASSIS MECHANIC

John Deere

METAL FABRICATION

John Deere
Gardner Mfg. Co.

WAUKESHA

FOOD MANUFACTURING

Fhoors of Waukesha

POWER MECHANICS

Waukesha Motors

PRACTICAL NURSING

Waukesha County Hospital

FOX LAKE

FOOD MANUFACTURING

Green Giant Canning Co.

OAKFIELD

FOOD MANUFACTURING

Mammoth Springs Canning Co.

IRON RIDGE

MACHINE TOOL OPERATION

X-Cell Tool & Die (2)

BERLIN

MECHANICAL DESIGN

Berlin Chapman (2)

PRE-SERVICE NURSING ASSISTANT

Berlin Memorial Hospital (2)

SMALL ENGINE-CHASSIS MECHANIC

Berlin Chapman Co.

PLACEMENT OF GRADUATES
1973 and 1974

CEDARBURG

MECHANICAL DESIGN

Doerr Electric

MECHANICAL DRAFTING

Scott Pump Co.

STENOGRAPHY

Levi & Levi
Echo. Communications

KEWASKUM

MECHANICAL DESIGN

Regal Ware

STENOGRAPHY

Valley Bank

JUNEAU

MECHANICAL DRAFTING

Ratcliff Industries

PRE-SERVICE NURSING ASSISTANT

Dodge County Mental Health Center

OSHKOSH

OPERATING ROOM ASSISTANT

Mercy Medical Center (4)

PRACTICAL NURSING

Mercy Medical Center (2)

PRE-SERVICE NURSING ASSISTANT

Mercy Medical Center (4)

WARD CLERK

Mercy Medical Center

WAUTOMA

PRACTICAL NURSING

Memorial Community Hospital (2)

SLINGER

PRACTICAL NURSING

Mrs. Joe Lidington

WINNEBAGO

PRACTICAL NURSING

Park View Health Center

PLACEMENT OF GRADUATES
1973 and 1974

COLUMBUS

PRE-SERVICE NURSING ASSISTANT

Columbus Community Hospital (2)
R. C. Diancin, MD.

NEENAH

SMALL ENGINE-CHASSIS MECHANIC

Case Power Village

CAMPBELLSPORT

SMALL ENGINE-CHASSIS MECHANIC

Wm. Smith

ELDORADO

SMALL ENGINE-CHASSIS MECHANIC

Andrew Small Engine & Auto Mechanic
(self-employed)

NEW HOLSTEIN

MECHANICAL DESIGN

Arps Corporation
M.B. Company

POWER MECHANICS

Tecumseh Products Co. (5)

INDUSTRY AND BUSINESS IN DISTRICT

ACCORDING TO LOCATION

FOND DU LAC

A & P Food Store
Ahern, T. E., Inc.
Annen Brake Service
Associated Physicians
Blazer, Terry (Service Station)
Brenner, Jacob, Co.
California Canners & Growers
Care Center East
Chicago & Northwestern R.R. (NFDL)
Christ, Fred, TV (NFDL)
Combined Insurance
Condon Oil Co.
Co-ord, Ltd.
Copp's Department Store
Damrow Co.
Edith's
Firestone Co.
First Federal Savings & Loan Co.
Fond du Lac Clinic
Fond du Lac County
Fond du Lac Health Dept.
Fond du Lac Mental Health Center
Fond du Lac Reporter
Galloway-West
Gibson Chevrolet
Giddings & Lewis
Gordon's Mobil
Grossman Lumber Co.
Hagedorn, C. R. (CPA)
Hansen Refrigeration Machinery Co.
Holiday Olds, Inc.
Hornung's Pro Golf Sales
K.I.T. Garage
Kiekhaefer Aeromarine Motors
King Bros. Machine Co.
Laux Studio
Lutheran Home
Maple Manor Nursing Home
McLane, Dr. H. J.
Mercury Motors
Modern Motors
Nielsen, A. C., Co.
North Main Auto Body Shop
Olson's Service
Penney, J. C., Co.
Prange, H. C., Co.
R.P.M., Inc.
Ralston-Purina Co.
Rolling Meadows
Sears Roebuck & Co.
Shahrokh, Dr. D. K.
Smith, Dr. D. A.
Specialty Office Machines
Sport Shop, The
Steenberg Mobil Homes
Sterling Custom Homes
Tempo Department Store
Tobin Tool & Die Co.
Tractor Supply Co.
Tru-Valu Hardware
Vulcan Mfg. Co.
Walgenbach, E. M.
Wells Manufacturing Co.
Wiley-Smith Clinic
Wisconsin Power & Light Co.

RIPON

B & B Auto Service
Bloedels, Inc.
Colonial Ford
Jahnke & Schultz Trucking Service
M & I Ripon State Bank
Parkview Nursing Home
Ripon Savings & Loan
Speed Queen

HARTFORD

CDM Tool & Mfg. Co.
Central Chevrolet-Olds
Chrysler Outboard Marine
Hartford Auto Parts
Hartford Implement Co.

WAUPUN

Maly Implement Co.
National Rivet & Mfg. Co.
Stoffel Drug Store
Waupun School District

PRINCETON

Weinke, J. F., Sons

HUSTISFORD

Strassburg Bros. Implement Co.

BEAVER DAM

Banes Auto Body
Family Heritage Home
Lidtke, Herb
Metal Fab.
Spangler Sales, Inc.
Monarch Range

MAYVILLE

Bauer's TV
Maysteel Products
Mayville Metal Products

WEST BEND

Arm Tool & Metal Products
Carroll, Len, TV
Frankow & Grundahl Clinic
Lauck, Ted, Chevrolet
McGraw-Edison
Pick Automotive Corp.
Samaritan Home & Hospital
Sud's Volkswagen
Tennies Buick
Weasler Engineering
West Bend Co.
West Bend Equipment
West Bend Marine Bank
West Bend Mutual Insurance Co.
Ziegler, B. C., Co.

MARKESAN

Fall River Canning Co.
Riverdale Manor

ST. CLOUD

Feldner Chevrolet

LOMIRA

California Canners & Growers
Kindt Corp.

HORICON

John Deere
Gardner Mfg. Co.
Pahl's Service

FOX LAKE

Green Giant Company

OAKFIELD

Mammoth Springs Canning Co.

BERLIN

Berlin Chapman Co.

KEWASKUM

Regal Ware

JUNEAU

Ratcliff Industries

CAMPBELLSPORT

Smith, William

NEW HOLSTEIN

Arps Corp.
M-B Co.
Tecumseh Products Co.

PLACEMENT OF GRADUATES
1973 and 1974

ACCOUNTING

C. R. Hagedorn, CPA, Fond du Lac
Jahnke & Schultz Trucking Service, Ripon
Kiekhaefer Aeromarine Motors, Fond du Lac
Grand Army Home, King
Chrysler Outboard Marine, Hartford (4)
Blackburn, Nickels & Smith, Minneapolis
S. C. Shannon Co., Appleton
Combined Insurance, Fond du Lac
J. F. Weinke Sons, Princeton
Bloedels Inc., Ripon
Kohler Co., Kohler
Ralston Purina Co., Fond du Lac
Household Utilities, Kiel
Tractor Supply Company, Fond du Lac
Waupun School District, Waupun
Giddings and Lewis, Fond du Lac
J. C. Penney Co., Fond du Lac
Grossman Lumber Co., Fond du Lac
King Brothers Machine Co., Fond du Lac
M & I Ripon Bank, Ripon
Stoffel Drug Store, Waupun
Fond du Lac Clinic, Fond du Lac
Wisconsin Dept. of Taxation, Fond du Lac
Jet Stream Car Wash, Fond du Lac

ACCOUNT CLERK

Steenberg Mobil Homes, Fond du Lac
Kohler Credit Union, Kohler

AGRICULTURAL MECHANIC

Fall River Canning Co., Cambria
Calif. Canners & Growers, Fond du Lac
Devries Prairie Farm Store, Randolph
Lake Mills Implement Co., Lake Mills
Maly Implement Co. (John Deere), Waupun
Strassburg Bros. Implement Co., Hustisford
Baribeau Implement Co., Rice Lake
Conrad Hansen, Waterloo
Hartford Implement Co., Hartford
Henry Meis, Beaver Dam (2)
Donald Hendrickson, Cambria
Cherokee Garage, Inc., Colby

AUTO BODY

Horonite Pontiac-Cadillac-Buick, Watertown
David Lembke, Menomonee Falls
Herb Lidtke, Beaver Dam
J & H Auto Sales, Milwaukee
Humphrey Chevrolet, Milwaukee
Foreway Motors, Inc., Antigo
Mayville Metal Products, Mayville
North Main Auto Body Shop, Fond du Lac
Central Chevrolet-Olds, Hartford
Roskophf Ford, Mayville
Mr. Cos Auto Body, Milwaukee
Ted Lauck Chevrolet, West Bend
Ruby Chevrolet, Milwaukee
Body Shop, Honolulu, HI

AUTO MECHANICS

Sterling Custom Homes, Fond du Lac
B & B Auto Service, Ripon
Fall River Canning Co., Markesan
Laurie's Standard Service, Ripon
Gilbert Dreger, Princeton
Don Hewitt, Beaver Dam
Gordon's Auto Repair, Theresa
Fox River Coop, Montello
Mercury Marine, Fond du Lac (3)
Banes Auto Body, Beaver Dam
Colonial Ford, Ripon
Bill Wopat, Pardeeville
Terry Blazer (Service Station), Fond du Lac
J. C. Penney Co., Fond du Lac (3)
Feldner Chevrolet, St. Cloud
Annen Brake Service, Fond du Lac
Schwartzberg Chevrolet, Milwaukee
Ron Luedtke Trucking, Lomira
Gordon's Mobil, Fond du Lac
Olson's Service, Fond du Lac
Pahl's Service, Horicon
R.P.M., Inc., Fond du Lac
Gibson Chevrolet, Fond du Lac
Miller Auto Parts, Watertown
Sud's Volkswagen, West Bend
Hartford Auto Parts, Hartford
K.I.T. Garage, Fond du Lac
Gardner Dry Walling Co., Denver
Chicago & Northwestern Railroad, N. Fond du Lac

CLERK TYPIST

School District No. 1, Beaver Dam
Giddings & Lewis, Fond du Lac (3)
West Bend Company, West Bend
Galloway-West, Fond du Lac
CDM Tool & Mfg. Co., Hartford
Tobin Tool & Die Co., Fond du Lac
Fall River Canning Co., Markesan
Speed Queen, Ripon
Hornung's Pro Golf Sales, Fond du Lac
M & I Ripon State Bank, Ripon
Wisconsin State Prison, Waupun
Wisconsin Power & Light Co., Fond du Lac
McGraw-Edison, West Bend
National Rivet & Mfg. Co., Waupun (2)
Fond du Lac County, Fond du Lac
West Bend Marine Bank, West Bend
B. C. Ziegler Co., West Bend
Diamond Transport, Racine
Minnesota Mfg. & Mining, St. Paul, MN
Moraine Park Technical Institute, Fond du Lac

DATA PROCESSING

Beaver Dam Community Hospital, Beaver Dam (2)
Larry Wachs, Fond du Lac
West Bend Co., West Bend
Associated Physicians, Fond du Lac
A. C. Nielsen Co., Fond du Lac
First Federal Savings & Loan Co., Fond du Lac
Central State Hospital, Waupun
West Bend Mutual Insurance Co., West Bend

ELECTRONIC SERVICING

Fred Christ TV, North Fond du Lac (2)
David Williams, Cambria
Remington Rand, Chicago
Mercury Marine, Fond du Lac
Len Carroll TV, West Bend
Exclusive Co., West Bend
Pieper TV Sales & Service, Mayville
Rich's TV (Part-time), Hartford
Bauer's TV, Mayville
Remington Rand, Milwaukee
Giddings & Lewis Machine Tool Co., Fond du Lac (2)
Jaber Radio & T.V., Ripon
Hansen Refrigeration Machinery Co., Fond du Lac

FOOD MANUFACTURING

The Larsen Company, Green Bay
Friday Canning Co., New Richmond
Fond du Lac Health Dept., Fond du Lac
Fhoors of Waukesha, Waukesha
Economics Laboratories, Inc., St. Paul, MN
Ackley Food Products, Ackley, IA
Green Giant Canning Co., Fox Lake
Mammoth Springs Canning Co., Oakfield
Green Giant Canning Co., Beaver Dam
Alpenrose Dairy, Cottage Grove
Verifine Dairy Co., Sheboygan

MACHINE TOOL OPERATION

X-Cell Tool & Die, Iron Ridge (2)
Weasler Engineering, West Bend
Curt Witte, Hartford
Damrow Co., Fond du Lac
Mercury Marine, Fond du Lac (2)
Wells Manufacturing Co., Fond du Lac
Giddings & Lewis, Fond du Lac (3)
General Electric Co., Milwaukee
Power Products, Grafton

MACHINE TOOLING TECHNICS

Kenro Corp., Fredonia
Arm Tool & Metal Products, West Bend

MANUFACTURING TECHNOLOGY AND MANAGEMENT

Giddings & Lewis Machine Tool Co., Fond du Lac (2)
Mercury Marine, Fond du Lac (3)
Marinette Marine Corp., Marinette

MARKETING

Hughes & Hatcher, Madison
Holiday Olds, Inc., Fond du Lac (2)
Fond du Lac Reporter, Fond du Lac (2)
J. C. Penney Co., Milwaukee
Edith's, Fond du Lac
Firestone Co., Fond du Lac
Condon Oil Co., Fond du Lac
Kindt Corp., Lomira
The Sport Shop, Fond du Lac
Denmark Cooperative, Denmark
Copp's Dept. Store, Fond du Lac

(cont'd.)

MARKETING (cont'd.)

Hornung's Pro Golf Sales, Fond du Lac
Laux Studio, Fond du Lac
Mercury Marine, Fond du Lac
Musicland, Fond du Lac
Copp's Dept. Store, Green Bay
J. C. Penney Co., Fond du Lac
Tru-Valu Hardware, Fond du Lac
H. C. Prange Co., Fond du Lac
Tempo Department Store, Fond du Lac
A & P Food Store, Fond du Lac
West Bend Co., West Bend

MECHANICAL DESIGN

Berlin Chapman, Berlin (2)
Pick Automotive Corp., West Bend
Mercury Marine, Fond du Lac (3)
Doerr Electric, Cedarburg
Maysteel Products, Mayville (2)
Regal Ware, Kewaskum
Giddings & Lewis Machine Tool Co., Fond du Lac
Arps Corporation, New Holstein
M.B. Company, New Holstein
Speed Queen, Ripon
Beloit, Corporation

MECHANICAL DRAFTING

Ratcliff Industries, Juneau
Damrow's, Fond du Lac
West Bend Co., West Bend
Chrysler Outboard, Hartford
Leeson Electric Corp., Grafton
Scott Pump Co., Cedarburg
Bohlens Division, FMC Machinery, Port Washington
Wacker Corporation, Hartford

MERCHANDISING

West Bend Co., West Bend (2)
Schultz Bros., West Bend
Tennies Buick, West Bend

METAL FABRICATION

Chrysler Corp., Hartford
Metal Fab., Beaver Dam
Mining Equipment Mfg. Co., Racine
John Deere, Horicon
General Electric, Milwaukee
Gardner Mfg. Co., Horicon

OPERATING ROOM ASSISTANT

Calumet Memorial Hospital, Chilton (2)
St. Agnes Hospital, Fond du Lac
Appleton Memorial Hospital, Appleton
Swedish American Hospital, Rockford, Ill.
Waupun Memorial Hospital, Waupun (3)
St. Elizabeth, Appleton (4)
Mercy Medical Center, Oshkosh (4)
Good Samaritan Hospital, Phoenix, Arizona (2)

POWER MECHANICS

Mercury Marine, Fond du Lac
Tecumseh Products Co., New Holstein (5)
Evinrude Motors, Milwaukee (2)
A & E Equipment, Madison
Spangler Sales, Inc., Beaver Dam
Modern Motors, Fond du Lac
Waukesha Motors, Waukesha

PRACTICAL NURSING

Fond du Lac Mental Health Center, Fond du Lac
University Hospitals, Madison
St. Joseph's Community Hospital, West Bend
Grand Army Home, King (2)
St. Agnes Hospital, Fond du Lac (36)
Green Memorial Hospital, Zinia, Ohio
Hartford Memorial Hospital, Hartford
Villa Manor Nursing Home, Lakewood, Colorado
Rolling Meadows, Fond du Lac
Riverdale Manor, Markesan
Memorial Community Hospital, Wautoma (2)
St. Joseph's Hospital, Mankato, MN (2)
Care Center East, Fond du Lac (7)
Appleton Memorial Hospital, Appleton
Beaver Dam Community Hospital, Beaver Dam (3)
Mercy Medical Center, Oshkosh(2)
Veterans Hospital, Wood (2)
Mrs. Joe Lidington, Slinger
Waupun Memorial Hospital, Waupun (4)

(cont'd.)

PRACTICAL NURSING (cont'd.)

Osseo Area Hospital, Osseo
Dr. D. A. Smith, Fond du Lac
Chippewa Manor Nursing Home, Chippewa Falls
Fort Atkinson Memorial Hospital, Fort Atkinson
Lutheran Home, Fond du Lac (2)
Continental Manor, Randolph
Maple Manor Nursing Home, Fond du Lac
St. Vincent's Hospital, Green Bay (2)
Waukesha County Hospital, Waukesha
Parkview Nursing Home, Ripon (2)
Dodge County Mental Health Center, Juneau (2)
Dr. D. K. Shahrokh, Fond du Lac
Samaritan Home & Hospital, West Bend (4)
Bellin Memorial Hospital, Green Bay
St. Nicholas Hospital, Sheboygan
St. Clare Hospital, Monroe
Park View Health Center, Winnebago
Ripon Hospital, Ripon
Providence Hospital, Columbia, SC
Beechwood Medicenter, Flint, MI
Parkview Nursing Home, Ripon
Ripon College, Ripon
Dr. H. J. McLane, Fond du Lac
Rocky Knoll Health Care Center, Plymouth

PRE-SERVICE NURSING ASSISTANT

Parkview Nursing Home, Ripon
St. Agnes Hospital, Fond du Lac (15)
Beaver Dam Community Hospital, Beaver Dam (6)
Sears Roebuck & Co., Fond du Lac
Hillside Unit, Beaver Dam (2)
R. C. Diancin, MD., Columbus
Riverside Memorial Hospital, Waupaca
Family Heritage Home, Beaver Dam
Mercy Medical Center, Oshkosh (4)
St. Joseph's Community Hospital, West Bend (2)
Maple Manor Nursing Home, Fond du Lac
Berlin Memorial Hospital, Berlin (2)
Columbus Community Hospital, Columbus (2)
California Canners & Growers, Lomira
Continental Manor, Randolph
Waupun Memorial Hospital, Waupun
Dodge County Mental Health Center, Juneau
Lakeview Nursing Home, Beaver Dam
VW Hospital, Madison
Riverdale Manor, Markesan
Care Center, Fond du Lac
Wilford Vining, Mayville

SECRETARIAL SCIENCE

T. E. Ahern, Inc., Fond du Lac
Mercury Marine, Fond du Lac
Giddings & Lewis, Fond du Lac (3)
Thomas Petri, Attorney, Fond du Lac
Kohler Co., Kohler, WI (2)
Co-ord., Ltd., Fond du Lac
Specialty Office Machines, Fond du Lac (2)
Frankow & Grundahl Clinic, West Bend
West Bend Co., West Bend
Moraine Park District Office, Fond du Lac
St. Agnes Hospital, Fond du Lac
Ripon Savings & Loan, Ripon
C. Hagedorn, CPA, Fond du Lac
Ripon Hospital, Ripon
Tobin Tool & Die, Fond du Lac

SMALL ENGINE-CHASSIS MECHANIC

Case Power Village, Neenah
John Deere, Horicon
Wm. Smith, Campbellsport
Schreiter Auto Parts, Appleton
E. M. Walgenbach, Fond du Lac
Andrew Small Engine & Auto Mechanic
(self-employed), Eldorado
Systems, Inc., Menomonee Falls
Brillion Iron Works, Brillion
Midland Coop, Montello
D. J. Lavey, Fond du Lac
Mercury Marine, Fond du Lac (2)
Badgley Leisure Center, Waupaca
Berlin Chapman Co., Berlin

STENOGRAPHY

Allis Chalmers Mfg. Co., Milwaukee
Levi & Levi, Cedarburg
Echo Communications, Cedarburg
Valley Bank, Kewaskum

WARD CLERK

Community Memorial Hospital, Menomonee Falls
St. Agnes Hospital, Fond du Lac (6)
Unicare Health Service, Milwaukee
Lutheran Home, Fond du Lac
Care Center Nursing Home, Fond du Lac
Wiley-Smith Clinic, Fond du Lac
Mercy Medical Center, Oshkosh

WELDING

Vulcan Mfg. Co., Fond du Lac
Ling Electronics, Anaheim, CA
West Bend Equipment, West Bend
Jacob Brenner Co., Fond du Lac
Drott Mfg. Co., Wausau
One self-employed

SURVEY INSTRUMENT

DATA SHEET

PROGRAM IDENTIFICATION

Less than one year vocational:
- Farm Training Program _____
- Production Welding _____
- Roadside Marketing _____
- Ward Clerk _____
- Welding _____

One year vocational:
- Account Clerk _____
- Appliance Servicing _____
- Auto Body _____
- Clerk-Typist _____
- Cosmetology _____
- Data Processing Machine Operation _____
- Electronic Servicing _____
- Food Service Assistant _____
- Machine Tool Operation _____
- Mechanical Drafting _____
- Metal Fabrication _____
- Office Machine Repair _____
- Operating Room Assistant _____
- Practical Nursing _____
- Small Engine and Chassis Repair _____

Two year vocational:
- Agriculture Mechanics _____
- Auto Mechanics _____
- Machine Tooling Technics _____
- Production Agriculture _____

Associate Degree:
- Accounting _____
- Engine Technology _____
- Food Manufacturing-Canning & Freezing _____
- Food Manufacturing-Dairy _____
- Industrial Engineering Technician _____
- Marketing _____
- Marketing-Fashion Merchandising _____
- Marketing-Industrial _____
- Mechanical Design _____
- Medical Record Technician _____
- Secretarial Science _____
- Secretarial Science-Medical _____
- Supermarket Management _____

Apprentice:

INTERVIEWER _____

FIRM _____

LOCATION _____

PRODUCT OR SERVICE _____

NUMBER OF EMPLOYEES _____

INTERVIEWEE (optional) _____

POSITION _____

JOB REFERENCE _____

LENGTH OF EMPLOYMENT _____

ATTENDED MPTI _____ SUPERVISOR _____

EMPLOYEE _____

COMMUNICATION

Please rate the degree of knowledge that you feel is necessary in each of the 18 areas listed below. (Please check)

Circle the 5 most important numbered areas.	Knowledge is Essential	Some Related Knowledge Advisable	No Knowledge Necessary
1. READING A. For comprehension B. For speed C. Remedial	( )	( )	( )
2. SPELLING Skill improvement	( )	( )	( )
3. VOCABULARY A. General vocabulary B. Technical vocabulary	( )	( )	( )
4. LISTENING A. Note-taking (lecture) B. Informal C. On-the-job D. Critical listening	( )	( )	( )
5. STUDY SKILLS A. Scheduling of time B. Efficient use of printed material (texts, manuals, etc.) C. Use of reference and library materials	( )	( )	( )
6. RESEARCH SKILLS A. Organization of written reports B. Documenting information C. Handling prime (raw) data D. Conducting experiments	( )	( )	( )
7. BUSINESS LETTER WRITING A. Basic letter format B. Common letters (requests, inquiries, complaints)	( )	( )	( )
8. ADVANCED BUSINESS LETTER WRITING A. Advertising letters B. Collection letters C. Bid letters D. Complaint responses E. Letters of recommendation F. Other _____ _____ _____	( )	( )	( )

	Knowledge is Essential	Some Related Knowledge Advisable	No Knowledge Necessary
9. JOB APPLICATION PROCEDURES A. Completing job application form B. Letters of inquiry C. Letters of application D. Resumes E. Interviewing techniques	( )	( )	( )
10. SHORT REPORT WRITING A. Memorandums B. Progress reports C. Simple directions or instructions D. Descriptions E. Illustrations through graphs F. Catalogue and manual descriptions G. News releases H. Advertisements I. Job descriptions J. Employee evaluations K. Designing brochures L. Summaries M. Conference reports N. Field service reports O. Other (please specify) _____ _____	( )	( )	( )
11. ORAL REPORTING A. Organization of an oral presentation B. Group persuasion C. Use of visual aids D. Oral interpretation E. Giving oral instructions F. Argumentation G. Reading prepared data H. Public speaking	( )	( )	( )
12. NON-VERBAL COMMUNICATION Understanding facial expression, tone of voice, gestures, etc.	( )	( )	( )
13. TELEPHONE USAGE A. General courtesy: receiving and placing calls B. Taking and relaying messages C. Transferring, holding, conference calls, etc. D. Placing and receiving orders and complaints	( )	( )	( )

	Knowledge is Essential	Some Related Knowledge Advisable	No Knowledge Necessary
14. COMMITTEE, CONFERENCES, AND ASSEMBLY PROCEDURES A. Small group problem-solving B. Conducting a meeting	( )	( )	( )
15. TECHNICAL REPORT WRITING A. Formal report format B. Indepth research techniques C. Complex graphic illustration D. Completeness of content	( )	( )	( )
16. RADIO AND TELEVISION Understanding the use and impact of radio and TV in our society	( )	( )	( )
17. NEWSPAPER AND MAGAZINE A. Understanding use of printed materials B. Understanding and use of trade journals and pamphlets	( )	( )	( )
18. THEATER, FILM AND VIDEO DRAMA Critical interpretation of contemporary media	( )	( )	( )

Are there any other areas in Communication that you consider important and feel should be included in the curriculum?

Please rate the degree of knowledge that you feel is necessary in each of the eight areas listed below.

HUMAN RELATIONS AND ECONOMICS

Circle three of the eight areas which you feel are most important.	Knowledge is Essential	Some Related Knowledge Advisable	No Knowledge Necessary
1. ON-THE-JOB RELATIONSHIPS A. Working within groups B. Employee-employee working relationships C. Employer-employee working relationships D. Labor organizations E. Other (specify) _____	( )	( )	( )
2. INDUSTRIAL PSYCHOLOGY A. Organization and structure of management B. Work environment - effects of physical conditions C. Work aptitudes, attitudes, and interests D. Job satisfaction and enrichment E. Improving efficiency and employee morale F. Other (specify) _____	( )	( )	( )
3. LEARNING ON THE JOB A. Theories of learning applied to work (conditioning, reinforcement, etc.) B. Improvement of learning skills C. Memory aids D. Means of continuing education E. Differences in learning ability F. Other (specify) _____	( )	( )	( )
4. DEVELOPMENT OF THE HUMAN BEING A. Influences of heredity and environment B. Total personality development C. Childhood experiences D. Adolescent experiences E. Adult experiences F. Understanding motives and emotions	( )	( )	( )

	Knowledge is Essential	Some Related Knowledge Advisable	No Knowledge Necessary
5. MENTAL HEALTH A. Dealing effectively with problems, stress, frustration, etc. B. Problem-solving techniques C. Normal and abnormal behavior D. Types of mental illness E. Techniques of helping others with problems F. Professional treatment of mental illness G. Personality improvement	( )	( )	( )
6. RELATING TO OTHERS A. Family relationships B. Male-female relationships C. Forming good interpersonal relationships D. Interpersonal competition, aggression, hostility, etc.	( )	( )	( )
7. RELATING TO SELF A. Developing a realistic self image B. Clarifying personal values C. Setting realistic goals	( )	( )	( )
8. CONSUMER RELATIONS A. Effects of advertising B. Personal budgeting C. Personal income tax D. Insurance - life, health, auto E. Credit and banking F. Home purchase - rental G. Lease arrangements H. Automobile purchase I. Investment of money - stocks, bonds, property, etc.	( )	( )	( )

Are there any other areas in Human Relations or Economics that you consider important and feel should be included in the curriculum?

MATHEMATICS/SCIENCE

The following are topics in mathematics and science which may be used in your occupation. Check or answer appropriately the topics that are used in your particular job.

I. ARITHMETIC _____

A.

	WHOLE NUMBERS	FRACTIONS	DECIMALS
Addition			
Subtraction			
Multiplication			
Division			

B. English units of measurement _____
1. Inches and a fraction of an inch _____
2. Inches and a decimal of an inch _____
3. Feet and inches _____
4. Other linear units _____
5. Units of area _____
6. Units of volume _____
7. Units of weight _____

C. Metric units of measurement _____
1. Millimeters _____
2. Centimeters _____
3. Other linear units _____
4. Units of capacity (cubic cent., liters, etc.) _____
5. Units of weight (grams, etc.) _____

D. Percent _____
How used _____

E. Graphs _____
How used _____

F. Averages _____
How used _____

G. Square roots _____
How calculated _____

H. Cube roots _____
How calculated _____

Additional information: _____

_____

_____

_____

_____

II. APPLIED ALGEBRA _____

A. Equations and formulas _____
   1. Evaluation (plug in) _____
   2. Rearrangement _____
   3. Formulation (Make up your own) _____

B. Operations with positive and negative values _____

C. Operations with unknowns _____
   1. Addition of unknowns _____
   2. Subtraction of unknowns _____
   3. Multiplication of unknowns _____
   4. Division of unknowns _____
   5. Exponents _____
   6. Roots and radicals _____

D. Ratios _____

E. Proportion _____

Additional information _____

_____

_____

_____

_____

III. APPLIED GEOMETRY _____

A. Plane figures _____
   1. Triangles _____
   2. Four sided figures _____
   3. Hexagons _____
   4. Circles _____
   5. Other figures _____
   6. Area of plane figures _____
   7. Finding dimensions _____

B. Solid figures _____
   1. Rectangular solids _____
   2. Cylinders _____
   3. Cones _____
   4. Others _____
   5. Volumes of solids _____
   6. Surface area _____

C. Angles _____
   1. Method of measurement _____
   2. Accuracy (deg, min, sec) _____
   3. Addition of angles _____
   4. Subtraction of angles _____
   5. Multiplication of angles by a constant _____
   6. Division of angles by a constant _____
   7. Minutes and seconds converted to a fraction of a degree _____

8. Vertical angles _____
9. Complementary angles _____
10. Supplementary angles _____
11. Perpendicular lines _____
12. Parallel lines _____
13. Layout geometric shapes _____

Additional information _____

_____

_____

_____

_____

IV. APPLIED TRIGONOMETRY _____

A. Solving right triangles _____
1. Solving for a side when two sides are known _____
2. Solving for an angle when two sides are known _____
3. Solving for a side when one side and one angle are known _____

B. Solving other than right triangles _____

Additional information _____

_____

_____

_____

_____

V. CALCULATION TECHNIQUES _____

A. Long hand _____

B. Slide rule _____

C. Calculator _____

D. Machinery's Handbook _____

E. Charts _____

F. Other methods _____

Additional information _____

_____

_____

_____

_____

VI. BUSINESS MATHEMATICS _____

A. Payroll _____

B. Taxes _____

C. Interest _____
1. Simple _____
2. Compound _____
3. Interest on unpaid balances _____

D. Banking records _____

E. Cash discounts _____

F. Trade Discounts _____

G. Commissions _____

H. Markup, markdowns _____

I. Depreciation _____

J. Inventories and turnovers _____

K. Stocks and Bonds _____

L. Insurance _____

M. Annuities _____

N. Financial statements _____
1. Income statement analysis _____
2. Balance sheet analysis _____

O. Statistics _____

Additional information _____

_____

_____

_____

_____

VII. APPLIED SCIENCE _____

A. Properties of Matter
1. Solids _____
a. Density _____
b. Specific Gravity _____
c. Elasticity _____
d. Hardness _____
e. Shear _____
f. Malleability _____
g. Ductility _____

Additional information _____

_____

_____

2. Liquids _____
   a. Force _____
   b. Pressure _____
   c. Hydraulics _____
   d. Buoyancy _____
   e. Density _____
   f. Specific Gravity _____
   g. Additional information _____
   _____

3. Gases _____
   a. Lift Pumps _____
   b. Venturi _____
   c. Siphon _____
   d. Pressure Measurements _____
   e. How _____
   f. Additional information _____
   _____

B. Mechanics and Machines _____
   1. Units of Work (ft. lbs.) _____
   2. Energy
      a. Kinetic _____
      b. Potential _____
   3. Units of Power Used _____
   4. Horse Power Measurement _____
   5. Basic Machines
      a. Lever _____
      b. Inclined Plane _____
   6. Friction _____
   7. Pulley Systems _____
   8. Gear Trains _____
   9. Mechanical Advantage _____
   10. Additional information _____
   _____

C. Electricity _____
   1. Amperage _____
   2. Voltage _____
   3. Resistance _____
   4. Wattage _____
   5. Ohm's Law _____
   6. AC _____ DC _____
   7. Sources
      a. Distant Generator _____
      b. Local Generator _____
      c. Primary Cell _____
      d. Secondary Cell _____
      e. Other _____
   8. Transmission _____
   9. Electrical Devices
      a. Capacitor (condenser) _____
      b. Resistance _____
      c. Transformer _____
      d. Choke Coil _____
      e. Relay _____
      f. Solid State _____
      g. Other _____

10. Additional information _____

_____

_____

D. Heat _____

1. Temperature Measurement _____
2. Measurement devices used _____
3. Temperature Scale used _____
4. Heat Measurement _____
5. Measurement devices used _____
6. Units of heat measurement used _____
7. Heat transfer _____
8. Specific heat _____
9. Liquid Boiling Point _____
10. Liquid Freezing Point _____
11. Expansion and Contraction _____
12. Additional information _____

_____

_____

ANALYSIS OF DATA

The length of time an individual had been employed in a position was considered an important factor in selection of interviewees. (Care was also taken in selecting graduates from Moraine Park Technical Institute to include both supervisors and employees.)

Information was tabulated as being essential to course content, advisable or a possible elective. A descriptive paragraph was written to summarize findings as they related to the various subject areas--communications, human relations, mathematics and science. The summaries are included in this report.

Although the objectives of the project concentrated on vocational/diploma programs, data was collected for associate degree and less-than-one-year programs as well. This information has not been categorized or analyzed.

COMMUNICATION

HUMAN RELATIONS

One Year Vocational Programs

- Account Clerk
- Auto Body
- Clerk Typist
- Data Processing
- Electronic Servicing
- Food Service Assistant
- Machine Tool Operation
- Mechanical Drafting
- Metal Fabrication
- Office Machine Repair
- Operating Room Assistant
- Practical Nursing
- Small Engine and Chassis Repair

Two Year Vocational Programs

- Agricultural Mechanics
- Auto Mechanics
- Machine Tool Technicians

DETERMINATION OF COURSE CONTENT

COMMUNICATIONS

One-Year Vocational

		Account Clerk	Clerk Typist	Data Process.	Auto Body	Electronic Servicing	Machine Tool Op.	Mech. Drftg.
Reading	1	81.8	82.8	62.5	28.6	100.0	75.0	63.7
	2	0	17.2	37.5	42.8	0	25.0	18.2
	3	0	0	0	14.3	0	8.3	0
Spelling	1	72.7	69.0	50.0	42.8	36.7	16.7	45.4
	2	9.1	27.6	25.0	14.3	63.7	75.0	54.5
	3	0	0	25.0	28.6	0	8.3	0
Vocab-ulary	1	63.6	72.4	75.0	28.6	90.9	33.3	36.7
	2	18.2	27.6	25.0	42.8	9.0	66.7	36.1
	3	0	3.4	0	0	0	0	9.0
Listening	1	54.5	75.9	50.0	57.1	72.7	100.0	63.7
	2	18.2	20.7	50.0	28.6	27.2	0	27.3
	3	9.1	3.4	0	0	0	0	0
Study Skills	1	27.3	37.9	25.0	57.1	54.5	33.3	45.4
	2	45.5	44.8	50.0	0	45.4	66.7	36.7
	3	9.1	20.7	25.0	28.6	0	0	0
Research Skills	1	9.1	24.1	0	28.6	45.4	0	9.0
	2	36.4	37.9	75.0	14.3	27.3	25.0	72.7
	3	36.4	37.9	25.0	42.8	27.3	75.0	0
Business Letter Writing	1	0	65.5	50.0	14.3	9.0	16.7	0
	2	63.6	20.7	25.0	14.3	54.5	16.7	63.7
	3	18.2	13.8	25.0	57.1	36.7	66.7	18.2
Advanced Bus. Letter Writing	1	0	24.1	12.5	14.3	18.2	0	0
	2	27.3	27.6	37.5	42.8	36.7	16.7	18.2
	3	54.5	48.3	50.0	28.6	45.4	83.3	63.7
Job Applic. Proc.	1	45.5	62.1	75.0	42.8	63.7	0	18.2
	2	36.4	24.1	12.5	8.6	27.3	75.0	63.7
	3	0	13.8	12.5	0	9.0	25.0	0
Short Report Writing	1	18.2	34.5	37.5	0	45.4	8.3	9.1
	2	45.4	37.9	50.0	57.1	27.3	66.7	63.6
	3	18.2	31.0	12.5	28.5	27.3	8.3	9.1
Oral Reporting	1	9.0	20.7	37.5	28.6	45.5	25.0	36.4
	2	54.5	48.3	37.5	42.9	27.3	58.3	36.4
	3	18.2	31.0	25.0	14.3	27.3	16.7	27.3
Non-Verbal Comm.	1	18.2	55.2	50.0	28.6	18.2	16.7	9.1
	2	45.4	37.9	37.5	28.6	54.5	25.0	36.4
	3	18.2	6.9	12.5	28.6	27.3	58.3	45.5
Telephone Usage	1	45.4	69.0	37.5	71.4	72.7	16.7	0
	2	27.3	6.9	63.4	0	18.2	50.0	72.7
	3	9.0	6.9	0	14.3	9.1	33.3	9.1
Committee Conf., Etc.	1	0	6.9	0	57.1	27.3	16.7	9.1
	2	36.7	37.9	62.5	14.3	63.6	41.7	45.5
	3	54.5	55.2	37.5	14.3	9.1	41.7	18.2
Tech. Report Writing	1	9.0	6.9	12.5	0	18.2	0	9.1
	2	27.3	34.5	37.5	28.0	54.5	33.3	45.5
	3	54.5	58.6	50.0	57.1	27.3	66.7	27.3
Radio & TV	1	9.0	3.4	0	0	36.4	0	0
	2	36.7	27.6	32.5	14.3	54.5	8.3	9.1
	3	45.4	68.9	12.5	71.4	9.1	91.7	72.7
Newspaper Magazine	1	0	20.1	37.5	14.3	27.3	25.0	9.1
	2	54.5	41.4	37.5	42.9	54.5	8.3	45.5
	3	45.4	35.4	25.0	28.6	18.2	66.7	27.3
Theatre - Film Drama	1	0	3.4	12.5	0	9.1	0	0
	2	27.3	17.2	25.0	14.3	27.3	8.3	18.2
	3	63.7	72.4	62.5	71.4	63.6	91.7	63.6

Two-Year Vocational

		Metal Fab.	Off. Mach. Repair	Small Eng. & Chassis Rep.	Food Svc. Assist.	Oper. Rm. Assist.	Pract. Nursing	Ag. Mech.	Auto Mech.	Machine Tool Technics
Reading	1	0	66.7	75.0	83.3	100.0	61.5	66.7	72.2	44.4
	2	0	33.3	25.0	16.7	0	23.0	33.3	22.2	55.6
	3	0	0	0	0	0	0	0	5.3	0
Spelling	1	33.3	66.7	75.0	33.3	0	53.8	33.3	27.7	22.2
	2	66.7	33.3	25.0	50.0	100.0	23.0	66.7	66.7	66.7
	3	0	0	0	16.7	0	27.0	0	5.5	11.1
Vocab-ulary	1	100.0	100.0	50.0	50.0	100.0	76.9	66.7	38.9	33.3
	2	0	0	50.0	33.3	0	7.7	33.3	55.6	66.7
	3	0	0	0	16.7	0	0	0	5.5	0
Listening	1	100.0	100.0	50.0	100.0	100.0	69.2	66.7	77.8	77.8
	2	0	0	50.0	0	0	15.4	33.3	16.7	22.2
	3	0	0	0	0	0	0	0	5.5	0
Study Skills	1	33.3	66.7	75.0	66.7	0	53.8	100.0	66.7	44.4
	2	66.7	33.3	25.0	33.3	100.0	30.8	0	27.7	55.6
	3	0	0	0	0	0	7.7	0	5.5	0
Research Skills	1	4.7	53.3	0	16.7	100.0	30.8	100.0	11.1	0
	2	83.3	66.7	100.0	33.3	0	30.8	0	61.1	77.8
	3	0	0	0	50.0	0	23.0	0	27.7	27.2
Business Letter Writing	1	0	33.3	0	16.7	0	0	0	16.6	22.2
	2	33.3	33.3	25.0	50.0	100.0	38.5	33.3	27.7	33.3
	3	66.7	33.3	75.0	33.3	0	53.8	66.7	55.5	44.4
Advanced Bus. Letter Writing	1	0	0	0	0	0	0	0	5.5	0
	2	0	33.3	25.0	16.7	0	23.0	33.3	22.2	33.3
	3	100.0	66.7	75.0	83.3	100.0	53.8	66.7	72.2	66.7
Job Applic. Proc.	1	83.3	33.3	75.0	66.7	100.0	61.5	33.3	5.5	55.6
	2	16.7	33.3	25.0	0	0	0	66.7	44.4	22.2
	3	0	33.3	0	16.7	0	0	0	50.0	22.2
Short Report Writing	1	33.3	0	50.0	33.3	0	53.8	66.7	38.8	0
	2	33.3	100.0	50.0	50.0	100.0	30.8	33.3	55.5	44.4
	3	33.3	0	0	16.7	0	7.7	0	5.5	33.3
Oral Reporting	1	50.0	66.7	50.0	0	0	46.2	66.7	22.2	22.2
	2	50.0	33.3	25.0	66.7	0	38.5	33.3	33.3	66.7
	3	0	0	25.0	33.3	100.0	0	0	44.4	11.1
Non-Verbal Comm.	1	33.3	0	25.0	83.3	0	53.8	33.3	22.2	22.2
	2	66.7	100.0	75.0	16.7	100.0	23.1	33.3	44.4	44.4
	3	0	0	0	0	0	7.7	33.3	33.3	33.3
Telephone Usage	1	33.3	100.0	75.0	0	0	72.7	66.7	50.0	22.2
	2	50.0	0	25.0	16.7	100.0	23.1	33.3	33.3	22.2
	3	16.7	0	0	83.3	0	0	0	16.7	44.4
Committee Conf., Etc.	1	50.0	67.7	25.0	16.7	0	23.0	33.3	16.7	22.2
	2	33.3	0	25.0	66.7	100.0	30.8	66.7	33.3	44.4
	3	16.7	33.3	50.0	16.7	0	30.8	0	50.0	33.3
Tech. Report Writing	1	16.7	0	25.0	16.7	0	0	66.7	5.5	11.1
	2	50.0	66.7	50.0	33.3	100.0	30.8	33.3	33.3	55.6
	3	33.3	33.3	25.0	50.0	0	53.8	0	61.1	33.3
Radio & TV	1	0	0	0	16.7	0	0	33.3	5.5	22.2
	2	0	0	50.0	33.3	0	7.7	66.7	16.7	77.8
	3	100.0	100.0	50.0	50.0	100.0	76.9	0	77.7	0
Newspaper Magazine	1	33.3	0	0	0	0	15.4	66.7	27.7	44.4
	2	33.3	0	100.0	67.7	100.0	23.1	33.3	44.4	55.6
	3	33.3	100.0	0	33.3	0	46.2	0	27.7	0
Theatre - Film Drama	1	0	0	0	0	0	0	33.3	0	22.2
	2	33.3	0	0	16.7	0	7.7	66.7	27.7	77.8
	3	67.7	100.0	75.0	83.3	100.0	76.9	0	72.2	0

HUMAN RELATIONS

		Metal Fab.	Off. Mach. Repair	Small Eng. & Chassis Rep.	Food Svc. Assist.	Oper. Rm. Assist.	Pract. Nursing	Ag. Mech.	Auto Mech.	Machine Tool Technics
On-the-Job Relation-ships	1	100.0	33.3	75.0	100.0	100.0	84.6	66.7	72.2	55.6
	2	0	66.7	25.0	0	0	7.7	33.3	22.2	44.4
	3	0	0	0	0	0	0	0	5.5	0
Industrial Psych.	1	83.3	33.3	50.0	83.3	0	35.7	66.7	44.4	33.3
	2	0	33.3	50.0	16.7	100.0	42.9	33.3	44.4	55.6
	3	16.7	33.3	0	0	0	14.3	0	11.1	11.1
Learning on the Job	1	66.7	66.7	100.0	100.0	0	64.3	66.7	72.2	77.8
	2	33.3	0	0	0	100.0	28.6	33.3	22.2	22.2
	3	0	33.3	0	0	0	0	0	5.5	0
Human Development	1	16.7	33.3	75.0	33.3	0	50.0	0	11.1	11.1
	2	33.3	33.3	25.0	66.7	100.0	21.4	66.7	44.4	88.9
	3	50.0	33.3	0	0	0	21.4	33.3	44.4	0
Mental Health	1	16.7	33.3	50.0	33.3	0	57.1	66.7	22.2	55.6
	2	66.7	33.3	50.0	50.0	100.0	28.6	0	55.5	44.4
	3	16.7	33.3	0	16.7	0	0	33.3	22.2	0
Relations to Others	1	33.3	33.3	50.0	66.7	0	42.9	66.7	38.8	55.6
	2	50.0	33.3	50.0	33.3	100.0	28.6	33.3	50.0	44.4
	3	16.7	33.3	0	0	0	14.3	0	11.1	0
Relating to Self	1	83.3	33.3	50.0	100.0	0	46.2	66.7	61.1	22.2
	2	0	0	25.0	0	100.0	30.8	33.3	33.3	77.8
	3	16.7	66.7	25.0	0	0	7.7	0	5.5	0
Consumer Relations	1	66.7	66.7	50.0	66.7	0	7.7	100.0	44.4	33.3
	2	33.3	0	50.0	16.7	0	86.2	0	55.0	44.4
	3	0	33.3	0	16.7	100.0	38.5	0	0	22.2

Key:
1. Percent indicating unit as essential to course content
2. Percent indicating unit as advisable course content
3. Percent indicating unit as a possible elective for individual needs

RATINGS BY DEPARTMENT IN COMMUNICATIONS

BUS.ED.	T & I	FOOD SERV.	HEALTH OCC.	2 YR. T & I	TOTAL
1. Reading	1. Listening	1. Listening	1. Reading	1. Listening	1. Reading
2. Vocabulary	2. Reading	2. Reading	2. Vocabulary	2. Reading	2. Listening
3. Spelling	3. Vocabulary	3. Non-verbal	3. Listening	3. Study Skills	3. Study Skills
4. Listening	4. Study Skills	4. Study Skills	4. Telephone Usage	4. Vocabulary	4. Vocabulary
5. Job Application Proc.	5. Spelling	5. Job Application Proc.	5. Job Application Proc.	5. Newspaper, Magazines	5. Spelling
6. Telephone Usage	6. Telephone Usage	6. Short Report	6. Study Skills	6. Research Skills	6. Telephone Usage
7. Study Skills	7. Job Application Proc.	7. Spelling	7. Research Skills	7. Telephone Usage	7. Job Application
8. Non-verbal	8. Oral Reporting	8. Comm., Conf. Assem.	8. Spelling	8. Oral Reporting	8. Oral Reporting
9. Bus. Letters	9. Comm.,Conf.,Assemb.	9. Vocabulary	9. Non-Verbal	9. Short Report	9. Non-verbal
10. Short Report	10. Non-verbal	10. Bus. Letters	10. Newspaper, Magazines	10. Spelling	10. Short Report
11. Newspapers, Magazines	11. Short Report	11. Research Skills	11. Short Report	11. Job Application Proc.	11. Newspaper, Mag.
12. Oral Reporting	12. Research Skills	12. Oral Reporting	12. Comm.,Conf. Assem. Proc.	12. Tech. Report	12. Research Skills
13. Research Skills	13. Newspaper, Magazine	13. Tech. Reporting	13. Bus. Letters	13. Comm.,Conf. Assem.	13. Comm.,Conf.,Assem.
14. Comm.,Conf.,Assem. Proc.	14. Bus. Letters	14. Radio, Television	14. Tech. Report	14. Radio, Television	14. Bus. Letter Writing
15. Adv. Bus. Letters	15. Tech. Report	15. Newspaper, Magazines	15. Oral Reporting	15. Theater, Drama	15. Technical Report
16. Radio, Television	16. Adv. Bus. Letters	16. Theater, Drama	16. Theater, Film,Drama	16. Non-verbal	16. Radio, Television
17. Technical Report	17. Radio, Television	17. Telephone Usage	17. Adv. Bus. Letter	17. Bus. Letter	17. Theater, Drama, Film
18. Theater, Drama, Film	18. Theater, Film,Drama	18. Adv. Bus. Letters	18. Radio, Television	18. Adv. Business	18. Advanced Business Letter

RATINGS BY DEPARTMENT IN HUMAN RELATIONS

BUS.ED.	T & I	FOOD SERV.	HEALTH OCC.	2 YR. T & I	TOTAL
1. On-the-Job Relation.	1. On-the-Job Relation.	1. On-the-Job Relation.	1. On-the-Job Relation.	1. Learning On-the-Job	1. On-the-Job Relationships
2. Relating to Self	2. Learning On-the-Job	2. Learning On-the-Job	2. Industrial Psychology	2. On-the-Job Relation.	2. Learning On-the-Job
3. Consumer Relations	3. Consumer Relations	3. Relating to Self	3. Learning On-the-Job	3. Relating to Self	3. Relating to Self'
4. Learning On-the-Job	4. Relating to Others	4. Industrial Psychology	4. Relating to Self	4. Relating to Others	4. Consumer Relations
5. Mental Health	5. Relating to Self	5. Relating to Others	5. Relating to Others	5. Industrial Psychology	5. Industrial Psychology
6. Industrial Psychology	6. Industrial Psychology	6. Consumer Relations	6. Consumer Relations	6. Consumer Relations	6. Relating to Others
7. Relating to Others	7. Mental Health	7. Human Development	7. Mental Health	7. Mental Health	7. Mental Health
8. Human Development	8. Human Development	8. Mental Health	8. Human Development	8. Human Development	8. Human Development

INTERVIEWEE'S LOCATION

	FDL CO.	DODGE CO.	WASH. CO.	NEW HOL. SCH. DIST.	GREEN LAKE CO.	OUTSIDE DISTRICT
ONE YEAR VOCATIONAL						
ACCOUNT CLERK	7		4			
APPLIANCE SERVICING						
AUTO BODY		1	4			2
CLERK-TYPIST	13		13			3
DATA PROCESSING	7					1
ELECTRONIC SERVICING	6		4			1
FOOD SERVICE ASST.	4	2				
MACHINE TOOL OPER.	8	4				
MECHANICAL DRAFTING	2	2	4			3
METAL FABRICATION	3	2				
OFFICE MACHINE REPAIR	1	2				
OPER. ROOM ASSISTANT						1
PRACTICAL NURSING	10	1	1		1	
SMALL ENGINE & CHASSIS REPAIR	4					
TWO YEAR VOCATIONAL						
AGRICULTURAL MECH.	1	1	1			
AUTO MECHANICS	17		1			
MACHINE TOOL TECHNICS		5	2			2
TOTALS	83	20	34		1	13

ON-THE-JOB EXPERIENCE OF INTERVIEWEES

PROGRAMS	LENGTH OF EXPERIENCE 1yr.	2-5yrs.	over 5yrs.	ATTENDED MPTI	SUPERVISOR	EMPLOYEE	NO. OF INTERVIEWS
ONE YEAR VOCATIONAL							
ACCOUNT CLERK	1	3	7	7		5	11
APPLIANCE SERV.							
AUTO BODY	3	4		2	3	4	7
CLERK-TYPIST	10	10	9	18	9	20	29
DATA PROCESSING	3	3	2	5	3	5	8
ELECTRONIC SERV.	5	3	3	8	2	9	11
FOOD SERVICE ASST.	4	1	1		6		6
MACHINE TOOL OPER.	2	3	7	4	6	6	12
MECHANICAL DRAFTING	4	3	4	6	5	6	11
METAL FABRICATION		2	3	1	5		5
OFFICE MACHINE REPAIR	1	1	1	1	2	1	3
OPERATING ROOM ASST.	1					1	1
PRACTICAL NURSING	3	6	4	7	5	8	13
SMALL ENGINE & CHASSIS REPAIR		1	3	2	4		4
TWO YEAR VOCATIONAL							
AGRICULTURAL MECH.	3			2	1	2	3
AUTO MECHANICS	4	8	6	12	6	12	18
MACHINE TOOL TECHNICS	4	4	1	6	1	8	9
TOTALS	48	52	51	81	58	87	151

ONE YEAR VOCATIONAL

ACCOUNT CLERK

The graduates of the account clerk program are in need of basic communication skills. The employers and graduates themselves related that they needed training in reading, spelling, vocabulary, and listening techniques. It was also emphasized that job application procedures are good to know. Telephone procedures are important because many of the graduates are communicating a large part of the day over the telephone.

There is a high degree of personal contact with people on the job. Account clerks must be able to adapt to the situation that presents itself on the job and relate it to their classroom studies. The graduates indicated they needed to know much about consumer relations on and off the job. The need to be informed about good buying habits and to have an awareness of products and service one can purchase was considered important.

DATA PROCESSING

The employees and graduates of the data processing program have indicated the need for a wide range of learning activities. The highest priorities lie with basic vocabulary, reading and listening skills. A high degree of knowledge is necessary in job application procedures, telephone procedures, newspaper, magazine and non-verbal communication skills. Writing and reporting are included in the essential group along with the others because the employees found that when dealing with the general public they must be able to communicate effectively both in verbal form and non-verbal form.

It was advisable to include in the course content that related to technical report writing, research skills and group meeting procedures. These areas will be programmed as mini-courses but not stressed as heavily, or they could be selected as electives.

All items under the Human Relations sections were deemed necessary because the graduates of the data processing program deal with people every day on a very personalized basis.

AUTO BODY

The auto body repairman works closely with his fellow workers, deals with the public both personally and on the phone, and needs to learn a great deal of his trade on the job. Thus, the communicative skills ranked as essential include listening, telephone usage and oral skills. Those that ranked as advisable include reading, spelling, vocabulary and non-verbal communication.

Because the auto body repair trade depends on close working relationships and the work requires a high stress tolerance, the human relations area ranks all but human development as essential.

CLERK-TYPIST

The clerk-typist group surveyed, because of its clerical emphasis, ranked fifteen of the communication skills as either essential or advisable. Reading, vocabulary, spelling, listening, letter writing, telephone usage and short report writing are used daily, and the position requires proficiency in each. The ranking of job application procedures as essential demonstrates that from a clerk typist position advancement is possible and probable.

The clerk typist works in close contact with other clerical personnel and supervisors. All areas of human relations were ranked as essential, indicating a need for getting along with others on the job, understanding oneself, and understanding and relating to others.

Consumer relations was ranked fourth, possibly indicating a need for knowledge in personal income management.

ELECTRONIC SERVICING

Electronic servicemen must be able to deal with the public as well as be able to find the best method of repair. Thus, all Human Relations areas were considered essential as well as consumer relations and those areas of Communication which deal with oral communication--for example, listening, vocabulary, telephone usage and oral reporting. They must fill out work reports and therefore require reading, spelling, research skills, study skills and newspaper and magazine skills for research in repair manuals.

FOOD SERVICE ASSISTANT

The Food Service Assistant responses indicated the need for basic listening, reading and non-verbal communication skills. It was stressed that this individual receive this training because he is constantly using these skills on the job. Short report writing, spelling and job application procedures are already being covered in the Communications classes.

Because the Food Service Assistants have a close personal contact with the general public, the graduates and employers rated all Human Relations topics as essential.

MECHANICAL DRAFTING

Draftsmen work with technical and complex details as part of their everyday job routine. Therefore, spelling, reading, study skills and vocabulary are rated as being essential communication

skills for their jobs. Listening is rated as number one for the entire list of skills, reflecting the need to listen and interpret instructions and assignments as part of the job. Job application procedures is rated as being advisable to course content, indicating awareness of initial competition for the job and the importance of first impressions in an interview. Research skills, short report writing and technical report writing are also rated as being advisable to course content. These skills would again support the technical side of their job requirements.

In the area of Human Relations, learning on the job, relating to self and on-the-job relationships are the most highly rated categories. This would stress the importance of working with others as well as utilizing and improving your own abilities. Consumer relations and mental health are also rated as essential to course context. Draftsmen also deal with people, and this is indicated by the emphasis on mental health and its improvement.

MACHINE TOOL OPERATION

The machine tool operation student interviews indicated the need for the basic communication skills - listening, reading, spelling, vocabulary and oral reporting.

The program deals with people on a very personal one-to-one basis. They established the need for all the Human Relations material, especially the sections relating to others.

METAL FABRICATION

The metal fabrication group surveyed gave reading, vocabulary and listening the rank of one, indicating a need for communication on the job, especially in the area of giving and following instruction. Other high-ranking areas included job application procedures, oral reporting and telephone usage, indicating higher than expected emphasis on oral communication.

All areas of human relations ranked as essential or advisable, especially those relating directly to the job and to the understanding of self.

OFFICE MACHINE REPAIR

This field requires dealing with the customer directly; thus, vocabulary, telephone usage, listening, committee procedures, oral reporting and non-verbal communication are essential. It also requires research into repair manuals and short repair reports; so reading, study skills, research skills and short report writing are also essential. Some experience in business letter writing is advisable for anyone who hopes to advance in this field.

The entire Human Relations area is considered essential in this field due in the most part to the necessity for dealing with the public as a combination salesman/repair man and complaint receiver.

OPERATING ROOM ASSISTANT

Due to the lack of people in this area available for surveying, only one individual was interviewed. Therefore, the validity of this section is questionable. However, in the area of Communications, most of the skills taught as such are rated as essential. This includes reading, vocabulary, listening, job application procedures, spelling, etc. In the area of Human Relations most of the course content taught as such is also rated as essential.

PRACTICAL NURSING

Licensed practical nurses must be able to communicate freely with both patients and colleagues. Nurses listed telephone usage, vocabulary, listening, oral reporting and non-verbal communication as essential for that reason. Reading, study skills, and spelling are essential since they must keep charts which are legal documents. For this same reason, short report writing is listed at the top of the advisable column.

One of a nurse's primary responsibilities is the comfort of the patient, and all areas of Human Relations are essential to this.

SMALL ENGINE AND CHASSIS REPAIR

The small engine repairman must do research into repair manuals, particularly for motorcycles. Thus, reading, study skills and research skills were rated as essential. They must write warranty forms and work orders and thus need spelling, short report writing and technical report writing. People in this field often change jobs as they try to advance, and they rated job application procedures as essential. Small engine repairmen often work in or for a small business and deal directly with the public, so they require training in all areas of Human Relations except relating to self.

TWO YEAR VOCATIONAL

AGRICULTURAL MECHANICS

An agricultural mechanic graduate often works for a small business and is required to perform varied duties. He must be able to repair various types of farm machinery, deal with customers and write work reports. All areas of human relations are essential (except Human Development) for customer relations. Consumer relations is important because these graduates must sometimes handle parts inventory. Study skills, vocabulary, research skills, reading, and newspaper and magazine are essential for familiarity with repair manuals. Listening is necessary for receiving instructions correctly. Short report writing, spelling and technical report writing are important for repair orders.

AUTO MECHANICS

An auto mechanic is required to be proficient not only in his trade, but also in dealing with the general public. Therefore, the areas of communications, listening and telephone usage are rated as being essential to on-the-job performance. Reading, study skills, vocabulary, short report writing and spelling are also rated as being essential, for these skills complement other technical skills required by a mechanic. Non-verbal communication, oral reporting and business letter writing are among those skills rated as being advisable to course content - again reflecting the need to deal with people.

In the area of Human Relations, most of the course content taught as such is rated as being essential. Learning on the job, on-the-job relationships and relating to self are the three most highly rated categories. This may indicate a need for developing personal awareness as well as awareness of others. Consumer relations also rated highly, perhaps indicating a need for personal and practical economics.

MACHINE TOOL TECHNICS

The machine tool technicians graduates are typically placed in tool and die apprenticeships. Constant learning throughout the program and expanding into his working years creates the need for communication skills related to learning. Rated as essential were: listening, reading, study skills, vocabulary and oral skills. Job application procedures also ranked high, indicating the possibility and need for job advancement or change.

The technics group surveyed ranked all areas of Human Relations as essential, again emphasizing learning on the job. Other highly ranked areas included mental health, relating to and getting along with others and understanding oneself. These indicate a need to better know oneself for setting and achieving realistic goals.

ACCOUNT CLERK

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Reading	I	1. On-the-Job Relationships	I
2. Spelling		2. Consumer Relations	
3. Vocabulary		3. Relating to Self	
4. Listening		4. Industrial Psychology	
* Job Application Procedures		5. Learning On the Job	
6. Telephone Usage		6. Human Development	
7. Study Skills		7. Relating to Others	
8. Short Report Writing	II	8. Mental Health	II
9. Non-Verbal Communications			
10. Oral Reporting			
11. Newspaper and Magazine			
12. Radio and Television			
13. Business Letter Writing	III		
14. Research Skills			
15. Committee, Conferences, Assembly Procedures			
16. Technical Report Writing			
17. Theater, Film, Drama			
18. Advanced Business Letter			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

CLERK TYPIST

COMMUNICATIONS RANK:		HUMAN RELATIONS RANK:	
1. Reading	I	1. On-the-Job Relationships	I
2. Vocabulary		2. Relating to Self	
3. Study Skills		3. Learning On the Job	
4. Spelling		4. Consumer Relations	
5. Business Letter Writing		5. Industrial Psychology	
6. Job Application Procedures		6. Relating to Others	
* Non-Verbal Communications		7. Mental Health	
8. Listening		8. Human Development	
9. Telephone Usage			
10. Short Report Writing			
11. Oral Reporting	II		
12. Research Skills			
13. Newspaper, Magazines			
14. Adv. Business Letter Writing			
15. Committee, Conferences, and Assembly Procedures			
16. Technical Report Writing	III		
17. Radio and Television			
18. Theater, Film, and Drama			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

AUTO BODY REPAIR

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Listening	I	1. On-the-Job Relationships	I
2. Telephone Usage		* Relating to Others	
3. Committee, Conference, Assembly Procedures		3. Learning On the Job	
4. Advanced Business Letter		4. Relating to Self	
5. Study Skills		5. Industrial Psychology	
6. Oral Reporting		* Mental Health	
7. Reading		7. Consumer Relations	
* Spelling	II	8. Human Development	II
9. Vocabulary			
10. Non-Verbal Communication			
11. Job Application Procedure			
12. Newspaper, Magazine			
13. Research Skills			
14. Business Letter Writing	III		
15. Technical Report Writing			
16. Radio and Television			
17. Theater, Film, and Drama			
18. Short Report Writing			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

DATA PROCESSING

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Vocabulary	I	1. Mental Health	I
2. Reading		2. On-the-Job Relationships	
3. Job Application Procedures		* Relating to Self	
4. Listening		* Learning On the Job	
5. Telephone Usage		* Consumer Relationships	
6. Newspaper, Magazines		6. Relating to Others	
7. Non-Verbal Communications		7. Human Development	
8. Spelling		8. Industrial Psychology	
* Business Letter Writing			
* Short Report Writing			
11. Oral Reporting			
12. Study Skills			
13. Research Skills	II		
14. Advanced Business Letter			
15. Committee, Conference, Assembly Procedures			
16. Technical Report Writing			
17. Theater, Film, Drama	III		
18. Radio and Television			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

ELECTRONIC SERVICING

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Reading		1. On-the-job Relationships	
2. Vocabulary	I	* Learning on theJob	
3. Listening		3. Consumer Relations	
4. Telephone Usage		4. Relating to Self	I
5. Study Skills		5. Industrial Psychology	
6. Job Application Procedures		6. Mental Health	
7. Spelling		7. Relating to Others	
8. Radio and Television		8. Human Development	
* Oral Reporting			
11. Research Skills			
12. Committee, Conference, Assembly Procedures			
13. Newspaper, Magazine			
14. Non-Verbal Communication			
* Technical Report Writing	II		
16. Business Letter Writing			
* Adv. Business Letter Writing			
18. Theater and Drama	III		

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

FOOD SERVICE ASSISTANT

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Listening	I	1. On-the-Job Relationships	I
2. Reading		* Learning on the Job	
* Non-Verbal Communication		* Relating to Self	
4. Study Skills		4. Industrial Psychology	
5. Job Application Procedures		5. Relating to Others	
6. Short Report Writing		6. Consumer Relations	
7. Spelling		7. Human Development	
8. Committee, Conference, Assembly Procedures		8. Mental Health	
9. Vocabulary	II		
10. Business Letter Writing			
11. Oral Reporting			
* Radio and Television			
* Newspaper and Magazine			
* Technical Report Writing			
* Research Skills			
16. Theater, Film, and Drama			
17. Telephone Usage	III		
18. Advanced Business Letter Writing			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

MECHANICAL DRAFTING

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Listening	I	1. Learning on the Job	I
2. Spelling		2. Relating to Self	
3. Reading		3. On-the-Job Relationships	
4. Study Skills		4. Consumer Relations	
5. Vocabulary		5. Mental Health	
6. Job Application Procedures		6. Industrial Psychology	
7. Research Skills	II	7. Relating to Others	II
8. Business Letter Writing		8. Human Development	
9. Short Report Writing			
10. Telephone Usage			
11. Oral Reporting			
12. Newspaper, Magazine			
* Technical Report Writing			
14. Non-Verbal Communication			
15. Committee, Conference Assembly Procedures			
16. Advanced Business Writing	III		
* Theater, Film, Drama			
18. Radio, Television			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

MACHINE TOOL OPERATIONS

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Listening		1. On-the-Job Relationships	
2. Reading	I	2. Relating to Others	I
3. Vocabulary		3. Relating to Self	
* Study Skills		4. Learning On the Job	
5. Non-Verbal Communications		5. Industrial Psychology	
6. Oral Reporting		6. Consumer Relations	
* Spelling		* Human Development	
8. Committee, Conference, and Assembly Procedures	II	* Mental Health	
9. Job Application Procedures			
* Short Report Writing			
11. Newspaper, Magazines			
12. Business Letter Writing			
13. Telephone Usage	III		
14. Technical Report Writing			
15. Advanced Business Letter			
16. Radio and Television			
* Theater, Film, and Drama			
18. Research Skills			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

METAL FABRICATION

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Reading		1. On-the-Job Relationships	
* Vocabulary	I	2. Learning On the Job	I
* Listening		3. Consumer Relations	
4. Job application procedures		4. Relating to Self	
5. Oral Reporting		* Industrial Psychology	
6. Committee, Conference, and Assembly procedures		6. Relating to Others	
7. Spelling		7. Mental Health	II
* Study Skills		8. Human Development	
* Non-Verbal Communication			
10. Research Skills			
* Telephone Usage			
12. Short Report Writing			
* Newspaper, magazine			
14. Technical report Writing			
15. Theater, Film, Drama	II		
16. Business Letter Writing			
17. Advanced Business Letter			
* Radio, Television	III		

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

OFFICE MACHINE REPAIR

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Vocabulary	I	1. On-the-Job Relationships	I
* Telephone Usage		* Learning On the Job	
* Listening		* Consumer Relations	
4. Oral Reporting		4. Industrial Psychology	
* Reading		* Mental Health	
* Study Skills		* Human Development	
* Spelling		* Relating to Others	
8. Committee, Conference, Assembly Procedures		8. Relating to Self	
9. Research Skills			
10. Non-Verbal Communication			
* Short Report Writing			
12. Job Application Procedures			
* Business Letter Writing	II		
14. Technical Report Writing			
15. Advanced Business Letter Writing			
16. Radio and Television			
17. Newspaper and Magazine	III		
18. Theater, Film, And Drama			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

OPERATING ROOM ASSISTANT

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Reading	I	1. On-the-Job Relationships	I
* Vocabulary		2. Industrial Psychology	
* Listening		* Learning On the Job	
* Research Skills		* Human Development	
* Job Application Procedures		* Mental Health	
6. Spelling		* Relating to Others	
* Study Skills		* Relating to Self	
* Business Letter Writing		8. Consumer Relations	II
* Short Report Writing			
* Non-Verbal Communication			
* Telephone Usage			
* Committee, Conference, Assembly Procedures			
* Technical Report Writing			
* Newspaper and Magazine			
15. Adv. Business Letter Writing			
* Oral Reporting	II		
* Radio and Television			
* Theater, Film, Drama			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

PRACTICAL NURSING

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Telephone Usage	I	1. On-the-Job Relationships	I
2. Reading		2. Industrial Psychology	
*. Vocabulary		3. Learning On the Job	
4. Listening		4. Mental Health	
5. Study Skills		5. Relating to Self	
6. Spelling		6. Relating to Others	
7. Oral Reporting		7. Human Development	
*. Non-Verbal Communication		8. Consumer Relations	II
9. Job Application Procedures			
10. Short Report Writing	II		
*. Research Skills			
12. Committee, Conference, Assembly Procedures			
13. Newspaper and Magazine	III		
14. Business Letter Writing			
15. Technical Report Writing			
16. Advanced Business Letter Writing			
17. Radio and Television			
*. Theater, Film, Drama			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

SMALL ENGINE AND CHASSIS REPAIR

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Reading	I	1. Learning On the Job	I
* Spelling		2. Human Development	
* Study Skills		* On-the-Job Relationships	
* Job Application Procedures		4. Mental Health	
* Telephone Usage		* Consumer Relations	
6. Vocabulary		* Industrial Psychology	
* Listening		* Relating to Others	
* Short Report Writing		8. Relating to Self	II
9. Oral Reporting			
*. Non-Verbal Communication			
11. Research Skills			
* Technical Report Writing			
* Newspaper, Magazine			
14. Committee, Conference, and Assembly Procedures			
15. Radio and Television	II		
16. Business Letter Writing	III		
* Advanced Business Letter Writing			
18. Theater, Film, and Drama			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

AGRICULTURAL MECHANICS

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Study Skills	I	1. Consumer Relations	I
* Research Skills		2. On-the-Job Relationships	
3. Reading		* Industrial Psychology	
* Vocabulary		* Learning on the Job	
* Listening		* Relating to Others	
* Short Report Writing		* Relating to Self	
* Oral Reporting		7. Mental Health	
* Telephone Usage		8. Human Development	II
* Technical Report Writing			
* Newspaper and Magazine			
11. Spelling			
* Job Application Procedure			
* Committee, Conference, Assembly Procedures			
* Radio and Television			
* Theater-Film, Drama			
16. Non-Verbal Communications	II		
17. Business Letter Writing	III		
18. Advanced Business Letter Writing			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

AUTO MECHANICS

COMMUNICATIONS RANK:		HUMAN RELATIONS RANK:	
1. Listening		1. Learning On the Job	
2. Reading	I	2. On-the-Job Relationships	I
3. Study Skills		3. Relating to Self	
4. Vocabulary		4. Consumer Relations	
5. Telephone Usage		5. Industrial Psychology	
6. Short Report Writing		6. Relating to Others	
7. Spelling		7. Mental Health	
8. Newspaper and Magazine	II	*8. Human Development	II
9. Non-Verbal Communication			
10. Research Skills			
11. Oral Reporting			
12. Committee, Conference, Assembly Procedures			
13. Business Letter Writing			
14. Job Application Procedures			
15. Technical Report Writing			
16. Radio and Television	III		
17. Theater, Film, and Drama			
18. Advanced Business Letter Writing			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

MACHINE TOOL TECHNICS

COMMUNICATIONS		HUMAN RELATIONS	
RANK:		RANK:	
1. Listening		1. Learning On the Job	
2. Reading	I	2. On-the-Job Relationships	I
3. Study Skills		3. Mental Health	
4. Newspaper and Magazine		4. Relating to Others	
5. Job Application Procedures		5. Relating to Self	
6. Vocabulary		6. Industrial Psychology	
7. Theater, Film, Drama		7. Human Development	
8. Radio and Television		8. Consumer Relations	
9. Spelling			II
10. Oral Reporting			
11. Non-Verbal Communications	II		
12. Committees, Conferences, and Assembly Procedures			
13. Research Skills			
14. Technical Report Writing			
15. Business Letter Writing			
16. Telephone Usage			
17. Short Report Writing	III		
18. Advanced Business Letter			

KEY

I-ESSENTIAL TO COURSE CONTENT
II-ADVISABLE TO COURSE CONTENT
III-POSSIBLE ELECTIVE FOR INDIVIDUAL NEEDS

*HOLD COMMON RANK

MATHEMATICS

SCIENCE

ONE YEAR VOCATIONAL PROGRAMS

Account Clerk
Auto Body
Clerk-Typist
Data Processing
Electronic Servicing
Food Service Assistant
Machine Tool Operation
Mechanical Drafting
Metal Fabrication
Office Machine Repair
Operating Room Assistant
Practical Nursing
Small Engine and Chassis Repair

TWO YEAR VOCATIONAL PROGRAMS

Agricultural Mechanics
Auto Mechanics
Machine Tool Technicians

ONE YEAR VOCATIONAL

ACCOUNT CLERK

Basic arithmetic is essential in job entry skills for the account clerk. Most students entering this program satisfy this prerequisite but their proficiency needs to be upgraded to increase both accuracy and speed of calculation. A knowledge of the efficient use of calculators is helpful in attaining this skill. In addition, it is desirable to have a good business background in the following units: percent, averages, payroll, taxes, interest, bank records, cash and trade discounts, commissions, markup and markdown, depreciation, inventories and turnover, stocks and bonds, insurance, annuities, financial statements and statistics.

The account clerk does not have a need for Applied Science in the curriculum. The survey results verify this.

AUTO BODY REPAIR

Many of the auto body repair students have a poor mathematical background; therefore, it becomes necessary to have remedial basic arithmetic units in their curriculum. It is also essential that they have an understanding of English units of measure, the metric system, percent involving cash and trade discounts, averages, ratio and proportion, surface area and calculation techniques by longhand and calculator.

It is desirable for the student who may become a manager or owner of a shop to have a business mathematics background. The following units of instruction could be offered as electives: payroll, taxes, interest, bank records, commissions, markup and markdown, depreciation, inventories and turnover, stocks and bonds, insurance, annuities, financial statements and statistics.

In regard to science, the survey shows considerable interest in properties of matter, mechanics and machines, electricity and heat.

CLERK-TYPIST

Since duties vary from office to office, the various mathematical skills used will differ. It is desirable to have a good basic arithmetic background and, in addition, good calculation techniques both in longhand and calculator.

Various units of business mathematics as now taught are considered desirable.

The clerk-typist does not have a need for applied science in the curriculum, and the survey results verify this.

DATA PROCESSING

According to the survey, basic arithmetic is essential and applied algebra is desirable in the data processing curriculum. It is also essential to have good calculation techniques by longhand, calculator and charts.

All business mathematics units as presently taught are necessary.

The data processing curriculum does not offer applied science. However, the survey shows that most units of mechanics and machines, all of the electrical units and some of the heat units are desirable.

ELECTRONIC SERVICING

The electronic serviceman is working with different kinds and sizes of electronic devices. It is essential that he is proficient in the following math units, viz., basic arithmetic, percent, graphs, averages and calculation techniques by longhand, calculator and charts. He also showed considerable interest in taxes, cash and trade discounts. All other units of arithmetic, algebra, geometry and trigonometry were considered necessary to be in the curriculum. While the student does not have a course in business mathematics in his curriculum, he showed much interest in it.

In the area of science, all units of electricity as taught are essential. This is also true of pulley systems and heat measurement. It is necessary that properties of matter, mechanics and machines and the other units of heat, excepting liquid freezing point, be included in the curriculum.

FOOD SERVICE ASSISTANT

Because the food service assistant will be working with large numbers of people and estimating and preparing different kinds of foods, it is necessary to have a good basic mathematical background. It is also necessary to have proficiency skills in applied algebra, but it is not now in the curriculum. Calculations by longhand and calculators are also important.

All units in business mathematics are necessary.

In regard to applied science, it is not included in the program, but there is desirable interest in the unit on gears, most electrical units, temperature measurement and devices and heat measurement and transfer.

MACHINE TOOL OPERATION

Course content relative to machine tool operation appears to satisfy the requirements of the average operator for job entry.

Continued experience in a specific area produces operator specialization that course content, because of practical considerations, cannot hope to cover. Survey results in all mathematical areas indicate that all items were agreed upon by the majority of interviewees. Two exceptions noted are those of root extraction and operations with algebraic unknowns as found in handling more than one abstract variable at a time. Increasing use of the electronic calculator steadily forces the decline of the slide rule, which the accompanying chart does not indicate.

Business mathematics and applied science are not part of the curriculum for machine tool operation.

MECHANICAL DRAFTING

All the units of mathematics are essential to the mechanical draftsman. For the student that has a poor mathematical background, mini-courses would be very helpful. Students learn at different rates, and some students need more reinforcement on specific units.

A knowledge of the various units in applied science is desirable and at the present time is being taught in the production tooling course and as an elective.

METAL FABRICATION

It is essential for the student of metal fabrication to be proficient in basic arithmetic, applied algebra, applied geometry, applied trigonometry and the various calculation techniques.

Applied science is not currently a part of this curriculum. The survey shows a strong interest in all portions of applied science. Mini-courses could be set up as electives to enrich the program.

OFFICE MACHINE REPAIR

A very small sampling for this program makes it difficult to arrive at any definite conclusion. Basic arithmetic content and work in percent, graphs and averages is considered essential, while some selected items found in the business mathematics section were considered desirable.

Generally, the content topics of applied science were regarded as no more than desirable. Apparently, the needs of this program are few and very select.

Before any action can be taken toward establishing behavioral objectives for this program, it is recommended that this sampling be enlarged.

OPERATING ROOM ASSISTANT

While our school assumes that each operating room assistant student has a background of sixth grade mathematics, mini-courses can be devised to reinforce the student in areas that are essential to the student. These areas would be in basic arithmetic, English units of measure, metric system, percent, graphs, averages and ability to make calculations by longhand, slide rule, calculator and the use of charts.

In the science area, it is essential for the student to have some knowledge in the properties of liquids and gases.

PRACTICAL NURSING

It is assumed that each student has a background of sixth grade mathematics, but mini-courses can be devised to reinforce the student in areas that are essential to the student. These areas would be in basic arithmetic, English units of measure, metric system, graphs, proportions, the ability to make calculations by longhand and the use of charts.

In the science area, it is essential for the student to have some knowledge in the properties of solids and liquids. It is also necessary to have knowledge of temperature measurement, measuring devices and liquid boiling and freezing points.

SMALL ENGINE AND CHASSIS REPAIR

Mathematics content for this program follows closely that of auto mechanics. Again, those items through Calculation Techniques that surveyed as nonessential are not part of this program's course content. Square root extraction is the exception to this and should be deemphasized or perhaps removed completely from the course content.

Portions of business mathematics, currently not part of the curriculum, should be considered seriously for a limited presentation to cover preparation for running a small business.

Many items of the applied science section received strong affirmative response. Applied science, too, is not a part of the curriculum for this program. If the items marked as essential are not covered as part of other courses, they could be considered for presentation in some sort of a science mini-course.

TWO YEAR VOCATIONAL

AGRICULTURAL MECHANICS

Basic arithmetic emphasis is essential with lesser attention necessary in the areas of applied algebra, geometry and trigonometry. The survey sampling for this program was extremely small, so to point out trends and needs in this area would be difficult. Extraction of roots and slide rule operation obviously are not among the needs of the agricultural mechanics.

Business mathematics is not included in the curriculum, though a few items such as payroll, taxes and interest are identified as desirable and can easily be incorporated.

Though the response was limited, the applied science section shows a very strong approval of the current course content.

AUTO MECHANICS

The study seems to indicate that the course content, as it now stands, is more than adequate to meet the needs of the automotive service field. Those areas of study showing the stronger negative response--applied trigonometry and certain portions of business mathematics--are either not taught by the General Education department or are not part of the shop mathematics course content for the auto mechanic. An exception to this is the item of square and cube roots. While cube roots are not included in the mathematics course, square root extraction is included relative to calculations involving swept volume and compression ratio. Square root application in this instance might find value if one should wish to determine bore diameter when swept volume is known. At this level of education, a problem such as this is not of practical value to the average mechanic and should be ignored.

All indications point to the continued presentation of course content as it now exists but with less emphasis on operations with the common fraction. Concentration on use of charts and simplified calculators is important in most standard servicing and repair practices.

Response in the applied science section was most strong in the electricity unit and weakest in mechanics and machines. It is suspected that fundamental scientific concepts are so buried and interwoven with the other elements of routine auto mechanics that their identity is often lost to the mechanic.

MACHINE TOOL TECHNICIANS

A good math background is a prime requisite for the machine tool technician students. The survey shows that all units as taught are essential in arithmetic, applied algebra, applied geometry and applied trigonometry.

For the student who has an excellent math background, mini-courses in business mathematics might be used as electives. According to the survey, interest is shown in this area.

Applied science is not currently a part of this curriculum. The survey shows a strong interest in all portions of applied science. Mini-courses could be set up as electives to enrich the program.

EVALUATION

At the conclusion of the project several state staff members were invited to Moraine Park District to participate in evaluation of the project. Opportunity was provided to critique the various aspects of the project and finally to determine whether objectives had been met. Representing the State office were:

George Kinsler - Director, Bureau of Program Development
Robert Johnson - General Education Consultant
Doyle E. Beyl - Director, Bureau of Research, Professional and Student Development
Roland Krogstad- Research Consultant
Larry Allwardt - Trade and Industry Consultant

Reference was made to other studies conducted in the State VTAE system - Southwest Wisconsin, Fenimore and Nicolet, Rhinelander. Positive correlation between the studies was in evidence.

Each phase of the project was set within a time frame which established checkpoints for the project. Recommendations for changes were noted for improving the survey instrument, the interview technique. A larger sampling would have increased reliability of the findings.

The varying interviewing techniques used by individuals resulted in variations in data collected. More time should have been allotted to testing the survey instrument which would tend to correct this difficulty.

A letter of thanks was sent to all businesses, industries and individuals surveyed.

MORAINE PARK TECHNICAL INSTITUTE

VOCATIONAL COORDINATED CURRICULUM
FOR GENERAL EDUCATION

June 27, 1974
1:30 p.m.

A G E N D A

Introduction - Mr. Knueppel, Department Chairman
General Education

Methodology - Donald Kenyon, Math Instructor

Results - findings

Communications - Lee Sauer, Communications Instructor
Human Relations - Marliss Koepke, Psychology Instructor
Mathematics - Jane Capelle, Math Instructor
Science - Paul Haworth, Science Instructor

Format to present survey

Information - Gerald Rickman, Economics Instructor

Conclusions - Recommendations - Bill Reinhardt, Communications Instructor

Evaluations - Phyllis Nagler, Special Projects

Questions - Comments

Moraine Park Technical Institute

District Office 235 North National Avenue, Fond du Lac, Wisconsin 54935 (414) 922 8611

July 1, 1974

Moraine Park Technical Institute has recently completed a survey of businesses and industries in the district to review course content in general education courses.

We would like to take this opportunity to thank you for participating in the survey.

It has been beneficial to the staff to have an opportunity to meet directly with you and your employees. Pertinent information was gathered which will contribute to restructuring and upgrading present course offerings.

Thank you again.

Yours truly,

Robert P. Sorensen, Ph.D.
District Director

RPS:mw

Moraine Park Vocational, Technical and Adult Education District
Robert P. Sorensen, Ph. D.
District Director

CONTINUATION OF PROJECT

Funds to continue Project 10-044-151-224 have been identified. The new project 10-044-151-225 has established the following objectives:

1. Write behavioral objectives for each unit of study to be included in courses in mathematics, science and human relations.

2. Develop an instructional design for each unit considered as essential or needful to the course.

3. Reorganize the counseling procedure to adapt to the new curriculum.

4. Design a pilot project to implement new curriculum.

Volunteer staff members are continuing to move forward to complete the first two objectives. In the process a format is being developed to serve other areas of instruction. On the average of 4 hours per week are being spent to accomplish this purpose. The following schedule will serve as a guide:

October		Joint staff meetings to clarify goals
November 16 December 28 February 22 April 22	Review Dates	4 hours/wk./instructor Develop instructional materials
May 27 - June 30		Design pilot project/ Corresponding counseling procedure

PN:wk
11/20/74

ACCESSION NUMBER: VT102163

PUBLICATION DATE: NOV74

TITLE: SEMIANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JANUARY 1, 1974 - JUNE 30, 1974.

PERSONAL AUTHOR: BRAATEN, LARRY; MILLER, ANNETTE

DESCRIPTOR: *ANNUAL REPORTS; *VOCATIONAL EDUCATION; *RESEARCH COORDINATING UNITS; *EDUCATIONAL RESEARCH; *RESEARCH PROJECTS

IDENTIFIER: VOCATIONAL EDUCATION AMENDMENTS OF 1968

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 150P.

ABSTRACT: THIS NINTH IN A SERIES OF REPORTS SUMMARIZES INFORMATION RECEIVED FROM STATE RESEARCH COORDINATING UNITS (RCU'S) REGARDING RESEARCH ACTIVITIES CONDUCTED UNDER SECTION 131(B) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 DURING THE PERIOD OF JANUARY 1 THROUGH JUNE 30, 1974. THE PURPOSE OF THIS REPORT IS TO PROVIDE INFORMATION THAT WILL ASSIST THE STATES TO BE AWARE OF RESEARCH AND DEVELOPMENT CONDUCTED BY OTHER STATES, THUS FACILITATING EXCHANGE OF INFORMATION AND REDUCING DUPLICATION OF EFFORT. THE INDIVIDUAL STATE REPORTS INCLUDE THE PROJECTS COMPLETED, NEW PROJECTS FUNDED, RESEARCH RELATED ACTIVITIES, AND PROJECTS AND ACTIVITIES PLANNED. NAMES OF EACH RCU AND STATE VOCATIONAL EDUCATION DIRECTOR ARE INCLUDED. (AUTHOR/NJ)

INSTITUTION NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 163

SEMIANNUAL REPORT

ON

STATE RESEARCH COORDINATING UNIT ACTIVITIES

FOR THE PERIOD

January 1, 1974 - June 30, 1974

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Occupational and Adult Education

Division of Research and Demonstration

November 1974

CE005345

VT 102 163

Civil Rights Compliance

Discrimination Prohibited - Title VI of the Civil Rights Act of 1964 states:

> *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."*

Therefore, any program or activity receiving financial assistance from the Department of Health, Education, and Welfare must be operated in compliance with this law.

SEMIANNUAL REPORT

ON

STATE RESEARCH COORDINATING UNIT ACTIVITIES

FOR THE PERIOD

January 1, 1974 - June 30, 1974

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Caspar W. Weinberger, Secretary

Office of Education
T. H. Bell, U.S. Commissioner of Education

Bureau of Occupational and Adult Education
William F. Pierce, Deputy Commissioner

Division of Research and Demonstration
Howard F. Hjelm, Director

November 1974

FOREWORD

This report summarizes information received from State Research Coordinating Units (RCU's) regarding research activities conducted under Section 131(b) of Part C of the Vocational Education Amendments of 1968. This report covers the second six months of Fiscal Year 1974. The purpose of the report is to provide information that will assist States to be aware of research and development conducted by other States, thus facilitating exchange of information and reducing duplication of effort.

This Semiannual Report has been prepared by Larry Braaten, Chief, Demonstration Branch and Annette Miller of the Demonstration Branch of the Division of Research and Demonstration. This is the ninth in a series of reports on the activities of the State RCU's. The previous reports are listed below:

a. Annual Report on State Research Coordinating Unit Activities for Fiscal Year 1970 (ED-053-293)

b. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1970 to December 31, 1970 (ED-052-381)

c. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1971 to June 30, 1971 (ED-067-463)

d. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1971 to December 31, 1971 (ED-068-718)

e. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1972 to June 30, 1972 (ED-076-781)

f. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1972 to December 31, 1972 (ED-080-720)

g. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1973 to June 30, 1973

h. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1973 to December 31, 1973

Copies of the above reports with assigned ED numbers can be obtained from the ERIC Document Reproduction Service.

Howard F. Hjelm
Director, Division of
Research and Demonstration

November 1974

INTRODUCTION

For fiscal year 1974, the States received $9 million under Section 131(b) of Part C of the Vocational Education Amendments of 1968. These funds could be used for paying up to 75 percent of the costs of the State Research Coordinating Unit (RCU) and for grants and contracts covering 90 percent of the costs of research and/or developmental projects. The minimum received was $12,068 by Alaska and the maximum was $762,090 by California. Thirty States received more than $100,000 for research and development. Among these 30 States, 17 received more than $200,000 and 7 more than $300,000.

By the end of the fiscal year, nearly all of the States reported the expenditure of FY 1974 funds for grants and contracts. More than 300 new grants and contracts were approved, with approximately 50 percent of the projects relating to career education and development of curricula and instructional material. Titles reported for other studies indicate continued emphasis in the areas of evaluation, administration and planning, including investigations into improving management information systems for followup and data analysis.

In addition to the main function of administering the State's R&D program, reports indicate that extensive consultant services are being provided to teachers and researchers in both the secondary and postsecondary institutions. An increasing number of States are striving to improve dissemination functions and are bringing the products of R&D directly to the practitioner. Especially significant is the increasing utilization of microfiche and the development of search and retrieval capabilities within the State department headquarters.

The nature of the projects reported tends to indicate that State-administered R&D projects are making worthy contributions to the research literature and have provided significant assistance to many communities in launching career education programs.

The Semiannual Report which follows is a compilation of State Research Activity Reports covering the third and fourth quarters of FY 1974 which have been received from the States. Additional information on projects listed under the category of "new projects funded" may be found in the "Research Projects in Progress" section of Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM), published by the Center for Vocational and Technical Education, Ohio State University. Final reports of the "projects completed" are abstracted in the monthly issues of Research in Education and/or in the bi-monthly issues of AIM/ARM. All reported research projects administered by the State educational agency were included in this report, whether or not they were funded under Section 131(b) of Part C.

Summaries of

State Research Coordinating Unit

Semiannual Reports

for the period

January 1, 1974 - June 30, 1974

ALABAMA

T.L. Faulkner, State Director of Vocational Education
Douglas Patterson, RCU Director

PROJECTS COMPLETED:

1. Implementation of Career Education K-12 in the Phenix City Public Schools, Phenix City Schools

2. Proposal for Career Education Project in Vocational-Technical Education, Mobile County

3. Montgomery County's Approach to Career Education-Grades One Through Twelve, Montgomery County

NEW PROJECTS FUNDED:

1. Joint Leadership Training Conference for Selected Students and Advisors of Alabama's Vocational Youth Organizations, John M. Patterson, State Technical College

2. Distributive Education Dissemination Project, John M. Patterson, State Technical College

RESEARCH RELATED ACTIVITIES:

1. Conducted pilot study for automated collection of secondary enrollments in selected service areas

2. Computerized the fiscal accounting and personnel records

3. Investigation of computer system peripherals for cost effectiveness and selected optical scanning device and appropriate magnetic tape recorder

4. Prepared occupational demand for the state by service area and by OE code

5. Revised Area Vocational Center course offerings, course codes and occupational demand

6. Prepared reports of dropout and unemployment rates for two employment regions

7. Prepared the 1974-75 Alabama State Plan for Vocational Education

8. Curriculum developed to include energy conservation measures applicable in each service area

PROJECTS AND ACTIVITIES PLANNED:

1. Collect enrollment data on all secondary students in vocational education and add to existing fiscal data base

2. Establish systematic manpower analysis reporting procedures

3. Preparation for collection of data for the state and federal reports

4. Assess state vocational education needs

5. Evaluation of local vocational programs

ARIZONA

Eugene L. Dorr, State Director of Vocational Education
Beverly Wheeler, RCU Director

PROJECTS COMPLETED:

1. Development of 8-10 Profiles of Decision Making in Mexican-American Families, ASU

2. P.E.P. Pre-Vocational Education, Casa Grande Elementary Schools

3. Pinal County Employability Program, Central Arizona College

4. Educational Needs Assessment of Adults in the Globe/Miami Area, Eastern Arizona College

5. Yuma Union High School District Career Preparation Laboratory Project, Yuma Union High School District, Kofa High School

6. Career Awareness Packages for Incarcerated Youth, Maricopa Skills Center

7. Profile of School Dropouts in Mesa Public Schools, Mesa Public Schools

8. A Motivational Math Lab, Nogales High School

9. A Computerized Task Inventory System for Providing Curriculum Content, Northern Arizona University

10. Development and Evaluation of a Guide for Individualized Instruction in Distributive Education, Phoenix Union High School District, South Mountain High School

11. Development and Use of Challenge Exams for Clinical Laboratory in Nursing II (Part I), Pima Community College

12. A Follow-up Survey of Graduates of Sunnyside High School to Determine Vocational Placement, Sunnyside High School District #12

Arizona

13. A Survey to Ascertain Vocational Home Economics Needs in Tucson District #1, U of A

NEW PROJECTS FUNDED:

1. Development of 8-10 Profiles of Decision Making in Mexican-American Families, ASU

2. P.E.P. Pre-Vocational Education Program, Casa Grande Elementary Schools

3. Educational Needs Assessment of Adults in the Globe/Miami Area, Eastern Arizona College

4. Career Awareness Package for Incarcerated Youth, Maricopa Skills Center

5. Profile of School Dropouts in Mesa Public Schools, Mesa Public Schools

6. A Computerized Task Inventory System for Providing Curriculum Content, NAU

7. Development and Evaluation of a Guide for Individualizing Instruction in Distributive Education, Phoenix Union High School District, South Mountain High School

8. Development and Use of Challenge Exams for Clinical Laboratory in Nursing II (Part I), Pima Community College

9. A Follow-up Survey of Graduates of Sunnyside High School to Determine Vocational Placement, Sunnyside High School District #12

10. A Survey to Ascertain Vocational Home Economics Needs in Tucson District #1, University of Arizona

RESEARCH RELATED ACTIVITIES:

Wrote and disseminated four career education booklets:

<u>Questions and Answers About Career Education</u>

Arizona

Why Career Education in Arizona?

Arizona Career Education--What Is It?

Career Education and You--The Teacher

PROJECTS AND ACTIVITIES PLANNED:

1. Conduct a state-wide survey to determine availability of microfiche readers

2. Develop a slide/tape presentation on the services offered by the RCU to be made available to the twenty career education projects in the state

3. Develop an activity-based publication(s) by grade level, subject area, and career education element utilizing material developed in Arizona

4. Supervise the refining and dissemination to state implementation sites Arizona-produced field tested units

ARKANSAS

Luther Hardin, State Director of Vocational Education
Jack D. Nichols, RCU Director

PROJECTS COMPLETED:

1. Teaching Techniques and Resource Material Development for Nutrition Education Among Disadvantaged Youth & Adults, University of Arkansas, Fayetteville

2. The Development of Sequential Self-Paced Vocational Activities Units Utilizing Multi-Media for Use in Vocational Aptitude Evaluation Carrels..., Little Rock School District

3. Thirteen (13) Local Action Oriented Research and Development Mini-Grants, Statewide

4. The Development and Testing of Single Occupation Film Loops and 135 MM Color Slides..., University of Arkansas, Fayetteville

5. ...A Study to Determine the Correlation Among Student Interests, Vocational Courses Pursued and Job Entry Occupational Choices, Newport Public School

NEW PROJECTS FUNDED:

1. A Comparative Study of the Occupational Achievement of Vocational and Non-Vocational High School Graduates in the State of Arkansas, Educational Planning and Evaluation Services--Magnolia, Arkansas

2. A Unified School-Community Approach to Remodel Guidance Services and Expand Next Step Placement and Followup, State Department of Education

RESEARCH RELATED ACTIVITIES:

1. "Arkansas EXPO '74 Vocational Curriculum Fair," a personnel development activity funded under the Education Professions Development Act, Part F, Section 554 for the purpose of familiarizing teachers with new curricular materials

Arkansas

2. Integrating Career Education into the consumer and Homemaking Curriculum

3. Vocational Education Leadership Program for 1973-74

PROJECTS AND ACTIVITIES PLANNED:

1. A Comparative Study of Alternative Methods and Techniques in Stenographic Training

2. Continue State Career Development project at Russellville involving seven school districts and other ongoing R&D projects

3. Inservice training for personnel involved in R&D projects

CALIFORNIA

Samuel L. Barrett, State Director of Vocational Education
James Crandall, RCU Director

PROJECTS COMPLETED:

1. Development of an Audiovisual Self-Identification Model for Use in Vocational Counseling, Arthur N. Cherdack, Los Angeles Community College District

2. Priority Determination for Vocational Education Through a Formal Needs Assessment Process, Otto A. Heinkel, San Diego Community College District

3. A Comparison Between Automated Method and Two Conventional Methods of Data Collection for Vocational Student Followup Studies, Mel Barlow and Joseph A. Miller, U.C.L.A.

4. Selected Business Educational Curriculum Standards and Practices in United States Public Secondary 1971-72, Mel Barlow and Christ Chialtas, U.C.L.A.

5. Survey of Occupational Cognizance, Cliff Purcell and Charles C. Brady, Santa Barbara City High School

6. Development of a Model for Determining Needs for Vocational Education Personnel--A Profile of Vocational Educators, Mel Barlow and Vern Halcromb, U.C.L.A.

7. Program Planning - Case Studies of the Impact of Organization and Operation of School System after Implementation of a Program that has Components of Career Education, Mel Barlow and Ralph Bregman, U.C.L.A.

8. Impact of Career Testing and Human Potential Seminar Training Upon Persistence and Performance of High Risk Students Declaring Vocational Majors, Thomas F. MacMillan, Mendocino Community College District

9. Career Education Opinions of Elementary Teachers, Mel Barlow and Jeff Reyes, U.C.L.A.

California

NEW PROJECTS FUNDED:

1. A Study of Career Centers in the State of California, Thomas J. Jacobsen, Grossmont Union High School

2. A Study of the Vocational Entitlement and Grants Management System, Melvin Barlow, University of California, Los Angeles

3. Involvement of Vocational Agriculture Students in Vocational Agriculture Students in Vocational Education Student Organization, O. S. Gilbertson, Larry Rathbun, Joseph Sabol, California Polytechnic State University Foundation

4. Career Education Opinions of California Educators, Melvin L. Barlow, U.C.L.A.

5. California Industrial Education Program Guide, Norman R. Stanger,California State University, Long Beach

6. Curriculum Competencies Needed and Possessed by Vocational Education Administrators in California

7. Experiment to Determine the Effects of Repetition and Alternating Levels of Practice on Learning to Typewrite, Melvin L. Barlow, Barbara Simi, U.C.L.A.

8. An Empirical Comparison Between the Gregg and Laurie Shorthand Systems, Lawrence W. Erickson, Charles T. Laurie, The Regents of the University of California

9. A Survey of Teacher-Pupil Relationships of California Vocational Agriculture Teachers Trained by Full Pay Intern Program, Melvin L. Barlow, Robert J. Winterbourne, The Regents of the University of California

10. Field Testing of HumRRO Office Education Materials, Phil Garver, Jr., Robert Fuller, Clovis Unified School District

11. An Evaluation of Self-Administration and Self-Interpretation of the California Occupational Preference Survey, Patricia Lux, James Saum, San Juan Unified School District

California

12. Assessment of Attitudes and Expectations of High School Teachers of Vocational Agriculture and Industry, O. S. Gilbertson, California Polytechnic State University

13. The Measurement of Attitudes of Chicano Freshmen Who are Preparing for a Criminal Justice Career, George T. Payton, San Jose Community College District

14. Research Training, J. R. Toothaker, Pasadena Area Community College District

15. Compton-Minority Community Attitude Survey, Rosetta Barnett, Compton Community College District

16. Field Test of Project #42-10421-C048-71: The Research and Evaluation of Followup Studies of High School Graduates Using Sampling Methods, William Harris, Santa Barbara County Schools

17. Chartering, James Farmer, Coast Community College District

18. Profiles of Community College Students in Career Programs for Use in Occupational Counseling, Richard E. Whiteman, Cerritos Community College District

19. Manpower Projection Model System: Phase II, W. H. Lawson, Odessa Dubinsky, Ventura County Schools

20. Development, Field Test, and Evaluation of a Method for Statewide Longitudinal Followups of High School Graduates Using Sampling Techniques, Fred E. Orr, William Harris, Santa Barbara County Office of Education

21. Student Perceptions of the Link Between School and Work, Sanford M. Dornbusch, Bruno Zachary, The Board of Trustees of the Leland Stanford Junior University

22. Industry Validated Vocational Performance Objectives, Robert L. Branch, Ralph Thompson, Sacramento County Office of Education

23. Use of Need Assessment in Improving the Utility of Community College Advisory Committees, Otto Roemich, Sidney McGaw, Otto A. Heinkel, San Jose Community College District

California

24. Research on Application of a Self-Actualization Process in Attempt to Improve Effort and Performance in Selected Vocational Programs, Mildred Hight, Hilding Nelson, Mt. San Jacinto Community College District

25. Improving Occupational Student Followup in California Community Colleges, Leslie Koltai, Benjamin Gold, Los Angeles Community College District

26. Project COPES - Part C, Nathan H. Boortz, George Ebey, Foothill Community College District

27. Occupation Needs Assessment of the Elderly, James R. Lagerstrom, Kevin Galvin Los Angeles Community College District

28. Comparison of Listing - Viewing Comprehension Levels of a Junior College Population Enrolled in Vocational Education Compared to the Comprehension Levels of the Learning Materials Utilized in Vocational Education, John Ross, C. E. Woodward, Jr., Harvey B. Rhodes, Yosemite Community College District

29. The Effects of Providing Pre-Educational Treatment to Handicapped Young Adults to Increase their Readiness for College and Vocational Education Programs: A Controlled Research Study, Bryan Kemp, Hospital Attending Staff Association

30. Reasons for Dropout and Inhibitors to Training Related Job Placement of Vocational Education Trainees, William A. Kempf, Ralph Bregman, State Department of Corrections

RESEARCH RELATED ACTIVITIES:

Research related activities during this period included conducting workshops, coordinating research projects between agencies, on-site visits to approved research projects, providing information and consultation to individuals and agencies preparing requests for funds to conduct research, and providing research information and consultation to members of the State staff.

California

1. Workshops: Six workshops were conducted during the period ending June 30, 1974. The workshops involved professional staff members from 38 counties, 79 school districts and 5 regional occupational program and centers. They were conducted as a first phase of Statewide implementation of a followup procedure using sampling methods. The procedure (TRACE) has been produced through three years of research, development and field testing using P.L. 90-576, Part C, Section 131(b) and local funds.

   Three workshops were conducted for State Vocational Education staff to orient them in the use of TRACE at the local level.

2. Project Visitation: Twenty-three onsite visits to research projects were conducted. Both regular and small grants were included. The onsite visits were intended to accomplish the following:

   a. Provide consultation in research methodology to help the agency solve problems that may have developed in the conduct of the project.

   b. Where appropriate, provide resource material that would (1) increase the generalizeability of the results of the project, and (2) strengthen the quality of data produced by the project.

   c. Perform an audit function to assure that (1) the study was being conducted in accordance with the approved project application, (2) personnel employed out of the project funds were performing project functions, (3) changes in objectives, procedures, or budget had prior written approval of the Coordinator of Vocational Education Research, and (4) the project directors' questions concerning reporting procedures were answered prior to submitting progress reports.

   d. Provide information to State staff that might be useful to project or program activities in other agencies.

3. Coordination and Consultation: Consultant service has been provided to State staff members, to individuals studying for higher degrees in vocational education,

and to individuals and agencies in universities, county school departments, local school districts and the State Department of Corrections. Activities have included consultation to insure coordination or research projects in vocational education with district programs of career education and guidance. Coordination of separate research projects within some large school districts has also been accomplished.

COLORADO

M.G. Linson, State Director of Vocational Education
Robert F. Barnes, RCU Director

PROJECTS COMPLETED:

1. A Comparison of Selection Criteria and Student Characteristics in Colorado LPN and ADN Programs, University of Northern Colorado

2. Developing Behavioral Objectives for Pre-Vocational Industrial Education Programs, Pueblo District #60

3. Needs for Vocational Training Programs to Meet Job Demand in Music Industry, Trinidad State Junior College

4. A Survey of Job Demand by Mesa County Businesses with Four or More Employees, Mesa College

NEW PROJECTS FUNDED:

1. A Pilot Program in Consumer Education Through Vocational Business and Office Education and Home Economics Programs, Colorado State University

2. In-Depth Evaluation of Consumer Homemaking Programs in Colorado, Colorado State University

3. Designing a Model for Federal Legislation, AVA

4. Developing Teacher Competencies in Trade and Industrial Education, Colorado State University

5. An Evaluative Study of Vocational Youth Organizations as an Integral Part of Vocational Educational Curricula, University of Northern Colorado

6. A Comparison Between Block Period and Traditional Scheduling of Business and Office Education Programs, University of Northern Colorado

7. A Comprehensive Statewide Adult Needs Assessment in Colorado, Colorado Department of Education

Colorado

RESEARCH RELATED ACTIVITIES:

1. Directed an EPDA, Part F, Section 553, funded Workshop on Developing Strategies for Involving Business, Industry and Labor (B/I/L) in Cooperative Teacher Training for Vocational Education. One state from each of the ten U.S.O.E. regions was invited to send a team of six participants - three from B/I/L, two from teacher education and the State Professional Development Coordinator. Workshop strategies and materials were developed by the Eckman Center who also furnished staff for the training. Each state team developed a total plan for implementation by the end of the workshop. Followup activities are being planned for next spring.

2. The RCU staff spent a great deal of time with the Research and analysis staff of the Colorado Department of Labor and Employment working out problems in total implementation of the BLS Occupational Employment Statistics (OES) Program. At present, data will soon be available for Manufacturing and Non-Manufacturing employment estimates. These data will be available by county, planning and management regions (13) and statewide. The MIS Supervisor will be developing an interface system between these data and the Division's enrollment and completion data.

3. The State Board and the Colorado Department of Education (CDE) entered into a contractual agreement to conduct a Statewide Adult Need Assessment. The RCU staff (SBCCOE) and the Adult Education staff (CDE) are responsible for carrying out this project. A project manager and staff are hired and data collection instruments are being developed. A sample of about 8,000 adults will be interviewed in the State. Data will also be collected from all agencies offering services to adults as well as from a sample of employers. Data collection will be complete by October 15 and the first preliminary report is due November 30. The final report is scheduled for June 1, 1975.

Colorado

PROJECTS AND ACTIVITIES PLANNED:

Research priorities for FY 75 have been identified and approved. Funding of all research activities with 131(b) monies will be limited to these priority areas. The priorities are:

1. Support projects that show the influence of occupational education programs on students being served in Colorado

2. Support projects that provide outputs that will identify and bring about needed changes in Occupational Counseling and Guidance in Colorado

3. Support projects that provide information relevant to decision-making and management as State and local levels of Occupational Education in Colorado

4. Support projects that provide outputs to improve the quality of Occupational Education programs in Colorado

5. Support projects that provide knowledge for improving the quality of teaching in Occupational Education in Colorado

A list of these priorities with guidelines for submitting "idea papers" (prospectus) will be sent to each Vocational Educator in the State.

A series of regional workshops for local vocational staff members are planned. The objective of these workshops is to improve the quality of proposals being submitted. If this objective is attained, the amount of staff time required for assisting in proposal development should be decreased.

The RCU staff will be heavily involved in training field staff for the Adult Needs Assessment project. An orientation workshop will be held for the 13 Field Coordinators. Three workshops will also be conducted to train the interviewers employed by the Field Coordinators.

CONNECTICUT

Herbert Righthand, Acting State Director of Vocational Education
Richard C. Wilson, RCU Director

PROJECTS COMPLETED:

1. Client Need Analysis to Determine the Need for Vocational Services for Handicapped School-Age Persons in the Greater New Haven Area, Area Cooperative Educational Services, North Haven, Connecticut

2. A Survey of Community Resources and Employment Opportunities Having Implications for Programs of Vocational Agriculture in Connecticut: Phase I, Univ. of Connecticut, Storrs

3. Research Study on Planning Expansion of Connecticut Regional Vocational-Technical Schools, University Research Institute of Conn., Inc., Wallingford

4. World of Work, Vocational Self-Concept and Career Planning, Hartford Board of Education

5. Career Education Program: Troup Middle School, New Haven Board of Education

6. Project 70,001, Hartford Board of Education

7. Alternative School-"Open Door", Waterbury Bd. of Ed.

8. Career Guidance Program, Urban League of Greater Hartford

9. Career Education in the Norwalk Public Schools, Norwalk Board of Education

10. Development and Operation of a Career Education Center, University of Bridgeport

NEW PROJECTS FUNDED:

1. Client Need Analysis to Determine the Need for Vocational Services for Handicapped School-Age Persons in the Greater New Haven Area, Area Cooperative Educational Services, North Haven, Connecticut

2. Research Study on Planning Expansion of Connecticut Regional Vocational-Technical Schools, University Research Institute of Connecticut, Inc., Wallingford

Connecticut

RESEARCH RELATED ACTIVITIES:

1. Administered Part C and Part D State projects

2. Disseminated research reports, releases, and other materials

3. Completed annual evaluation reports for State Legislature on research and exemplary programs

4. Prepared publication on 1973 graduate followup data

5. Served as liaison between Division of Vocational Education and State Labor Department

6. Attended USOE Regional Meeting on reporting procedures in Boston on May 30

7. Attended RCU Personnel Conference in Scottsdale, Arizona, March 18-21

8. Coordinated development of State Plan for Vocational Education for FY 1975

9. Attended State Board of Education public hearing on State Plan

10. Met several occasions with State Advisory Council representatives regarding development of State Plan

11. Participated in meeting with Education Committee of State Legislature regarding funding patterns and formulae for local education agencies

12. Collected end-of-year enrollment data for all vocational programs

13. Served as liaison between Division of Vocational Education and Program Review Committee of State Legislature on special study of secondary vocational education

Connecticut

14. Served as Division of Vocational Education representative on Department Executive Committee on Needs Assessment

15. Served as Division of Vocational Education representative on Departmental CEIS Committee

16. Attended meeting of CEIS Subcommittee on Occupational and Adult Education in Columbus, Ohio on January 8

17. Met on separate occasions with Vocational Education Sub-Committee of State Board of Education regarding State Plan development

18. Collected, processed, and compiled graduate followup data for 1973 vocational graduates and completed USOE Followup Report

19. Arranged for and attended presentation on MISOE (Management Information System for Occupational Education) given by Massachusetts representative on February 28

20. Worked with data processing personnel in updating and revising Connecticut Vocational Education Information System (CVEIS)

21. Served on Graduate Followup Guidelines Committee

22. Compiled USOE statistical report for FY 1973

23. Attended Career Education Conference at University of Connecticut on March 29

24. Participated in evaluation of Somers High School by New England Association of Colleges and Schools

PROJECTS AND ACTIVITIES PLANNED:

1. Long-Range Followup Study of Connecticut Secondary School Distributive Education Graduates

2. A Survey of Community Resources and Employment Opportunities Having Implications for Programs of Vocational Agriculture in Connecticut: Phase II

3. Development of Career Guide to Vocational Education Program in Connecticut.

DELAWARE

Conrad C. Shuman, State Director of Vocational Education
Burton Braverman, RCU Director

PROJECTS COMPLETED:

1. Development of a Model Delivery System for Comprehensive Exploratory Programs for Grades Five Through Nine, Seaford School District (The first year of this project has been completed, and a final report prepared)

2. Career Education Demonstration Project, Caesar Rodney School District (This project has been completed and copies of the final report have been forwarded to the U.S. Office of Education)

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED: NONE

DISTRICT OF COLUMBIA

Paul E. Cawein, State Director of Vocational Education
Jeannie H. Carter, RCU Director

PROJECTS COMPLETED:

1. Vocational Education and Urban Youth a Followup Study of 1968, 1971 and 1972 Graduates of the Public Schools of the District of Columbia, Center for Occupational Education, North Carolina State University, Robert L. Morgan, Project Director

NEW PROJECTS FUNDED:

1. Project INFO - To determine the impact of a readily accessible information and resource center for program and curriculum development. Houses a microfiche library collection, instructional and curriculum materials. Bruce Administration Center, Public Schools of the District of Columbia, Mrs. Ouida Madel, Project Director.

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED: NONE

FLORIDA

Joe D. Mills, State Director of Vocational Education
K. M. Eaddy, RCU Director

PROJECTS COMPLETED:

1. Field Test the Development of Elementary Curriculum for Career Education (D4-001), Ernest Upthegrove, Dade County Public Schools, Miami

2. Develop and Evaluate a Placement and Followup System (BR-1383), Clifford A. Bellum, Sarasota County Public Schools, Sarasota

3. Study of Pupil Personnel Services for Elementary Counselors in Career Education (C4-003), Harman Burck, Florida State University, Tallahassee

4. Design, Develop and Disseminate a Professional Career Education Self-Instructional System - PROCESS (BR-4-0023), James Edmundson, Florida State University, Tallahassee

5. Field Test and Complete Project LOOM (C4-004) - Learner Oriented Occupational Materials, Ernest Berger, Florida State University, Tallahassee

6. Development of Project FAIS (C3-075) - Fusion of Applied and Intellectual Skills, M. F. Smith, P. K. Yonge Laboratory, University of Florida, Gainesville

7. Dissemination-Diffusion Process in Selected Florida Schools (B3-0017), A. J. Lewis and J. W. Hensel, University of Florida, Gainesville

NEW PROJECTS FUNDED:

1. Continuation of FERIC Satellite Center (C3-0072) - Florida Educational Resources Information Center, George Sloan, Pensacola Jr. College, Pensacola

2. Dissemination of Employability Skills Catalog (C3-079), James C. Edmundson, Career Education Curriculum Laboratory, Tallahassee

Florida

3. Research Assistant Program (C3-076), Robert Lathrop, Florida State University, Tallahassee

4. Project Agriculture Manpower Survey & Analysis of Data & Develop Curriculum (Research Study)(C3-073) W. T. Loften, University of Florida, Gainesville

5. Graduate Assistants Program (C3-074), R. O. Gallington, Florida State University, Tallahassee

6. Identifying Performance Objectives Needed by Workers in Tourism Related Industries (C4-008), L. M. Buckner, Florida Atlantic University, Boca Raton

7. Controlled Vocabulary Approach to Teaching Shorthand (C4-011), Everett L. Groover, Duval County Public Schools, Jacksonville

8. Exploratory Study of Competency Based Teacher Education Programs in Occupational Home Economics (C4-101), Bonnie B. Greenwood, Florida State University, Tallahassee

9. Evaluation of Career Education Programs in Orange, Broward, Brevard, Leon, Escambia, Duval, Dade, and Hillsborough Counties (C4-002), L. H. Perkins, University of West Florida, Pensacola

10. Preparation of Teachers for Utilization of the Valuing Approach to Career Education (C4-012), J. B. Hodges, P. K. Yonge Laboratory, Gainesville

11. Distributive Education Dissemination Project (C4-007), L. M. Buckner, Florida Atlantic University Boca Raton

12. Placement and Progress of Florida's Technical Graduates (Phase II)(C4-006), J. W. Hensel, University of Florida, Gainesville

13. Phase III - Student Personnel Services at Area Vocational Technical Centers (C4-005), J. L. Wattenbarger, University of Florida, Gainesville

Florida

14. A Project to Develop and Implement Curricula for Florida Vocational Exemplary Programs (C4-001), L. H. Perkins & John Crittenden, University of West Florida, Pensacola

15. Completion of Report on 3-Year Curriculum Development Project FAIS (C3-080), J. B. Hodges, University of Florida, Gainesville

16. A Summary Report on Communication and Teaching Effectiveness in Vocational Education (C4-009), Churchill Roberts, University of West Florida, Pensacola

17. Comprehensive Career Education Development Program (CC3-001), Evelyn K. Csikos and Sterling Bryant, Leon County Public Schools, Tallahassee

18. A Comparative Study in Business Education Programs in Areas I and III (D4-004), Dolores M. Robinson, Florida A&M University, Tallahassee

19. Articulation Program in Associate Degree Nursing (D4-006), Joseph E. Rhile, Lake Sumter Community College, Leesburg

20. A Comparative Study of Work Experience Programs in Broward County (D4-003), Lucius Crawford, Broward County Public Schools, Fort Lauderdale

21. Development of Criterioned Referenced Objectives Automotive Mechanics (D4-005), Roger L. Richardson, Florida A&M University, Tallahassee

22. Automotive Body Repair (D4-002), Roger L. Richardson, Florida A&M University, Tallahassee

23. Development of Criterion Referenced Objectives in Turfgrass Management (D3-0004), J. Glenn Morrill, University of Florida, Gainesville

24. Continuation of Work of Curriculum Development in Career Education Programs (D4-007), John Crittenden, University of West Florida, Pensacola

Florida

25. Planning for Comprehensive Program of Vocational Education for Career Development K-University (D3-005), Rex C. Toothman, University of South Florida, Tampa

26. CAVIEW: College Adaptation Vital Information for Education and Work (D3-006), Jack Keller, University of West Florida, Pensacola

27. A Comprehensive Vocational Education Program for Career Development in Grades K-12 (DD4-001), Robert S. Megow, Orange County Public Schools, Orlando

RESEARCH RELATED ACTIVITIES:

1. Consulted and provided technical assistance to State-administered vocational and career education projects.

2. Consulted and provided technical assistance to projects established through the U. S. Commissioner's share of discretionary funds.

3. Worked with Southern Association of Colleges and Schools V-TECS Consortium.

4. Conducted a series of meetings throughout the State for placement and followup.

5. Worked with National Curriculum Management Network Centers and National Curriculum Dissemination Project.

6. Developed Management by Objectives System for bureau and division.

7. Worked with legislative committees on career education, research and evaluation.

8. Prepared Presentation on career education for Chief State School Officers annual meeting.

9. Meet with area vocational-technical center directors and local vocational-technical directors to explain research and development for VTAE Division.

Florida

10. Assisted in preparation of career education guidelines for 1974-75, to be utilized with all school districts.

11. Attended the National Research Coordinating Unit Personnel Conference and the Southwide Research Coordinating Council.

12. Worked with U. S. Office of Education personnel studying disadvantaged programs.

13. Worked with council of 100 project.

PROJECTS AND ACTIVITIES PLANNED:

1. Complete the current projects operating through the U. S. Commissioner's discretionary share of research and training, and exemplary funds.

2. Prepare specifications and recommendations for research and exemplary projects for 1974-75.

3. Develop a diffusion/dissemination model for the Vocational Division.

4. Establish new research and exemplary projects funded through discretionary monies.

5. Continue developmental activities for:

   a. placement and followup
   b. career education
   c. curriculum
   d. program standards
   e. management by objectives for research and evaluation bureau.

6. Continue liaison and coordination of vocational research and development efforts in and out of State.

GEORGIA

Russell S. Clark, State Director of Vocational Education
Paul Scott, RCU Director

PROJECTS COMPLETED:

1. The Development of an Individualized Instructional System for Selected Multi-Occupational Programs in the Area Vocational High Schools of Georgia, University of Georgia, Athens

2. Developing and Piloting a Program of Individualized Instructional Systems for Five Postsecondary Vocational Offerings in the Field of Trade and Technical Education, University of Georgia, Athens

3. Survey of Employment Opportunities, Career Ladder, and Training Requirements for Vocational Basic Job Clusters with Projections of Job Openings and Training Requirements to 1976, Georgia Institute of Technology, Atlanta

4. The Establishment of a Research and Dissemination Component in the Vocational Education Division of The University of Georgia, University of Georgia, Athens

NEW PROJECTS FUNDED:

1. Project to Develop Curriculum Materials for the Disadvantaged and Handicapped, Georgia Southern College, Statesboro

2. Vocational Guidance Project, Georgia Department of Education

RESEARCH RELATED ACTIVITIES:

1. In the areas of Data Processing and Machine Shop, produced State of the Art Reports, developed and validated a comprehensive tool, equipment and task listing, produced domain reports as part of the seven-State V-TECS Consortium.

Georgia

2. Developed a manual for writers of performance objectives and criterion-referenced test items.

3. Developed the preliminary study for adopting the California Public Service materials to the Georgia Cluster Program.

4. Consulted with University of Georgia classes on the preparation of research proposals.

5. Prepared a guidance proposal.

6. Worked with local school systems in the development of proposals to fund selected validated programs.

7. Performed numerous searches of the literature.

8. Conducted workshops concerned with career and/or vocational education.

PROJECTS AND ACTIVITIES PLANNED:

1. Implementation of a Public Service Cluster in the Gwinnett County School System.

2. Cobb County, Georgia Diffusion Project.

3. Development and Implementation of a Fine Arts Cluster.

4. Valdosta State College Dissemination Project.

5. Renew membership in V-TECS Consortium.

6. Develop a Statewide Evaluation Plan.

7. Provide mini-grants to school systems for use in adopting validated projects.

HAWAII

Samson S. Shigetomi, State Director of Vocational Education
Sybil Kyi, RCU Director

PROJECTS COMPLETED:

1. A Statewide Followup of Postsecondary Vocational Education Graduates in the University of Hawaii Community Colleges

2. Community College Instructor's Survey of Occupational Needs in Hawaii, Honolulu Community College

3. Study on Molokai and Lanai Job Requirements

4. Kauai Community Occupational Survey

5. A Statewide Followup System of Secondary Level Program Graduates, FY 1972, FY 1973, Data Technical Associates, Honolulu, HI

NEW PROJECTS FUNDED:

1. Statewide Followup Survey on FY 1973 Vocational Education Graduates in the University of Hawaii Community Colleges

RESEARCH RELATED ACTIVITIES:

1. Preparation of individual community college reports on FY 1973 Vocational Education Graduate Followup Survey. Preparation of Statewide report and publication including summary and comparisons with FY 1972 Graduate Followup Survey.

2. Dissemination of and resource consultant for information on AIM/ARM, ERIC, NIE Grant Applications, local manpower, employment and occupational information, other funding opportunities for R&D in vocational-technical programs; maintenance of vocational-technical staff library.

3. Development of and close coordination with Part C Commissioner's grant award project and related EPDA (553) grant award.

4. Development of Statewide occupational employment demand projection model.

5. Preparation of Management By Objectives workshop for State Vocational Convention.

6. A Statewide enrollment data system for secondary level program graduates, FY 1974.

8. A Statewide comprehensive Career Development Continuum (K-14).

9. Inservice experimental team programs at Waianae, Kaimuki and Konawaena high schools.

10. ETV materials development for Career Development Program support at grades 4-6.

11. Career Information and Resource Centers established and maintained at Roosevelt and Kailua high schools.

PROJECTS AND ACTIVITIES PLANNED:

1. Complete Statewide publication on Followup Surveys of FY 1972 and 1973 Vocational Education Graduates.

2. Continue R&D dissemination activities and maintenance of vocational-technical staff library.

3. Recruitment and orientation of staff for Part C Commissioner's grant award project and related EPDA (553) grant award project.

4. Continue development and initiate contractual negotiations for Statewide occupational demand projection model.

5. Conduct Management by Objectives Team (Oklahoma) Visit and coordinate their workshop at State Vocational Convention; help to develop Statewide vocational education administration MBO plan.

6. Preparation of Vocational Education FY 1974 Graduate Survey.

7. Solicit applications for research studies in designated priority areas.

IDAHO

Roy D. Irons, State Director of Vocational Education
Kenneth Hanson, RCU Director

PROJECTS COMPLETED:

1. Evaluation of the Impact of a Comprehensive Program to Improve Office Occupations Education at Madison High School as Measured by Student Competence (R-3), Madison High School School Dist. #321, Rexburg

NEW PROJECTS FUNDED:

1. Career Development through Vital Information for Education and Work (R-12), Sugar-Salem School Dist. #322, Sugar City

RESEARCH RELATED ACTIVITIES:

1. Assisted State staff in the development of Management by Objectives
2. Distributed curriculum information and materials
3. Developed and distributed Idaho State Plan
4. Distributed research reports
5. Participated in review of Exemplary Projects

PROJECTS AND ACTIVITIES PLANNED:

1. Continue development of Management by Objectives
2. Continue curriculum dissemination effort
3. Increase dissemination effort of research information

ILLINOIS

Sherwood Dees, State Director of Vocational Education
Ronald D. McCage, RCU Director

PROJECTS COMPLETED:

1. Computer Based Guidance, Chicago Board of Ed.

2. Analysis of Current Manpower Labor Market Information in Illinois, Phase II, Western Illinois University, Macomb

3. DISCOVER - A Computer Based Guidance and Administrative Support System, Phase I and Phase II, Willowbrook High School, School District #88, Villa Park, Illinois

4. Career Education Resource Laboratory, Phase I, Eastern Illinois University, Charleston

5. To Review, Sunthesize, and Annotate the Body of Literature Written Since March, 1970 in the Areas of Career Development and/or Career Education (Facilitating Career Development: An Annotated Bibliography II), Southern Illinois Univ., Carbondale

6. Consumer and Homemaking Articulation Program, Southeastern Illinois Community College, Harrisburg

7. A Demonstration Center for a Secondary, Post-Secondary and Adult Consumer and Homemaking Program, Kennedy-King Community College, Chicago

8. A Demonstration Center to Exhibit the Merits of W.E.C.E.P. Programs and Ways in Which They May Be Originated, Carbondale Community High School District #165

9. W.E.C.E.P. Demonstration Center for Northern Illinois, School District #46, Elgin, Illinois

10. A Needs Assessment for New and Innovative Programs in Cooperative Education, Person-o-metrics, Inc., Dearborn Heights, MI

Illinois

NEW PROJECTS FUNDED:

1. To Assess the Status of Career Education Activities Supported by the Division of Vocational and Technical Education in Illinois Since 1970, Tadlock Associates, Inc., Los Altos

2. Measuring Career Readiness in Elementary and Secondary Education, Southern Illinois University, Edwardsville

3. A Design for a Regional Occupational Education Coordination Council, Northwestern University, Evanston

4. Survey of Governmental Agencies to Determine Job Opportunities and Related Training Possibilities, Western Illinois University, Macomb

5. DISCOVER - A Computer Based Guidance and Administrative Support System, Phase II, Willowbrook High School, School District #88, Villa Park

6. Tri-County Career Education Project, Illinois Central Community College, Tri-County Industry-Education-Labor Council, East Peoria

7. Thinking for Action in Career Education, National College of Education, Evanston

8. To Develop and Demonstrate a Heavy Equipment Program in Operation and Maintenance for High School Students, Edwards County High School, Edwards County Community Unit School District #1, Albion

9. Career Education for the Handicapped, Springfield District #186, Springfield

10. An Exemplary Program in Occupational Education for the Veteran, Arlington, VA, Has Chicago, Illinois Office -- Control Systems Research, Inc.

11. Implementation and Field Testing of the Adult Vocational Education Model Program, Thornton Community College, South Holland

Illinois

12. An Impact Assessment of the Demonstration Center As a Dissemination Technique, Northern Illinois University, DeKalb

RESEARCH RELATED ACTIVITIES:

1. The Development of a Career Education Model for Grades 7-10, Posen-Robbins School District 14 1/2, Chicago State University, Posen

2. Production of Multiple Copies of a 15-30 Minute Film Based on Illinois Developments in Career Education, Southern Illinois University, Carbondale

3. East St. Louis Career Education Project, East St. Louis School District 189

4. Third Party Evaluation of Six Career Education Projects, Success Research Consultants, Inc., Tinley Park

5. CIOEDC Project, Site A, Elementary Secondary, and Joliet Junior College District/Joliet Township High School District #204, Joliet

6. CIOEDC Project, Site B, Cumberland High School and Junior College/Cumberland Unit School District #77, Toledo

7. CIOEDC Third Party Evaluator, Educational Management Services, Inc., Minnespolis, MN

8. CIOEDC Project Headquarters - Research and Development Unit, Division of Vocational and Technical Education, Illinois Board of Vocational Education and Rehabilitation, Springfield

PROJECTS AND ACTIVITIES PLANNED:

1. A Field Test, Validation, and Refinement of the Career Education Resource Laboratory, Eastern Illinois University, Charleston

2. Implement, Field-Test, and Provide Visibility for the Supply, Demand, Followup, and Cost Analysis Components with Emphasis on the Integration of All Components into a Viable, Interacting System, Continued Project Managed Through Research and Development Unit

3. Development of a Model Placement Center as a Comprehensive, Developmental/Diffusion-Oriented Ancillary Source to be Offered by Local Educational Agencies at the Secondary and Post-Secondary Level, Request for Proposal

4. Initiate an Activity to Develop a Systematic Approach for Determining Teacher Supply, Demand, Qualifications, and Trends on a Statewide Basis, Request for Proposal

5. To Provide for the Support of Innovative Ideas for the Improvement of Career Education that Relate to the Three Goals Supported by Part C Funds, Request for Proposal

6. Refinement and Demonstration of the Career Education Model for Grades 7-10, Chicago State University

7. To Implement, Field-Test, and Refine a Model Occupational Education Program for Disadvantaged Persons at the Secondary Level and to Ascertain Recommendations for Program or Course Changes Based on the Data Collected Pertaining to the Effectiveness of the Model Program and Each of Its Separate Components, Southern Illinois University, Carbondale

8. To Operationalize a Comprehensive Illinois Occupational Education Demonstration Center (K-14) Utilizing Completed Contractual Activities Sponsored by the Illinois Division of Vocational and Technical Education, Request for Proposal

9. The Development and Implementation of New and Emerging Occupational Programs for Young Women at the Secondary Level, Request for Proposal

Illinois

10. To Support a Demonstration Center to Highlight the Five Occupational Clusters Being Field-Tested Under a Contract Issued by the Professional and Curriculum Development Unit, Springfield School District #186, Springfield

11. Develop an Occupational Education Orientation Program Designed to Equip the Student with the Ability to Survive in Today's Work World, Request for Proposal

12. To Provide a Means Whereby the Classroom Teacher Can Make the Most Effective Use of Educational Resources--A Guide for Conducting "Action" Research, Request for Proposal

13. To Conduct a Multi-Stage Comparative Assessment of Secondary and Post-Secondary Consumer and Homemaking Education Programs with Emphasis on Identification of Exemplary Program Components, Request for Proposal

14. To Conduct a Comparative Analysis of the Organizational and Operational Patterns of Regular Cooperative Education Programs as Compared with Special Cooperative Education Programs, e.e., WECEP, CWT, Special Education Programs, DVT, Request for Proposal

INDIANA

Don K. Gentry, State Director of Vocational Education
Carol Ann Hodgson, RCU Director

PROJECTS COMPLETED:

1. Innovative Plan for Teaching Automobile Service Station Occupations, Porter County

2. Pre-Vocational Program at a Middle School, North Gibson Sch. Corporation

3. The Development of a Vocational Management by Results Model for State and Local Vocational Administration to Create an Annual and Five Year Plan for High Schools in Indiana, Ross Township

4. A Follow-up on the Plans of Indiana High School Seniors in the Class 1972, John Birdcell, Indiana Vocational Technical College

5. Pilot Project Research in Modern Mathematics as Applied to Machine Trades, Daniel Rayschich, Elwood City Schools

6. The Development and Testing of an Independent Study Instructional Unit Concerning the Metric System of Measurement - A Guide to the Metric System, Dan Householder & Gary Hansen, Purdue University

NEW PROJECTS FUNDED:

1. Development of a Health Occupations Continuing Education Center, Evansville-Vanderburgh School Corporation

2. Innovative Project Involving Research and Development of New Approaches to Vocational Education in Oral Communication Skills for Business Students, Indiana Vocational Technical College

3. Horticulture Seminar, Charles Allen Prosser Vocational Center

Indiana

4. General Related Instruction Guide for Vocational Distributive Education (Revision), Fort Wayne Community Schools

5. Identification and Evaluation of Student Admissions and Evaluation Procedures for the Vocational Nursing Programs in the State of Indiana, Fort Wayne Community Schools

6. Course Content for Teaching Electrical Discharge Machining for the Secondary Vocational Level, Mid Central Area Vocational School

7. Mini-Project to Develop an Individual Instruction Mode for the Course "You and the World of Work", Vincennes University Junior College

8. Development of Supervised Experience Program Record Books for Students Enrolled in Indiana Vocational Agribusiness Programs, Prairie Heights High School

9. Development of Instructional Materials for Use by Indiana Vocational Teachers in Teaching Leadership and Character Development to Youth in Indiana, Purdue University

10. Developing and Maintaining a District Center to Provide Services for Teacher-Coordinators in BOE, Graduates of BOE Programs, and the Business Community, Tri-Creek School Corporation

11. The Development of a Model Followup Instrument and Computerized Procedure Applicable to High or Post-High Utilization, Vincennes University

12. Model Career Placement Service, LaPorte Community School Corporation

13. Strategies for a Placement Service at the LEA Community Level, New Albany-Floyd County Consolidated Sch. Corp.

14. Placement Service Model, Elwood Community Sch. Corp.

Indiana

15. A Proposal to Develop a Comprehensive State-Wide Assessment and Evaluation Plan for Indiana's Vocational-Technical Activities, New Educational Directions, Crawfordsville, IN

16. Data Systems Contract, MSD of Washington Twp.

17. Piloting the Career Education Guide, 12 school corporations

18. A Dissemination System for the Indiana Research Coordinating Unit, Indiana University

19. A System to Integrate Efforts of Universities' Counselor Educators, Vocational Educators and School System Educators to Develop a Stronger Counselor Training Program, Indiana University

20. Career Education Program Helping all in Counseling, Ball State University

21. A Needs Assessment for Region V in Indiana for Area Planning, Marion Community Schools

22. A Proposal for Continuation of the Career Resource Mobile Training Unit as a Statewide Service, Penn-Harris-Madison School Corporation

RESEARCH RELATED ACTIVITIES:

The organization of the Division has been revised with the Coordinator of Research as part of the OPERATIONS UNIT. Overall Division objectives are being written and will be the focal point of each individual's direction.

PROJECTS AND ACTIVITIES PLANNED:

1. Issuing of "Requests for Prospectuses" based upon priorities identified by the State Board for Vocational and Technical Education

2. Meeting of all project directors of recently funded projects so each has a clear understanding of expectations and funding stipulations.

IOWA

William O. Schuermann, State Director of Vocational Education
Kenneth M. Wold, RCU Director

PROJECTS COMPLETED:

1. Instructional Materials Development and Articulation in Career Education, Iowa State University

2. Workshop in Curriculum Organization and Development in Agri-business and Natural Resource Education, Iowa State University

3. Identification of Occupational Competencies in Services for the Electromechanical Cluster of Occupations, Iowa State University

4. The Development of Learning Activity Packages for a Distributive Education Learning System, University of Northern Iowa, Cedar Falls

5. The Development of a List of Competencies for Office Occupations, University of Northern Iowa

6. Computerized Vocational Information System (CVIS), Joint County School System, Cedar Rapids

7. IOWAscript, Des Moines Area Community College, Ankeny

8. Models for Precareer Education in Iowa, Iowa State University

9. Total Career Education, Monticello, Monticello Community School District

NEW PROJECTS FUNDED:

1. Implementing Distributive Education Learning Systems, University of Northern Iowa

2. Career Development Needs in Merged Area III, Iowa Lakes Community College, Estherville

Iowa

3. Needs for Integrating Career Education Services Within Des Moines Area Community College District, Merged Area XI, Des Moines Area Comm. College, Ankeny

4. Area XV Comprehensive Career Education Research and Plan Development, Indian Hills Comm. College, Ottumwa

5. Interdisciplinary Curricular Planning for Career Development at Secondary Level

RESEARCH RELATED ACTIVITIES:

1. A Training Area Priority was developed and distributed to area schools

2. Worked with individuals interested in preparing proposals for research and exemplary projects

3. Visited with project directors and staffs to review and assess the progress of research and exemplary projects and to consult with regard to continuation of these projects

4. The State Plan for the Administration of Career Education in Iowa, FY 1975, was prepared and fowarded to the Region VII Office of Education for approval

5. Prepared reports for Project Baseline

6. Reviewed elementary-secondary and postsecondary program proposals for approval and funding

7. Coordinated the review and preparation of research and exemplary project materials for dissemination

8. Continued to develop a file of competency studies for use by state consultants in assisting local educational agency personnel in the development of curriculum materials

9. A Career Education Assessment and Planning Workshop was held to share information and to encourage area schools to become involved with assessment and planning projects to assist in efficient resources management. Directors of six research projects provided progress reports; technical assistance and support now available from the state educational agency were explained. Participants included area school superintendents, assessment and planning project directors, and local area chairmen from the Council for the Improvement of Education in Iowa

10. Printed and Disseminated:
Models for Career Education in Iowa --
"Selected Occupations by Clusters for Use in Elementary Schools"
"Information Centers in Career Education"
"Implementing Career Education in the School Curriculum"

11. Placed the above publications on microfiche and disseminated them to the Iowa Regional Educational Media Centers and to others upon request

12. Made a video tape presentation for a university workshop concerning available career education publications

13. Conducted on-site Department of Public Instruction team visits to exemplary projects for evaluation of progress

14. Acted as consultant in formulation of agreements and development of Career Information System of Iowa as a merger of two exemplary projects, CVIS and IOWAscript

PROJECTS AND ACTIVITIES PLANNED:

1. The Career Education Research Advisory Committee will meet to review research proposals

2. Visitations to on-going research and exemplary projects will continue

3. Consultative assistance will be provided to proposal initiators and directors of research and exemplary projects

4. The Annual U.S. Office of Education Statistical, Fiscal, and Descriptive Report of Activities for Fiscal Year 1974 will be prepared and submitted

5. The State Plan for the Administration of Career Education for FY 1976 will be prepared in cooperation with the Career Education Division and other divisions of the Department of Public Instruction

6. Upon approval of the U.S. Office of Education will print and disseminate the State Plan for the Administration of Career Education, FY 1975

7. A Career Education Handbook to supplement the use of the State Plan will be revised

8. Staff will continue to stimulate interest in additional exemplary and research undertakings

9. Staff will continue to disseminate appropriately the findings of the various projects

10. Update the exemplary projects portion of the Iowa Career Handbook

11. Prepare additional publications for dissemination

12. Conduct on-site team visits to exemplary projects

13. Provide consultative assistance in the development of exemplary proposals

14. Encourage and stimulate the initiation of exemplary proposals

KANSAS

John E. Snyder, State Director of Vocational Education
Wilbur A. Rawson, RCU Director

PROJECTS COMPLETED:

1. Identifying, Securing and Classifying Curriculum Materials in Agri-Business and Natural Resources, Ralph Field, KSU

2. Kansas Manpower Utilization System for Training Phase II, James Harris, KSU

3. Coordination of Vocational Research in Institutional Settings in Kansas, Dr. Kittleson, KSU

NEW PROJECTS FUNDED:

1. Study of Job Studies by Distributive Education Students, KSTC-Emporia

2. Identified Core Curriculum for Productive Agriculture, KSU

3. Development and Testing Training Memorandums for Distributive Education, Wichita AVTS

4. Development of Tested Curriculum for Conceptual Based Industrial Education Programs, Wichita AVTS

4. An Assessment of Industrial Education Teacher Preparation and Performance, Kansas City AVTS

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED:

1. Development of a Southeast Kansas regional planning component for vocational education and career education

2. Developing a research component for vocational education in the State Department of Education

KENTUCKY

Carl F. Lamar, State Director of Vocational Education
Robert M. Schneider, RCU Director

PROJECTS COMPLETED:

1. Research Related to Bowling Green Independent School System's Comprehensive Career Education Model, Western Kentucky University, Bowling Green

2. Research Related to the Regional Career Education Development Project -- KVE 3, Western Kentucky University, Bowling Green

3. Effects of a Program of Career Education in the Hazard Region, University of Kentucky, Lexington

4. Field Testing Career Exploration Materials, Bureau of Voc. Ed., Frankfort

5. Career Education Development Project: Hazard, Bowling Green, and Owensboro, SACS, Atlanta, GA

6. Dissemination of Information Relating to Selected Aspects of the Bowling Green City Schools Career Education Project, Bowling Green City Schools

7. Career Education Development Project -- KVE 3, Daviess County SVTS, Owensboro

8. Developmental Program in Distributive Education, Western Kentucky University, Bowling Green

9. Development of Instructional Materials for Teachers of Adult Programs in Vocational Fire Services, Bureau of Voc. Ed., Frankfort

NEW PROJECTS FUNDED:

1. Career Education Development Project: KVE 3, Daviess County SVTS, Owensboro

2. Developmental Program in Distributive Education, Western Kentucky University, Bowling Green

Kentucky

3. Career Education for Region 12 (Hazard), Kentucky Valley Educational Cooperative, Hazard

4. Mining and Reclamation Cooperative Education Program, Madisonville SVTS, Madisonville

5. Addendum to Distributive Education Curriculum Project Phase II, University of Kentucky, Lexington

6. Addendum to Two Hour Vocational Classes at the Laurel County Area Vocational School, ROPES XIII, Barbourville

7. Addendum to Field Testing Career Exploration Materials, Bureau of Voc. Ed., Frankfort

   Note: the above three projects are addendums to proposals that were listed in earlier semiannual reports

8. Development of Competency Based Examinations for Practical Nursing Program Challenge, Bureau of Voc. Ed., Frankfort

RESEARCH RELATED ACTIVITIES:

1. The Bureau of Vocational Education has developed and conducted a series of three day workshops across the State on the procedures and techniques used in developing research and development proposals. Approximately 120 vocational education teachers and administrators have participated in these workshops.

2. There has recently been established a Bureau of Vocational Education--University Coordinating Committee consisting of representatives of all of the Kentucky institutions of higher education that prepare vocational education teachers and the Bureau of Vocational Education. The major purposes of this committee are:

   a. To establish formal communication channels between and among the universities in the Commonwealth and the Bureau of Vocational Ed.

b. To provide advice concerning vocational education programs, services, and activities of mutual concern to personnel in the universities and personnel in the Bureau of Vocational Education.

c. To seek appropriate ways and means of cooperating in the providing of services to local education agencies.

3. Following a series of inservice education activities, The Bureau of Vocational Education is operating under a system of Management by Objectives with each division, unit and staff member developing objectives and activities relating to their various functions.

PROJECTS AND ACTIVITIES PLANNED:

1. By January 1, 1975 it is anticipated that the Bureau of Vocational Education staff will have completed 6 catalogs of objectives relating to the specific skills and abilities necessary for selected occupational areas.

2. By January 1, 1975 the Bureau of Vocational Education expects to have documented a model for developing instructional packages, based upon the concept of open entry-open exit, individualized instruction, for the catalogs mentioned above.

3. Between July 1 and December 30, 1974 the Bureau of Vocational Education plans to develop a model for a comprehensive management information system (MIS) for vocational education in Kentucky. This will include manpower supply, manpower demand, student interest and aspirations, student followup and several other components currently unidentified.

LOUISIANA

Kirby K. Awagain, State Director of Vocational Education
Gertrude Enloe, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED:

1. Louisiana Occupational Training Information System, Roger L. Burford, Louisiana State University

2. Research and Development Project in Career Education, Harold Gauthe, Lafayette Parish School Board

3. Research and Development Project in Career Education, Paul J. Moses, Calcasieu Parish School Board

4. A Comprehensive Follow-Up System of Louisiana's Vocational Education Students Who Have Completed Training or Left With Marketable Skills, Charles Curtis, School of Vocational Education, Louisiana State University

5. Research and Development Project in Career Education, Robert J. Aertker, East Baton Rouge Parish School Board

6. An Orientation Program for Vocational Education, James O. Lancaster, Ouachita Parish School Board

7. A Pilot Abbreviated Subsidized Work-Study Program Ouachita Parish High School, James O. Lancaster, Ouachita Parish School Board

8. Career Development of Youth for the World of Work, E.H. Farr, Winn Parish School Board

9. Mobile Exploratory Unit for Vocational Development, James V. Soileau, East Feliciana Parish School Board

10. A Follow-Up Program for High School Graduates in the Vocational Fields, Thomas G. Judd, Lincoln Parish School Board

Louisiana

11. Continuous Health Service Education, Chiles I. Carpenter, Union Parish School Board

12. Exemplary Program for Career Education, W.J. Bullock, Natchitoches Parish School Board

RESEARCH RELATED ACTIVITIES:

1. Monitoring Part C and Part D research projects in progress

2. Assisting in proposal writing in the State Department of Education

3. Assisting project proposal writing and planning for persons outside the Department of Education

4. Processing reimbursement request forms for Part C and Part D projects

5. Receiving, reviewing, and submitting quarterly, interim, and annual for Part C and Part D projects

6. Served on committee for planning the new vocational-technical school system for Louisiana

7. Served on NCATE reviewing team at Northwestern State University

8. Assisted local education agencies plan for vocational education programs in a new school

9. Continued data collection by request and also population data for preparation of the State Plan

10. Served as workshop consultant on Career Education in St. Tammany Parish

11. Completed feasibility studies for the establishment of vocational-technical schools in Livingston and Catahoula Parishes

12. Completed a survey to determine the location of microfiche readers, reader-printers and subscriptions to Research in Education in the State of Louisiana

PROJECTS AND ACTIVITIES PLANNED: NONE

MAINE

Elwood A. Padham, State Director of Vocational Education
Charles W. Ryan, RCU Director

PROJECTS COMPLETED:

1. Consortium in Higher Education, University of Maine Augusta

2. Occupations Course in Modern Forestry Practices, SAD No. 27, Fort Kent

3. Program to Advance Career Education, Portland Public Schools

4. Career Education Curriculum Guide Grades K-12, University of Maine, Orono

5. Prediction of Success in Selected Vocational-Technical High School Programs, University of Maine, Orono

6. Coastal Opportunities in Vocational Education, SAD No. 40, Waldoboro

7. Westbrook Educates for Business, Westbrook Regional Technical Vocational Center

8. GIVE - Geographically Isolated Vocational Education, MSAD #2, Greenville, Maine and MSAD #12, Jackman

9. Center for Educational Field Service & Research, University of Maine, Portland-Gorham

10. The Self-Directed Career Program As A Tool for Presenting Career Information to Ninth Grade Students

NEW PROJECTS FUNDED:

1. Career Days, Hall-Dale High School, Hallowell, ME

2. An In-School Job Placement Service for Secondary School Students, Mt. Ararat High School, Topsham

3. Teacher Training for Career Education, College of Education, University of Maine, Orono

Maine

4. Development of Demonstration Modular Curriculum, Lewiston Comprehensive High School, Lewiston

5. Career Education Within the University of Maine System, College of Education, University of Maine, Orono

6. The Effects of Selected Instructional Strategies on Learning Efficiency in Vocational Technical Education Programs, College of Education, University of Maine, Orono

RESEARCH RELATED ACTIVITIES:

1. Women in the World of Work, sponsored by Technical Education Research Center, Hartford, Connecticut, March 17-18, 1974

2. World of Work Economic Education, sponsored by the Joint Council on Economics Education, Hartford, Connecticut, April 29-30, 1974

3. Career Education In The Schools, Bangor Rotary Club, January 22, 1974

4. Career Education In Rural Areas, Penquiscook In-Service Training Project, Blue Hill, Maine, April 15, 1974

5. Case Conference - A Guidance Technique, Conference sponsored by the Division of Counselor Education, College of Education, University of Maine, Orono April 26, 1974

6. Career Education In The School - Grades K-12, Worcester, Massachusetts Public Schools, May 14, 1974

7. What Is Career Education, Guilford Public Schools, Guilford, Maine, May 17, 1974

PROJECTS AND ACTIVITIES PLANNED: NONE

MARYLAND

James L. Reid, State Director of Vocational Education
Marinus A. Kip, RCU Director

PROJECTS COMPLETED:

1. Career Information Resource Center for Learning Experiences, Baltimore County Board of Education

2. An Empirical Optimality Determination of Three Career Program Planning and Development Aspects: Articulation, Community Participation, and Faculty Commitment, Catonsville

3. Research and Development of a Computer-Assisted Instruction Center for Postsecondary Vocational Projects

4. A Research Project to Develop Model Curricula for Food Technician Programs, Chesapeake

5. Paraprofessionals as Debt, Nutrition and Medicare Counselors: A Study in Effectiveness, Dundalk

6. Evaluation Planning at the Wye Institute, Prince George's

7. Compilation and Dissemination of Existing Research Findings Concerning the Vocational Industrial Teacher in the State of Maryland, University of Maryland

8. A Study to Assess the Feasibility of Installation of a Computer and/or an Information Dissemination System for Vocational Education in the Alleghany County Resource Center, University of Maryland

NEW PROJECTS FUNDED:

1. Project "ACE" - Approaches to Career Education, Baltimore County Board of Education

2. Career Information Resource Center for Learning Experience, Baltimore County Board of Education

3. Study of the Effects of Career Education, Prince George's County Board of Education

4. Food Service Manpower Study, Chesapeake College

5. A Study to Determine the Effectiveness of Multi-modeling Individualized Instructional Packages in Teaching Seminar Methodology to Occupational Industrial Education Teachers, University of Maryland

RESEARCH RELATED ACTIVITIES:

1. FY 1974 Operation of the Vocational Education Student-Teacher Data System. A complete statistical description of programs, students and teachers on the secondary, postsecondary and adult levels.

2. The Annual Maryland High School Graduate Followup Study. Comprehensive followup of all Maryland High School graduates, public and private, with special emphasis on vocational-technical graduates by program area.

3. A Comprehensive Program and Institutional Evaluation of the Wicomico Vocational-Technical Center.

4. A large number of ancillary services in the areas of accountability, project evaluation designs, and research designs.

PROJECTS AND ACTIVITIES PLANNED:

1. Initiate application of a procedure for determining cost effectiveness of one or more postsecondary occupational programs.

2. Initiate application of a procedure for determining cost-effectiveness of one or more secondary occupational programs.

3. Plan and implement a sample procedure which will cover non-respondents to the followup survey.

4. Conduct a study of contributions that are currently being made by State, regional, and local Governments and institutions who provide manpower programs for the overall vocational-technical education program in the State.

5. Maintain systems for followup student data and teacher data.

6. Maintain and fund personnel and services necessary to operate the Research Coordination Unit.

7. Maintain support for ongoing research projects.

8. Develop and fund one research and demonstration project for an interdisciplinary approach to Consumer Education.

9. Plan and implement a project to ascertain the most effective method for integrating the vocational-technical education curriculum with the student's overall high school program.

10. Plan and implement one project to identify and develop curricula for occupations which would lend themselves to training in existing occupational programs to be trained in each of the following areas: distributive education, auto mechanics and business education.

11. Continue the existing evaluation system and pilot implementation for secondary programs toward a goal of completion and feasibility by end of fiscal 1975.

MASSACHUSETTS

John Manning, Acting State Director of Vocational Education
Jack Sweeney, RCU Director

NO REPORTS RECEIVED

MICHIGAN

Addison Hobbs, State Director of Vocational Education
Stanley Rumbaugh, RCU Director

PROJECTS COMPLETED:

1. Career Education Personnel Model, John T. Odbert and Eugene E. Trotter, School of Education, University of Michigan, Ann Arbor

NEW PROJECTS FUNDED:

1. Agribusiness and National Resources Education in Michigan: Employment Demand, Competencies Required and Recommended Delivery Systems, College of Agriculture and Natural Resources, Michigan State University, East Lansing

RESEARCH RELATED ACTIVITIES:

1. A major effort to develop a career development conceptual model, including a sound foundation of goals and objectives has been completed. The goals and objectives organized as a comprehensive hierarchy of objectives is now being subjected to an extensive validation process, including reviews by career development theorists, learning theorists, and various user groups, including teachers and counselors.

2. An innovative alternative to the career education "unit" approach to implementing career education has been developed. This process assists teachers to incorporate career development instruction into their existing instruction without reducing or replacing the instruction they are now delivering. This process places importance on the maintenance and improvement of existing instruction.

3. Assisted development and EPDA-F grant for operation of training programs for vocational educators in the use of local advisory councils. The grant, to Central Michigan University, involves a needs assessment, the development and implementation of training materials, and a final evaluation.

4. Assisted in development of an RFP for implementing performance based instruction in Michigan vocational education program.

5. Continued development and pilot testing of the Vocational Education Information Support System.

PROJECTS AND ACTIVITIES PLANNED:

1. The innovative process approach to implementing career education will be pilot and field tested within workshops conducted around the State. These workshops will be conducted with the aid of a workshop package designed and developed by Career Education project people in the State of Michigan.

2. During the next few months, work will begin on the development of an exploration program which will be consistent with the goals and objectives for career development which are now undergoing validation and refinement.

3. Completion of work cited in number 3 above.

4. Assist in the planning, development, and implementation of the vocational-technical inservice training program.

5. Continue development and pilot testing and begin installation of the Vocational Education Information Support System.

MINNESOTA

Robert P. Van Tries, State Director of Vocational Education
Jerome Moss, Jr., RCU Director

PROJECTS COMPLETED:

1. Project opportunity (Phase III), Anoka AVTI

2. View and Match Project, Dakota County AVTI

3. International Vocational Studies in Fashion Merchandising and Design, Suburban Hennepin County AVTI

4. Project Shore: Providing Relevant Supplies and Equipment for Vocational Education in Minnesota, Detroit Lakes AVTI

5. Administration of Educational and Vocational Guidance Tests in Minnesota Schools, University of Minnesota

6. Research Coordinating Unit - Vocational Education, University of Minnesota

NEW PROJECTS FUNDED:

1. Administration of Educational and Vocational Guidance Tests in Minnesota Schools, University of Minnesota

2. International Vocational Studies in Advanced Culinary Arts, Suburban Hennepin AVTI

RESEARCH RELATED ACTIVITIES:

1. Emphasis will be placed on dissemination of processes and products which have resulted from research and development projects. The establishment of an instructional materials center for facilitating this effort is expected to take place during this time.

Minnesota

PROJECTS AND ACTIVITIES PLANNED:

1. Numerous projects will continue into succeeding phases of operation. Additionally, new projects will be implemented from Fiscal Year 1975 monies.

MISSISSIPPI

Troy V. Majure, State Director of Vocational Education
James E. Wall, James F. Shill, RCU Co-Directors

PROJECTS COMPLETED:

1. Mississippi Research and Curriculum Unit, Mississippi State University (MSU)

2. Evaluation of an Urban Career Education Project in Mississippi Delta, MSU

3. Evaluation of Northeast Mississippi Career Opportunities Program, MSU

4. Evaluation of Louisville, McComb, and Winona School Systems Career Education Projects, MSU

5. Vocational-Technical Education Consortium of States (V-TECS), MSU

6. Evaluation of a Career Education Project on Mississippi Gulf Coast, MSU

7. Impact of Instructional Manpower Development Training Act Programs of Vocational-Technical Education in Mississippi, University of Southern Mississippi (USM)

8. Identification of Social Skills in Specific Vocational-Technical Areas and Possible Instructional Approaches Applicable to Such Needs, USM

9. Development of Comprehensive Vocational-Technical and Adult Education Programs, Itawamba Jr. College

10. Evaluation of Greenwood Career Education Project, MSU

NEW PROJECTS FUNDED:

1. Evaluation of Three Rivers Career Education Project EXPLORE, MSU

Mississippi

RESEARCH RELATED ACTIVITIES:

1. Assist in implementation and development of career education in the State.

2. Development of performance objectives catalogs on plumbing and groundskeeping.

3. Development of Statewide system for determining vocational reimbursement for local programs.

4. Evaluation and monitoring of funded research projects in Mississippi.

5. Assist State Advisory Council in conducting evaluation of vocational-technical education.

6. Assist in development of EPDA plan.

7. Assist in research proposal development for local school systems, junior colleges, and universities.

PROJECTS AND ACTIVITIES PLANNED:

1. Conduct Regional EPDA project on Training State Departments of Education personnel.

2. Evaluation of an Urban Career Education Project in the Mississippi Delta.

3. Evaluation of Northeast Mississippi Career Opportunities Program.

4. Evaluation of Louisville, McComb, and Winona School Systems' Career Education Projects.

5. Vocational-Technical Education Consortium of States (V-TECS).

6. Evaluation of a Career Education Project on Mississippi Gulf Coast.

7. Evaluation of Three Rivers Career Education Project EXPLORE.

MISSOURI

B. W. Robinson, State Director of Vocational Education
Glenn W. White, RCU Director

PROJECTS COMPLETED:

1. Research to Determine the Effectiveness and Adaptability to Individualized Instruction of the APEX Simulation Program, Shirley Evans, State Fair Community College

2. Identification of Competencies and Skills, Development of Objectives and Determination of Problem Areas for Courses Included in Agricultural Curricula Being Offered by Postsecondary Institutions in Missouri, Nila Hibdon, State Fair Community College

3. A Survey of Southeast Missouri to Determine Farm Power Technology Needs on the Postsecondary Level, George Stanek, Three Rivers Community College

4. A Research Proposal to Survey Southeast Missouri to Determine Present and Future Personnel Needs in the Field of Ornamental Horticulture, Samuel T. Denton, Three Rivers Community College

5. Followup of University of Missouri-Columbia Home Economics Education Program Entrants and Graduates from September 1, 1967 through December 1972, Joan Quilling, University of Missouri at Columbia

6. Visuals that will Aid in Teaching the Metric System to the Homemaker, Treva Kintner, University of Missouri at Columbia

7. Establishment of a Production Unit for Slide-Tape Presentations in Hotel, Motel, and Restaurant Training at Crowder College, Farrell Siddens, Crowder College

8. Discovering Yourself and Careers (Career Seminar), Joyce Fielding, State Fair Community College

9. Needs Assessment Inventory for Career Education, Richard Ehlers, Jr., North Kirkwood Junior High

10. The Career Planning Function of Selected Practical Arts Programs in Southwest Missouri, Lawrence Drake Southwest Missouri State University

11. An Analysis of Factors Influencing Costs of Delivering Vocational-Technical Programs Among Missouri Junior Colleges, Donald Osburn, University of Missouri at Columbia

12. A Study of the Change and Impact of the Administration, Intrepretation, and Related Counseling of the Career Planning Profile, Marvin McDonald, Missouri Western College

13. A Competency-Based, Criterion Referenced Instructional Model for Careers in Agricultural Mechanization, Glen Shinn and Gene Love, University of Missouri at Columbia

14. A Comparison of Instructional Approaches to Teaching the International System of Weights and Measures to Elementary School Children with Varying Mental Ability, W. A. Downs, Central Missouri State University

15. Cable TV - A Media Approach to Communicating Job Development and Placement Services to Employers and to the Community, Jerry White and Travis Montgomery, State Fair Community College

16. Investigation of Needs of the City of St. Louis for Paraprofessionals in Home Economics, Mary Ann Zerjar, Forest Park

17. Preparation and Testing of Career Education Modules for Teacher and Counselor Education, Norman C. Gysbers, University of Missouri at Columbia

18. A Pilot Program to Identify the Competencies, Development of Objectives and Determination of Problems Included in Agricultural Curricula Being Offered by Postsecondary Institutions of Missouri, Nila Hibdon, State Fair Community College

19. Establishing Vocational Skills in Severely and Profoundly Retarded Individuals, R. B. Hogoboom, St. Louis State School Hospital

Missouri

20. Parkway Business Speaker's Resource Bureau, Maurice Geisler, Parkway School District

21. Career Development in Brentwood, Raymond Bentz, Brentwood Public Schools

22. Needs Assessment Inventory for Career Education, R. C. Ehlers and R. S. Mosby, North Kirkwood Junior High

23. Entry-Level Competencies in Clothing Related Careers Needed by Graduates of Secondary Occupational Programs and Area Vocational Schools in Missouri, Joyce Waldron, Northwest Missouri State University

24. Parent and Teacher Attitudes Toward Career Education, Barbara Fulton, University of Missouri at St. Louis

25. Followup of University of Missouri-Columbia Business Education Program Entrants and Graduates from September 1, 1964 through June 30, 1974, Jo Behymer University of Missouri at Columbia

26. Computerized Accounting Applications Filmstrip, Aldo Leker, Longview Community College

27. A Survey of Adding, Calculating, and Accounting Machines Being Used in Kansas City Area Businesses, Elwyn McGaugh, Longview Community College

28. Feasibility Study on the Need for Developing a Curriculum for Improving Corrections Personnel, Richard Hair, Longview Community College

29. A Feasibility Study to Determine an Alternative Method of Cooperative Work Experience by Block Time in a Major Metropolitan Area for Community Colleges, Gayle Wasson, Longview Community College

30. Cost-Benefit Analysis of One-Year and Two-Year Distributive Education Programs in the State of Missouri, Donald Osburn, University of Missouri at Columbia

Missouri

31. Analysis of Mathematical Skills in Mechanical Engineering Technology at Florissant Valley Community College, Donald Osburn, Florissant Valley

32. Analysis of Student Mathematical Skills in Civil Engineering Technology at Florissant Valley Community College, John Matejcic, Florissant Valley

33. A Program to Obtain Industrial Input in Program Development, Don Gelven, Linn Technical College

34. Development of an Individualized Instruction Module; Use of the Metric System: Weight, Linear, and Volume, Melba Pruitt, Florissant Valley

35. County Vocational Development Clinic, Gene Van Matre, University of Missouri at Rolla

RESEARCH RELATED ACTIVITIES:

1. Conducting information retrieval and dissemination activities including a total of 454 searches resulting in distribution of 1,517 microfiche.

2. Participated as visiting chairman in two on-site vocational-technical evaluations.

3. Acted as chairman for a committee to develop new methods and procedures in conducting on-site evaluations for junior colleges. The new strategy was developed and field tested in a large metropolitan junior college.

4. Provided consultative assistance in carrying out project proposals.

5. Continued the implementation of MOTIC (Missouri Occupational Training Information System) Student Accounting Component. Two forms - Student Enrollment Data Form (Sac-1) and Class Summary Data Form (SAC-CS) - were developed and disseminated to the participating school districts to gather enrollment data, computer programs written to handle the data and generate reports for dissemination to the participating schools for verification.

6. Information workshops were held in five separate locations for the purpose of interpreting and disseminating the information generated in the first operational year of MOTIS.

7. Five workshops were held in separate locations throughout the State to disseminate information regarding the procedures for the local schools to use in completing information required through the MOTIS system.

8. Developed an agreement for the collection and dissemination of demand data with the Missouri Division of Employment Security.

9. Solicited Level I and II research projects on a Statewide basis.

10. Continued to monitor approved research projects.

PROJECTS AND ACTIVITIES PLANNED:

1. Continued activities in the information retrieval and dissemination.

2. Monitor approved research projects.

3. Solicited Level I and II research projects on a Statewide basis.

4. Continued developments of materials and procedures for the MOTIS system.

MONTANA

Benjamin Ulmer, State Director of Vocational Education
Robert Lehman, RCU Director

PROJECTS COMPLETED:

1. Identification of Competencies in Agriculture Products, Montana State University, Bozeman

2. Identification of Competencies in Agriculture Resources, Montana State University, Bozeman

3. Career Interest Survey, School District #1, Great Falls

4. Management Information System for Vocational Education, Office of The Superintendent of Public Instruction, Helena

NEW PROJECTS FUNDED:

1. Career Interest Survey, School District #1. Great Falls

RESEARCH RELATED ACTIVITIES:

1. Currently in the process of building more parts to our Management Information System for Vocational Education. As mentioned earlier, we have completed the high school portion and consider it to be an excellent effort.

PROJECTS AND ACTIVITIES PLANNED:

1. The next step is to add the adult portion and tie our career interest survey data and employment data to the system.

NEBRASKA

Glen H. Strain, State Director of Vocational Education
Elton B. Mendenhall, RCU Director

PROJECTS COMPLETED:

1. Nebraska Vocational Technical Graduate Followup System, Kearney State College Center for Vocational Technical Education

2. Statewide Computerized Model for Determining Occupational Opportunities in Nebraska, University of Nebraska, Lincoln Research Coordinating Unit for Vocational Education

3. Minimum Levels of Technical Competency in Office of Education, Kearney State College, Center for Vocational-Technical Education

NEW PROJECTS FUNDED:

1. Statewide Computerized Model for Determing Occupational Opportunities in Nebraska, University of Nebraska, Lincoln Research Coordinating Unit for Vocational Education

2. Home Economics Related Occupations Promotion in Nebraska Through Media Visitations, Kearney State College Center for Vocational-Technical Education

3. A Competency-Based Program for Preparing Vocational Education Teachers, Kearney State College Center for Vocational-Technical Education

RESEARCH RELATED ACTIVITIES:

1. Dissemination of Career Education materials from the Milford Career Education Project to other RCU Directors.

2. First year the annual occupational opportunities in Nebraska was coordinated on regional basis by technical community college areas.

3. Assisted proposal development and review for exemplary (Part D) projects.

4. Program evaluation for State career education projects.

5. Developed proposal for a Nebraska Vocational Information System under the U. S. Commissioner's discretionary award of Part C.

PROJECTS AND ACTIVITIES PLANNED:

1. Coordination of a project funded by U. S. Office of Education for Nebraska Vocational Information System for Division of Vocational Education, State Department of Education.

2. Merging of past project products with ongoing vocational programming.

NEVADA

R. Courtney Riley, State Director of Vocational Education
Jake Huber, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES:

The activities which follow were conducted on a half-time basis by the Associate Director of the RCU.

The Nevada RCU does not have under its aegis the responsibility or authority for the funding of research or exemplary projects. Consequently, no new projects were funded by the RCU nor were any projects completed during these two quarters.

1. The RCU has been very active in its monitoring capacity of all Part C and D (commissioner's funded and state funded) projects. There were four such projects in operation. The monitoring duties of the RCU assume the fole of:

   a. Assuring project compliance with state and Federal regulations

   b. Keeping abreast of project progress for purposes of problem identification (if any), progress reporting to state and Federal personnel, and to assure compliance with the agreed upon work statement

   c. Providing technical or consultative assistance, upon request, to project staff. This latter function is perhaps the most important, most time consuming, and most useful function that the RCU provides to project staff

2. The RCU Curriculum and Resource Library has had the following usage:

   31 walk-in users
   27 phone and mail requests for information

18 information search requests

New additions to the collection include:

3 microfiche
52 documents
7 (three prints of each) films

3. "RCU Report" Newsletter--Five issues of the newsletter have been printed and disseminated to 1,100 educators in Nevada plus 250 people across the nation.

4. Consultant Services--This activity of the RCU has been where the majority of emphasis has been applied. Consultant Services (non-fee, of course) have been provided to LEA and SEA for program planning, program review, proposal development, and program technical assistance

Ours is a small state in terms of population (489,000 people by 1970 Census) and a large state geographically speaking (110,540 square miles). With an average of 4.4 people per square mile, it is not difficult to see that an information dissemination system for our state must take some rather unique forms. Consequently, when a request is received from a school district, our reaction (depending upon the request) is to research their problem in our resource collection, gather and synthesize the information, and then go meet them armed with selected information relevant to their needs. We have found this technique to be quite successful in that it:

a. allows for personal involvement and assistance in the LEA's problems
b. reduced the number of "unnecessary" requests
c. reduces the total amount of information they must review
d. increases the sophistication of the user in terms of formulating his search statement and limiting the scope of his search. Through personel interaction with user, he is advised of certain search procedures and techniques. Thereafter, his information requests can be satisfied by phone and mail

e. serves to further develop familiarity and rapport between the SEA and the individual LEA's

5. These consulting services have been provided to:

   Elko County
   White Pine County
   Clark County
   Washoe County
   State Department

6. Conferences attended:

   National RCU Conference, March 18-21, 1974
   Technical Education Research Center sponsored conference on "Women in Work," January 27-29, 1974

PROJECTS AND ACTIVITIES PLANNED:

1. Publication and dissemination of the "RCU Report" (newsletter)

2. Publication and dissemination of selected research relevant to Nevada's vocational educators

3. Continuation and expansion of RCU curriculum and resource identification, acquisition, and dissemination activities

4. Monitoring of Part C and D funded projects

5. Continued consulting services to field personnel, LEA, SEA, advisory council, etc.

6. Development of a staff development program to improve or otherwise upgrade the R&D skills and R&D management expertise of Nevada's LEA and SEA staff

7. Act as a resource person in the development of a statewide plan for the implementation of career education

8. Such activities as assigned by the State Director of Vocational-Technical and Adult Education

NEW HAMPSHIRE

Neal D. Andrew, State Director of Vocational Education
Gloria Cooper, RCU Director

PROJECTS COMPLETED:

1. Community Needs Assessment for Vocational Education in N.H., Melvin Severance, Milford, NH

2. Exploring the World of Work - Part II, Roland Desrochers, Franklin, NH

3. Follow-Up Study of Students Exited from Selected Vocational Programs in New Hampshire Secondary Schools, Willian Annis, Durham, NH at UNH

4. Grade Five Career Education Program, David Johnston, Wolfeboro, NH

5. Career Education: Field Testing the N.H. Guidelines, Robert Wilkins, Newport, NH

6. Career Concepts Urban Applications - Manchester, NH, Chris Kehas & Louis Des Ruisseaux

7. Exploring the World of Work, Robert Ross, Franklin, NH

NEW PROJECTS FUNDED:

1. Programs for Dropouts, Salem High School, Fran Tate

2. Curriculum Development Coordination for New Hampshire Secondary Vocational Education, Keene State College, Richard Gustafson

3. Task Analysis Development, Kennett High School, Conway, Ted Raymond

4. Developing, Field Testing, and Implementing a Vocational Electronic Skills Training Curricula, Nashua High School, John Cepaitis

5. Vocational Guidance and Placement Program, Lebanon High School, Robert Holt

6. Performance Skills Profile, ConVal High School, Peterborough, NH, Edward Hamblin

7. Concord Career Education Project - Implementing, David Morin, Concord School District

8. A Career Education Program for the Somersworth Schools, Norm Yeaton, Somersworth School District

9. N.H. Career Education Model for Educationally Disadvantaged Adults - Technical Assistance, Project Second Start, Nancy Callahan, Concord, NH

10. Design of Four-Year Baccalaureate Program in Vocational Teacher Preparation, Keene State College, Richard Gustafson

11. LPN-ADN Transition Project, N.H. Technical Institute, Goldie Crocker

12. Multi-Media Multi-Faceted Approach to Instructing Fire Department Pump Operations, Fire Service Training, Voc-Tech Division, Concord, Barry Bush

13. Bread and Butterflies Career Exploration Program, Somersworth School District, Norman Yeaton

14. Building Trades - An Opportunity for Everyone, Exeter School District, Richard Bergeron

RESEARCH RELATED ACTIVITIES:

1. Coordinated State Plan

2. Completed Statistical, and Placement Reports for USOE

3. Completed a 1,3,5 year followup study

4. Completed a Needs Assessment Handbook for Vocational Planning

5. Wrote a funded proposal for ABE discretionary funds for "New Hampshire Career Model for Disadvantaged Adults"

6. Was liaison with National Diffusion Network

7. Helped to develop a screening process for 20 Vocational Center Plan

PROJECTS AND ACTIVITIES PLANNED:

1. Will develop performance-based curricula in five program areas beginning with task analyses

2. Will develop Phase II of Needs Assessment Handbook; i.e., How to use collected date for planning and implementing

3. Will develop and implement Guidance, Counseling, and Placement function statewide

4. Will begin work on statewide student enrollment system

NEW JERSEY

Stephen Poliacik, State Director of Vocational Education
Joseph Kelly, RCU Director

PROJECTS COMPLETED:

1. Career Development for Counselors, Glassboro State College

2. Business Education Cycle-Introduction to Vocations, West Deptford

3. Model Office Project, West Deptford

4. Career Development Project, Jersey City State College

5. Career Development Survey, Edison Township

6. Career Counseling, Middlesex County College

7. Career Development Curriculum Project, Rutgers University

8. Career Development Project, South Brunswick School District

9. Career Development Project, Asbury Park

10. Immigrant Information Service Agency, Essex Co. College

11. Needs Assessment, Hudson Co. Voc.

12. Research Planning Grant, Hudson Co. Voc.

13. Research and Evaluation Training Workshops, Trenton State College

14. Career Resource Center, Edison Township

15. Orientation to the World of Work, Rutgers University, Dr. Goldstein

16. Technology for Children Study, Rutgers University, Dr. Kievit

New Jersey

17. Research Grant, Rutgers University

18. Career Development Project, Middletown Twp.

19. Career Counseling Project, Central Reg. School District

20. Career Development Articulation Project, Ocean Co. AVTS

21. Career Development Project, 20 Urban New Jersey Cities

NEW PROJECTS FUNDED:

1. Validation of a Teacher Competency Exam, Rutgers University, M.S. Fabian

2. Computer Research Seminar, Rutgers University, Dr. Schaeffer

3. Research and Computer, Somerset Co. Voc. School

4. Teacher Training Study, Sussex Co. AVTS, Dr. Bach

5. Special Needs Study, Plainfield School District

6. Effects of Technology, Camden City, Dr. Curlott

7. Leadership Research Conference, Essex Co. Voc. School

8. W.E.C.E.P. Study, North Hunterdon Reg., Mr. Coogan

9. Automated Individual Student Report and Follow-up System, Division of Voc. Ed.

10. Teacher Competency Testing, Rutgers University

11. C.I.E. Study, Rutgers University, James Pen

12. Curriculum Development, Rutgers University, Benjamin Shapiro

New Jersey

13. A Study of T&I - Teachers Attitude Toward Administrators, Teachers and Students, Rutgers University, Joseph L. Hopkins

RESEARCH RELATED ACTIVITIES:

1. Prepared Special Papers
   a. Feedback
   b. Career Education Progress
   c. Current Research

2. Conducted Workshops on Career Education

3. Conducted Workshops on Research Utilization and Dissemination Techniques

4. Provided assistance to Federally funded projects (USOE) for both Part C and D

5. Coordinated the activities of the Northeast Regional Curriculum Network

6. Assisted in the development of a County Planning and Funds Distribution Model

PROJECTS AND ACTIVITIES PLANNED:

1. Hold an Annual Statewide vocational-technical education researchers conference

2. Continue operation and expansion of occupational resource centers

3. Assist in the further development and refining of the County Planning and Funding System

4. Support the development of the New Jersey Model for Career Development

5. Continue application of State EPPBS for planning, administration and evaluation of career development activities

New Jersey

6. Continue the review and research of effective student assessment instruments pertinent to cognitive, affective and psycho-motor domains

7. Plan, initiate, and support research, planning, evaluation, curriculum, information dissemination, and innovative activities

8. Prepare additional special papers

NEW MEXICO

James B. West, State Director of Vocational Education
Roger A. Labodda, RCU Director

PROJECTS COMPLETED:

1. North Area (APS) Career Education, K-9, Nelson Lowery, Albuquerque

2. Socorro Municipal Schools Career Education Program, Gilbert Gabaldon, Socorro

3. Curriculum Development, George Amsbary, Santa Fe

4. Farm Business, Management, Calf-Raising, Espanola, Hilario Maes, Espanola

NEW PROJECTS FUNDED:

1. Implementation of Career Education in New Mexico, Jean Page, Santa Fe

2. Career Implementation Program for Small Rural School, Paul Shelford, Penasco

3. Dona Ana Branch, Career Ladder Nursing, Margaret Scarbrough, Las Cruces

RESEARCH RELATED ACTIVITIES:

1. Observed Vocational Education Week (February 10-16).

2. Wrote State Plan for Vocational Education.

3. Attended National RCU Convention, Scottsdale, Arizona.

4. Continued project monitoring activity.

5. Submitted proposal, Part F, EPDA.

6. Continued Manpower Reports.

7. Planned fifth annual vocational education conference.

New Mexico

8. Conducted three-day workshop for State Vocational Education staff.

9. Continued data retrieval for vocational information system.

10. Finalized third-party evaluator contract for Part C project.

11. Continued advisement to Part D Exemplary Advisory Committee.

12. Submitted State Plan for Vocational Education to State Advisory Committee for Vocational Education and the State Board of Education.

13. Printed Annual Report.

14. Monitored Part F, EPDA projects.

15. Submitted Part C proposal for FY 1974-75.

PROJECTS AND ACTIVITIES PLANNED:

1. Begin Part C project.

2. Renew Penasco Project (second year).

3. Attend Western Regional RCU Conference.

4. Attend Fifth Annual Vocational Education Conference.

5. Implementation of EPDA Itinerant Teacher workshops.

6. Initiate vocational followup project.

7. Part D proposals due to program development.

8. Submit quarterly reports to Dallas.

9. Print State Plan for Vocational Education.

10. Submit Annual Report to Dallas.

11. Completion forms due to program development.

12. Expansion of Vocational public relations.

NEW YORK

Robert S. Seckendorf, State Director of Vocational Education
Louis A. Cohen, RCU Director

PROJECTS COMPLETED:

1. Travel Agency Survey

2. Summary activity report of the two R&D Centers: City University of New York Institute for Research and Development in Occupational Education and Cornell University Institute for Research and Development in Career Education.

NEW PROJECTS FUNDED: (Internal Projects)

1. A staff member developed a model for a combined occupational education related youth organization in cooperation with the Youth Leadership Unit. Model was presented to Bureau Chiefs and State Advisors.

2. Staff worked on the development of a metric system proposal in response to an RFP from Washington.

3. A staff member is writing a publication entitled The Matrix: A Simplified Approach to Occupational Objectives.

4. An Agriculture Occupational Manpower Survey is in rough copy and is being developed in cooperation with the Bureau of Agricultural Education.

5. A questionnaire regarding use of the metric system and need for inservice programs was developed and pretested. It has been mailed to BOCES and community colleges for comparison.

6. The publication Individualizing Occupational Objectives is being revised for a new edition and field testing.

7. Meetings were held with occupational directors and practical nursing coordinators to secure approval for testing of the ESCOE system.

8. A staff member was involved in the development of a software package for an ESCOE Computer Delivery System.

9. A study on the New York City Industrial Arts Publishing Center effect on reading was begun. Arrangements were made to conduct the study with the NYC Bureau of Industrial Arts.

10. A staff member is doing data analysis of industrial arts teacher training.

11. Progress continued on the EPDA study. Objectives of 18 participating institutions were collected.

12. A proposal entitled Research in Educational Careers for the Handicapped--Project REACH was developed.

13. Data analysis of the Health Occupations Facilities Survey was completed.

14. A total of 17 site visits were made to career education projects throughout the State. Visits were made for evaluation purposea.

15. A staff member assisted in the writing of a proposal for a consumer homemaking institute.

16. A staff member monitored the evaluation of SPICE (Special Programs in Career Education) in New YOrk City.

17. Meetings were held with City University of New York Research and Development Center staff to discuss ongoing proposals.

RESEARCH RELATED ACTIVITIES:

1. During the past sixt months, staff members provided consultative services to the following institutions and organizations:

   a. Japanese Ministry of Education
   b. Georgia Department of Education
   c. Cooperative Education High School Program, New York City Board of Education

d. Roosevelt Public School System
e. Culinary Institute of America.

2. Staff members provided consultative services to the following New York State agencies:

   a. Project Redesign
   b. Department of Civil Service

3. Staff members attended the following conferences and seminars and/or made presentations to the following:

   a. New York City Junior High School Principals Association
   b. New York State Educational Communications Association Conference
   c. Workshop for Teachers of Quantity Foods and Culinary Arts
   d. Workshop for Teachers of Trade Electricity and Electronics
   e. Workshop for High School Industrial Arts Faculty
   f. Workshop for Teachers of Health Occupations Education
   g. Fifth Annual Conference of the Council of Practical Nurse Programs of New York State
   h. Council of Practical Nurse Programs, Mid-Hudson Subcouncil
   i. Executive Council of Practical Nurse Programs, Curriculum Committee
   j. Elementary School Publishing Activities Awards Program
   k. National RCU Conference
   l. Institute for Adult Home Economics Education
   m. EPDA Conference
   n. Career Guidance Workshop (in connection with National Alliance of Manufacturers and Industry)
   o. Meeting of Association of Vocational Guidance Personnel
   p. Conference on Futuring for Health Occupations
   q. Presentation to SED Monitors of Career Projects on Status of Career Education in New York State
   r. New Jersey State College (ESCOE speech)
   s. Nassau County Community College
   t. Syracuse University Research Center
   u. Syracuse BOCES

New York

PROJECTS AND ACTIVITIES PLANNED:

1. Implementation of Teacher Certification Model using Licensed Practical Nursing ESCOE program.

2. Material to be developed with the Bureau of Testing in the area of performance (hands-on) tests for occupational educators.

3. In cooperation with the Bureau of Inservice Education, three packages of materials are in the planning stage to assist inservice educators develop workshops that contribute directly to classroom learner success.

4. An extensive evaluation is being planned for the Educational Communications Conference to be held in November 1974.

5. A survey of ESCOE users is being planned in order to evaluate the system.

6. The design of an evaluation scheme to evaluate student achievement when exposed to a performance objectives-based curriculum is being planned.

7. Mini Grant Followup Study.

8. Begin a study entitled The Development of a Model for the Installation of Reading Instruction in a Vocational Education Area.

9. Begin a study on the Effectiveness of an Objectives-Based Curriculum on Pupil Services.

10. Development of a paper on criteria for selecting a computer-based evaluation system.

11. Continuation of Career Education site visits.

12. Assist in planning consumer-homemaking conference for the fall.

13. Continue work with Health Occupations Teacher Competency Study.

14. Continue work with Apprenticeship Program in Trade and Technical Education.

NORTH CAROLINA

Charles J. Law, State Director of Vocational Education
Charles Rogers, RCU Director

PROJECTS COMPLETED:

1. The Dissemination of Local-Level, Long-Range Planning Systems to North Carolina Technical Institutes and Community Colleges, Department of Community Colleges, Raleigh

2. The Establishment of an Instructional Materials Dissemination Process Serving the Division of Occupational Education, State Department of Public Instruction, Raleigh

3. The Revision and Field-Testing of Materials for Implementing an Individually Scheduled Cluster Curriculum in Occupational Education, Sanford/Lee County Schools, Sanford

   The Development of an Occupational Education Model for the Primary Grades, Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill

NEW PROJECTS FUNDED:

1. Profile of Students in North Carolina Community Colleges and Technical Institutes, 1974, North Carolina State University, Raleigh

2. Student Communications and Occupations Related Experiences, Edenton/Chowan Schools

3. The Development of a Model to Expand Employment Options and Occupationsl Education Opportunities for Women in North Carolina, State Department of Public Instruction

RESEARCH RELATED ACTIVITIES:

1. Developed a new communication tool entitled SIGNAL - 2000 have been published reporting on six different projects.

North Carolina

2. Development of a Project Director Workbook.

3. Participated in Congressional Hearing on vocational legislation.

4. Three members participated in the National RCU Conference.

5. Three members participated in the Spring meeting of the Southwide Research Council on Occupational Education.

6. Produced 30-minute documentary film of research activities in North Carolina - shown on Statewide ETV.

7. Assisted Division of Occupational Education in procuring and reviewing individualized curriculum materials.

8. Developed research priorities for FY 1975.

9. Assisted in Statewide assessment of third-graders.

10. Assisted in the conduct of six Regional Career Education Conferences in North Carolina.

11. Participated in evaluation of North Carolina pilot optional schools.

PROJECTS AND ACTIVITIES PLANNED:

1. Develop a slide-tape presentation on the projects and activities of the Occupational Research Unit.

2. Plan and conduct an annual research dissemination conference.

3. Solicit proposals and fund five new research projects.

4. Develop and fund a project for development of individualized curriculum materials in middle grades occupational exploration.

5. Begin work on a project to develop and evaluate alternative teacher education arrangements.

6. Explore various rationale for use in designing a Statewide assessment of occupational education.

7. Develop a long-range plan for the occupational research unit.

NORTH DAKOTA

Carrol E. Burchinal, State Director of Vocational Education
Donald Eshelby, RCU Director

PROJECT COMPLETED:

1. Development of Instructional Course of Commonalities for Home Economics and Office Education, Harriet Shurr

2. Phase one: Followup Stude of Office Education and Distributive Education Graduates, Roger Bloomquist

3. Inservice Training Program for Telecommunications Technicians, Dale Peterson

4. Program, Planning, Budgeting and Evaluation System, Harold Gulbrondson

5. A Developmental Project for PreSchool Through Adult in Career Education for North Dakota (Third Year), Harry Weisenberger

6. A Developmental Project for PreSchool through Adult in Career Education for North Dakota (Second Year)

7. Student Identification and Determination of Factors that Influence Sound Career Selection and Achievement Decisions (Second Year), Lyle Sorum

8. Dickinson Diversified Occupational Program for Area Schools, Ted Renner

9. Student Identification and Determination of Factors that Influence Sound Career Selection and Achievement Decisions, Lyle Sorum

10. West Fargo Career Education, Laurel Thoreson

11. Dickinson Diversified Occupational Program for Area Schools, Ted Renner

12. A Project to Provide Career Education Services to Special Need Students, Jim Horton

North Dakota

13. Establishment of a Multi-district Vocational Education Center (Minn-Dak Vocational Center), Tony Kochenash

NEW PROJECTS FUNDED:

1. Development of Learning Activity Packages in Agribusiness, Wayne Berry

2. Industry Evaluation of Junior College Vocational Education Programs, James Wright

3. Model Store Curriculum - A Developmental Model for North Dakota Schools, Todd Goschen

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED: NONE

OHIO

Byrl R. Shoemaker, State Director of Vocational Education
R.D. Balthaser, RCU Director

PROJECTS COMPLETED:

1. Career Development, Akron City Schools
2. Career Development, Benton-Carroll-Salem Local Schools
3. Career Development, Canton City Schools
4. Career Development, Cincinnati City Schools
5. Career Development, Clear Fork Valley Local
6. Career Development, Cleveland City Schools
7. Career Development, Columbus City Schools
8. Career Development, Dayton City Schools
9. Career Development, E. Muskingum Local Schools
10. Career Development, Geneva Area City Schools
11. Career Development, Kirtland Local Schools
12. Career Development, Lorain City Schools
13. Career Development, Mad River-Green Local Schools
14. Career Development, Mansfield City Schools
15. Career Development, Minford Local Schools
16. Career Development, Orrville City Schools
17. Career Development, Parma City Schools
18. Career Development, Princeton City Schools
19. Career Development, South-Western City Schools
20. Career Development, Springfield City Schools

Ohio

21. Career Development, Toledo City Schools

22. Career Development, Warren City Schools

23. Career Development, Willoughby-Eastlake City Schools

24. Career Development, Youngstown City Schools

25. Agriculture Teacher Competency Survey, Ohio State University

26. Pre-Postsecondary Program Evaluation, Kent State University

27. Commissioner D Career Development Process Evaluation, Susan Wong Assoc., NYC

28. Development of Pre-Postsecondary Education Program in Health Occupations, and others for High School Students in Grades 11 and 12, Springfield-Clark County JVSD

29. Development of Pre-Postsecondary Education Program in Engineering and Health Occupations for High School Students in Grades 11 and 12, Akron City Schools

30. Development of Pre-Postsecondary Education Program in Health Occupations for High School Students in Grades 11 and 12, Penta County JVSD, Perrysburg.

31. Development of Pre-Postsecondary Education Program in Business, Health, Engineering, and Social Science Occupations for High School Students in Grades 11 and 12, Great Oaks JVSD, Hamilton County area

32. Development of Vocational Education Curricula Especially Adapted to Continual Adult Penal Education Programs, Ohio Department of Corrections

33. To Plan for Cable Television as a Means for Career Education (Probably inoperative), Dayton City Schools (consortium)

Ohio

34. Assessment of the Performance Capabilities of Graduates of Vocational Agriculture, Ohio State University

NEW PROJECTS FUNDED:

RESEARCH RELATED ACTIVITIES:

1. Commissioner I Transportation Curriculum Project, Ohio Department of Education

2. Automation of Accounting System for Interface with Reporting System - Phase II (Moving to immediate retrieval), Ohio Department of Education

3. Program Review for the Improvement, Development and Expansion of Vocational Education and Guidance (PRIDE) - 5th year completion of cycle with 21 Vocational Education Planning Districts including continued cost analysis, Ohio Department of Education

4. Converting statistical and fiscal system to "real" time operation for management activities of staff including:
   Linked EPDA project to develop labor market forecasting system,
   MBO forecasting system based on LEA training and reporting,
   Ohio Department of Education

5. Research Coordination Unit-continuation, Ohio Department of Education

PROJECTS AND ACTIVITIES PLANNED:

1. Career Development Program, Akron City Schools

2. Career Development Program, Benton-Carroll-Salem Local Schools

3. Career Development Program, Boardman Local Schools

Ohio

4. Career Development Program, Canton City Schools

5. Career Development Program, Carlisle Local Schools

6. Career Development Program, Cincinnati City Schools

7. Career Development Program, Clear Fork Valley Local Schools

8. Career Development Program, Cleveland City Schools

9. Career Development Program, Cleveland Heights-University Heights City Schools

10. Career Development Program, Columbus City Schools

11. Career Development Program, Dayton City Schools

12. Career Development Program, E. Muskingum Local Schools

13. Career Development Program, Geneva Area City Schools

14. Career Development Program, Kirtland Local Schools

15. Career Development Program, Lorain City Schools

16. Career Development Program, Mad River-Green Local Schools

17. Career Development Program, Mansfield City Schools

18. Career Development Program, Medina City Schools

19. Career Development Program, Minford Local Schools

20. Career Development Program, Orrville City Schools

21. Career Development Program, Parma City Schools

22. Career Development Program, Princeton City Schools

23. Career Development Program, Scioto-Darby City Schools

Ohio

24. Career Development Program, South-Western City Schools

25. Career Development Program, Springfield City Schools

26. Career Development Program, Stow City Schools

27. Career Development Program, Toledo City Schools

28. Career Development Program, Warren City Schools

29. Career Development Program, Willoughby-Eastlake City Schools

30. Career Development Program, Youngstown City Schools

31. Continuation of Pre-Postsecondary Education Program in Engineering and Health Occupations for High School Students in Grades 11 and 12, Akron City Schools

32. Continuation of Pre-Postsecondary Education Program in Health Occupations for High School Students in Grades 11 and 12, Penta County JVSD, Perrysburg

33. Continuation of Pre-Postsecondary Education Program in Business, Engineering, Health and Social Science Occupations for High School Students in Grades 11 and 12, Great Oaks JVSD

34. Researching and Developing a Program for High School Students in a Small Academic High School with Limited Vocational Diversification, Wyoming City Schools

35. Developing a Model Regional Vocational Education Planning Unit for Southwestern Ohio, Greene County JVSD

36. Conducting the Feasibility of a 5-Year Follow-up Study Utilizing IRS Information

37. 9-10th Grade Career Exploration Scheduling

Ohio

38. Home Economics (Part F) Follow-up Study

39. Design of a Data System for Vocational Education Economic Bases, Ohio University

40. Follow-up on Youth Leadership Development Workshop, Camp Muskingum

OKLAHOMA

Francis T. Tuttle, State Director of Vocational Education
William D. Frazier, RCU Director

PROJECTS COMPLETED:

1. Occupational Training Information System, Cycle VI, In-house

2. A Historical and Current Follow-up Study of Oklahoma Vocational-Technical Graduates, In-house

3. A Counselor Oriented Report of General Aptitude Test Battery Data, In-house

4. An Evaluation of 20% of Oklahoma's Secondary Vocational Programs, In-house

NEW PROJECTS FUNDED:

1. An Analysis of the Use of "Expressions." (This is a study of the State Department Newsletter), In-house

2. A Survey of Attrition Factors of Vocational Teachers, In-house

3. The Comparative Efficacy of Selected Manpower Demand Projection Techniques on Diversified Populations (Part C 131(a) project funded to the RCU), In-house

RESEARCH RELATED ACTIVITIES:

1. National MBO Project to initiate MBO system in 15 State Departments

2. Evaluated mobile guidance units in five counties and evaluated vocational programs in 60 public schools

3. Completed data collection of Ohio State University Task Analysis for Auto Mechanics, Computer Programmers, and General Secretary

4. Conducted 3 National MBO workshops in Oklahoma City; initiated MBO for a State college, a municipal government, and several high school administrative offices

5. Developed the FY 75 Oklahoma State Plan

6. Hosted representatives from USOE in review of State Department activities; California EPDA representative for overview of EPDA 552 & 553 programs; and delegations from Tennessee and Ohio for overview of MIS information system

7. Initiated use of SAS (Statistical Analysis System) programs for statistical analysis of research data by computer processes

PROJECTS AND ACTIVITIES PLANNED:

1. The following projects will be completed:
   A Proposal for the Initiation and Implementation of a Management by Objectives System in Selected States' Departments of Vocational-Technical Education (EPDA funded. Phase II will be initiated to add 12 more States.)

   A Parallel Follow-up Study to Establish Validity of the Follow-up Component of Oklahoma's Student Accounting System

   An Analysis of the Use of "Expressions"

   A Study of the Needs of Oklahoma Citizens for Information about Vocational-Technical Education

   A Survey of Attrition Factors of Vocational Teachers

   A Study to Identify Success Factors of Skill Training at Oauchita and Lexington Inmate Training Centers

2. The following in-house projects will be active:
   Occupational Training Information System, Cycle VII

   The Comparative Efficacy of Selected Manpower Demand Projection Techniques on Diversified Populations

   Development of an Evaluation Design for Vocational Curriculum Guides

Oklahoma

A Dropout Restoration Project

Research on the Evaluation of Oklahoma Vocational Programs

Development of an Accounting System for the RCU Based on Projects

OREGON

Leonard Kunzman, State Director of Vocational Education
Dave Fretwell, RCU Director

PROJECTS COMPLETED:

1. Integrated approach to Junior High School Career Education, Cal Young Junior High, Eugene

2. Exemplary Career Exploratory Program, Sherwood School District

3. Self-Learning Approach to Career Education in Teacher Preparation Programs, Oregon State University

4. Educational Career Awareness Program (Career Caravan), Central Point School District

5. Continuing Project in Career Awareness, Grades K-6, Union County IED

6. Integrated SUTOE Program, Oregon City School District

7. Health Career Exploration, Portland School District

8. Total Career Education Program, Pleasant Hill School District

9. Interdisciplinary Basic and Career Education Program, Vocational Village, Portland

10. Meeting Individual Needs in Clusters, Klamath Union High School

11. Systems Approach to Learning in Occupational Education, Clackamas

12. Consortium for Implementing an Industrial Arts Career Development Program, Oregon State University

13. Elementary Career Awareness, Eugene

14. Community-Based Career Exploration Program, Vale

15. Materials Development for Career Awareness, Linn-Benton

Oregon

16. Local Production of Relevant Awareness Media, Central

17. Proposal Planning Grant, Portland

18. Proposal Planning Grant, Clackamas

19. Proposal Planning Grant, Grants Pass

NEW PROJECTS FUNDED:

1. Project MUSIC - Career Exploration, Beaverton

2. Career Guidance and Counseling, Bend

RESEARCH RELATED ACTIVITIES:

1. Completion of Statewide followup of vocational high school students.

2. Initial development begun on a "Oregon Career Education Dissemination System."

3. "Career Program Planning System" became operational.

4. Planning continued for implementation of Statewide community college followup.

PROJECTS AND ACTIVITIES PLANNED:

1. Implementation of Statewide community college student followup system.

2. Funding of new 1975 fiscal year project - tentative selection complete pending award of Federal funds.

3. Ongoing development of Manpower/Curriculum Management System with use of Commissioners Part C funds beginning July 1, 1974.

PENNSYLVANIA

John W. Struck, State Director of Vocational Education
Carroll A. Curtis, RCU Director

PROJECTS COMPLETED:

1. School-Based Job Placement Service Model: Phase II, Pilot Implementation, Charles H. Matters, Reading-Muhlenberg AVTS

2. Research Study for County Wide Centralized Cooperative Education, William R. Silkman, Erie County AVTS

3. School-Based Job Placement Service Model, Robert H. Kifer, Greater Johnstown AVTS

4. Development of Individual Instructional Packages - Dental Technology, Merrill I. Hughes, Delaware County I. U. 25

5. Job Placement Model, Robert E. Eckrote, Columbia-Montour AVTS

6. A Comparison of Academic Achievement in Full-Time and Part-Time Area Vocational-Technical High Schools, Donald B. Zucco, Greater Johnstown AVTS

7. Development of Individual Instructional Packages - Machine Tool (Engine Rebuilding), Merrill I. Hughes, Delaware County I.U. 25

8. Development of Individual Instructional Packages - Materials Handling, Merrill I. Hughes, Delaware County I.U. 25

9. An Investigation of the Status of Selected Students of 1969-1973 Graduating Classes of Riverside High School, Taylor, Pennsylvania, June Willis, Riverside School District

10. A Comparative Analysis of Distributive Education Programs, Donald R. Lamuth, University of Pittsburgh

11. VEMIS Backup Facility and Transfer of Functions: Phase I, Pilot Implementation, L. Loyd Ruoss

Pennsylvania

12. Proposal Preparatory to Nursing and Auxilliary Nursing Articulation Program Study, John Bacon

13. Guidelines for the Establishment and Evaluation of Career Resource Centers in Pennsylvania, C. Robert Zimmerman

14. Career Development Guide Field Testing, Carl W. Pepperman

15. Doctoral Disertation of Norton Garfinkel, James O. Tule

16. Exemplary Career Resource Center for Grades 6-9 in Pennsylvania, Shari Rogers

17. Vocational Facilities Microfile System: Design and Implementation, Joseph F. Blake

18. Exemplary Career Resource Center for Grades 6 through 9 in Pennsylvania, Harry Scott, Jr.

19. Career Resource Center, Francis A. Voyten

20. Exemplary Career Resource Center, Kenneth W. Hoover

21. Exemplary Career Resource Center for Grades 6-9 in Pennsylvania, Kenneth R. Nusser

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES:

1. Career Resource Center Implementation and Evaluation.

2. PENNscripts - Evaluative questionnaires were developed and piloted for the forthcoming comprehensive evaluation of PENNscripts. The evaluation will involve approximately 25,000 students across Pennsylvania in order to assess the effectiveness of the career information dissemination system. An appropriate sample of teachers and guidance counselors will also be surveyed.

3. A study to evaluate the first year vocational education projects in the eight State correctional institutions of Pennsylvania. The sample was comprised of 423 male and female prereleased offenders and 59 instructors. Survey data indicated that many of the offenders were enrolled in programs not related to career plans and high number said no one is helping them secure employment. Almost all the offenders enjoy their course work and have positive views about the importance of vocational courses to future jobs. Most instructors rate the quality of their programs as average.

4. Manpower Research Activities - The primary goal is to improve the manpower research and information efforts as they relate to occupational education planning and decisionmaking. Activities designed to achieve this goal include continuous and terminal type tasks.

   One activity focused on the development of occupational employment projects based upon the 1960 and 1970 census data. This effort has resulted in the development of a computer-based system for making occupational projections: to date, a set of interim employment projections by occupation by industry for the State and labor market areas within the State for the years 1975 through 1990 by five-year intervals; also, information describing the annual average growth by occupation and annual withdrawal (due to death, disability, retirement and women leaving and reentering the labor force). The following publications have resulted:

   - Historical Estimates, 1960-1970, of Occupational Employment for the State, SMSA's and Balance of State

   - Interim Report of Employment by Occupation for the State, SMSA's and Balance of State for 1975, 1980, 1985, 1990

   - Annual Occupational Withdrawal for Pennsylvania for Pennsylvania and Major Labor Market Areas

Pennsylvania

Another task involved the continuation and improvement of methods for documenting occupational graduate supply from formalized vocational education agencies. Information in the form of tables detailed the distribution of graduates by occupation by school and by geographic area.

A major task involving continuous efforts is the computerization of the manpower supply/demand model. During the past year, computer programs were transferred to the Department of Education computer facility. This will facilitate the handling of large quantities of data for analyses and will result in data reports to support program planning and decisionmaking.

Consideration was given to the development of strategies and procedures for working with users of supply/demand data and related information. Efforts were directed at definition of the use of these data for educational planning and programming. One activity was the sponsoring of a symposium on manpower research. The target audience included State Government personnel and postsecondary education people. As a followup to this symposium, a publication detailing the proceedings was produced and distributed to individuals concerned about manpower research as it relates to educational planning, programming and policymaking.

PROJECTS AND ACTIVITIES PLANNED:

1. Conduct the evaluation of PENNscripts.

2. Complete and forward to USOE the Second Annual Report of the Discretionary Part C career education projects.

3. Assist local educational agencies to implement approved research and emplary projects funded directly from USOE.

4. Assist local educational agencies to implement a model occupational placement service.

5. Participate in the evaluation of Pennsylvania's pilot distributive education curriculum project (LAPS).

6. Continue manpower activities.

RHODE ISLAND

Peter Bowen, State Director of Vocational Education
Jacqueline Nelson-Harrington, RCU Director

PROJECTS COMPLETED:

1. Vocational Education Gore Group, State Department of Education

2. MIS (Management Information Systems), State Department of Education, Donald Galamaga

3. Career Awareness in North Scituate (CANS),

4. What Can You Be?, North Smithfield, Paul Joyce

5. Project Environment, North Smithfield, Paul Joyce

6. Protective Services Careers, Providence, Charles Bernardo

7. Opening Doors to Awareness, Lincoln

8. Career Concepts Awareness Program, Cumberland

NEW PROJECTS FUNDED:

1. ICE (Investigating Career Education), Providence, Charles Bernardo

2. Management Information Systems (MIS), State Department of Education, Donald Galamaga

3. Career Orientation Education (COE) Mt. Pleasant, Providence, Charles Bernardo

4. A Developmental Program for preparing all students for the World of Work, Cranston

5. Career Education for 8th Graders, Warwick

6. Career Orientation Education (COE) Flynn, Providence

7. Career Education Program, East Providence

Rhode Island

8. Opening Doors to Awareness, Lincoln

9. COE, Providence, Charles Bernardo

10. Career Awareness Partnership, Cranston

11. A Developmental Program for Preparing All Students for the World of Work, Cranston

12. Career Awareness Project, East Greenwich

13. OEOE (Occupational Exploration, Orientation, and Exposure), Warwick

14. Career Education Program, East Providence

15. Bradley Pre-Vocational Program, Bradley Hospital

16. Career Concepts Awareness, Cumberland

17. Industrial Based Career Education, World of Construction and Manufacturing, Providence

18. Career Awareness Project II (CAP II), East Greenwich

19. Career Awareness in North Scituate (CANS), Scituate

RESEARCH RELATED ACTIVITIES:

1. The Research Unit at the Department of Education is developing a Vocational Education module of a Management Information System (MIS) designed to collect, process, and disseminate information about Vocational Education to enhance decisionmaking in this area at State and local levels, for the purposes of program control, program management, and planning.

2. The Vocational Office is also supporting the Diocese of Providence in their efforts to develop and pilot career education program for system-wide use among non-public schools, grades 7-12.

Rhode Island

PROJECTS AND ACTIVITIES PLANNED:

1. The Vocational Office plans to continue support of the development of the MIS and to expand Career Education efforts including non-public as well as public endeavors.

SOUTH CAROLINA

L. L. Lewis, State Director of Vocational Education
Gregory Morrison, RCU Director

PROJECTS COMPLETED:

1. Development of an "Orientation to Career Education" package, containing programmed materials for teacher/administrators, with a videotape presentation and an ideas booklet suggesting a variety of classroom activities.

2. Initiation of Phase II of the Career Cluster Analysis Planning Project to establish a model for the articulation of Vocational and Technical Education training programs, based on behavioral objectives. This phase was concerned with the development and sequential organization of the behavioral objectives and the preparation of the Phase III project plan.

NEW PROJECTS FUNDED:

1. Phase III of the Career Cluster Analysis Planning Project, which involves the adaptation of available self-paced curriculum materials and the development of additional materials to produce individualized, self-paced curriculum in the areas of Machine Shop and Heating, Air-Conditioning and Refrigeration.

RESEARCH RELATED ACTIVITIES:

1. Reproduction of self-instructional Graphic Communications materials for distribution.

2. The expansion of Project VIEW into the remaining non-participating area vocational centers, high schools and junior high schools.

PROJECTS AND ACTIVITIES PLANNED:

1. A series of inservice workshops for teachers/administrators, as an orientation to Career Education, utilizing the orientation package.

2. Develop an instrument to evaluate the VIEW program delivery system in the participating schools.

3. Plans are being devised to implement a vocational research information system.

4. Career Cluster Phase III Project curriculum materials will be developed and implemented for field testing in the vocational and technical centers in the six county Appalachian region of the State.

5. The VIEW project will expand the number of occupations in the deck to 300. Plans have been made to conduct an extensive publicity campaign, utilizing various forms of media.

6. Workshops have been planned for the guidance counselors, principals and superintendents in the fall, for the purpose of discussing innovative approaches for implementing VIEW programs and identifying remedies for problems encountered.

7. A Graphic Communications Teacher Training Workshop will be conducted to assist instructors in developing plans and strategies necessary for effective implementation and administration of the new curriculum materials.

SOUTH DAKOTA

E. B. Oleson, State Director of Vocational Education
E. B. Oleson, RCU Director

PROJECTS COMPLETED:

1. Occupational data for Table I and demographic data for Table II of South Dakota State Plan for FY 1975, University of South Dakota, Vermillion

NEW PROJECTS FUNDED:

1. Agreement for cooperative investigation, University of South Dakota, Vermillion

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED:

1. Continuation of previous agreement and preparing documentation data for Part II of State Plan.

TENNESSEE

W. M. Harrison, State Director of Vocational Education
Garry Bice, RCU Director

PROJECTS COMPLETED:

1. A Study of Student Satisfaction with Vocational-Technical Education Programs in Tennessee, Tennessee Advisory Council on Vocational Education

2. The Impact of the Vocational Education Amendments of 1968 on Vocational Education in Tennessee, Tennessee State Advisory Council on Vocational Education

3. Survey of Public and Private Postsecondary Schools, National Center for Education Statistics

4. Relationship Between Vocational Office Education Training in Sumner County and Employment Obtained After High School Graduation, Sumner County Schools

5. Developing Curriculum Materials in Health Education Careers for Partially Sighted Students, McGavock High School, Davidson County

6. An Emphasis on Student Vocational Education and a Study of Community Vocational Opportunities, Decatur County Schools

7. Developing Job Sheets and Related Aids for Individualized Instruction in Machine Shop, Rutherford County

8. Career Guidance Services and Placement, McNairy Central High School, McNairy County

9. A Followup of Green Brier High School Graduates for the Part Four Years and Survey of Their Places of Employment, Robertson County Board of Education

Tennessee

NEW PROJECTS FUNDED:

1. The Development of a Framework for Curriculum and Professional Personnel Development for Comprehensive Vocational-Technical Education in the State of Tennessee, Tennessee State Department of Education

2. Individualized Instruction: A Project Utilizing Interdisciplinary Learning Packets Correlating Career Education and High School English in the Secondary Schools of Clay County

3. Development of Transportable Instructional Materials on Careers for Robertson County Schools

4. Pre-Vocational/Career Guidance Grades 7-8, Gibson County

5. A Survey of Surgical Techniques of Selected Small Animal Hospitals in Tennessee and Colleges of Veterinary Medicine for the Purpose of Developing Curriculum Materials, Maury County

6. Development of an Office Model Simulation Guide, Memphis State University, Memphis

7. A Study of Tourism Careers Available to Tennessee Students, Memphis State University, Memphis

8. Followup on Secretarial Science Graduates of Jackson State Community College, Jackson, Tennessee from 1970 to 1973, Madison County

RESEARCH RELATED ACTIVITIES:

1. Product Utilization.

2. Tennessee Management Information System.

3. Occupational Information System.

4. Information Retrieval and Dissemination System.

Tennessee

PROJECTS AND ACTIVITIES PLANNED:

1. Information Retrieval and Dissemination System: A SDI subsystem for administrators, designed to serve State staff.

2. Product Utilization: Revise five instructional packets and develop two additional ones for use in workshops across the State.

3. Occupational Information System: Update and add to primary, elementary and secondary INFOE, and develop and pilot test junior high INFOE.

4. Management Information System: Add to manpower supply component, the supply from private schools and returning military personnel.

TEXAS

John R. Guemple, State Director of Vocational Education
Ray Barber, RCU Director

PROJECTS COMPLETED:

1. An Analysis of Student Followup Data for Administrative Decisionmaking, Bryan ISD, Bryan

2. Cooperative Education for American Indians in Dallas County, Dallas County Community College District, Dallas

3. College Curriculum for Correctional Instructional Personnel, Educational Personnel Development Consortium C, Houston

4. Search for Common and Unique Competencies Needed by Vocational Supervisors and Administrators, Educational Personnel Development Consortium D, Richardson

5. Search for Common and Unique Competencies Needed by Vocational Technical Guidance Personnel and Development of Performance-Based Training Modules, Education Service Center, Region 10, Richardson

6. Analysis of Employee Supply and Demand in Howard County - A Pilot Approach, Howard County Junior College, Big Spring

7. Development of a Community Career Counseling and Information Program, McLennan Community College, Waco

8. A Pilot Program in Residential Construction and Technology, Paris Junior College, Paris

9. Identification of Adult Vocational Education Needs, Paris Junior College, Paris

10. Analysis of the Effects of the Change in the Basis of Funding Apprenticeship Related Instruction in the Public Schools, Texas A&M University College Station

11. High School Career Interest and Information Survey, Phase III, Texas State Technical Institute, Waco

Texas

12. An Assessment of Remedial Programs for Vocational Technical Students in Selected Postsecondary Institutions, The University of Texas, Austin

13. Vocational Followup Study, Windham School District, Huntsville

NEW PROJECTS FUNDED:

1. College Curriculum for Correctional Instructional Personnel, Educational Personnel Development Consortium C, Houston

2. Analysis of Effects of the Change in the Basis of Funding Apprenticeship-Related Instruction in Public Schools, Texas A&M University, College Station

3. Statewide Survey of Current and Future Employment Levels of Licensed Dental Hygenists, Texas State Technical Institute, Waco

4. Development of Instructional Module, "Health Care Organizations, Facilities, and Personnel", Texas Woman's University, Denton

RESEARCH RELATED ACTIVITIES:

1. Ten research proposals were reviewed and evaluated during the six month period. Four projects were approved for funding. Eighteen projects initiated prior to January 1, 1974, were continued. Thirteen projects were completed.

2. Members of the staff continued to participate in the coordination of exemplary projects funded under Part D, Public Law 90-576, and the development and coordination of pilot-demonstration projects in occupational education for handicapped students funded under Section 122(c)(3).

3. Members of the staff continued to participate in the activities of a special interagency task force to develop and implement a comprehensive manpower supply/demand data system for the State of Texas.

4. Members of the staff participated in the development, organization, coordination, review, publication, presentation, and dissemination of the Texas State Plan for Vocational Education for Fiscal Year 1975.

5. Members of the staff continued to participate in a special project to computerize the statistics and financial inputs required for the preparation of the Annual Report for Vocational Education.

6. Members of the staff organized and participated in a research dissemination conference in Arlington

7. The staff participated in a wide variety of activities related to research and development in occupational education and other components of career education.

PROJECTS AND ACTIVITIES PLANNED:

1. Nine previously described projects will be continued during the next six-month period. Three new projects have been approved for initiation during the six-month period. Approval of approximately fifteen additional new projects is anticipated.

2. Emphasis will continue to be placed on curriculum development projects, manpower needs and development studies, evaluation projects, and followup and placement studies. Continued emphasis will be placed on the role of occupational education as an integral part of the total career education process.

3. Continued emphasis will be placed on the initiation of exemplary projects focused on career awareness, investigation, and exploration.

4. Development and initiation of pilot-demonstration projects in occupational education for the handicapped will be continued.

5. The Annual Report for Vocational Education for Fiscal Year 1974 will be completed and forwarded to the USOE.

6. The staff will continue to participate in a wide variety of activities related to research and development in occupational education and other components of career education.

7. The division's library facilities will continue to be improved. Continued progress will be made in the development of improved dissemination procedures.

UTAH

Walter Ulrich, State Director of Vocational Education
N. Craig Kennington, RCU Director

PROJECTS COMPLETED:

1. Study of Vocational Education Advisory Committees, State Department of Education

2. Sevier Valley Job Market Survey, Dewain Washburn, Sevier Valley Tech

3. Uintah Basin Job Market Survey, Marlin Johnson, Uintah Basin Vocational Center

4. Workshop for Planning Career Education Program, Sevier School District

5. Study of Coal Mining Occupations and Training Needs, College of Eastern Utah

6. Study of the Leadership Service and Control Function of the Utah State Board for Vocational Education Staff, State Department of Education

7. Evaluation of a Training Program for Teachers Implementing Career Education, Utah State University

NEW PROJECTS FUNDED:

1. Chamber of Commerce, Work Observation Program, Local school districts of Salt Lake City, Davis, Granite, Jordan, and Murray

2. A Study of the Incremental Learning Units Developed for Use in Distributive Education, State Department of Education

3. Development and Field Testing of the Instrumentation for Evaluating Secondary and Postsecondary Vocational-Technical Education Programs in Utah, State Department of Education

Utah

RESEARCH RELATED ACTIVITIES:

1. Administration, evaluation, consultation, State funded, "Career Development (Dropout Prevention) Program"..

2. Attendance, American Education Research Association meetings, Chicago, April 15-19, 1974.

3. Attendance, Regional Interstate Planning Project, "Workshop on Affective Measurement," Las Vegas, May 13-15, 1974.

PROJECTS AND ACTIVITIES PLANNED:

1. A study to determine the validity of the present weighting factors in Part B of the school finance formula for vocational education.

2. A study to determine the extent to which vocational certificates, Associate of Applied Science degrees and Associate of Science degrees enhance the employability of job seekers.

3. Develop and implement survey procedures that will yield accurate job demand information.

4. A study to determine criterion referenced instruction approach to teacher education.

5. A study to determine career education and implications for business education programs at the junior high school level.

6. Assess educational needs and occupational opportunities available to youth and adults in agriculture in Utah

VERMONT

Arthur W. Ericson, State Director of Vocational Education
Joseph P. Kisko, RCU Director

PROJECTS COMPLETED:

1. Identifying a Non-Verbal Aptitude Measure for Use in Counseling Secondary Level Mentally Retarded Pupils, William Halloran, State Department of Education, Montpelier

2. Postsecondary Followup Study, S. F. Hochschild, Secondary Access Study, Montpelier

NEW PROJECTS FUNDED:

1. Postsecondary Followup Study, S. F. Hochschild, Secondary Access Study, Montpelier

2. Review and Analyze Enrollment Trends at the Barre City Regional Vocational Technical Center, Thomas Sandham, New England Resource Center for Occupational Education, Cambridge

3. Development of Consumer Education Curriculum Guide, Elizabeth P. Carr, State Department of Education

4. Instructional System Development Model for Vermont Area Vocational Centers, John Faust, New England Resource Center for Occupational Education, Cambridge

RESEARCH RELATED ACTIVITIES:

1. Development of Consumer Education Curriculum Guide.

2. Instructional System Development Model for Vermont Vocational Centers.

PROJECTS AND ACTIVITIES PLANNED:

1. Complete other research projects. Request new proposals. Read research proposals and make recommendations for approval, change or disapproval.

VIRGINIA

George S. Orr, Jr., State Director of Vocational Education
Lloyd M. Jewell, Jr., RCU Director

PROJECTS COMPLETED:

1. A Central Machines Laboratory Serving Two Block-time Programs and Incorporating Flexible Scheduling with Independent Study, Manor High School, Portsmouth

2. A Student-Built House Project, Fairfax County Schools

3. Development of a Plan for the Design, Field Testing, and Implementation of a Curriculum for a Course Tentatively Entitled "Introductions to Vocations" or "Vocational Orientation" for the Schools of Virginia, Virginia Polytechnic Institute and State University, Blacksburg

4. An Evaluation System for Vocational Education in Virginia, Virginia Polytechnic Institute and State University, Blacksburg

NEW PROJECTS FUNDED:

1. Development of a Plan for the Design, Field Testing, and Implementation of a Curriculum for a Course Tentatively Entitled "Introductions to Vocations" or "Vocational Orientation" for the Schools of Virginia", Virginia Polytechnic Institute and State University, Blacksburg

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED:

1. To fund 14 mini-grant projects to local school divisions and other educational institutions.

2. To fund a career education project for the Delmarva area in cooperation with Maryland and Delaware.

3. To fund a project for the development and implementation of career education in Virginia's public schools.

4. To fund a project for developing a curriculum for a course in "Introductions to Vocations"

5. To continue the development of the career education projects at Radford and Petersburg with the use of State funds.

6. To fund three additional Student Job Placement projects.

WASHINGTON

Arthur A. Binnie, State Director of Vocational Education
George P. Pilant, RCU Director

PROJECTS COMPLETED:

1. CCOE Participation in the Pacific Northwest Educational Research and Evaluation Conference, Washington Educational Research Association

2. Walla Walla Area Vocational Needs Assessment, Walla Walla School District

3. A Cost-Benefit Analysis of Vocational Education in an Area Vocational-Technical Institute, Renton School District

4. Project EVA Dissemination Packet, Highline School District

5. To Develop an Individualized Instructional Package on the Basics of the Metric System, Renton Schools

6. Educational Needs Assessment of Eastern Lewis County

NEW PROJECTS FUNDED:

1. Highline Public Schools Placement Service Training Model

2. Inter/Institutional Cooperation in Parent Education, Longview School District

3. Marine Clusters and Vocational Education Opportunities, Peninsula School District

4. A Study to Determine an Acceptable Teaching Load in Vocational Agriculture, Washington State University

5. Small Schools Alternative in Vocational Education, Tri-District Coop Mossyrock

6. Articulation of Secondary to Postsecondary Vocational Education Programs, Central Washington State College

7. National Instructional Television "Bread and Butterflies", State Department of Education

RESEARCH RELATED ACTIVITIES:

1. RCU Director is a member of the advisory committee to the six-State curriculum center. A State advisory committee has been created to provide a link between the curriculum center and the vocational educators of the State. Meetings will be held quarterly. The other States in the consortium are being encouraged to create Statewide committees also.

2. An investigation is being made into the advisability of reinstituting a Statewide followup system. A recent project resulted in the development of a new format and delivery system for followup.

3. The RCU Director is Western States' representative to the National RCU organization, and is President of the Washington Education Research Association for the coming year.

4. Dissemination activities have included Statewide distribution of research project results, newsletter articles promoting use of the ERIC system and microfilm equipment, development of bibliographies and automated ERIC searches for inservice training groups, workshops and seminars, and the distribution of microfiche, at no cost to vocational teachers in the State. A pilot selective dissemination of information (SDI) distribution was initiated with the Home and Family Life Service Area. Computer searches are provided free of charge to all vocational educators in the State.

PROJECTS AND ACTIVITIES PLANNED:

1. A project to evaluate a number of vocational education delivery systems for small schools will be continued with emphasis on testing..

Washington

2. An articulation plan (secondary to postsecondary) may be piloted in a number of LEA's.

3. Plans are being made to compare several vocational education delivery systems including Coop, DO, CRT, and traditional approaches.

4. Expanded SDI activities are planned for next year. Computerized searches will be continued and on-line service is being investigated.

WEST VIRGINIA

Clarence E. Burdette, State Director of Vocational Education
Glenn E. Smith, RCU Director

PROJECTS COMPLETED:

1. The Systems Approach: An Emerging Behavioral Model for Guidance - Operation Guidance II, Kanawha County Board of Education, Charleston

NEW PROJECTS FUNDED:

1. Child Development Curriculum, West Virginia University, Morgantown

2. The Development of a Master Plan for the Financial Support of Vocational Education Programs in West Virginia, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio

RESEARCH RELATED ACTIVITIES:

1. Provided consultative services to local educational agencies.

2. Conducted manual and computer searches for ERIC system users.

3. Provided microfiche and hard copy items for users, upon request.

4. Assisted with further development of the West Virginia vocational education management information system.

PROJECTS AND ACTIVITIES PLANNED:

1. Continuation of Research Coordinating Unit information services including ERIC microfiche, hard copy and computer searches for users.

2. Monitoring of Part C projects.

3. Continue assisting with development and operation of the West Virginia Vocational Education Management Information System.

4. Conduct of inhouse research related activities as assigned by the Assistant State Superintendent of Schools.

5. Initiate a project to determine factors inhibiting student enrollment in vocational programs.

WISCONSIN

Eugene Lehrmann, State Director of Vocational Education
Roland J. Krogstad, RCU Director

PROJECTS COMPLETED:

1. Evaluation of Associate Degree Secretarial Science, UW-Whitewater

2. Articulation of Secondary/Post-Secondary Food Service Program, VTAE-Fennimore

3. Articulation of General Education/Occupational Competencies, VTAE-Fennimore

4. Career Decision Project II, VTAE-Fennimore

5. Student/Teacher Attitudes Toward Individualized Instruction, VTAE-Fennimore

6. Conceptual Framework for Conducting Cost-Benefit Studies, VTAE-Fennimore

7. Descriptive Cost-Benefit Study, VTAE-Fennimore

8. Update of District Professional Development Plan, VTAE-Pewaukee

9. Facilities Utilization Study, VTAE-Pewaukee

10. Food Service Survey, VTAE-Pewaukee

11. 1974 District Plan, VTAE-Pewaukee

12. Math Grades as a Withdrawal Factor form Mech. Design, VTAE-Green Bay

13. Feasibility of Health Related Occupations Curricula, VTAE-Rhinelander

14. Administrative Leadership Conference, CSVTE-UW-Madison

15. Telephone Career Information Service, VTAE-Kenosha

16. Pedagogy for Part-Time Call Staff, UW-South, Menomonie

Wisconsin

17. Leadership Conference for T&I Supervisors, UW-Stout, Menomonie

18. Handbook for Evaluation of School-Based Career Education, UW-Stout, Menomonie

19. Teacher/Industry Exchange, UW-Stout, Menomonie

20. Learning Styles, UW-Stout, Menomonie

21. Industrial Education Guide, UW-Stout, Menomonie

22. Evaluation of Vocational-Technical Education in Wisconsin, UW-Stout, Menomonie

23. Professional Growth Week-II, UW-Stout, Menomonie

24. Career Decision Project - Spanish Translation, VTAE-Pewaukee

25. A Day in the Life of the Working Man, VTAE-Pewaukee

26. Cost-Benefit Study of the Food Manufacturing Program, VTAE-Fond du Lac

27. Feasibility of Cooperative Education on Post-Secondary Level, VTAE-Fond du Lac

28. Communications Skills Workshop, UW-Stout, Menomonie

29. Graduate Student Research Grants, UW-Stout, Menomonie

NEW PROJECTS FUNDED:

1. State-Wide Civil Highway Technician Evaluation, VTAE-Green Bay

2. Cost-Benefit Analysis of Welding Program, VTAE-Green Bay

3. Self Concepts and Reality Factors of LPN's, VTAE-Green Bay

4. Staff Development Project, VTAE-Rhinelander

Wisconsin

5. Native American Resources Project, VTAE-Rhinelander

6. Individualized Employability Skills Education Program, CSVTE-UW-Madison

7. Model for Coordinated Comprehensive Placement System, CSVTE-UW-Madison

8. Simulated Office Learning Laboratory, VTAE-Kenosha

9. Cost-Benefit Study of Library Assistant Program, VTAE-Kenosha

10. Competencies for Communication Skills, VTAE-Wisconsin Rapids

11. Third-Party Evaluation of Part D Discretionary Project, UW-Stout, Menomonie

12. Cost-Benefit Study of Practical Nursing, VTAE-Pewaukee

13. Vocationally Coordinated Curriculum for General Education, VTAE-Fond du Lac

14. Simulated Office Learning Laboratory, VTAE-Cleveland

15. Cost-Benefit Study for Associate Degree Nursing, VTAE-Milwaukee

RESEARCH RELATED ACTIVITIES:

1. The RCU funded a project conducted by the Center for Studies in Vocational-Technical Education to "Demonstrate the Use of CRT's in 16 Post-Secondary VTAE Districts and State Board Office in Conducting Computer Searches of the ERIC and CIJE Document Files"

2. Improve individualized instruction management and processes relevant to student characteristic learning styles, alternative learning activities, learning environments, media usage and teaching styles

3. Expand state-wide impact of research program through updating of research priorities and improvement of an RFP system

Wisconsin

4. Graduate Student Research Grants - Phase IV, UW-Stout

5. Evaluation of Farm Training Program and Validation of Competencies, UW-Madison

PROJECTS AND ACTIVITIES PLANNED:

1. Implementation of Environmental Education Guidelines to Integrate Environmental Education Concepts into Post-Secondary Vocational-Technical Education Programs A cadre of trainers will conduct district in-service sessions

2. Expand and field test open entry/open esit delivery system in one VTAE district

3. Re-assess vocational-technical education staff supply and education needs and priorities on both secondary and post-secondary levels

4. Expand and improve articulation of secondary and post-secondary vocational-technical education programs by studying selected curricula and upgrading articulation capabilities of 150 secondary and 150 post-secondary staff through a series of district workshops

5. Develop alternative strategies and preliminary plans for development of a health occupations teacher education program in the state

6. Field test a vocational education teacher/industry staff exchange program

7. In-service Needs of Home Economics Teachers

8. Alternative Strategies for Delivery of Comprehensive Vocational Programs

9. State High School Senior Aspirations and Goals Survey

10. Professional Development for Part-Time Call Staff

WYOMING

Fred Black, State Director of Vocational Education
Fred Black, RCU Director

PROJECTS COMPLETED:

1. Career Exploration Curriculum Model, University of Wyoming

2. Agriculture Resource Media, University of Wyoming

3. Occupational Education Safety Manual, Natrona District #1

4. New Facilities Study - Basin High School, Basin, Wyoming

5. New Facilities Study - Pine Bluffs High School, Pine Bluff, Wyoming

6. Summer Training Model for Counselors, Thermopolis, Syoming

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED: NONE

AMERICAN SAMOA

Pat Benioni, Director of Vocational Education
Pat Benioni, RCU Director

NO REPORTS RECEIVED

GUAM

Duane I. Pierce, Director of Vocational Education
Duane I. Pierce, RCU Director

NO REPORTS RECEIVED

PUERTO RICO

Jose Lema Moya, State Director of Vocational Education
Vidal Velez, RCU Director

PROJECTS COMPLETED:

1. Six-week inservice training for 141 vocational industrial teachers to update their knowledge and skills and/or to obtain certification

2. In-service training to RCU Personnel in Basic Statistics, Evaluation Techniques and Research Design

3. Collect, tabulate and analyze vocational education staff data to support the existence of needs for preparing and developing vocational education professional personnel

4. Long-range plan for the improvement of regular teacher education programs for the preparation of vocational education personnel

NEW PROJECTS FUNDED:

1. Evaluation Project for the Business Education and Distribution and Marketing Programs, RCU-Contracted with Labbadie & Associates Economic & Management Consultants

2. Development of the Student Textbook in Principles of Selling for the Distribution and Marketing Program at the Secondary Level, Gladys Torregrosa, Director-Distribution and Marketing Program

3. In-service Training Program for 26 Curriculum Technicians and Administrative Personnel in the Preparation of Job-Analysis Sheets, New York State University

4. In-service Training Program for Teachers of the Vocational Industrial Occupation Program for 126 Teachers, Coordinated with University of Puerto Rico and University of Kentucky

5. Inservice Training Program for Up-Grading Teachers of Special Education Program for 31 Teachers, Coordinated with New York University

RESEARCH RELATED ACTIVITIES:

1. The Semiannual Report to the USOE for the period of July to December was prepared

2. Preparation of RCU Final Report to the Assistant Secretary for Vocational and Technical Education

3. Preparation of State Vocational and Technical Education Annual Plan for School Year 1974-75

4. Preparation of State Vocational and Technical Education Annual Report for School Year 1973-74

5. Statistical data gathering and analysis on Vocational and Technical Education Programs for All the VTE Programs

6. A report of the on-going projects for school year 1973-74, the proposals submitted and projects to be developed during school year 1974-75 coordinated by the Research Coordinating Unit were submitted to all program directors

7. Preliminary arrangement for the establishment of a Management Information System at the Research Coordinating Unit were initiated

8. Development of the following proposals:

   a. Proposal for the Development of a Student Textbook in Principles of Selling For the Distribution and Marketing Program at the Secondary Level

   b. Proposal For an In-Service Training to RCU Personnel in Basic Statistics, Evaluation Techniques and Research Design

   c. Proposal For the Creation of Four Curriculum Development and Utilization Components at the Area Vocational Schools in Puerto Rico

Puerto Rico

d. Proposal For Continuing the Project "Translation and Adaptation of Instructional Materials For Vocational and Technical Education in Puerto Rico"

e. Proposal for the Development of Occupational Coefficients to Analyze Manpower Supply and Demand Problems Relevant to the Puerto Rico Dept. of Education

f. Proposal for the Development of a Curriculum for Small Business Management Training in the Commonwealth of Puerto Rico

g. Proposal for the Development of a Curriculum in Fishing Techniques, Vessel Construction for Deep Sea Fishing and Seamanship in Puerto Rico

h. Proposal for the Development of a Curriculum and the Training of Vocational and Technical Education Curriculum Specialists

i. Proposal for the Development of a Curriculum in Hospitality and Recreation Occupations Cluster for Puerto Rico Public Schools

j. Proposal for the Development of an In-Service Training Program for the Teachers of the Vocational Industrial Education Sub-Program

k. Proposal for the Establishment of a Comprehensive Adult and Vocational Education Department at the College of Education of the University of Puerto Rico

l. Proposal for the Continuation of Vocational Offerings in Academic, Public and Private Schools and Rural Vocational Schools of the Commonwealth of Puerto Rico

m. Development of Vocational and Technical Offerings in Area Skill Centers

n. Proposal for An Internship in Industry for Revising and Validating the Graphic Analysis Chart Developed by the Curriculum Technicians at the Pedagogical Resources Center

o. Proposal for an In-Plant Training Program to Develop the Optimum Degree of Specialization in Area Vocational School Students

9. Development of a Curriculum Development Plan for four years

10. Development and submission to USOE of the Proposed Plan for Vocational and Technical Professional Development in the Commonwealth of Puerto Rico

11. Coordinate the implementation of different planned projects on Research, Curriculum Development and Professional Development

12. Evaluation of two proposals submitted by the Vocational Agriculture Program aimed at Evaluating the Effectiveness of the Vocational Agriculture Program

13. Contract Consultants and Coordinate the In-Service Training to RCU Personnel in Basic Statistics, Evaluation Techniques and Research Design conducted at the State Department of Education during the month of May

14. Continue the third year of cooperative pre-service training program for the development of 30 vocational industrial teachers, in cooperation with the Inter-american University of Puerto Rico, the San Juan Technological Institute, Industry and Secondary Schools

15. Continue the third year of a special training program for the development of 10 vocational industrial personnel, in cooperation with the Mayaguez Campus of the University of Puerto Rico, area vocational schools and industry

16. Coordinate last three phases of a leadership training program for industrial arts and vocational industrial personnel in leadership positions

17. Coordinate the short-term scholarships for college level studies to meet individual needs and aspirations of vocational education personnel to complete certification requirements

Puerto Rico

PROJECTS AND ACTIVITIES PLANNED:

1. Complete and prepare final report of the Research Projects Business Vocabulary Count in the Spanish Language and the Project Evaluation of the Occupational Home Economics Program in Puerto Rico 1970-71 and 1971-72

2. Continue coordinating the evaluation project of the Business Education and Distribution and Marketing Programs

3. Continue the evaluation project of the Business Education Program of the Mayaguez Educational Region

4. Continue sponsoring the development of a textbook "Principles of Selling" for the Distribution and Marketing Program

5. Continue sponsoring the project "Establishment of a Management Control System for the Vocational and Technical Education Program using the PERT System"

6. Initiate the Management Information System for Vocational and Technical Education coordinating its establishment with the Computer Center of the Department of Education

7. Conduct an evaluation study of the Vocational Agriculture Program

8. Initiate and conduct the Follow-up Study of vocational and technical education graduates, 1973-74

9. Conduct a study to determine the effectiveness of the vocational laboratories established under the clusters of occupations concepts in Vocational Industrial Education (Trades and Industry)

10. Conduct an evaluation study of the Health Related Occupations Program

11. Continue and complete the study of Training Needs for Specialized Vocational Agriculture Personnel in Puerto Rico

Puerto Rico

12. Up-date the Occupational Demand Analysis for the Vocational Technical Education Program

13. Up-date the Occupational Enrollment Projections in terms of Occupational Demand for the Vocational and Technical Education Programs

14. Continue providing support for the following exemplary projects:

    a. A Model State Pedagogical Resources Center for Producing Curriculum Materials for Vocational Education Programs

    b. Development of an Exemplary Career Education Comprehensive Program in the Regular and Vocational Technical Program

    c. Continue the development, revision and adaptation of curriculum materials in emergent occupations of the different programs

15. Continue improving the quality of vocational education programs by providing up-dated curriculum materials

16. Continue developing curriculum materials for a course to prepare Pharmacist Assistants

17. Create, revise, test or adapt the curricula to the different Island sites in the established curriculum units at the following four area vocational schools: Guayama, Carolina, Mayaguez and Rio Piedras

18. Develop curriculum materials in 40 occupations within the occupational clusters for the Vocational and Technical Education Program

19. Continue the support of a proposal for the development of guides and tests for self-study in Office Education for youth and adults in the following areas: Typing I and II, Business Spanish, Business English, Filing, Office Practice, Fundamentals of Business Education and Advanced Typing

Puerto Rico

20. Develop curriculum materials for Pilot "Model Agricultural Mechanization School," for the Residential Agricultural School and for the Young and Adult Farmer Educational Center

21. Develop curriculum for the training of individuals for employment in agri-business

22. Develop curricula for about 24 to 30 teaching curriculum modules in consumer education

23. Finish and test curricula prepared for the post secondary level in distribution and marketing

24. Continue supporting preservice and inservice training programs for professional development of vocational personnel

25. Develop a state and six regional conferences in the use of curriculum materials available at the State Pedagogical Resources Center - Ends in December, 1974 $22,250

26. Conduct six regional workshops on adaptation and use of curriculum materials for consumer education programs - starts August 1974 and finishes on December 1974, $4,800

TRUST TERRITORIES OF THE PACIFIC ISLANDS

Neal W. Baker, Director of Vocational Education
Neal W. Baker, RCU Director

NO REPORTS RECEIVED

VIRGIN ISLANDS

Wilburn Smith, Jr., Director of Vocational Education
Wilburn Smith, Jr., RCU Director

NO REPORTS RECEIVED

RELATED PUBLICATIONS

Readers of this Semiannual Report might be interested in the following related publications. Copies of the reports with assigned ED numbers may be obtained from the ERIC Document Reproduction Service.

State-Administered Research and Development Projects in Vocational Education: Fiscal Year 1971 and Fiscal Year 1972. (ED-080-748)

State-Administered Research and Development Projects in Vocational Education: Fiscal Year 1973.

State-Administered Exemplary Projects in Vocational Education: Fiscal Year 1970, Fiscal Year 1971, and Fiscal Year 1972. (ED-080-749)

State-Administered Exemplary Projects in Vocational Education: Fiscal Year 1973

The Role of the National System of Research Coordinating Units in the Research-to-Practice Continuum. (ED-080-688)

The RCU's Role in Implementing the Career Education Concept. (ED-062-558)

ACCESSION NUMBER: VT102169

PUBLICATION DATE: MAY75

TITLE: STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS IN VOCATIONAL EDUCATION. FISCAL YEAR 1974.

PERSONAL AUTHOR: BRAATEN, LARRY; MILLER, ANNETTE

DESCRIPTOR: *STATE PROGRAMS; *RESEARCH PROJECTS; *VOCATIONAL EDUCATION; FEDERAL AID; *RESOURCE ALLOCATIONS; CONTRACTS; GRANTS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 95P.

ABSTRACT: THIS PUBLICATION PROVIDES A LISTING OF THE PROJECTS SUPPORTED IN EACH STATE THROUGH GRANTS AND CONTRACTS FUNDED BY THE STATES UNDER SECTION 131(B) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968. THE LISTING, WHICH IS ARRANGED ALPHABETICALLY BY STATES, SHOWS THE TITLE OF EACH PROJECT, THE NAME OF THE GRANTEE OR CONTRACTOR CONDUCTING THE PROJECT, AND THE AMOUNT OF SECTION 131(B) FUNDING OBLIGATED FOR THE PROJECT. THE LIST WAS COMPILED ON THE BASIS OF INFORMATION SUPPLIED TO THE OFFICE OF EDUCATION BY EACH STATE. (AUTHOR/NJ)

INSTITUTION NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 169

LIST OF

STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS

IN

VOCATIONAL EDUCATION

Supported Under
Section 131(b) of Part C
of
The Vocational Education Amendments of 1968
(Public Law 90-576)

Fiscal Year 1974

CE005343

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Occupational and Adult Education

Division of Research and Demonstration

MAY 1975

VT 102 169

Civil Rights Compliance

Discrimination Prohibited - Title VI of the Civil Rights Act of 1964 states:

> "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discirmination under any program or activity receiving Federal financial assistance."

Therefore, any program or activity receiving financial assistance from the Department of Health, Education, and Welfare must be operated in compliance with this law.

STATE-ADMINISTERED RESEARCH AND DEVELOPMENT PROJECTS

IN

VOCATIONAL EDUCATION

Supported Under
Section 131(b) of Part C
of
The Vocational Education Amendments of 1968

Fiscal Year 1974

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Caspar W. Weinberger, Secretary

Office of Education
T. H. Bell, U.S. Commissioner of Education

Bureau of Occupational and Adult Education
William F. Pierce, Deputy Commissioner

Division of Research and Demonstration
Howard F. Hjelm, Director

MAY 1975

INTRODUCTION

Section 131(b) of Part C of the Vocational Education Amendments of 1968 provides Federal funding for State-administered research and development activities in vocational education. These Federal funds can be used for paying up to 75 percent of the costs of the State Research Coordinating Unit (RCU) and for grants and contracts covering 90 percent of the costs of research and/or developmental projects. The funds are allocated to the States on the basis of a population formula prescribed in Public Law 90-576. In Fiscal Year 1974, for example, the State of Alaska received $12,068 while the State of California received $762,090.

The total funding appropriated for State use under Section 131(b) of Part C amounted to $17,872,215 in Fiscal Year 1972 and $9 million in each succeeding fiscal year. The States used a portion of this funding to assist in meeting the maintenance and operational costs of the State Research Coordinating Units. However, the major part of the funding was used to support grants and contracts with local school districts, universities, and other agencies within each State for the conduct of vocational research and development projects.

The purpose of this publication is to provide a listing of the projects supported in each State through grants and contracts funded by the States under Section 131(b) of Part C of the Vocational Education Amendments of 1968. The listing, which is arranged alphabetically by States, shows the title of each project, the name of the grantee or contractor conducting the project, and the amount of Section 131(b) funding obligated for the project. For any given State, the total amount of funds obligated in a particular fiscal year may or may not be equal to the State's allotment for that fiscal year. There are two reasons for this difference between funds allotted and funds obligated for grants and contracts. The first reason is that a State may at its discretion, reserve some portion of the State allotment for support of the State Research Coordinating Unit, using the remaining amount for the award of grants and contracts. The second reason is that, under the provisions of the Tydings Amendment, a State could carry unused funds over and obligate them in the following year.

This listing of State-administered research and development projects was compiled on the basis of information supplied to the U.S. Office of Education by each State. Additional descriptive information on each of the projects may be located in the "Research Projects in Progress" section of Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM), a journal which is published bi-monthly. Persons wishing more detailed information about a particular project than that contained in the Abstracts should correspond with the Director of the State RCU in the State concerned.

This publication has been prepared by Larry Braaten, Chief, Demonstration Branch and Annette Miller, Program Assistant, in the Division of Research and Demonstration.

Howard F. Hjelm, Director
Division of Research and Demonstration

May 1975

ALABAMA

State Allotment - FY 1974 $184,631

Total Funds Obligated - FY 1974 $144,207

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 15,000	Vocational-Technical Education Consortium of States	Vocational-Technical Education of States: To Develop Curriculum Objectives (V-TECS)
(2) 129,207	Occupational Research and Development Unit, Auburn University	Development and Implementation of a Statewide Vocational Education Terminee Follow-Up System for Alabama

ALASKA

State Allotment - FY 1974

$12,068

Total Funds Obligated - FY 1974

$12,504

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
12,504	Center for Northern Educational Research--University of Alaska Fairbanks, Alaska 99701	Evaluation of automated teaching system in rural Alaskan school. The systems evaluated were the Ken Cook and Tomahawk Corporations.

ARIZONA

State Allotment - FY 1974

$87,619

Total Funds Obligated - FY 1974

$17,886

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contr or	Title of Project
(1) 4,342	Mesa High School District	Profile of School Dropouts in Mesa Public School.
(2) 7,726	Eastern Arizona College	Educational Needs Assessment of Adults in the Globe-Miami Area.
(3) 534	Sunnyside High School District, Tucson	A Follow-up Survey of Graduates of Sunnyside High School to Determine Vocational Placement.
(4) 5,284	Pima Community College	Development and Use of Challenge Examinations for Clinical Laboratory in Nursing II.

ARKANSAS

State Allotment - FY 1974

$98,160

Total Funds Obligated - FY 1974

-0-

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

CALIFORNIA

State Allotment - FY 1974 $762,090

Total Funds Obligated - FY 1974 $542,093

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 75,000	Santa Barbara County Office of Education	Development, Field Test, and Evaluation of a Method for Statewide Longitudinal Follow-ups for High School Graduates Using Sampling Techniques.
(2) 40,000	The Board of Trustees of the Leland Stanford Jr. University	Student Perceptions of the Link Between School and Work.
(3) 29,757	Sacramento County Office of Education	Industry Validated Vocational Performance Objectives.
(4) 25,695	San Jose Community College District	Use of Need Assessment in Improving the Utility of Community College Advisory Committees.
(5) 10,000	Mt. San Jacinto Community College District	Research on Application of a Self Actualization Process in an Attempt to Improve Effort and Performance in Selected Vocational Programs.
(6) 9,970	Los Angeles Community College District	Occupation Needs Assessment of the Elderly.

CALIFORNIA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(7) 89,664	Los Angeles Community College District	Improving Occupational Student Follow-up in California Community Colleges.
(8) 40,000	Grossmont Union High School District	A Study of Career Centers in the State of California.
(9) 16,000	University of California, Los Angeles (Coopers & Lybrand)	A Study of the Vocational Entitlement and Grants Management System.
(10) 14,399	California Polytechnic State University Foundation	Involvement of Vocational Agriculture Students in Vocational Education Student Organization.
(11) 8,000	U.C.L.A.	Career Education Opinions of California Educators.
(12) 5,695	Yosemite Community College District (Columbia Jr. College)	Comparison of Listening - Viewing Comprehension Levels of a Junior College Population Enrolled in Vocational Education Compared to the Comprehension Levels of the Learning Materials Utilized in Vocational Education.

CALIFORNIA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(13) 61,253	Rancho Los Amigos Hospital	The Effects of Providing Pre-Educational Treatment to Handicapped Young Adults to Increase their Readiness for College and Vocational Education Programs: A Controlled Research Study.
(14) 49,745	Foothill Community College	Project COPES Part C.
(15) 28,359	William A. Kempf	Reasons for Dropout and Inhibitors to Training Related Job Placement of Vocational Education Trainees
(16) 2,500	San Juan Unified School District	An Evaluation of Self Administration and Self Interpretation of the California Occupational Preference Survey.
(17) 2,186	California Polytechnic State University Foundation	Assessment of Attitudes and Expectations of High School Teachers of Vocational Ag. and Industry School Administration toward Field Responsibilities, Duties and Activities of the Bureau of Ag. Education.

CALIFORNIA (continued)

Funds Obligated		Grantee or Contractor	Title of Project
(18)	1,570	Mendocino Community College District	Impact of Career Testing and Human Potential Seminar Training Upon Persistence and Performance of High Risk Students Declaring Vocational Majors.
(19)	1,800	Pasadena Area Community College District	Research Training
(20)	2,500	Compton Community College District	Compton - Minority Community Attitude Survey
(21)	2,500	Center for Career Studies California State University Long Beach	California Industrial Education Program Guide.
(22)	1,500	Fremont Unified School District	Curriculum Competencies Needed and Possessed by Vocational Education Administrators in California.
(23)	2,500	U.C.L.A.	Experiment to Determine the Effects of Repetition and Alternating Levels of Practice on Learning to Typewrite.
(24)	21,500	Cerritos Community College District	Profiles of Community College Students in Career Occupational Counseling.

COLORADO

State Allotment - FY 1974 Total Funds Obligated - FY 1974

$ _____ $ _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

CONNECTICUT

State Allotment - FY 1974 Total Funds Obligated - FY 1974

$100,726 $69,480

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 38,814	University of Connecticut	A Survey of Community Resource and Employment Opportunity Having Implications for Programs of Vocational Agriculture in Connecticut: Phase I
(2) 16,170	Area Coop Services New Haven	Client-Need Analysis to Determine the Need for Vocational Services for Handicapped School Age Persons in Great New Haven Area.
(3) 14,496	University Research Institute of Connecticut Inc.	Research Study on Planning for Connecticut Regional Vocational-Technical Schools.

DELAWARE

State Allotment - FY 1974

$21,165

Total Funds Obligated - FY 1974

$31,165

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 10,000	Seaford Delaware School District	Development of a Model Delivery System for Comprehensive Exploratory Programs for Grades 5-9.
(2) 8,409	Caesar Rodney School District	Career Education Demonstration Project.
(3) 12,756	Seaford School District	Development of a Model Delivery System for Comprehensive Exploratory Program.

DISTRICT OF COLUMBIA

State Allotment - FY 1974

$26,128

Total Funds Obligated - FY 1974

$3,937

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
3,937	D.C. Public Schools	Project Information

FLORIDA

State Allotment - FY 1974 | Total Funds Obligated [illegible]

$296,031 | [illegible]

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 281,660	Leon County School Board	[illegible]
(2) 5,000	University of Florida	[illegible]
(3) 11,500	Florida Atlantic University	[illegible]
(4) 2,662	University of Florida P.K. Yonge Laboratory School	[illegible]
(5) 32,000	University of West Florida	[illegible]
(6) 15,000	Florida State University	[illegible]
(7) 80,000	Florida State University	[illegible]

FLORIDA-(continued)

Funds Obligated	Grantee or Contractor	Title of Project
(8) 25,000	Florida State University	Elementary Guidance and Career Education Project.
(9) 15,000	Duval County School Board	Supervisor, Program Planning and Evaluation, Business Distributive and Diversified Education.
(10) 3,500	Florida Atlantic University	Identifying Performance Objectives Needed by Workers in Tourism Related Industries.
(11) 10,800	Florida State University	Research Graduates Assistants Project (continuation).
(12) 254	Florida Junior College at Jacksonville	Continuation of FERIC Satellite Center.
(13) 10,661	University of Florida P.K. Younge Lab. School	The Fusion of Applied and intellectual Skills (continuation).
(14) 3,977	University of Florida P.K. Yonge Lab. School	To Complete Project FAIS (continuation).
(15) 14,000	University of Florida	Agriculture Manpower Survey and Analysis of Data and Development Curriculum (Research Funds).

FLORIDA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(16) 10,800	Florida State University	To provide Stipend support for four Florida State University Graduate Students Committed to Research Teacher Education, Administrative or Curriculum Development in Area of Career Education.
(17) 2,500	Florida State University	Career Education Curriculum Laboratory.
(18) 254	Pensacola Junior College	Continuation of FERIC Satellite Center.
(19) 550	University of Florida Gainesville	Completion of Report on 3-year Curriculum Development Project FAIS.
(20) 25,000	University of West Florida	A project to Implement Curriculum for Florida Vocational Exemplary Programs.
(21) 25,000	University of Florida College of Education	Phase III - Student Personnel Services.
(22) 2,990	University of West Florida	A Summary Report on Communication and Teaching Effectiveness in Vocational Education.
(23) 15,000	Palm Beach County	Develop a Recruitment Counseling Component for Adult Career Education.

Funds Obligated	Grantee or Contractor	Title of Project
(24) 10,000	Santa Fe Community College	Development of an Evaluation Instrument for Emergency Medical Technician (EMT) Program Graduates.
(25) 15,000	University of South Florida	Develop Certification Requirements and Provide In-Service Programs to assist Work Experience Teachers in Individual Instruction methods.

GEORGIA

State Allotment - FY 1974 $236,871

Total Funds Obligated - FY 1974 $163,994

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 4,500	Darden Res. Corporation	Task Analysis of Machine Shop and Data Processing.
(2) 30,000	University of Georgia	Competency Based Teacher Education & Certification Project Phase I.
(3) 30,122	Valdosta State College	Diffusion Project
(4) 27,953	Gwinnett County School System	Developing & Implementing the Public Service Cluster Phase I.
(5) 5,062	Colquitt County School System	Mini-Grant
(6) 2,401	Green County School System	Mini-Grant
(7) 11,105	Hancock County School System	Vocational Reading Program.
(8) 2,817	Oconee County School System	Mini-Grant
(9) 4,001	Union County School System	Mini-Grant
(10) 15,000	Southern Assoc. of Colleges & Schools	V-TECS Consortium
(11) 20,000	Muscogee County School System	Developing and Implementing the Fine Arts Cluster - Phase I.
(12) 6,435	Charlton County School System	Mini-Grant
(13) 4,598	Effingham County School System	Mini-Grant

HAWAII

State Allotment - FY 1974	Total Funds Obligated - FY 1974
$31,312	$15,772

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 5,000	Information Systems Branch Hawaii State Department of Education (Secondary Level)	Statwide Computerized Data System.
(2) 10,772	Voc-Technical Section, Hawaii State Department of Education (Secondary Level)	Career Development Continuum.

IDAHO

State Allotment - FY 1974

$38,908

Total Funds Obligated - FY 1974

$38,567

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 5,195	Madison High School Rexburg, Idaho	Evaluation of a Comprehensive Program to Improve Office Occupations at Madison High School as Measured by Student Competence.
(2) 6,582	Pocatello School	Comprehensive Career Education Programs for Grades 7-9 (Supplements Commissioner's V361033L).
(3) 15,550	Nampa High School	Home-Economics-Related Occupational Classes (HERO)
(4) 10,015	Sugar-Salem School	Career Development through Vital Information for Education and Work (VIEW).
(5) 1,225	College of Southern	Supplement to Career Exploration Project.

ILLINOIS

State Allotment - FY 1974 $397,681

Total Funds Obligated - FY 1974 $442,535

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 35,000	Shawnee Junior College	Maximizing Human Resource Development in the Five-County Tier Region of Southern Illinois - Phase II
(2) 40,000	Eastern Illinois University	Development of a Systematic Approach to Follow-Up Evaluation - Phase II
(3) 69,939	Southern Illinois University	Cost Differential Analysis - Phase II
(4) 34,933	Western Illinois University	Analysis of Current Manpower Labor Market Information of Illinois Phase II
(5) 109,870	Robert Davis Associates, Inc.	Illinois Vocational Education Management Information Project - Phase II
(6) 39,999	Southern Illinois University	Measuring Career Readiness in Elementary and Secondary Education.
(7) 34,889	Tadlock Associates, Inc.	Assessment of the Status of Career Education Supported by the DVTE in Illinois Since 1970.
(8) 54,977	Northwestern University	A Design for a Regional Manpower Management Council.

Funds Obligated	Grantee or Contractor	Title of Project
(9) 12,930	Research and Development Unit - DVTE	Partial Administrative Salary.
(10) 9,998	Western Illinois University	Survey of Governmental Agencies to Determine Job Opportunities and Related Training Possibilities.

INDIANA

State Allotment - FY 1974 $232,693

Total Funds Obligated - FY 1974 $244,442

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 500	Fort Wayne Community Schools	Identification & Evaluation of Student Admissions and Evaluation Procedures for the Vo Nursing Programs in the State of Indiana.
(2) 500	Mid Central Area Vocational School	Course Content for Teaching Electrical Discharge Machining for the Secondary Vo Level.
(3) 500	Vincenres University Junior College	Mini-Project to Develop an Individual Instruction Model for the Course "You and the World of Work"
(4) 500	Prairie Heights High School - La Grange	Development of Supervised Experience Program Record Books for Students Enrolled in Indiana Vo-Agribusiness Programs.
(5) 11,974	Purdue University	Development of Instructional Materials for Use by Indiana Vocational Teachers in Teaching Leadership & Character Development to Youth In Indiana.

INDIANA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(6) 3,000	Tri-Creek School Corporation	Developing & Maintaining a District Center to Provide Services for Teacher-Coordinators in BOE, Graduates of BOE Programs, and the Business Community.
(7) 12,000	Purdue Research Foundation	Career Orientation of Low Income Urban and Rural Youth.
(8) 26,525	Marion Ind. Comm. Schools	A needs Assessment of Region V in Indiana for Area Planning.
(9) 13,740	Indiana University	A Dissemination System for the Indiana Research Coordinating Unit.
(10) 10,000	Indiana University	A System to Integrate Efforts of Universities Counselor Educators Vo Educators & School System Educators to Develop a Stronger Counselor Training Program.
(11) 10,000	Ball State University	Career Education Program Helping all in Counseling.
(12) 36,700	Marion Comm. Schools	A Needs Assessment for Region V in Indiana for Area.
(13) 30,000	Penn-Harris-Madison School Corporation	A Proposal for Continuation of the Career Resource Mobile Trng. Unit as a Statewide Service.

Funds Obligated	Grantee or Contractor	Title of Project
(14) 20,000	La Porte Community School Corporation	Model Career Placement Service at the LEA Community Level.
(15) 13,568	Elwood Community School Corporation	Placement Service Model.
(16) 13,990	New Educational Directions	A Proposal to Develop a comprehensive Statewide Assessment & Evaluation Plan for Indiana' Vocational-Technical Activities.
(17) 500	Charles Allen Prosser	Horticulture Seminar
(18) 500	Fort Wayne Community Schools	General Related Instruction Guide for Vocational Distribution Education (Revision)
(19) 14,350	C. A. Prosser Vocational Center	Strategies for a Placement and Follow-Up Service at the LEA Community Level.

IOWA

State Allotment - FY 1974

$127,839

Total Funds Obligated - FY 1974

$124,657

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 13,682	Area I Vocational-Technical School	Determining the Career Education Needs for Merged Area I
(2) 8,830	Iowa State Dept. of Public Instruction & Iowa Industrial Education Association & State Committee on Industrial Arts Teacher Education	Development of a Competency-Matrix Based K-12 Industrial Arts Curriculum Guide.
(3) 9,925	North Iowa Area Community College	Career Needs Assessment
(4) 12,500	Kirkwood Community College	An Extension of the Population/Enrollment Trends in Iowa and Implications for Iowa's Area Schools.
(5) 1,175	Iowa Western Community College	Determine the Competency Needs of Sanitarian Aides.
(6) 11,548	Iowa State University of Science and Technology	Competencies Needed by Workers in Occupations Requiring Less Than A Baccalaureate Degree in the Horticulture Industry.
(7) 5,016	Iowa State University of Science and Technology	Identification of Occupational Competencies in Services for the Electro-mechanical Cluster Occupations.

IOWA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(8) 6,868	Western Iowa Tech.	Determine the Career Education Needs for Merged Area.
(9) 3,224	Des Moines Area Community College	Needs for Integrating Career Education Services within Des Moines Area Community College District.
(10) 5,000	Iowa Lakes Community College	Research Project on Career Development in Merged Area III
(11) 20,600	Iowa Education Information Center	Addendum to Third Party Evaluation of Models for Precareer Education in Iowa and Models for Secondary Career Education in Iowa.
(12) 760	Iowa Education Information Center	Third Party Evaluation of Iowa Central Community College Career Education Programs in Engine Mechanics, Office Education, and Secretarial-Clerical (Attached).
(13) 2,232	Wisconsin DPI	Addendum to Learning Activities Packages for a Distributive Education Learning System.
(14) 3,297	Iowa State University	Identification of Competencies for Occupations in Food Service.
(15) 10,000	Research Administration	

KANSAS

State Allotment - FY 1974 | Total Funds Obligated - FY 1974

$99,834 | [illegible]

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 1,814	Kansas State Dept. of Educ.	[illegible]
(2) 8,216	Kansas State University	A Conference on Program Resource Data for Production Agriculture Identified Core Curriculum
(3) 15,000	U. S. D. #101 - ERIE	A A D Comprehensive Vocational Planning & Management
(4) 150	Kansas State Teachers College	A Comparative Study of the Job Duties of the Distributive Education in Kansas During the 1969-70 School Year & the 1973-74 School Year
(5) 1,650	U.S. D. #500 - Kansas City	An Assessment of Industrial Education Teacher Preparation & Performance
(6) 1,776	Kansas State University	A Conference on Program Resource Data for Production Agriculture Identified Core Curriculum
(7) 35,000	Kansas State University	Developing Management Systems & Management Information Systems for Vocational Education in Kansas

Funds Obligated		Grantee or Contractor	Title of Project
(8)	707	Kansas State University	Identified Needs of Home Economics Educators in Kansas
(9)	691	Kaw AVTS	Inservice Workshop for Teachers of Adult Vocational School Food Service Classes.
(10)	22,000	Wichita USD	Conceptual Base for Industrial Education
(11)	2,000	Wichita AVTS	Developing of Training Memorandum.
(12)	492	Wichita State University	A Study of IACP Teacher Competencies.
(13)	338	Kansas State University	A Study of Kansas Printing Plant Operations.
(14)	33,295	Wichita USD	Conceptual Base Curriculum of Industrial Education for Secondary Schools.
(15)	1,286	Kansas State University	Computerizing Vocational Program Approval.
(16)	935	Kansas State Teachers College	Status of Post-Secondary and Voca. Technical Education.
(17)	507	Wichita State University	A Study of LACP Teacher Competencies.

KENTUCKY

State Allotment - FY 1974

$172,957

Total Funds Obligated - FY 1974

$71,511

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 2,605	ROPES, Region 13	Two Hour Vocational Classes at the Laurel County Area Vocational School - Addendum
(2) 5,750	ROPES, Region 13	Two Hour Vocational Classes at the Laurel County Area Vocational School - Addendum
(3) 10,000	College of Education University of Kentucky	Validation of Curriculum Guides Objectives
(4) 12,000	Bureau of Vocational Education Frankfort, KY	Development & Evaluation of a Technical Report for Dissemination of Research & Development Information to Kentucky Vocational Education
(5) 22,820	Southern Association of Colleges & Schools	A Proposal to Provide Research and Third-Party Assessment on Career Education Development Projects: Hazard, Bowling Green, and Owensboro, Kentucky
(6) 3,956	Regional Office for Vocational Education	Vocational Education Public Information Program for the Pennyrile Region
(7) 3,000	Bowling Green City Schools	Dissemination of Information Relating to Selected Aspects of the Bowling Green City Schools
(8) 4,000	Bureau of Vocational Education	Development of Competency Based Exams for Practical Nursing Program Challenge

KENTUCKY (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(9) 5,880	University of Kentucky	Ten-State Consortium for D.E. Materials - Addendum
(10) 1,500	University of Kentucky	Field Testing Career Education Materials - Addendum

LOUISIANA

State Allotment - FY 1974

$199,815

Total Funds Obligated - FY 1974

$86,302

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 23,411	Louisiana State University	A comprehensive follow-up system of Louisiana's Vocational Education students who have completed training or left with marketable skills.
(2) 62,891	Louisiana Tech University	Louisiana Occupational Training System (LOTIS).

MAINE

State Allotment - FY 1974

$50,463

Total Funds Obligated - FY 1974

$27,211

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 5,211	University of Maine at Orono	The Effects of Selected Instructional Strategies on Learning Efficiency in Voc-Tech Ed. Programs
(2) 7,879	University of Maine at Orono	National Instructional Television Career Education - Phase II
(3) 4,238	University of Maine at Orono	Student Characteristics & Success in Selected Voc.-Tech Training Programs: Extended Analysis and Interpretation
(4) 9,833	University of Maine at Orono	Development of Multi-Media Career Units for Use With Students in Higher Education

MARYLAND

State Allotment - FY 1974 $157,220

Total Funds Obligated - FY 1974 $93,494

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 19,100	Baltimore County Board of Education	Project "ACE" Approaches to Career Education.
(2) 16,000	Baltimore County Board of Education	"Career Information Resource Center for Learning Experiences".
(3) 7,025	Prince George's Co. Board of Education	"Study of the Effects of Career Education".
(4) 15,119	University of Maryland	"A Study to Determine the Effectiveness of Multi-modeling Individualized Instructional Packages in Teaching Seminar Methodology to Occupational Industrial Education Teachers."
(5) 11,250	Charles Co. Comm. College	"A Proposal to Implement in the Local High Schools and Comm. Colleges, a Computerized Voc. Information, Computer-Assisted Instruction and Admin. Support System."
(6) 25,000	Chesapeake College	"A Research Project to Develop Model Curricula for Food Technician Program."

MASSACHUSETTS

State Allotment - FY 1974

$218,881

Total Funds Obligated - FY 1974

$129,381

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 102,850	Blue Hills Regional Vocational Technical School	Project Career
(2) 26,531	Assabet Valley Regional Vocational Technical School	Project E/D Model

MICHIGAN

State Allotment - FY 1974: $368,541

Total Funds Obligated - FY 1974: $525,103

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 57,445	Michigan State University	Agribusiness and Natural Resource Education in Michigan: Employment Demand, Competencies Required, and Recommended Delivery Systems.
(2) 89,650	Ingham Intermediate School District	Development of a Vocational Curriculum within Areas of Major Occupational Demand which is (1) developed from occupational task analysis, (2) based on performance goals and (3) readily suited to varying degrees of individualized instruction. This is an Expansion and Refinement at Michigan Department of Education request of a currently funded project. This funding will complete the project.
(3) 116,146	Ingham Intermediate School District	Development of a computer-assisted instructional system for Teachers managing highly individualized instruction; third year of three year project.

MICHIGAN (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(4) 165,304	Wayne State University	Development and Implementation of a systems approach for Vocational Teacher Education based on Terminal competency objectives; third year of three year project.
(5) 56,558	Michigan Department of Education	Development of a computerized information system for ongoing determination of Manpower needs and other data needed for curriculum change, guidance-counseling placement activities and State and Regional program planning; third year of three year project.
(6) 40,000	Ferris State College	A project to develop, field test, and disseminate terminal program objectives for program offerings in the School of Technical and Applied Arts, Ferris State College.

MINNESOTA

State Allotment - FY 1974 $172,182

Total Funds Obligated - FY 1974 $178,467

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 35,000	University of Minnesota	Vocational Follow-Up System.
(2) 99,997	University of Minnesota	Research Coordinating Unit for Vocational Education (Proposed Activities & Budget, FY'74).
(3) 16,750	Canly Area Vocational Technical Institute	An Innovative Pilot Program for the Dental Assistant Program Phase II.
(4) 17,920	Educational Management Services, Inc.	A Study Related to the Distribution of State and Federal Fund for Vocational Technical Education.
(5) 8,800	University of Minnesota	Develop Federal Legislation Model.

MISSISSIPPI

State Allotment - FY 1974 | Total Funds Obligated - FY 1974

$121,378 | $121,378

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 15,362	University of Southern Mississippi	Vocational Developmental Reading Program.
(2) 71,423	Louisville Public Schools Winona Public Schools McComb Public Schools	Implementation of a Career-Oriented Curriculum for Grades 1-12.
(3) 34,593	Mississippi State University	Curriculum Development Research (R/CU).

MISSOURI

State Allotment - FY 1974 $209,167

Total Funds Obligated - FY 1974 $275,318

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 700	Metropolitan Jr. College District	Feasibility Study to Determine an Alternative Method of Cooperative work Experience by Block Time in a Major Metropolitan Area for Community Colleges.
(2) 20,000	State Fair Community College	Pilot program to Identify the Competencies, Development of Objectives & Determination of Problems Included in Agriculture Curricula Being Offered by Post-Secondary Institutions of Missouri.
(3) 700	Metropolitan Jr. College District	A Survey of Adding, Calculating and Accounting Machines Being Used in Kansas City Area Business.
(4) 700	Metropolitan Jr. College District	Feasibility Study on the Need for Developing a Curriculum for Corporations Personnel & the Type of Curriculum necessary for Institutional Correctional Personnel.

MISSOURI (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(5) 1,175	St. Louis State School Hospital	Establishing Vocational Skills in Severly and Profoundly Retarded Individuals.
(6) 33,246	University of Missouri	Preparation & Testing of Career Educational Modules for Teacher & Counselor Education.
(7) 16,000	Central Mo. St. University	A Comparison of Instructional Approaches to Teaching the International System of Weights & Measures to Elementary School Children with varying Mental Ability.
(8) 700	Southwest Missouri State University	Entry-Level Competencies in Clorthing Related Careers.
(9) 700	University of Missouri	Follow-up of University of Mo. Business Education Program Entrants and Graduates from 9/1/64 thru 6/30/74.
(10) 700	Metropolitan Junior College District	A Slide/Tape presentation on Computerized Accounting Applications.
(11) 700	Metropolitan Junior College District	A Survey of Adding, Calculating and Accounting Machines being used in K.C. Area Business.

Funds Obligated	Grantee or Contractor	Title of Project
(12) 700	Metropolitan Junior College District	Feasibility Study on the Need for Developing a Curriculum for Correction Personnel.
(13) 17,755	University of Missouri	A Career Awareness Model Incorporating Constructional Activity in Grades K-6.
(14) 9,288	Southwest Missouri State University	The Career Planning Functions Selected Practical Arts Program in Southwest Missouri.
(15) 15,000	Missouri Western College	Career Profile Study.
(16) 22,209	University of Missouri	A Competency-Based Criterion-Referenced Instructional Model for Careers in Agricultural Mechanization.
(17) 3,600	University of Missouri	An Analysis of Factors Influencing costs of delivering Vo-Tech. Programs among Missouri Junior Colleges.
(18) 13,311	School District of Kansas City	Conceptual Model of an Individualized Diagnostic Remedial Computational Skills Program for Students in Selected Vocational Classes.

MISSOURI (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(19) 16,729	University of Missouri at St. Louis	Work concepts of Children.
(20) 27,639	Saint Louis Public Schools	A Study of the Status of Vocational Education in St. Louis Public Schools.
(21) 700	Brentwood Missouri Public Schools	Career Development in Brentwood.
(22) 388	Kirkwood R-7 School District	Needs Assessment Inventory for Career Education.
(23) 1,950	State Fair Comm. College	Cable TV - A media Approach to Community Job Development & Placement Service.
(24) 7,000	Junior College District St. Louis	Investigation of Needs of the City of St. Louis for paraprofessionals in Home Economics.
(25) 495	Parkway School District	Parkway's Business Speakers Resource Bureau.
(26) 700	University of Missouri	Parent & Teacher Attitudes toward Career Education.
(27) 700	Junior College District of St. Louis	Analysis of Meth Skills in Mechanical Engineering Technology at Florissant Community College.

MISSOURI (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(28) 700	University of Missouri	A comparative cost Study of Secondary one Year and Two Year Distributive Education Program in Missouri.
(29) 3,360	University of Missouri Rollz	Radio Programs and Information Audio Materials on Career Education Opportunities in Phelps County.
(30) 700	Linn Tech. College	A Program to Obtain Industrial Input in Program Development.
(31) 700	Junior College District	Development of an Individualize Instruction Module: Use of the Metric System: Weight, Linear, and Volume.
(32) 640	University of Missouri-Rollz	Phelps County Vocational Development Clinic.
(33) 5,850	Montgomery City Public Schools	Career Training and Placement for Handicapped Students.
(34) 4,683	Three Rivers Comm. College	Career Training and Placement for Handicapped Students.
(35) 19,500	University of Missouri	State Model of Leadership Development for Advisors of Vocational Youth Organization in the State of Missouri.

Funds Obligated	Grantee or Contractor	Title of Project
(36) 25,000	Hazelwood School District	Missouri Vital Information for Education and Work-Missouri Occupational Training Information System (Moview-MOTIS).
(37) 700	Florissant Valley	Analysis of Student M thematical Skills in Civil Engineering Technology at Florissant Valley Community College.

MONTANA

State Allotment - FY 1974	Total Funds Obligated - FY 1974
$35,504	$ - 0 -

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO PROJECTS REPORTED

50

NEBRASKA

State Allotment - FY 1974: $67,016

Total Funds Obligated - FY 1974: $53,218

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 18,393	University of Nebraska	Statewide Computerized Model for Determining Occupational Opportunities
(2) 13,645	Kearney State College	Home Economics Related Occupations Promotion in NB thru Media Visitations and Professional Development
(3) 17,680	Kearney State College	A Competency Based Program for Preparing Vocational Education Teachers
(4) 3,500	Platte Technical Community College	A Vocational Approach to Writing Communications

NEVADA

State Allotment - FY 1974

$17,432

Total Funds Obligated - FY 1974

$24,408

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
24,408	Research & Planning University of Nevada	RCU Contract

NEW HAMPSHIRE

State Allotment - FY 1974 $33,996

Total Funds Obligated - FY 1974 $22,882

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 3,900	Keene State College	Curriculum Development Coordination for N.H. Secondary Vocational Education.
(2) 2,265	Nashua High School	Developing, Field Testing, and Implementing a Voc. Electronic Skills Training Curricula.
(3) 1,899	Contoocook Valley Regional High School	Performance Skills Profile.
(4) 3,033	Salem High School	Programs for Dropouts
(5) 6,700	Milford High School	Community Needs Assessment for Voc. Education in N.H.
(6) 2,000	Somersworth School Dept.	Bread and Butterflies.
(7) 1,085	University of New Hampshire	Follow-Up of Study of Students Exited from Selected Vocational Programs in N.H. Secondary Schools.
(8) 2,000	State Department of Education	Multi-Media Multi-Faceted Approach to Instructing Fire Dept. Pump Operations.

NEW JERSEY

State Allotment - FY 1974 $246,854

Total Funds Obligated - FY 1974 $168,139

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	919	Rutgers Univ.	Validation of a Teacher Competency Exam.
(2)	990	Rutgers Univ.	Computer Research Seminar
(3)	7,800	Somerset Co. Voc. School	Research & Computer
(4)	1,979	Sussex Co. AVTS	Teacher Training Study
(5)	955	Plainfield School District	Special Needs Study
(6)	18,510	Essex Co. College	Immigrant Inf. Service Agency.
(7)	40,000	Hudson Co. Voc.	Needs Assessment.
(8)	29,128	Hudson Co. Voc.	Research Planning Grant
(9)	4,784	Trenton State College	Research & Evaluation Training Workshops.
(10)	13,291	Edison Township	Career Resource Center.
(11)	21,551	Rutgers University	Orientation to the World of Work.
(12)	4,312	Rutgers University	Technology for Children Study.
(13)	10,000	Rutgers University (Staff)	Research Grant.
(14)	1,006	Camden City	Effects of Technology.
(15)	800	Essex Co.	Leadership Research Conference.

NEW JERSEY (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(16) 1,125	North Hunterdon Reg.	W.E.C.E.P. Study.
(17) 4,100	Rutgers Univ.	Teacher Competency Testing.
(18) 1,255	Rutgers Univ.	C.I.E. Study.

NEW MEXICO

State Allotment - FY 1974 _____

Total Funds Obligated - FY 1974 _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

NEW YORK

State Allotment - FY 1974 $593,157

Total Funds Obligated - FY 1974 $519,021

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 100,000	New York State College of Agriculture and Life Sciences	Research Institute for Occupational Education Research and Development
(2) 99,996	City University of New York	Research Institute for Occupational Education Research & Development.
(3) 1,762	Livingston BOCES	Feasibility of Remote Terminal Data Entry Operations.
(4) 5,095	Rochester City School District	New Technical & Occupational School
(5) 72,242	New York State College of Agriculture and Life Sciences	As Assessment of Professional Needs in Programs of Occupational Education in New York State.
(6) 20,799	Westchester BOCES #2	Evaluation Service Center for Occupational Education.

NORTH CAROLINA

State Allotment - FY 1974 | Total Funds Obligated - FY 1974

$279,093 | _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

NORTH DAKOTA

State Allotment - FY 1974 $33,948

Total Funds Obligated - FY 1974 $20,700

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 500	Jamestown Public School	Commonalities in Vocational Education.
(2) 3,500	University of North Dakota	A Proposal to initiate Phase Follow-Up of North Dakota's Post-Secondary Vocational Program Graduates: Office and Distributive Education.
(3) 500	North High School Fargo	Proposal for mini-grants to prepare study guides and accompanying visual aid materials in the following job cluster areas: Vocational Agribusiness and Natural Resources.
(4) 15,000	Bismarck Junior College	Industry - Education Evaluation Project.
(5) 1,200	Fargo Public Schools	Model Store Curriculum a Developmental Model for North Dakota.

OHIO

State Allotment - FY 1974

$456,450

Total Funds Obligated - FY 1974

$456,450

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 919	Dept. of Agricultural Education	Professional Education Competency Needs of Three Different Groups of Vocational Agriculture Teachers in Ohio.
(2) 7,506	American Vocational Assn., Inc.	Development of Federal Legislation Model for Vocational Education.
(3) 8,200	Kent State University	Evaluation of the Ohio Pre-Postsecondary Program in Grades 11-12 in 4 Centers.
(4) 101,375	Educational Research Council of America	Development of Career Orientation Materials for Grades 7-8.
(5) 56,417	Policy Studies in Education, NYC	Evaluation - Ohio Formative Test Program & Evaluation for Career Development Projects.
(6) Balance	RCU Operation	

OKLAHOMA

State Allotment - FY 1974 _____

Total Funds Obligated - FY 1974 _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

OREGON

State Allotment - FY 1974

$97,970

Total Funds Obligated - FY 1974

$95,874

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 850	Banks High School	Interdisciplinary Support Classes
(2) 300	Boise Elementary	Proposal Development for a Research Project
(3) 400	John Adams High School	Proposal Development for a Research Project
(4) 2,200	Bend School District #1	Career Guidance and Counseling
(5) 1,850	Klamath Union High School	Meeting Individual Needs in Clusters
(6) 15,000	Clackamas Community College	Systems Approach to Learning in Occupational Education
(7) 8,500	Oregon State University	Consortium for Planning, Developing and Implementing Exploratory Industrial Career Development Models
(8) 3,000	Eugene School District 4J	Elementary Career Awareness
(9) 2,750	Vale Elementary School District	Community Experience Based Career Exploratory Program for Vale Middle School
(10) 750	Linn-Benton IED	Materials Developmental Center for Career Awareness Media
(11) 1,335	Central School District 13J	Local Production of Relevant Awareness Media

OREGON (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(12) 500	Clackamas Community College	Proposal Development of a Research Project -- Foreign Language in Career Education
(13)54,239	Multnomah IED and State Department of Education	Research Coordinating Unit

PENNSYLVANIA

State Allotment - FY 1974

$496,627

Total Funds Obligated - FY 1974

$144,334

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 1,000	The Williamsport Area Community College	A Follow-Up Study of Graduates and Employers Relating to the Business Administration Curricula of the Williamsport Area Community College
(2) 35,773	The Pennsylvania State University	Parameters of the Future Food Service Industry World of Work
(3) 16,000	Lehigh County AVTS	Cluster Curriculum Development
(4) 752	University of Pittsburgh	Analysis of Female Faculty of the State-Owned Colleges and University
(5) 17,324	Reading-Muhlenberg AVTS	School-Based Job Placement Service Model: Phase II, Pilot Implementation
(6) 1,975	Erie County AVTS	Research Study for County Wide Centralized Cooperative Education
(7) 14,763	Greater Johnstown AVTS	School-Based Job Placement Service Model

PENNSYLVANIA (continued)

	Funds Obligated	Grantee or Contractor	Title of Project
(8)	4,584	Delaware County I.U. #25	Development of Individual Instructional Packages - Dental Technology
(9)	4,584	Delaware County I.U. #25	Development of Individual Instructional Packages - Materials Handling
(10)	698	North Montco AVTS (Montgomery County I.U. #23 acting as agent)	Doctoral Dissertation of Norton Garfinkel
(11)	14,111	Columbia-Montour AVTS	Job Placement Model
(12)	697	Greater Johnstown AVTS	A Comparison of Academic Achievement in Full-Time & Part-Time Area Vo-Tech High Schools
(13)	4,584	Delaware County I.U. #25	Development of Individual Instructional Packages - Machine Tool (Engine Rebuilding)
(14)	485	Riverside School District	An Investigation of the Status of Selected Students of 1969-73 Graduating Classes of Riverside H.S., Taylor, PA
(15)	830	University of Pittsburgh	A Comparative Analysis of Distributive Education Programs
(16)	11,020	Lancaster-Levanon I.U. #13	VEMIS Backup Facility and Transfer of Functions: Phase I, Pilot Implementation

PENNSYLVANIA (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(17) 13,765	Butler County Community College	Proposal Preparatory to Nursing & Auxiliary Nursing Articulation Program Study
(18) 1,389	Berks County AVTS	Guidelines for the Establishment and Evaluation of Career Resource Centers in Pennsylvania

RHODE ISLAND

State Allotment - FY 1974 $41,753

Total Funds Obligated - FY 1974 $45,000

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 35,000	Rhode Island Department of Education	Vocational Education Management Information System
(2) 10,000	Rhode Island Department of Education	Vocational Education Core Group Consultant Services

67

SOUTH CAROLINA

State Allotment - FY 1974

$149,622

Total Funds Obligated - FY 1974

$50,000

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
$50,000	S. C. Department of Education	VIEW Expansion

68

SOUTH DAKOTA

State Allotment - FY 1974: $36,033

Total Funds Obligated - FY 1974: $37,507

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 7,404	South Dakota State University	Research and Demonstration Project
(2) 30,103	University of South Dakota	Research and Demonstration Project

TENNESSEE

State Allotment - FY 1974

$208,171

Total Funds Obligated - FY 1974

$324,731

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 144,653	University of Tennessee	Research Coordinating Unit
(2) 180,078	University of Tennessee	Research Coordinating Unit Mini-Grants.

TEXAS

State Allotment - FY 1974
$555,757

Total Funds Obligated - FY 1974
$725,869

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 8,403	Texas State Technical Institute	High School Career Interest and Information Survey, Phase III
(2) 21,403	Paris Junior College	A Pilot Program in Residential Construction and Technology with Emphasis on Occupational and Managerial Skills Development Through a Combined Program of Academic and Cooperative Education
(3) 5,393	Texas Agricultural Experiment Station, Texas A&M University	Perceptions of Vocational Administrators and High School Principals Retarding the Role of the Vocational Administrator
(4) 34,870	Paris Junior College	Identification of Adult Career Education Needs
(5) 49,353	Education Service Center Region VIII	Development of Curriculum Materials for Competency-Based Post-Secondary Voc-Tech Teacher Ed. Programs

TEXAS (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(6) 35,252	North Texas State University	Development and Evaluation of Pilot Element in a Statewide Career Education Delivery System
(7) 41,392	EPD Consortium D	Search for Common and Unique Competencies Needed by Vocational Supervisors and Administrators
(8) 5,529	Texas State Technical Institute	High School Career Interest and Information Survey, Phase II
(9) 92,569	University of Houston	Vocational Education in Texas High Schools: An Ethnic Comparison
(10) 23,864	Paris Junior College	A Study of Construction Technology Curriculums
(11) 10,987	Howard County Junior College	Analysis of Employee Supply and Demand in Howard County: A Approach
(12) 21,172	Bryan Independent School District	An Analysis of Student Followup Data for Administrative Decision Making
(13) 20,552	Dallas County Community College District	Cooperative Education for American Indians in Dallas County
(14) 29,500	McLennan Community College	Development of a Community Career Counseling and Information Program

TEXAS (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(15) 52,814	Texas School for the Deaf	Development of a Career Education Curriculum for Deaf Students at the Texas School for the Deaf
(16) 7,374	The University of Texas at Austin	An Assessment of Remedial Programs for Vocational Technical Students in Selected Post-Secondary Institutions in Texas
(17) 65,241	Windham School District	Vocational Follow-up Study
(18) 1,170	University of Houston	Regional Development and Coordination of Allied Health Manpower Education in the Community College
(19) 6,796	EPD Consortium C	College Curriculum for Correctional Instructional Personnel
(20) 3,047	Texas Women University	Development of Instructional Module, Health Care Organization Facilities and Personnel
(21) 5,393	Office of School Surveys and Studies, Dept. of Ed. Administration, University of Texas	Observed and Self Reported Individualization of Instruction by Vocational and Non-Vocational Teachers

Funds Obligated	Grantee or Contractor	Title of Project
(22) 4,189	Austin Independent School District Community College District	Development of Occupational Technical Programs and Curriculum for Austin Community Colleges
(23) 2,742	Office of School Surveys and Studies, Dept. of Ed. Administration, University of Texas	A Study to Identify Data for Comparative Assessment of Effectiveness and Efficiency of Technical and Vocational Education Programs in the Public Community Colleges of Texas
(24) 1,273	Texas A&M University	Student Perception of the Effectiveness of Area Vocational Secondary School Programs of Texas in Meeting Student Interests and Perceived Needs
(25) 45,110	Dallas County Community College	Occupational-Technical Curriculum Development TV Study
(26) 1,080	EPD Consortium D	Search for Effectiveness of the Occupational Orientation Programs in the State of Texas
(27) 86,886	Education Service Center Region X	Search for Common and Unique Competencies Needed by Vocational-Technical Guidance Personnel

TEXAS (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(28) 4,370	El Paso Community College	Comprehensive Manpower Study, El Paso
(29) 5,099	Houston Community College System	The Development of a Model for Establishing a New Health Career Education Program in a Community College
(30) 3,141	Texas A&M University	Analysis of Effects of the Change in the Basis of Funding Apprenticeship Related Instruction in the Public Schools
(31) 29,905	Texas A&M University	A Study of Manpower Training Requirements for the Texas Agricultural Industry

UTAH

State Allotment - FY 1974

$61,965

Total Funds Obligated - FY 1974

$74,846

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	500	Uintah Basin Area	Study of Immediate and Long-range Job Demands in Uintah Basin Area
(2)	700	Sevier Valley Tech	Study of Immediate and Long-range Job Demands in Sevier Valley Area
(3)	5,050	College of Eastern Utah	Mining Technology Training Needs
(4)	317	College of Eastern Utah	Cost of Food Programs in Secondary Education
(5)	540	College of Eastern Utah	Home Economics Curriculum for Freshman Boys
(6)	8,016	College of Eastern Utah	Career Ed -- Electronics, Food Service, Graphics, Television
(7)	49,348	Research Coordinating Unit	RCU activities
(8)	5,565	Logan School District	Application of Career Counseling Techniques Involving Parents in the Career Guidance Program for 10th Grade Students at Logan Senior High School

76

Funds Obligated	Grantee or Contractor	Title of Project
(9) 4,810	Educators Alliance, Inc.	Vocational Education Need and Feasibility Study Relating to Northern Utah

VERMONT

State Allotment - FY 1974 $22,325

Total Funds Obligated - FY 1974 $39,422

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 6,000	The New England Resource Center for Occupational Education	Twin State Educational Information System (New Hampshire-Vermont)
(2) 2,294	The Randolph Area Vocational Center	Identifying a Non-Verbal Aptitude Measure for Use in Counseling Secondary Level Mentally Retarded Pupils
(3) 1,500	Montpelier High School	Postsecondary Education Followup Study
(4) 6,135	Burlington Vocational Center	Evaluation of Testing Materials for Use in Career Guidance & Education
(5) 1,500	Lamoille Union High School	Investigation of Training Aids & Equipment Available for the Transfer to the Metric System in Area Vocational Centers
(6) 1,600	Burlington Vocational Center	Development of a Validated Instrument for Measuring Effectiveness of the Mediated Self-Instructional Aspect Incorporated into Specific Vocational Courses

VERMONT (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(7) 1,495	Castleton State College	Survey of the Attitudes of Businessmen and Teachers as to the Need for Data Processing Instruction in the High Schools of Vermont
(8) 1,462	Middleboro	Vocational Interest Survey
(9) 6,800	The New England Resource Center for Occupational Education	Review and Analyze Enrollment Trends at the Barre City Regional Vocational Technical Center

VIRGINIA

State Allotment - FY 1974

$227,757

Total Funds Obligated - FY 1974

$102,784

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 26,838	VPI & SU	Developing Performance Objectives & Criterion Reference Measures in Vocational Educaiton.
(2) 75,946	VPI & SU	An Evaluation System for Vocational Education in Virginia.

WASHINGTON

State Allotment - FY 1974 $148,950

Total Funds Obligated - FY 1974 $146,206

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	7,406	Western Washington College	The Study of a Career Education Component in a Teacher Education Program
(2)	800	Washington Education Research Association	CCOE Participation in the Pacific Northwest Educational Research and Evaluation Conference
(3)	3,300	Walla Walla District	Walla Walla Area Vocational Needs Assessment
(4)	1,760	Selah School District	Correlated Vocational and Basic Communication Skill Instructional Programming
(5)	2,000	Renton School District	An Appraisal of an Occupational Awareness Program
(6)	1,005	Renton School District	A Cost Benefit Analysis of Vocational Education in an Articulated Vocational-Technical Institute
(7)	640	Highline School District	Project EVA Dissemination Packet
(8)	6,961	Eastern Washington College	Development of Strategies for Incorporating Career Education in Teacher Training Programs

	Funds Obligated	Grantee or Contractor	Title of Project
(9)	6,481	Renton School District	To Develop an Individualized Instructional Package on the Basics of Metric System
(10)	1,037	Tri-District Coop	Educational Needs Assessment-Eastern Lewis County
(11)	3,176	Washington State University	A Study to Determine an Acceptable Teaching Load in Vocational Agriculture
(12)	4,498	Longview Public Schools	Inter/Institutional Cooperation in Parent Education
(13)	71,202	Intermediate School District No. 113 (Tri-District Co-op)	Small Schools Alternatives in Vocational Education
(14)	31,440	Central Washington State College	Articulation of Secondary to Post-Secondary Vocational Education Programs
(15)	4,500	In-House - SPI	"Bread and Butterflies Television Series"

WEST VIRGINIA

State Allotment - FY 1974 $91,323

Total Funds Obligated - FY 1974 $25,294

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 10,793	CVTE, Ohio State University	The Development of a Master Plan for the Financial Support of the Voc Ed Programs in the State of West Virginia
(2) 8,908	Associated Educational Consultants, Inc. -- Pittsburgh	A Study of Factors Affecting Student Enrollment & Scheduling in Vocational Education Programs in West Virginia
(3) 12,492	West Virginia University, Morgantown	Child Development Curriculum
(4) 3,165	Ohio County Board of Education, Wheeling	Research and Planning for New Voc-Tech Program
(5) 1,270	Raleigh County Board of Education, Beckley	Research and Development Project in Career Education

WISCONSIN

State Allotment - FY 1974

$204,756

Total Funds Obligated - FY 1974

WBVTAE	$143,550
DPI	94,665
	$238,215

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	189	Lakeshore Voc. Tech. & Adult Educ. District, Sheboygan	Task Analysis - Optometric Assistant
(2)	31,161	Fox Valley Voc.-Tech. & Adult Educ. District, Appleton	Investigating the Interaction of Learning Experiences and Assessment of Their Impact Upon Learning in Post-Secondary Vocational-Technical Education Programs
(3)	3,015	Northeast Wis. Voc-Tech & Adult Education Dist.. Green Bay	Civil Highway Curriculum Evaluation
(4)	2,625	North Central Voc.-Tech. & Adult Education Dist., Wausau	Faculty Research & Curriculum Multi-Project Proposal
(5)	2,641	Nicolet Voc., Tech. & Adult Education Dist., Rhinelander	A Pilot Research Project to Determine the Feasibility of Developing Health Related Occupations Curricula at Nicolet College and Technical Institute
(6)	6,000	Wisc. Indianhead Voc. Technical & Adult Ed. District, Superior	Faculty Research & Curriculum Multi-Project Proposal

WISCONSIN (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(7) 2,304	Voc-Tech & Adult Educ. District I - Eau Claire	Evaluation of Civil Structural Curriculum in Terms of Rating by Employers & Technicians
(8) 1,407	Wstrn. Wisc. Voc-Tech Adult Educ Dist. & University of Wisc., Stout. La Crosse	An Investigation of the Effectiveness of the Individualized Instruction for Rural Providers of Family Day Care Services
(9) 410	Southwest Wisc. Voc. Tech. & Adult Educ. Dist, Fennimore	A Comparative Analysis of Students and Teacher Attitudes Toward Individualized and Traditional Instruction
(10) 722	Gateway Voc.-Tech. & Adult Educ. Dist., Kenosha	Survey Physics Requirements for Engineering Technicians
(11) 15,753	Voc-Tech. & Adult Educ. Dist. #9 & CESA #19, Milwaukee	Greater Milwaukee Metropolitan Area Career Education Project-Office Proposal (Phase II)
(12) 4,422	Voc.-Tech. & Adult Educ. District #9, Milwaukee	Computer Augmented Accounting
(1[illegible] 7,383	Moraine Park Vocational Tech. & Adult Educ. Dist.	Course Content and Program Evaluation Model
(14) 10,009	Moraine Park Voc.-Tech. & Adult Educ. District	Vocationally Coordinated Curriculum for General Education

Funds Obligated	Grantee or Contractor	Title of Project
(15) 1,335	Univ. of Wisc.-Stout	Self Instructional Slide/Tape Series for ERIC & NTIS Users
(16) 1,206	U. of Wisc. at Stout & Menomonie	The Continued Study of the Impacts of Graduate Student Research Projects on the Participants Research Skills and Attitudes Toward Research
(17) 2,769	U. of Wisc. at Whitewater	Curriculum Evaluation of Secretarial Science Program
(18) 1,754	Vocational, Technical & Adult Educ. District #4, Madison	Evaluation of Architectural Technology Curriculum in Terms of Employers Rating of Job Performance of Former Students
(19) 2,500	State Board Voc. Ed.	Conceptual Framework for Conducting Cost Benefit Studies in Wisconsin VTAE
(20) 6,048	State Board Voc. Ed.	Descriptive Cost-Benefit Studies of Selected Wisconsin VTE Programs
(21) 14,650	Univ of Wisconsin Madison	Information Retrieval Demonstration and Research Project
(22) 2,050	Western Wisc. Voc. Tech. & Adult District, La Crosse	An Investigation of Required Competencies and Curriculum Evaluation in Metal Occupations

WISCONSIN (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(23) 14,992	Ohio State Univ., Center for Voc. Tech. Education	Assessment of the Impact of the Wisconsin RCU
(24) 375	North Central Technical Institute - Wausau	Followup Study of 1973 Summer Program Offered Jointly by Stout & NCTI
(25) 750	North Central Technical Institute - Wausau	A Study of the Attitude Demension of the Potential Early Withdrawal Student at NCTI
(26) 1,500	North Central Technical Institute - Wausau	A Task Analysis Study to Determine Curriculum Elements Needed to Train Industrial Maintenance Men to Repaid & Maintain Industrial Load Handling Equipment
(27) 375	North Central Technical Institute - Wausau	Syllabus & Curriculum Development for Typing IV Utilizing an Individualized Instruction Approach
(28) 1,434	DPI	Ag Career Workshop
(29) 604	CESA 11	Comp. Student Follow-Up
(30) 1,439	University of Wisconsin	Multi-School Consortium
(31) 15,753	CESA 19	Career Development
(32) 3,874	Stout	Evaluation of Career Education Program

WISCONSIN (continued)

Funds Obligated	Grantee or Contractor	Title of Project
(33) 11,973	Stout	T&I Instructional Materials
(34) 24,954	University of Wisconsin	D.E. Resource Center
(35) 5,562	Stout	Facilities Planning for I.E.
(36) 8,150	CESA 13	Inter-Dist. Vocational Education
(37) 9,000	Stevens Point	Home Economics Materials for Emr.
(38) 7,939	DPI	Food Service Workshop
(39) 3,979	DPI	Business Education Curriculum

WYOMING

State Allotment - FY 1974 $16,028

Total Funds Obligated - FY 1974 $25,608

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	912	Glenrock High School	The Development of a Career Education Program Model
(2)	500	Fremont County School District #25	Summer Training Model for High School Counselors
(3)	1,000	Natrona County School District #1	Summer Training Model for High School Counselors
(4)	7,855	Natrona County School District #1	Safety Manual for Vocational Teachers
(5)	3,100	Weston County School District #1	A Research Proposal for Surveying Occupational Buildings and Shop Facilities
(6)	738	Northwest Community College	Proposal for Public Relations Film of Occupational Education
(7)	1,134	University of Wyoming	Self Concept and Attitude Changes in Eighth Grade Girls After Counselors
(8)	500	University of Wyoming	A Study to Design a Computerized Program for Analyzing Wyoming Supervised Experience Produced Record Books

Funds Obligated	Grantee or Contractor	Title of Project
(9) 4,060	University of Wyoming	Development of a Model Career Exploration Curriculum, Grades 7-10
(10) 1,000	School District #17-Basin	A Research Proposal to Survey Occupational Buildings and Shop Facilities
(11) 702	School District #2 Pine Bluffs	A Research Proposal to Survey Occupational Buildings and Shop Facilities
(12) 1,780	Lander Valley High School	Lander Valley High School Business Occupational Study
(13) 7,150	University of Wyoming	Facilities, Instructional Materials Research

AMERICAN SAMOA

State Allotment - FY 1974 _____

Total Funds Obligated - FY 1974 _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

GUAM

State Allotment - FY 1974 _____

Total Funds Obligated - FY 1974 _____

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

PUERTO RICO

State Allotment - FY 1974	Total Funds Obligated - FY 1974
$146,693	$183,989

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

	Funds Obligated	Grantee or Contractor	Title of Project
(1)	23,558	State Department of Public Instruction	Establishment of a Management Control System at the Vocational and Technical Education Program Using the PERT Technique
(2)	2,400	State Department of Public Instruction	Follow-up of Graduates of Vocational and Technical Education Programs 1972-73
(3)	5,059	State Department of Public Instruction	Effectiveness of the Business Education Program in Preparing Students for Employment in the Caguas Region
(4)	8,215	State Department of Public Instruction	Development of a Pharmacist Assistant Curriculum for the Health Related Occupations Program
(5)	11,219	State Department of Public Instruction	Curriculum Development Basic to the Training of Individuals for Employment in Agri-Business
(6)	1,500	State Department of Public Instruction	Evaluation of the. Home Economics Occupational Education Program in Puerto Rico

Funds Obligated	Grantee or Contractor	Title of Project
(7) 2,111	State Department of Public Instruction	Study on the Training Needs on Specialized Vocational Agriculture in Puerto Rico
(8) 5,424	State Department of Public Instruction	Study to Evaluate Students' Achievement in the Different Business Subjects at the Mayaguez Educational Region
(9) 5,159	State Department of Public Instruction	Development of Guides and Tests for Self-Study in Business Education for Youth and Adults
(10) 40,000	State Department of Public Instruction	Study of Consumer Patterns of Puerto Rican Families
(11) 15,722	State Department of Public Instruction	Study of Business Vocabulary Count in Spanish
(12) 7,100	State Department of Public Instruction	Preparation of a Document Reformulating Policy and Strategy for the VTE Program of the Commonwealth Department of Education
(In-house)	State Department of Public Instruction	Manpower Occupational Demand Analysis in Puerto Rico

TRUST TERRITORY

State Allotment - FY 1974	Total Funds Obligated - FY 1974
$4,773	$4,948

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project
(1) 4,948	Ponape Agriculture & Trade School	Identifying Skills Required of Agriculture Teachers.

VIRGIN ISLANDS

State Allotment - FY 1974 — Total Funds Obligated - FY 1974

Projects Funded: FY 1974
Section 131(b) Part C

* * * * * * * * * * * * *

Funds Obligated	Grantee or Contractor	Title of Project

NO REPORT RECEIVED

ACCESSION NUMBER: VT102170

PUBLICATION DATE: MAY74

TITLE: SEMI-ANNUAL REPORT ON STATE RESEARCH COORDINATING UNIT ACTIVITIES FOR THE PERIOD JULY 1, 1974 - DECEMBER 31, 1974.

PERSONAL AUTHOR: BRAATEN, LARRY; MILLER, ANNETTE

DESCRIPTOR: *ANNUAL REPORTS; *VOCATIONAL EDUCATION; *RESEARCH COORDINATING UNITS; *EDUCATIONAL RESEARCH; *RESEARCH PROJECTS

IDENTIFIER: VOCATIONAL EDUCATION AMENDMENTS OF 1968

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 132P.

ABSTRACT: THIS TENTH IN A SERIES OF REPORTS SUMMARIZES INFORMATION RECEIVED FROM STATE RESEARCH COORDINATING UNITS (RCU'S) REGARDING RESEARCH ACTIVITIES CONDUCTED UNDER SECTION 131(B) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 FOR THE PERIOD JULY 1 THROUGH DECEMBER 31, 1974. THE PURPOSE OF THIS REPORT IS TO PROVIDE INFORMATION THAT WILL ASSIST THE STATES TO BE AWARE OF RESEARCH AND DEVELOPMENT CONDUCTED BY OTHER STATES, THUS FACILITATING EXCHANGE OF INFORMATION AND REDUCING DUPLICATION OF EFFORT. THE INDIVIDUAL STATE REPORTS INCLUDE THE PROJECTS COMPLETED, NEW PROJECTS FUNDED, RESEARCH RELATED ACTIVITIES, AND PROJECTS AND ACTIVITIES PLANNED. NAMES OF EACH RCU AND STATE VOCATIONAL EDUCATION DIRECTOR ARE INCLUDED. (AUTHOR/NJ)

INSTITUTION NAME: BUREAU OF OCCUPATIONAL AND ADULT EDUCATION (DHEW/OE), WASHINGTON, D.C.

VT 102 170

SEMIANNUAL REPORT

ON

STATE RESEARCH COORDINATING UNIT ACTIVITIES

FOR THE PERIOD

JULY 1, 1974 - DECEMBER 31, 1974

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Occupational and Adult Education

Office of Adult, Vocational, Technical, and Manpower Education

Division of Research and Demonstration

MAY 1974

CE005346

VT 102 170

Civil Rights Compliance

Discrimination Prohibited - Title VI of the Civil Rights Act of 1964 states:

> "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

Therefore, any program or activity receiving financial assistance from the Department of Health, Education, and Welfare must be operated in compliance with the law.

SEMIANNUAL REPORT

ON

STATE RESEARCH COORDINATING UNIT ACTIVITIES

FOR THE PERIOD

July 1, 1974 - December 31, 1974

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Caspar W. Weinberger, Secretary

Office of Education
T.H. Bell, U.S. Commissioner of Education

Bureau of Occupational and Adult Education
William F. Pierce, Deputy Commissioner

Office of Adult, Vocational, Technical, & Manpower Education
Charles H. Buzzell, Associate Commissioner

Division of Research and Demonstration
Howard F. Hjelm, Director

MAY 1975

FOREWORD

This report summarizes information received from State Research Coordinating Units (RCU's) regarding research activities conducted under Section 131(b) of Part C of the Vocational Education Amendments of 1968. This report covers the second six months of Fiscal Year 1974. The purpose of the report is to provide information that will assist States to be aware of research and development conducted by other States, thus facilitating exchange of information and reducing duplication of effort.

This Semiannual Report has been prepared by Larry Braaten, Chief, Demonstration Branch and Annette Miller of the Demonstration Branch of the Division of Research and Demonstration. This is the tenth in a series of reports on the activities of the State RCU's. The previous reports are listed below:

a. Annual Report on State Research Coordinating Unit Activities for Fiscal Year 1970 (ED-053-293)

b. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1970 to December 31, 1970 (ED-052-381)

c. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1971 to June 30, 1971 (ED-067-463)

d. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1971 to December 31, 1971 (ED-068-718)

e. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1972 to June 30, 1972 (ED-076-781)

f. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1972 to December 31, 1972 (ED-080-720)

g. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1973 to June 30, 1973

h. Semiannual Report on State Research Coordinating Unit Activities for the Period July 1, 1973 to December 31, 1973

i. Semiannual Report on State Research Coordinating Unit Activities for the Period January 1, 1974 to June 30, 1974

Copies of the above reports with assigned ED numbers can be obtained from the ERIC Document Reproduction Service.

Howard F. Hjelm
Director, DRD

May 1975

INTRODUCTION

The RCU's have continued to provide the leadership for the State's R&D programs in vocational education. In providing this leadership, the RCU's have given assistance to State vocational agencies and personnel, graduate students, teachers and a variety of other interested parties. They have also played a major role in long-range planning and the development of vocational research priorities. One of the most important activities of the RCU's is the disseminating of the results of research. In addition to the operation of their own dissemination efforts, the RCU's are a vital part of the national network of contributors to the ERIC collection.

For the first half of fiscal year 1975, career education again ranked high on the list of priorities for research projects. Other areas of emphasis included: followup studies, evaluations, competency studies, manpower studies, and programs related to health careers. In addition, the States have continued to fund projects for the expansion and improvement of their ongoing vocational programs.

The Semiannual Report which follows is a compilation of State Quarterly Research Activity Reports covering the first two quarters of fiscal year 1975 which have been received from the States. Additional information on projects listed under the category of "new projects funded" may be located in the "Research Projects in Progress" section of Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM) published bi-monthly. Final reports of the "projects completed" are abstracted in the monthly issues of Research in Education and/or in the bi-monthly issues of AIM/ARM. All reported research projects administered by the State educational agency were included in this report, whether or not they were funded under Section 131(b) of Part C.

ALABAMA

T. L. Faulkner, State Director of Vocational Education
Douglas Patterson, RCU Director

PROJECTS COMPLETED:

1. Joint Leadership Training Conference for Selected Students and Advisors of Alabama's Vocational Youth Organizations, John M. Patterson, State Technical College

2. Distributive Education Dissemination Project, John M. Patterson, State Technical College

3. Vocational Education Follow-up Project, Auburn University

4. Career Education Program for Appalachian Alabama, State Department of Education

NEW PROJECTS FUNDED:

1. Implementation of Career Education K-12 in the Phenix City Public Schools, Phenix City Board of Education

2. Career Education Project, Mobile County

3. A Program Designed to Provide Occupational and Educational Placement Services for all Existing Students of the Tuscaloosa County School System, Tuscaloosa County School System

4. Developing a Comprehensive Placement Program, Shelby County Board of Education

5. Cooperative Occupational Opportunities and Placement Program, Greene County Board of Education

6. A Comprehensive Placement Program for Covington County, Andaluisa City, and Opp City School Systems, Covington County Board of Education

7. Placement Implementation Project, Mobile County Public Schools

8. Coffee County's Approach to a Comprehensive Placement Program - Grades One Through College, Coffee County School System

9. Fashion Merchandising, Montgomery County Public Schools

10. Threshold of Education Reform, Restructuring Agriculture for Inner-City Related Motivation and Accomplishment (TERRA FIRMA), Anniston City Schools

11. Montgomery County's Approach to Career Education - Grades One Through Twelve, Montgomery County Public Schools

12. The Constitutional Convention for HOE Students and Secondary Teachers, John M. Patterson, State Technical College

13. Vocational Education Follow-up Project, Auburn University

RESEARCH RELATED ACTIVITIES:

1. Coordinated the assessment of state vocational education needs through visits to the local board of education

2. Collected enrollment data on all secondary students in vocational education and expanded existing fiscal data base

3. Evaluated Joint Leadership Training Conference

4. Developed proposal to support additional Management Information System Activities

5. Conducted manpower demand analysis for selected areas of the state

6. Prepared federal statistical, descriptive, financial and completions reports and state statistical report

Alabama

7. Conducted vocational facility needs study for a selected area of the state

8. Assisted in the planning and development of a curriculum workshop for state vocational education leaders

9. Assisted other vocational education division staff in the development of five research and development proposals. (OIS Preliminary, Alabama Occupational Information System, Local Government Training Needs Survey, Curriculum Designing and Implementation, and State MIS Proposal)

10. Staff members conducted on-site investigations of Occupational Information Systems in Oregon, Connecticut, and New Jersey

11. Installed and implemented the use of electronic data processing equipment for the management information system (OpScan 17, Mohawk 1101 Tape Unit, and two computer terminals)

12. Conducted follow-up data utilization seminars with service areas' staff.

13. Participated in the Regional Research Conference in Agricultural Education, Southwide Research Coordinating Conference, Regional Part D Evaluation Conference, and AVA Convention

14. Conducted study of experimental project in special post-secondary institution

15. Coordinated employer survey in one county.

16. Prepared report to the State Department of Education data processing section which projects the Vocational Education Division's computer needs over the next five years

PROJECTS AND ACTIVITIES PLANNED:

1. Develop State Plan for Vocational Education

Alabama

2. Resource Entitlement calculation and allocation

3. Local plan and request evaluation

4. Conduct research on the utilization of microfiche in a competency based instructional program

5. Plan for expansion of computer capabilities in cooperation with State Department Data Management section

6. Study computer upgrade plans of community colleges

7. Expand fiscal office computer files to include enrollments

8. Field test post-secondary subsystem of MIS enrollment

9. Participate in the National RCU Conference, National Part D Conference, Regional State Plan Development Conference, and State Educational Planning Conference

10. Computerization of state staff accounting, teacher training

11. Conduct study of local administrator roles

12. Complete report on vocational education facts in Alabama

ALASKA

Richard L. Spaziani, State Director of Vocational Education
Richard L. Spaziani, RCU Director

NO REPORT RECEIVED

ARIZONA

Eugene L. Dorr, State Director of Vocational Education
Beverly Wheeler, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. A Model for Evaluation of the D.E. Program in Arizona, Arizona State University

2. Development and Use of Challenge Exams for Clinical Lab, Nursing II, Part II, Pima Community College

3. Comparison of Three Media Presentations of Selected Home Economics Related Occupations, University of Arizona

4. A Classroom Training Conference for Youth Leaders of D.E., Washington High School

5. I Will, Monument Valley High School

6. A Survey to Determine the Adequacy of Vocational Information at Camelback High School as Perceived by 1974 Graduates, Camelback High School

7. Survey of Minority Businessmen and Support Programs, Arizona State University

8. Increasing Student Motivation and Retention, Eastern Arizona College

RESEARCH RELATED ACTIVITIES:

NONE

PROJECTS AND ACTIVITIES PLANNED:

1. Begin the planning for an expanded information dissemination system

Arizona

2. Begin the planning for a system for identifying available vocational education curriculum materials

3. Begin the planning for a survey of vocational educators on their perceived information needs and vocational education research priority needs in Arizona

4. Fund at least one project which will relate to the need of improved competence in proposal writing

ARKANSAS

Luther Hardin, State Director of Vocational Education
Jack D. Nichols, RCU Director

PROJECTS COMPLETED:

1. A Comparative Study of the Occupational Achievement of Vocational and Non-Vocational High School Graduates in the State of Arkansas Educational Planning and Evaluation Services, Magnolia

NEW PROJECTS FUNDED:

1. A Comparative Study of Alternative Methods and Techniques in Stenographic Training, Pulaski County School District, Little Rock

2. Ten Local Action Oriented Research and Development Mini-Grants, Statewide

3. An Education-Industry Exchange Program for Vocational Teacher Education Preparation, State College of Arkansas, Conway

RESEARCH RELATED ACTIVITIES:

1. A proposal has been submitted for funding consideration entitled "A Model for Developing Alternative Administrative Strategies for Maximizing Comprehensive Vocational Program Planning and Evaluation"

2. The project entitled "A Unified School-Community Approach to Remodel Guidance Services and Expand Next Step Placement and Follow-Up," has progressed satisfactorily and an inservice education component has been funded through EPDA

PROJECTS AND ACTIVITIES PLANNED:

1. Individualized Vocational Visual Media for Deaf Students

Arkansas

2. Curriculum development activities for state vocational personnel

3. Staff development and coordination for state vocational personnel

4. Inservice training for personnel involved in Research and Development projects

CALIFORNIA

Mr. Samuel Barrett, State Director Vocational Education
James Crandall, RCU Director

PROJECTS COMPLETED:

1. Field Test of Project 42-10421-C048-71-The Research and Evaluation of Follow-Up Studies of High School Graduates Using Sampling Techniques

2. Student Perceptions of the Link Between School and Work

3. Research on Application of a Self-Actualization Process in an Attempt to Improve Effort and Performance in Selected Vocational Programs

4. A Study of the Vocational Entitlement and Grants Mgt. System

5. Career Education Opinions of California Educators

6. Industry Validated Vocational Performance Objectives

7. Use of Need Assessment in Improving the Utility of Community College Advisory Committees

8. Improving Occup Student Follow-Up in California Community Colleges

9. Occupational Needs Assessment of the Elderly

10. Comparison of Listening-viewing Comprehension Levels of a Junior College Population Enrolled In Vocational Education compared to the Comprehension Levels of the Learning Methods Utilized in Vocational Education

11. The Effects of Providing Pre-Education Treatment to Handicapped Young Adults to Increase Their Readiness for College and Vocational Education Programs: A Controlled Research Study

12. Reasons for Drop-Out and Inhibitors to Training Related Job Placement of Vocational Education Trainees

California

13. A Study of Career Centers in the State of California

14. Involvement of Vocational Ag Students in Student Vocational Education Student Organizations

15. Third Party Evaluation of California Career Education Centers

16. Field Test Report of a Career-Oriented, Peer-Instructional Model in the Office Cluster of Business Occupations at the Clovis Adult School of Business

17. Evaluation of Self-Administration, Self, Scoring, and Self Intrepretation of the California Occupational Preference Survey

18. An Analysis of Vocational Education Administrators Perception of Curriculum Tasks and Competencies

19. Recommendations for the Operation of a Mobile Business Education Instructional Materials Resource Center

20. Concepts, Topics, & Objectives for Consumer Education K-Adult

21. An Empirical Comparison Between the Gregg & the Laurie Shorthand Systems

22. A Survey of Teacher Pupil Relationships of California Vocational Ag Teachers Trained by the Full Pay Intern Program

23. California Industrial Education Guide

24. Experiment to Determine the Effects of Repetition and Alternating Levels of Practice on Learning to Typewrite

25. The Measurement of Attitudes of Chicano Freshman Who are Preparing for a Criminal Justice Career

26. Compton-Minority Com Attitude Survey

California

NEW PROJECTS FUNDED:

1. System of Interactive Guidance and Information (SIGI)

2. Manpower Management Information System: Education Resources

3. Research Information Identification of Cultural Disadvantagement as a Key Segment of a Vocational Student Information System

4. COPES: Sub System for Work Experience Programs

5. A Study to Identify and Validate Beginning Voc Ag Teacher Tech Competencies in Beef, Sheep, Swine & Horse Husbandry

6. Recommendations for Operation of Mobile Business Ed Resource Center

7. Reasons Teachers Leave the Profession of Voc Agriculture Education

8. Concepts, Topics & Objectives for Consumer Education K-Adult

9. California Broadcast Employment Survey

10. An Assessment of the Occupational Programs for 11th & 12th Grade High School Students in Community College

11. The Impact of the Career Guidance Centers Upon Students at Santa Ana College

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED: NONE

COLORADO

M. G. Linson, State Director of Vocational Education
Robert F. Barnes, RCU Director

NO REPORT RECEIVED

CONNECTICUT

Walter A. Bialobrezeski, State Director of Vocational Education
Richard C. Wilson, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. Planning the Development and Implementation of the East Shore Career Education Center, Area Cooperative Educational Services, New Haven

2. A Survey of Community Resources and Employment Opportunities Having Implicatons for Programs of Vocational Agriculture in Connecticut: Phase II, School of Education University of Connecticut

3. Preparation of a Vocational Career Guide for Connecticut, University Research Institute of Connecticut

4. Evaluation of the Remedial Reading Program of the Connecticut Vocational-Technical Schools, Central Connecticut State College

5. Career Education Program: Troop Middle School, New Haven

6. Project 70,001, Hartford

7. Alternative School, Waterbury

8. Career Guidance Program, Urban League of Greater Hartford

9. Career Education in Norwalk Public School, Norwalk

REASEARCH AND RELATED ACTIVITIES:

NONE

PROJECTS AND ACTIVITIES PLANNED:

1. Study of Increased Use of Vocational-Technical Facilities.

Connecticut

2. A Survey of the Manpower Needs of Connecticut Business and Industry With Special Emphasis on the Development of a Computer-Based Model for Vocational-Career Information Delivery Systems.

DELAWARE

Conrad C. Shuman, State Director of Vocational Education
Burton Braverman, RCU Director

PROEJCTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. Delmarva Career Education Project, Seaford School District

2. Performance Based Self-Paced, Individualized Instructional System, Kent County Vocational-Technical District

3. About Face, Marshallton-McKean District

4. Industrial Arts in the Elementary School K-5, Appoquinimink School District

5. To Provide Career Opportunities to Elementary Children in Kindergarten Through Grades Four in Awareness and Explorative Activities, Capital School District

RESEARCH RELATED ACTIVITIES:

NONE

PROJECTS AND ACTIVITIES PLANNED:

NONE

DISTRICT OF COLUMBIA

Paul E. Cawein, State Director of Vocational Education
Jeannie H. Carter, RCU Director

PROJECTS COMPLETED:

1. Project Info - to determine the impact of readily accessible information in a Field Resource Center for program and curriculum development. The Project Info Center houses several microfiche library collections including AIM and ARM and other instructional and curriculum materials, Bruce Administration Center, Public Schools of the District of Columbia

NEW PROJECTS FUNDED:

NONE

RESEARCH RELATED ACTIVITIES

1. Wrote Research Proposal for Commissioner's Part C money which was designed to implement an automatic Student Information System and a Student Follow-Up Model

2. Prepared Annual Statistical and Descriptive Reports for submission to USOE

3. Prepared Amendments to the 1975

4. Began preparation of the 1976 State Plan

PROJECTS AND ACTIVITIES PLANNED:

NONE

FLORIDA

Joe D. Mills, State Director of Vocational Education
K. M. Eaddy, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. To meet third party career education evaluation guidelines as specified by USOE (D4-013), C. A. Bellum, Sarasota County School Board, Sarasota

2. Third-party evaluation of the C/E program in Manatee County (D5-004), Raymond Lee, Manatee County, Brandenton

3. Develop a catalog of objectives and criterion-referenced exercises for tax collector occupations (C5-003), David Groth, Broward Community College, Ft. Lauderdale

4. Research and Related Training Programs for Graduate Students (C5-002), R. Andreyka, Florida State University, Tallahassee

5. Survey of LOOM Needs by District Schools (D4-011), Ernest Berger, Florida State University, Tallahassee

6. To continue the reproduction and diffusion of LOOM throughout the State (D5-001), Ernest Berger, Florida State University, Tallahassee

7. Allocate additional resources to VTAE Project D4-002, Automotive Body Repair Assessment (D4-002), Paul Mohr, Florida A&M University, Tallahassee

8. Employment of a Technical Coordinator at FAMU, to provide assistance and direction to the development of V-TECS catalogs of objectives and criterion-referenced measures being conducted in universities and other institutions throughout the State (D5-003), Florida A&M University, Tallahassee

Florida

9. Pupil Personnel Services for Post Secondary (C5-001) Area Voc.-Tech. Centers, James Wattengarger, University of Florida, Tallahassee

10. Phase II of Workshops to Train Teachers in use of Valuing Materials and Teaching Techniques (D4-012), J. B. Hodges, University of Florida, Gainesville

11. To assist in the diffusion of Elementary Counselor Career Education Materials to Teachers and Counselors throughout Florida (D5-005), University of Florida, Gainesville

12. Evaluation of Career, Economic and Community Education Components EPIC Project (750-010) Contract, Florida Council of 100

13. A Feasibility Study in Curriculum Development (750-049) Contract, B. E. Childers, Southern Association of Colleges and Schools, Atlanta, Georgia

RESEARCH RELATED ACTIVITIES:

1. Preparation and implementation of Management by Objectives System including development of goals, mission statements, objectives and milestones for the bureau operation and for interdivisional responsibilities designed to this bureau.

2. Made presentations to the following groups concerning bureau activities: (a) the annual vocational, technical and adult educator's conference; (b) local administrators and community college deans, various vocational service areas and other interested groups, (c) directors of student personnel services, teacher educators and division staff meetings.

3. Prepared and submitted a proposal for a discretionary research project in 1975-76.

4. Attended and participated in the Fall Meeting of the Southwide Research Coordinating Council.

5. Prepared and submitted program materials for the National Research Coordinating Unit Personnel Conference.

Florida

6. Attended meetings of Bureau Chiefs, Vocational Administrative Council, DOE Administrative Council and other council and committee meetings

7. Hosted meeting of curriculum coordinators from curriculum network management centers and state coordination centers

8. Conducted a series of regional meetings in Florida on placement and follow-up for local school districts

9. Served on board of Directors for V-TECS and participated in all activities

10. Served on national committee to develop a Handbook on Dissemination

11. Developed a project for USOE on training of change agents

12. Worked with state agencies and other interested groups on placement and follow-up programs, i.e., Department of Commerce, Department of Health and Rehabilitative Services, American Vocational Association, Educational Supervisor's Conference, National Advisory Council for Vocational Education.

13. Worked with other state agencies to develop projects for curriculum management and occupational information systems

14. Participated in a Conference on Instructional Systems Development, and the national Distributive Education Consortium

15. Served as special consultant to several task forces and committees, such as: (a) Consumer Education Task Force for the purpose of state legislation implementation and subsequent evaluation of a statewide interagency conference on consumer education; (b) State Awards Committee, (c) curriculum advisory committees, (d) Title V ESEA Committee

16. Prepared research and exemplary components of the annual descriptive report for Florida

Florida

17. Reviewed, recommended and monitored for funding support the managerial aspects of research, exemplary, evaluation and dissemination projects funded in the State

18. Provided consultative assistance to projects in progress

19. Continued working on the development of a statewide accreditation program

20. Responded to requests for information including preparation of journal articles and newsletters

21. Prepared position paper and guidelines for review on dissemination systems

22. Coordinated the development of contracts for the Vocational Division, Department of Education

23. Attended meetings in the Atlanta, Region IV office for the purpose of orientation to project establishment, and receipt of guidelines for the third party evaluation of the discretionary, exemplary project

24. Coordinated the establishment of FY 74 research and exemplary discretionary projects

25. Prepared amendments to the discretionary research and exemplary projects

26. Monitored discretionary research and evaluation projects

27. Issued a Request for Proposals to conduct a third party evaluation for the exemplary career education program

28. Attended an orientation session held in Washington, D.C. for project staff having discretionary research projects

29. Provided information to Rand Corporation for evaluation of discretionary exemplary projects

Florida

30. Began final phases of the 1973 and 1974 career education models

31. Prepared the Statewide program of work for research, exemplary evaluation and dissemination activities

32. Assisted in conducting a Statewide Advisory Council Workshop

PROJECTS AND ACTIVITIES PLANNED:

1. Complete the current projects operating through the U.S. Commissioner's discretionary share of research and training and exemplary funds

2. Prepare specifications and recommendations for research and exemplary projects for 1975-76

3. Continue development of a diffusion/dissemination models for the Vocational Division

4. Establish new research and exemplary projects funded through discretionary and state administered monies

5. Continue developmental activities for:

   a. placement and follow-up
   b. career education
   c. curriculum
   d. program standards
   e. management by objectives for research and evaluation bureau

6. Continue liaison and coordination of vocational research and development efforts in and out of state

GEORGIA

Russell S. Clark, State Director of Vocational Education
Paul Scott, RCU Director

PROJECTS COMPLETED:

1. Walker County Project, La Fayette

2. Health Occupations and Health Coop Project, University of Georgia, Athens

3. Mini-Exploratory Project, University of Georgia, Athens

NEW PROJECTS FUNDED:

1. College Dissemination Project, Valdosta State College, Valdosta

2. Public Service Cluster, Gwinnett County

3. Fine Arts Cluster, Muscogee County

4. Arnold Project, Evaluation in conjunction with State Advisory Council, Atlanta

5. Career Education Program, Colquitt County

6. Basic Skills Through Practical Arts, Green County

7. An Occupational Structured Reading Program, Hancock County

8. Job Placement Program, Oconee County

9. Career Awareness, Ferrell County

10. P. E. C. E. Adoption

11. Basic Skills Through Practical Arts, Charlton County

12. Career Education, Effingham County

Georgia

13. Development of Performance Objectives and Task Analysis in Conjunction with V-TECS Project, West Georgia College, Carrollton

RESEARCH RELATED ACTIVITIES:

1. Renewed membership in the seven-state V-TECS Consortium

2. Organized a task force to work with a Cadet Teacher Project

3. Prepared a proposal for the development of a comprehensive vocational guidance model

4. Previewed commercial curriculum materials for possible use in career and vocational education programs

5. Worked with local school systems in the development of proposals

6. Review of environmental curriculum materials

7. Performed literature searches

8. Conducted workshops concerned with career and/or vocational education

9. Conducted a State of the Art Review for evaluation of vocational programs

10. Assisted in preparation of legislation and Congressional testimony

PROJECTS AND ACTIVITIES PLANNED:

1. Vocational Teacher Assessment Project

2. Expand Competency based certification/teacher education project

3. Work with Educational Testing Service to adapt the use of their skill competency tests to our certification procedures

Georgia

4. Continue a variety of diffusion/dissemination activities

5. Work with Glynn County School System to develop an alternative comprehensive high school centered around vocational education

HAWAII

Samson S. Shigetomi, State Director of Vocational Education
Sybil Kyi, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. A statewide Follow-up System of Secondary Level Program Graduates, FY 1974, Data Technical Associate Honolulu

RESEARCH RELATED ACTIVITIES:

1. A statewide enrollment data system for secondary level vocational-technical education programs

2. A statewide follow-up system of secondary level program graduates, FY 1974

3. A statewide comprehensive Career Development Continuum (K-14), Phase III

4. In-service experimental team programs at Waianae, Kaimuki and Konawaena high schools

5. ETV materials development for Career Development Program support at grades 4-6

PROJECTS AND ACTIVITIES PLANNED:

NONE

IDAHO

Roy D. Irons, State Director of Vocational Education
Kenneth Hanson, RCU Director

PROJECTS COMPLETED:

1. A comprehensive Career Education Program for Grades 7-9--Supplements Commissioners, V361033L, Pocatello #25, Pocatello

NEW PROJECTS FUNDED:

NONE

RESEARCH RELATED ACTIVITIES

1. Developing an Occupational Information System for the State of Idaho

2. Developing a statewide dissemination system for R&D materials

3. Development of a VIEW system with over 300 vocational occupations common to Idaho. The accessing system used in the keying of the Kuder 10 interest areas and the USOE career clusters

PRODUCTS AND ACTIVITIES PLANNED:

1. Development of a comprehensive Management Information System for Vocational Education. To include the following subsystem models:

   a. Student accounting
   b. Manpower supply and demand
   c. Financial accounting and resource allocation

2. Updating of VIEW system

ILLINOIS

Sherwood Dees, State Director of Vocational Education
Ronald D. McCage, RCU Director

PROJECTS COMPLETED:

1. Maximizing Human Resource Development in the Five County Tier Region of Southern Illinois - Phase II, Joel Jennings, Shawnee Community College, Karnak

2. Development of a Systematic Approach to Follow-Up Evaluation - Phase II, Joyce Felstehausen, Eastern Illinois University, Charleston

3. Cost Differential Analysis - Phase II, Dennis C. Nystrom, Southern Illinois University, Carbondale

4. Analysis of Current Manpower Labor Market Information in Illinois, Richard Hattwick, Western Illinois University, Macomb

5. Illinois Vocational Education Management Information System - Phase II, Robert A. Davis, Robert Davis Associates, Springfield

6. The Exemplary Program in Technical Industrial Engineering Technology Based on Integrated Measurably State Behavioral Objectives, Robert Van Raes, Moraine Valley Community College, Palos Hills

7. Nuclear Radiation Project Study - Phase II, William Phelps and Art Baker, Crystal Lake District 155, Crystal Lake

8. An Impact Assessment of the Demonstration Center as a Dissemination Technique, Joseph Ellis, Northern Illinois University, DeKalb

NEW PROJECTS FUNDED:

1. Career Education Resource Laboratory - Phase II, Carol Sanders, Eastern Illinois University, Charleston

Illinois

2. Illinois Vocational Education Management Information System - Phase III, Robert A. Davis, Robert Davis Associates, Springfield

3. Development of a Systematic Procedure for Collecting, Processing and Analyzing Supply/Demand Data on Occupational Education Teachers, Richard Hattwick, Western Illinois University, Macomb

4. Career Awareness Project: One Through Three, Larry Bailey, Southern Illinois University, Carbondale

5. A Study to Develop a Comprehensive Model Placement Center System for Adaption and Use by Community Colleges and High Schools, Connye Barrow, Triton Community College, River Grove

6. Revision of Construction Curriculum Skill Development Procedures and Relationships with Educational Institutions, Judy Greene, Chicago United, Chicago

7. Vocational Programs for Disadvantaged Students in Illinois, Lawrence Weisman, Southern Illinois University, Carbondale

8. Development of Materials and Procedures for Teaching Occupational Survival Skills, Robert Nelson, University of Illinois, Urbana

9. Comprehensive Occupational Orientation Cluster Program: Demonstration Stage, Royle Campbell, Springfield District #186, Springfield

10. The Development of Activities for Broadening the Scope of Involvement of Young Women in Occupational Education, JoAnn Steiger, Steiger, Fink & Smith, Inc., McLean, Virginia

11. An Action Research Model for Classroom Teachers, M. H. Jason & Henrietta Schwartz, Roosevelt University, Chicago

12. A Comparative Assessment of Secondary and Post Secondary Consumer and Homemaking Education Program (Part F), Gerald Matson, IBEX, Inc., Durham North Carolina

Illinois

13. A Comprehensive Analysis of the Organizational and Operational Patterns of Regular and Part G Cooperative Vocational Education (Part G), William Gooch, Southern Illinois University, Carbondale

RESEARCH RELATED ACTIVITIES:

1. East St. Louis Career Education Project, East St. Louis School District #189, East St. Louis

2. Third Party Evaluation of Six Career Education Projects, Success Research Consultants, Inc., Tinley Park

3. Multifarious, Student Based, Management Information System, DVTE-RDU, Springfield

4. CIOEDC Project, Site A, Elementary, Secondary, and Joliet Junior College District/Joliet Township High School District #204, Joliet

5. CIOEDC Project, Site B, Cumberland High School and Junior College/Cumberland Unit School District #77, Toledo

6. CIOEDC Third Party Evaluator, Educational Management Service Inc., Minneapolis, Minnesota

7. CIOEDC Project Headquarters - Research and Development Unit, Division of Vocational and Technical Education, Illinois Board of Vocational Education and Rehabilitation, Springfield

PROJECTS AND ACTIVITIES PLANNED:

1. To Operationalize an Occupational Education Demonstration Center (9-12) Utilizing Sequential Programs Developed by the Illinois Division of Vocational and Technical Education - Project SAMPLE, TBA

2. Tri-County Career Education Project - Phase II, Paul Musgrove, Tri-County Industry Education-Labor Council

Illinois

RESEARCH RELATED ACTIVITIES:

1. Restructuring of the Research Advisory Committee has been accomplished with representative members from:

   a. The Commission for Higher Education
   b. Local Vocational Directors
   c. Superintendents Association
   d. Indiana Vocational Technical College
   e. Labor

PROJECTS AND ACTIVITIES PLANNED:

1. Request writing of proposals

2. Selection of proposals

3. Meeting of project directors

4. Visitation of FY 1974 projects

INDIANA

Don K. Gentry, State Director of Vocational Education
Edgar Hornback, RCU Director

PROJECTS COMPLETED:

1. Subject Matter Content and Teaching Methods Appropriate For A Junior Agricultural Program, Harrison High School

2. The Construction, Validation, and Standardization of an Achievement Test for a Ninth Grade Couse in Consumer Education, Indiana University

3. Youth Leadership Development, Indianapolis Public Schools

4. Horticultural Research Seminar, New Albany-Floyd County School Corp.

5. Plotter Training Study, Vincennes University

6. A Feasibility Study of the Need to Establish a Student Organization to Serve Indiana Interdisciplinary Cooperative Education Students, Indiana University

7. An In-Depth Descriptive and Evaluative Study of the Vocational Horticulture Programs in the Secondary Schools of Indiana, Purdue University

8. Vocational Education for the Disadvantaged and Handicapped in Indiana, Indiana University

NEW PROJECTS FUNDED:

1. An Initial Systems Model for the Development and Implementation of a New, Comprehensive Health Occupations Education Program Management Plan for Students and Instructors in Indiana, Chrysler School Corporation

2. A Project to Develop and Field Test an Independent Study Program in Vocational Education, Indiana University

IOWA

William O. Schuermann, State Director of Vocational Education
Kenneth M. Wold, RCU Director

PROJECTS COMPLETED:

1. Assess Needs and Develop Plan for Career Education in Area X, Kirkwood Community College, Cedar Rapids

2. Determine the Career Education Needs for Area V, Iowa Central Community College, Ft. Dodge

3. Learning Activity Packages for a Distributive Education Learning System, and Addendum, Wisconsin Department of Public Instruction, Madison, Wisconsin

4. Third Party Evaluation of Iowa Central Community College Career Education Programs in Engine Mechanics, Office Education, and Secretarial-Clerical, Iowa Education Information Center, University of Iowa, Iowa City

5. Determine the Career Education Needs for Merged Area XII, Western Iowa Technical, Sioux City

6. Unifying a Career Education Theme in the Curriculum Through Teacher Inservice Activities, Mason City Schools, Mason City

7. Determining the Competency Needs of Sanitarian Aides - Phase I, Iowa Western Community College, Council Bluffs,

NEW PROJECTS FUNDED:

1. Developing a Long Range Master Plan for Implementing Career Education for Schools in Area VI, Iowa Valley Community College, Marshalltown

2. Determine the Competency Needs of Sanitarian Aides, Phase II, Iowa Western Community College, Council Bluffs

3. Career Education Needs Assessment for Merged Area IX, Eastern Iowa Community College, Davenport

Iowa

4. Area XVI Career Needs and Interest Study, Southeastern Community College, W. Burlington

5. Determine the Needs of Merged Area XIV in Relation to the Implementation of a Long Range Plan for Career Education, Southwestern Community College, Creston

6. Career Education Needs Information System (CENIS) Cycle II, Department of Public Instruction, Des Moines

RESEARCH RELATED ACTIVITIES:

1. The Career Education Needs Information system (CENIS) research project was approved as Cycle II for fiscal year 1975.

2. Staff continued to encourage research proposal development by local education institutions including area schools.

3. The Career Education Research Advisory Committee membership was updated and new members replaced tos those whose terms had expired or who had left the state. This committee reviewed proposals in advance of State Board action.

4. Visitations to on-going research projects continued.

5. Prepared the annual statistical, fiscal, and descriptive report for fiscal year 1974 for the U.S. Office of Education

6. Began work on the state plan for fiscal year 1976.

7. Printed and disseminated the following publications:

   a. Identification of Occupational Competencies in Services for the Electromechanical Cluster Occupations

   b. Goals and Objectives for Implementation of Career Education in Grades 7-12, Mason City Community School District, summer 1973

Iowa

PROJECTS AND ACTIVITIES PLANNED:

1. The Career Education Research Advisory Committee will meet to review research proposals

2. Progress on on-going research projects will be ascertained by means of a self-evaluation instrument and through follow-up visits

3. Consultative assistance will be provided proposal initiators and directors of research projects

4. Research priorities for fiscal year 1976 will be established

5. The State Plan for the Administration of Career Education for fiscal year 1976 will be prepared for State Board approval and then submitted to the U.S. Office of Education.

6. Revision of the Career Education Handbook to supplement the state plan will begin during this period

7. Staff will disseminate findings of research projects

8. Staff will continue to encourage statewide interest in additional research projects

KANSAS

John E. Snyder, State Director of Vocational Education
Wilbur A. Rawson, RCU Director

NO REPORT RECEIVED

KENTUCKY

Carl F. Lamar, State Director of Vocational Education
Robert M. Schneider, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. Two Hour Vocational Classes at the Laurel County Area Vocational Education Center -- Addendum, ROPES XIII, Barbourville

2. Vocational Education Public Information Program for the Pennyrile Region -- Continuation Phase II, Region II, Madisonville

3. Printing and Disseminating Career Education Documents, University of Kentucky, Lexington

4. Development of Performance Objectives and Criterion-Referenced Measures for V-TECS Project Areas, University of Kentucky, Lexington

5. Third Party Evaluation for Hazard Career Education, Region 12, SACS, Atlanta, Georgia

6. Developing Mini-Lessons on Video Tape for Use in Units of Instruction for Child Day-Care Center Personnel, University of Louisville, Louisville

7. Innovative Program for Achieving the Goals of Education in Human Relations and Occupational Competency (Grades &-12, Owensboro/Daviess Co. School System, Owensboro

8. A Triangular Teaching Process; Using Mass Communication, Daviess County, Owensboro

RESEARCH RELATED ACTIVITIES:

1. The Bureau of Vocational Education is currently developing Competency Based Education curriculum

materials based upon the catalogs of objectives developed through the Vocational-Technical Education Consortium of States (V-TECHS). In-Service education on the use of these materials is to be conducted during the spring and summer of 1975 with field testing being conducted during the 1975-76 school year.

PROJECTS AND ACTIVITIES PLANNED:

1. The Research Unit is conducting a Delphi type survey, using respondents of education and business and industry located in all geographical regions of Kentucky, to identify the major problems, concerns and needs for the advancement of Vocational Education in the State. This information will be combined with input from the State Advisory Council for Vocational Education, national priorities and other sources to develop the Research and Development priorities for Vocational Education in Kentucky for FY 1976 and, ultimately, the research and development program budget for FY 1976.

LOUISIANA

Kirby K. Awagain, State Director of Vocational Education
Florent Hardy, RCU Director

NO REPORT RECEIVED

MAINE

Elwood A. Padham, State Director Vocational Education
Charles W. Ryan, RCU Director

PROJECTS COMPLETED:

1. An In-School Job Placement Service for Secondary School Students, Mt. Ararat High School SAD #75

2. Development of Demonstration Modular Curriculum, Lewiston Comprehensive High School

3. The Effects of Selected Instructional Strategies on Learning Efficiency in Voc-Tech Educational Programs, College of Education, University of Maine

4. Career Education Within the University of Maine System, College of Education, University of Maine

5. National Instructional Television Career Education, College of Education, University of Maine

6. Student Characteristics & Success In Selected Voc-Tech Training Programs: Extended Analysis & Interpretation, College of Education, University of Maine

7. Career Awareness Curriculum Project, University of Maine

NEW PROJECTS FUNDED:

1. A Career Education Mini-Course In Health Occupations, Telstar Regional High School, Northern Oxford Voc. Area Region #9

2. Achieving Career Awareness, Boothbay Region High School

3. The Effects of Selected Instructional Strategies on Learning Efficiency in Voc. Tech. Education Programs: Phase II, SAD #9

4. STRIVE - Student Training REalized In Voluntary Exploration, Livermore Falls High School, SAD #36

5. Cooperative Vocational Education Training Programs for Cashiering, Orono High School

6. Development of Multi-Media Career Units for Use With Students In Higher Education, University of Maine

7. NOW - New Opportunities for Work, Lewiston Public School District

8. Career Education - Grades K-12, SDA #9

9. Affective Teaching for Learning Affective Skills Today: This program is designed to establish a set of attitudes for work for graduating high school seniors entering the job market, Capitol Reg. Voc. Tech. Center

10. COPE: The intent of this project is to develop on-going job development, placement and follow-up activities in an urban setting. A screening process will be used to match students with jobs who have gone through a 26 week program of pre-work education, Biddeford High School

11. Modular Curriculum: A series of individualized instructional approaches in specific content areas will be developed in vocational education; supported by video tapes made by the instructors and cross-articulated with the academic subjects of English, US history, science and math, Lewiston Regional Vocational Center Lewiston High School

12. Seniors at Mt. Ararat will be given career placement assistance. Follow-up activities on the graduating class of 1974 has begun with 75% participation from former students. A series of in-class activities will occur with each content area to assure that a set of pre-job skills have been acquired. A team of professional within the school will assist in selecting screening, referring and placing students to supplement the staff of the project, Mt. Ararat High School

13. A project with the Bureau of Labor Education at the

Maine

University of Maine will design a curriculum to teach high school students about labor laws which are designed to protect the worker. The finished curriculum will be taught to teachers in specific regions in Maine to familiarize them with instructional strategies to use in the teaching of the curriculum to high school students, Bureau of Labor Education University of Maine

RESEARCH RELATED ACTIVITIES:

1. Development and publication of a trainer's manual for career education - published in November, 1974.

PROJECTS AND ACTIVITIES PLANNED:

1. A series of inservice training seminars for school superintendents will be conducted in February and March, 1975. The purpose of these seminars will be to demonstrate career education materials and ideas for implementation in the schools.

2. Our two research projects will be funded to conduct follow-up studies of four vocational education programs. The programs to be selected will be from both the secondary and post secondary areas.

3. The development of an apprenticeship guide for school counselors will be contracted during this period.

4. A research project to identify new and emerging opportunities in Maine will be funded.

MARYLAND

James L. Reid, State Director of Vocational Education
Gary Green, RCU Director

NO REPORT RECEIVED

MASSACHUSETTS

Patrick J. Weagraff, State Director of Vocational Education
Jack Sweeney, RCU Director

PROJECTS COMPLETED:

NONE

NEW PROJECTS FUNDED:

1. Project E/D Model (A Diffusion Model for Adult Education), Assabet Valley Regional Vocational Technical School, Marlboro

2. Project CEDIS (Career Education Dissemination Services), Greater Lawrence Regional Vocational Technical School, Lowell

3. Project CAREER (Computer Assisted Research for Educational Relevance), Blue Hills Regional Vocational Technical School, Randolph

RESEARCH RELATED ACTIVITIES:

1. Provided resource material for Curriculum Development and Management to fourteen Occupational Competence Model Projects

2. Provided Resrouce Material for Curriculum Development and Management to twenty-seven Occupational Competence Planning Projects

3. Provided Technical Assistance to Division Staff Members for attaining the State Goal of Occupational Competence

4. Established Project for Third Party Evaluation of Occupational Competence Projects

PROJECTS AND ACTIVITIES PLANNED:

1. Establish and supervise three Exemplary Projects which offer an Interrelated Curriculum for grades seven through twelve, encompassing three or more Occupational Clusters and servicing students through a Collaborative Effort. One Project will be established in each of the following environments: a) Rural b) Suburban c) Urban

MICHIGAN

Addison Hobbs, State Director of Vocational Education
Stanley Rumbaugh, RCU Director

PROJECTS COMPLETED:

1. Career Achievement Skills Training Program (CAST), The School District of the City of Pontiac, Pontiac

NEW PROJECTS FUNDED:

NONE

RESEARCH RELATED ACTIVITIES:

1. Continued development and begin installation of the Vocational Education Information Support System, with emphasis on the program-course-section component and partial automation of the new/revised program applications evaluation process

2. Assisted in refinement of student followup system

3. Development of data collection instruments which will be used to collect information to improve the long range planning capabilities of community colleges in all areas of Vocational-Technical Education

4. Aid in the evaluation of a comprehensive instructional unit on competency based instruction

5. Development of a Planning Guide for Career Education

6. Development and testing of inservice materials (including publication and AV materials) for various audiences related to Career Education

7. Development of Resource publications related to the implementation of Career Education

8. Initiation of a Career Exploration Program development effort

Michigan

9. Assisted in the dissemination of Career Education, using many of the materials produced in the above activities (5-8)

PROJECTS AND ACTIVITIES PLANNED:

1. Assist in the operation and training programs for vocational educators in the use of local advisory councils

2. Assist in the operation and evaluation and workshops for vocational educators in the use of competency based instruction

3. Continue development of the Vocational Education Information Support System

4. Expand dissemination efforts in the area of Career Education

5. Enlarge the Planning Guide for Career Education to include program development and evaluation procedures

6. Expand the Career Exploration program development, plan for and conduct initial testing

MINNESOTA

Robert P. Van Tries, State Director of Vocational Education
Jerome Moss, Jr., RCU Director

PROJECTS COMPLETED:

1. Career Education in English, Roseville Area Schools; Roseville

2. Career Education for Urban Youth - Phase 2, Independent School District No. 625; St. Paul

3. International Vocational Studies in Advanced Culinary Arts, Independent School District No. 287; Suburban Hennepin County AVTI

NEW PROJECTS FUNDED:

1. Research Coordinating Unit for Vocational Education University of Minnesota

2. Area School Follow-Up System, University of Minnesota

3. Secondary Health (Exploratory) Occupations Program - Consultation and In-Service Training, Anoka-Hennepin School District No. 11

4. Curriculum for Occupational Education, Minneapolis Public Schools

5. Minnesota Instructional Materials Center, 916 Area Vocational Technical Institute

6. Addendum to the Work Plan for Technical Assistance to the Division of Vocational-Technical Education, Education Management Service, Incorporated

RESEARCH RELATED ACTIVITIES:

1. Procedure for Planning and Evaluating Senior High Vocational Education Programs, Division of Vocational-Technical Education, Minnesota Department of Education, funded from Commissioner's Discretionary monies, Part C,

Minnesota

1. of P.L. 90-576. This project is known within the state as S.P.A.C.E. - Student Placement and Counseling Effort. Phase I focuses on assisting 12th grade students in four pilot schools with educational and/or job placement, and acquiring the skills and knowledges necessary for placement.

PROJECTS AND ACTIVITIES PLANNED:

1. Activity will continue in all on-going projects. Vocational education research and development priorities within Minnesota will be reviewed and revised by the Minnesota Research and Development Review Committee so as to reflect current needs in Minnesota. The Research Coordinating Unit's work plan for fiscal year 1976 will be developed during this period.

MISSISSIPPI

Troy V. Majure, State Director of Vocational Education
James E. Wall, James F. Shill, RCU Co-Directors

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED:

1. Mississippi Research and Curriculum Unit, Mississippi State University

2. Evaluation of an Urban Career Ed Project in MS Delta, Mississippi State University

3. Evaluation of N'East MS Career Opportunities Program, Mississippi State University

4. Evaluation of Louisville, McComb, & Winona School Systems Career Education Projects, Mississippi State University

5. Vocational-Technical Ed Consortium of States (V-TECS), Mississippi State University

6. Evaluation of a Career Ed Project on MS Gulf Coast, Mississippi State University

7. Evaluation of Three-Rivers Career Ed. Project EXPLORE, Mississippi State University

8. Louisville, McComb & Winona School Systems' Career Ed. Project, Louisville, McComb & Winona

9. Vocational Developmental Reading Project, University of Southern Mississippi

RESEARCH RELATED ACTIVITIES:

1. Assist in implementation and development of career education in the State

2. Development of performance objectives catalogs on plumbing and groundskeeping

Mississippi

3. Development of statewide system for determining vocational reimbursement for local programs

4. Evaluation and monitoring of funded research projects in Mississippi

5. Assist State Advisory Council in conducting evaluation of voc-tech education

6. Assist in development of EPDA plan

7. Assist in research proposal development for local school systems, junior colleges, and universities

PROJECTS AND ACTIVITIES PLANNED:

1. Activities planned are similar to those in the above section

2. Conduct regional EPDA project on Training State Departments of Education personnel

3. Mississippi Research and Curriculum Unit

4. Evaluation of an Urban Career Education Project in the Mississippi Delta

5. Evaluation of Northeast Mississippi Career Opportunities Program

6. Evaluation of Louisville, McComb, and Winona School Systems' Career Ed. Projects

7. Vocational-Technical Education Consortium of States (V-TECS)

8. Evaluation of a Career Education Project on Mississippi Gulf Coast

9. Evaluation of Three Rivers Career Education Project EXPLORE

MISSOURI

B. W. Robinson, State Director, Vocational Education
Glenn W. White, RCU Director

PROJECTS COMPLETED:

1. Read, Listen, and Learn About Work, Pattonville School District

2. A Proposal to Reproduce and Disseminate Individualized Business and Office Materials, and to Provide Technical Assistance to Four Selected Public Schools in Missouri, State Fair Community College

3. Establishing Vocational Skills in Severely and Profoundly Retarded Individuals, St. Louis State School and Hospital

4. Career Awareness Selection and Occupational Training in Agri-Business, Chillicothe R-II School

5. Analysis of Mathematical Skills in Mechanical Engineering Technology (MET) at Florissant Valley Community College

6. Analysis of Student Mathematical Skills in Civil Engineering Technology at Florissant Valley Community College, Florissant Valley Community College

7. Development of an Individualized Instruction Module: Use of the Metric System: Weight, Linear and Volume, Florissant Valley Community College

8. Phelps County Vocational Development Clinic, University of Missouri-Rolla

9. A Feasibility Study to Determine an Alternative Method of Cooperative Work Experience by Block Time in a Major Metropolitan Area for Community Colleges, Longview Community College

10. Feasibility Study on the Need for Developing a Curriculum for Corrections Personnel and the Type of Curriculum Necessary, Longview Community College

Missouri

11. A Slide/Tape Presentation on Computerized Accounting Applications

12. Investigation of the Needs of the City of St. Louis for Paraprofessionals in Home Economics, Forest Park Community College

13. Work Concepts of Children, University of Missouri-St. Louis

14. Preparation of a Sound-On Slide Tape as a Media for Effectively Communicating Career Information and Opportunities Available at the Two Vocationa-Technical Schools of St. Louis County, Special School District of St. Louis County

NEW PROJECTS FUNDED:

1. Preparation of a sound-on slide tape as a media for effectively communicating career information and opportunities available at the two vocational-technical schools of St. Louis county, Special School District of St. Louis

RESEARCH RELATED ACTIVITIES:

1. Conducted information retrieval and dissemination activities including a total of 478 searches resulting in the distribution of 1,695 microfiche.

2. Provided consultative assistance in carrying out project proposals.

3. Conducted eight MOTIS orientation workshops at various locations across the state.

4. Distributed and reported on the 120-day follow-up study of Vocational-Technical students completing occupational training programs within the state.

5. Collected enrollment and completion reports from all reimbursable vocational programs in Missouri.

Missouri

6. Coordinated the MOTIS activities with the two contracted agencies of the University of Missouri. These are the Statewide Testing Service and the Public Affairs Information Service (PAIS).

7. Developed various computer programs for the dissemination of MOTIS materials to meet various request both in the vocational-technical division and in the local education agencies.

8. Coordinated, distributed and collected the SAC-1's and SAC-CS's with approximately 450 school districts, state institutions, junior colleges, colleges, and universities.

9. Conducted a workshop for decision-makers and program planners in vocational education.

10. Held special conferences with public school personnel in St. Louis and Kansas City regarding MOTIS procedures and use of information collected.

11. Assisted local school districts with special problems concerning the MOTIS project.

12. Solicited Level I and II research projects on a statewide basis.

13. Chaired committee to revise the on-site evaluation procedures and report forms for evaluations of occupational programs in the area vocational schools and community junior colleges.

14. Appointed and met with a committee of consultants to review, analyze, and rate research proposals submitted to the Research Coordinating Unit for possible funding this fiscal year.

15. Participated in eleven regional workshops for vocational/technical education.

PROJECTS AND ACTIVITIES PLANNED:

1. Continued activities in information retrieval and dissemination.

2. Monitor approved research projects.

3. Continued development of materials, methods and procedures for the Demand Component, Student Accounting Component, Resource Inventory Component, and Manpower Supply Component.

4. Review and rate research prospectuses.

5. Continued activities in the information retrieval and dissemination.

6. Monitor approved research projects.

7. Review Level I and II research proposals to determine those which are to be approved.

8. Continue the development and implementation of materials and procedures for the Missouri Occupational Training Information System.

MONTANA

Benjamin Ulmer, State Director of Vocational Education
Robert Lehman, RCU Director

PROJECTS COMPLETED:

1. Management Information System for Vo-Ed, Finance, Planning and Evaluation Component, Office of Superintendent of Public Instruction, Helena

NEW PROJECTS FUNDED:

1. Identification of common competencies across related jobs in agriculture products and resources, Montana State University, College of Agriculture, Bozeman

RESEARCH RELATED ACTIVITIES:

1. We are continuing the process of building more parts of our Management Information System for vocational education. We are in the process of modifying the high school portion (completed earlier) to comply with the new Privacy Act which is expected to pass.

PROJECTS AND ACTIVITIES PLANNED:

1. We are contemplating developing guidelines for procedures to be used by classroom teachers in vocational education in Montana to apply for mini-grants.

NEBRASKA

Glen H. Strain, State Director of Vocational Education
Elton B. Mendenhall, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES:

1. Development of a proposal to implement and test the Nebraska Vocational Information System (U.S. Commissioner's Discretionary Part C)

2. Development of Operational Guidelines for the Nebraska RCU at University of Nebraska

3. Disseminated project report of "Business and Office Education Guide," a research competency study

4. Attended National Conference on Management Information Systems and Manpower Projection Systems

5. Recruitment, coordination, and review of research and exemplary proposals for fiscal 1975

6. Monitor and evaluation of ongoing projects

7. Identification of vocational research priorities for fiscal 1976

8. Employed RCU Research Assistant and additional secretarial assistance

9. Total Library Activity:
   a. Library materials checked out = 205
   b. Persons served = 144
   c. Computer Searches = 33
   d. Other documents distributed = 6,524

Nebraska

PROJECTS AND ACTIVITIES PLANNED:

1. Preparation of proposals for submittal to the Nebraska State Board for Vocational Education

2. Processing and coding of employer data for the 1975 Occupational Opportunities Study

3. Program monitoring and evaluation (research and exemplary)

NEVADA

R. Courtney Riley, State Director
Len L. Trout, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES:

1. Surveys: Meetings were held with representatives from the Washoe County School District, the Western Nevada Community College, the VEPDA Coordinator, REPC staff and the RCU Director. It was determined to develop a model for conducting a vocational education needs assessment within the geographic area served by the Western Nevada Community College. The study would be conducted by a person or persons who would develop a model and field test the same within the area. It was planned that this model would be adapted by the other two Community College areas in the state. Since many of the smaller districts do not have the job market potential of supporting their vocationally trained graduates, the larger geographical area would serve as the base. It is anticipated that the field testing would be done in the fall of 1975 and be available for support of the FY'77 State Plan.

2. Search Services: The RCU Curriculum and Resource Library had the following usage during this reporting period: 22 walk-in users; 19 phone and mail requests; 4 information search requests.

3. Dissemination: In addition to the search services, approximately 1,475 copies of the attached RCU Report was sent via mail to each vocational educator, administrator and board member in Nevada. In addition, a broad-based nation-wide RCU compiled list of prominent persons in vocational education received copies. Requests have been extremely heavy on Vol. 9 No. 3 and 4. Our present supply is exhausted. Copies of this RCU Report are attached.

4. Monitoring: The RCU Director has been in contact with the Part C and D projects in the state. The final report on the Elko project (Part C) is expected from the evaluation in February 1975.

5. Curriculum Resource Collections: The Collection has undergone an extensive remodeling. Additional shelf space was acquired (at no cost to the RCU) and a complete revamping of the Collection has been started under the direction of Dr. Evalyn Dearmin. This should be completed by summer of 1975. New additions to the Collection include: 120 microfiche; 67 documents; 14 subscriptions to periodicals. In addition to the above identified activities, the entire professional staff of the Research and Educational Planning Center, College of Education, University of Nevada, Reno was available to the State Director and the Director RCU for advice and consultation upon demand.

PROJECTS AND ACTIVITIES PLANNED: NONE

NEW HAMPSHIRE

Neal D. Andrew, State Director of Vocational Education
Lila Murphy, RCU Director

PROJECTS COMPLETED:

1. Task Analysis Development, Kennett High School, Conway

2. N.H. Career Model for Educationally Disadvantaged Adults - Technical Assistance, Project Second Start, Concord

3. Design of Four-Year Baccalaureate Program in Vocational Teacher Preparation, Keene State College

4. LPN/ADN Transition Project, N.H. Technical Institute

5. Follow-Up Study of Students Exited from Selected Vocational Education Programs in New Hampshire Schools, University of New Hampshire and N.H. RCU

6. Curriculum Revision Planning Research Grant, N.H. Vocational-Technical College-Claremont

NEW PROJECTS FUNDED:

1. Information System for Career Guidance, Manchester School Department

2. Concord Career Education Project-Implementing Computer Guidance and Resource Center Component, Concord School District

3. Project Challenge - Planning Grant, Claremont School District

4. Phase II - Needs Assessment Project, Keene State College

5. Statewide Curriculum Development Model, Keene State College

New Hampshire

RESEARCH RELATED ACTIVITIES:

1. Coordinate development of State Plan (Division of Vocational-Technical Education, Division of Post-Secondary Education and N.H. Advisory Council for Voc-Tech Education)

2. Completion of required Vocational Education Federal Reports

3. Cooperative development of proposal for State-wide Occupational Information System (Project to be funded by Department of Labor thru New Hampshire Manpower Affairs Office)

4. Wrote proposal for a State MIS System (Commissioner's Part C funds)

5. Designed instruments for state-wide collection of data on vocational education programs and services. Consolidated all data requested for locals into one format.

PROJECTS AND ACTIVITIES PLANNED:

1. Will collect reliable basic data needed for a comprehensive MIS and federal reports. (State funds to be used with hopes of receiving Part C funds in June, 1975 to continue project. Two additional components will be development of a state-wide program evaluation model and establishment of an occupational information resource center.)

2. Designing a model for long-term curriculum development in cooperation with the State of Vermont. Continue initial efforts to develop performance-based curricula.

3. Assisting agencies interested in applying for Part D 142(c) Exemplary funds

4. Continue to work with Part C 131(a) project designed to develop a state model for Career Guidance, Counseling and Placement

NEW JERSEY

Mr. Stephen Poliacik, State Director of Vocational Education
Joseph Kelly, RCU Director

PROJECTS COMPLETED:

1. Occupational Research Center, Edison Twp. Bd. of Education

2. Orientation to Work, Rutgers University

3. Management Information System, Asbury Pk. Bd. of Education

4. In-Service Teacher Education, Glassboro State College

NEW PROJECTS FUNDED:

1. Education for Occupations, Rutgers University

2. Fire Fightin, Burlington Co. Voc.

3. Technology for Children Study, Mansfield Twp. Bd. of Education

4. Management Training Program, Essex Co. Voc.

5. Curriculum Research, Hudson Co. Voc.

6. IACP, Trenton State

7. Occupational Research Center, Edison Twp.

8. Model for Cost Study, Rutgers University

9. Orientation to Work, Rutgers University

10. Management Information System, Asbury Pk. Bd. of Education

11. Career Maturity Among 8th Grade Disadvantaged, Lakewood Bd. of Education

New Jersey

12. Effectiveness of Videotape Instruction/Teaching, Kean State College

13. Articulation Project, Essex Co. Voc.

14. Career Decision Process, Edison Twp.

15. Career Development Articulation, Middlesex Co. CC

16. Career Resource Center, South Amboy Bd. of Education

17. Career Development, South Brunswick

18. Career Development Study, Middletown Twp.

19. Career Development, Middletown Twp.

20. Articulation Project, Ocean Co. Voc.

21. Articulation Project, Warren Co. Voc.

22. New Jersey Career Development Project, 29 Municipalities

RESEARCH RELATED ACTIVITIES:

1. Prepared Special Papers
   a. Feedback
   b. Career Education Progress
   c. Current Research

2. Conducted Workshops on Career Education
   a. Affective Domain
   b. Teacher and Student Made Media
   c. Introductory ERIC and Recent Developments
   d. Historic New Jersey Occupations

3. Conducted Workshops on Research Utilization and Dissemination

New Jersey

4. Coordinated Activities of the Northeast Regional Curriculum Network
   a. Conducted two Network meetings
   b. Published Network Newsletter
   c. Attended three National Network Council Meetings
   d. Developed New Jersey Curriculum in Progress publications

5. Assisted in development of a County planning and funds distribution model

PROJECTS AND ACTIVITIES PLANNED:

1. Continue operation and expansion of occupational resource centers.

2. Continue conferences and workshops in information dissemination and curriculum development.

3. Continue Northeast Network curriculum coordination and national council activities.

4. Assist in further development and refinement of County planning and funding system.

5. Support the development of the New Jersey Model for Career Development.

6. Prepare additional special papers and newsletters.

7. Continue application of State EPPBS for planning, administration and evaluation of career development activities.

8. Plan, initiate and support research, planning, evaluation, curriculum development, information dissemination and other innovative activities.

NEW MEXICO

James B. West, State Director of Vocational Education
Roger A. Labodda, RCU Director

PROJECTS COMPLETED:

1. Career Ladder (Nursing), Margaret Scarborough

NEW PROJECTS FUNDED:

1. Curriculum Development, George Amsbary
2. Vocational Guidance, Lena Castillo
3. Industrial Arts/Career Education, Waymond Smith

RESEARCH RELATED ACTIVITIES:

1. Renewed Penasco Project (2nd year)
2. Attended Western Regional RCU Conference
3. Attended Fifth Annual RCU Conference
4. Implemented EPDA Itinerant Teacher Program
5. Attended conference on "Women in the World of Work"
6. Coordinated New Mexico's portion of EPDA Region VI Conference
7. Started Vocational Education follow-up project
8. Submitted quarterly reports
9. Supplied manpower reports to program managers
10. Wrote Part C proposal
11. Monitored EPDA projects
12. Submitted Annual Report to Dallas
13. Collated completion forms into Annual Report

New Mexico

14. Expanded Public Relations duties for Vocational Education

15. Attended AVA Manpower Systems Presession in New Orleans

16. Researched vocational post-secondary funding for State Board of Education

PROJECTS AND ACTIVITIES PLANNED:

1. Meet with RCU Advisory Committee and EPDA Advisory Committee

2. Write State Plan for Vocational Education

3. Write EPDA, Part F, proposals

4. Write Part D proposal for manpower information

5. Disseminate publicity forms

6. Plan Western Regional RCU Conference

7. Continue manpower report to program managers

8. Plan Sixth Annual Vocational Education Conference

9. Submit quarterly reports to Dallas

10. Assist in writing and developing proposals originating outside the SDE

11. Monitor Parts C and D projects

12. Continue data retrieval for VTIS

13. Submit State Plan to State Advisory Committee for Vocational Education and State Board of Education

14. Print Annual Report

New Mexico

15. Work with Employment Security Commission on manpower information

16. Work on Special Projects as directed by Assistant Superintendent for Vocational Technical and Adult Education

NEW YORK

Robert S. Seckendorf, State Director of Vocational Education
Louis A. Cohen, RCU Director

PROJECTS COMPLETED:

1. How to Evaluate Inservice Workshops

2. New York Educators and the Metric System

3. Occupations Requiring Credentials

NEW PROJECTS FUNDED: NONE

RESEARCH RELATED ACTIVITIES:

1. "Bread and Butterflies" Evaluation - - Pretests distributed and completed; films distributed.

2. A staff member wrote a report on the distribution of postsecondary VEA funds. Final copy was prepared for editing and printing.

3. No progress on success criteria for practical nurse programs.

4. Meetings were held at CUNY R&D Center to discuss projects for year.

5. A staff member prepared a career education report for the Annual Report for Occupational Education.

6. A staff member collected objectives, developed categories, and developed leadership attributes that will serve as criteria for the development of criterion referenced observations.

7. A staff member developed career path training modules for Rockland Psychiatric Center.

8. An alternate plan for a single, united, Occupational Youth Organization was developed and discussed with state, regional, and local level club advisors.

New York

9. The "Values" position paper was revised and resubmitted to the Regents.

10. Multiple drafts of proposed research studies done on the basis of the State Plan recommendations were prepared.

PROJECTS AND ACTIVITIES PLANNED:

1. Design study and compile internal data for success criteria for practical nursing programs.

2. Preparation of an elementary career education inventory.

3. Prepare report for Annual Report upon completion (June 1975) of career projects.

4. Staff participation in structuring and development of New York State manual in career education.

5. Summarize data and write evaluation report for Consumer Homemaking Workshop.

6. Summarize data and write evaluation report for evaluation of Home Economics Module Workshop.

7. Complete EPDA Leadership Development Evaluation System.

8. Complete descriptive portion of Industrial Arts Mobility Study.

9. Begin inferential and multivariate analysis of Industrial Arts Mobility Study.

10. Analyze data from the study, "Effect of Dunning Letters on Response Rate of Survey Forms."

11. Participation in Bureau of Trade and Technical Education and Bureau of Health Occupations Education workshops.

NORTH CAROLINA

Charles J. Law, State Director of Vocational Education
Charles Rogers, RCU Director

PROJECTS COMPLETED:

1. "Summer Institute for High School Students: A Research in Pre-vocational Education", Pitt Technical Institute at Greenville

NEW PROJECTS FUNDED:

1. "Articulation of Occupational Education Programs Between Secondary Schools and Technical Institutes/ Community Colleges", James Sprunt Institute and Duplic County Schools at Kennansville

2. "The Development of Modular Instructional Materials for Physics for One-Year Vocational Students", Forsyth Technical Institute at Winston-Salem

3. "Criterion Referenced Evaluation of Administrators and Faculty in Technical Institutes/Community Colleges" Carteret Technical at Morehead City

4. "An Assessment Procedure to Determine the Effectiveness of Individual Instruction Approaches in the Technical Institutes and Community Colleges of North Carolina", University of North Carolina at Greensboro

5. "The Development of a Suggested Model for Keeping Vocational and Technical Education Teachers Updated in their Fields", Durham Technical Institute at Durham

6. "Curriculum Development in Occupational Exploration" Tarboro City Schools

RESEARCH RELATED ACTIVITIES:

1. Development of a Guide for Director of Occupational Research Projects

2. Conducted two workshops for the Southern Association of Colleges and School on Information Systems for Local Planning

3. Presented a paper entitled "Biographical and Academic Correlates of High School Completion" to the South-wide Research Coordinating Council on Occupational Education.

4. Served on the Planning Committee for the 1975 RCU Personnel Conference

5. Assisted with the planning and development activities for establishing a Marine Science Occupations program

6. Monitored 12 ongoing research projects

7. Assisted with the development and submission of 16 proposals for Part C (Commissioner's Share) funds

8. Made initial plans for our first ORU Dissemination Conference

PROJECTS AND ACTIVITIES PLANNED:

1. Determine occupation research priorities for 1975-76

2. Conduct the ORU's first annual statewide dissemination conference

3. Complete a slide-tape presentation on products of ORU research

4. Prepare three articles for national research journals

5. Help plan and make a major presentation at the National RCU Conference

6. Plan a project to investigate alternative teacher education delivery systems.

7. Fund four new projects in community college occupational areas

NORTH DAKOTA

Carrol E. Burchinal, State Director of Vocational Education
Donald Eshelby, RCU Director

PROJECTS COMPLETED:

1. Preparation of Study Guides and Audio-Visual material for Agribusiness and Natural Resources Courses., Fargo Public Schools John Nowatzki

2. The Development of Learning Activity Packages for Agribusiness Courses. UND-Williston Branch Wayne Berry

3. Model Store Curriculum - A Developmental Model for North Dakota Schools. Fargo Public School Todd Goschen

NEW PROJECTS FUNDED:

1. Career Development Institute Attendee Follow-up Survey, North Dakota State School of Science Richard Hauck

2. A Follow-up Study of Trade, Industrial, and Health Graduates, North Dakota State School of Science Wally Nordgaard

3. A Study to field Test a Supervised Occupational Experience Manual, Dickinson Public Schools Ted Renner

4. Agribusiness Learning Activity Audio-Visual Development, Bismarck Junior College Leonard Larshus

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED:

1. The Preparation of a Master Plan for North Dakota Industrial Arts Programs.

2. A series of Workshops on Research Proposal Preparation for North Dakota Teachers.

North Dakota

3. Development of a Safety Handbook for North Dakota Schools utilizing OSHA Legislation.

4. Occupational Foods Study.

5. A Study to determine the Feasibility of Computerized Searches of the AIM/ARM micro fiche collection.

OHIO

Byrl R. Shoemaker, State Director of Vocational Education
R. D. Balthaser, RCU Director

PROJECTS COMPLETED:

1. Model Legislation for Job Development, Training, and Placement, American Vocational Association Washington, D.C.

NEW PROJECTS FUNDED:

1. Model State-Wide Delivery System of Career Education (V361040L), Ohio Department of Education

2. 1974-75 Career Development Product Evaluation, Policy Studies in Education Education

3. Model Pre Postsecondary Education Program for Students in Grades 11 and 12 (V361040L), Ohio Department of Education

4. Three Pilot Career Education Programs for K-10 in Ohio (V361105, new #F5004VW), Ohio Department of Education

5. Career Orientation Student Materials (7-8) in 9 of 15 Clusters, Educational Research Council of America, Cleveland, OH

6. Supportive Vocational Education Thrusts in Career Development Delivery System (3phases) (V0126VZ), Ohio Department of Education

7. Career Development Program, Akron City Schools

8. Career Development Program, Benton-Carroll-Salem Local Schools

9. Career Development Program, Boardman Local Schools

10. Career Development Program, Canton City Schools

11. Career Development Program, Carlisle Local Schools

Ohio

12. Career Development Program, Cincinnati City Schools

13. Career Development Program, Clear Fork Valley Local Schools

14. Career Development Program, Cleveland City Schools

15. Career Development Program, Cleveland Heights-Univ. Heights City Schools

16. Career Development Program, Columbus City Schools

17. Career Development Program, Dayton City Schools

18. Career Development Program, E. Muskingum Local Schools

19. Career Development Program, Geneva Area City Schools

20. Career Development Program, Kirtland Local Schools

21. Career Development Program, Lorain City Schools

22. Career Development Program, Mad River-Green Local Schools

23. Career Development Program, Mansfield City Schools

24. Career Development Program, Medina City Schools

25. Career Development Program, Minford Local Schools

26. Career Development Program, Orrville City Schools

27. Career Development Program, Parma City Schools

28. Career Development Program, Princeton City Schools

29. Career Development Program, Scioto-Darby City Schools

30. Career Development Program, South-Western City Schools

31. Career Development Program, Springfield City Schools

32. Career Development Program, Stow City Schools

33. Career development Program, Toledo City Schools

Ohio

34. Career Development Program, Warren City Schools

35. Career Development Program, Willoughby-Eastlake City Schools

36. Career Development Program, Youngstown City Schools

37. Pre-Postsecondary Instructor Training, Kent State University

38. Continuation of Pre-Postsecondary Education Program in Engineering and Health Occupations for High School Students in Grades 11 and 12, Akron City Schools

39. Continuation of Pre-Postsecondary Education Program in Health Occupations for High School Students in Grades 11 and 12, Penta County JVSD

40. Continuation of Pre-Postsecondary Education Program in Business, Engineering, Health and Social Science Occupations for High School Students in Grades 11 and 12, Great Oaks JVSD

41. Researching and Developing a Program for High School Students in a Small Academic High School with Limited Vocational Diversification, Wyoming City Schools

42. Developing a Model Regional Vocational Education Planning Unit for Southwestern Ohio, Greene County JVSD

43. Conducting the Feasibility of a 5-Year Follow-up Study Utilizing IRS Information, Institute for Research Studies

RESEARCH RELATED ACTIVITIES:

1. Commissioner "I" Transportation Curriculum Project Phase II, Ohio Department of Education.

2. Automation of Accounting System ofr Interface with Reporting System - Phase II (Moving to immediate retrieval), Ohio Department of Education.

Ohio

3. Program Review for the Improvement, Development and Expansion of Vocational Education and Guidance (PRIDE) - 5th year completion of cycle with 21 Vocational Education Planning Districts including continued Cost Analysis, Ohio Department of Education.

4. Converting statistical and fiscal system to "real" time operation for management activities of staff including: Linked EPDA project to develop labor market forecasting system, MBO forecasting system based on LEA training and reporting, Ohio Department of Education.

5. Research Coordination Unit - continuation, Ohio Department of Education.

PROJECTS AND ACTIVITIES PLANNED:

1. FY 75 Pre-Postsecondary Program Evaluation, Kent State University.

OKLAHOMA

Francis T. Tuttle, State Director of Vocational Education
Wm. Don Frazier, RCU Director

PROJECTS COMPLETED:

1. An Analysis of the Use of "Expressions"

2. A Parallel Follow-up Study to Establish Validity of the Follow-up Component of Oklahoma's Student Accounting System

3. A Survey of Attrition Factors of Vocational Teachers

4. A Study to Identify Success Factors of Skill Training at Ouachita and Lexington Inmate Training Centers

5. The Development and Testing of a Linear Programming Technique for Optimizing Occupational Training Program Combinations Publications

6. A Composite Evaluation Report of the Mobile Career Development Program, 1973-1974

NEW PROJECTS FUNDED:

1. The Relationship of Selected Teacher Characteristics to Program Success in Oklahoma

2. A Study of the Validity of Selected Vocational Curriculum Guides

3. Tasks Performed by Diesel Mechanics With Less Than Two Years Experience in the Occupation

4. Development of a Plan for Criterion Referenced Testing of Curriculum Guides

5. A Survey of Manpower Needs in the Data Processing Occupations

6. A Statistical Analysis of Gross and Net Demand in Selected Occupations as Reported in Six OTIS Cycles

Oklahoma

RESEARCH RELATED ACTIVITIES:

1. Training in 12 additional state departments under an EPDA grant.

2. Proposal approved to implement in 40 agencies of state government in Oklahoma.

3. Training and implementation continuing in local education agencies.

4. Submitted "Emergency Medical Service Personnel Training Sysemt" proposal to the Division of Emergency Medical Services, Oklahoma State Dept. of Health.

5. Evaluated 118 programs in 39 local school.

6. Developed state budget proposal for FY 1976.

7. Funded eleven mini-grants (from exemplary funds).

8. Generated two research proposals (131 (a)).

9. Completed analysis and developed OTIS Cycle VII report.

PROJECTS AND ACTIVITIES PLANNED:

1. Complete proposal to EPA for construction of a wastewater employee-training facility together with an administrative plan for statewide occupational training in environmental protection.

2. Complete proposal to Labor Department for development of a comprehensive dissemination of occupational imformation system new.

3. Major activity will relate to the six-in-house projects listed on page 1, and to the projects reported previously but not yet completed.

4. MBO training at several levels, evaluation of local programs, dissemination of information, development of the FY 1976 State Plan, and preliminary study of needs for OTIS Cycle VIII are continuing activities of the Division.

OREGON

Monty E. Multanen, State Director of Vocational Education
Eugene Vinarski, RCU Director

PROJECTS COMPLETED:

1. PCE K-10 Portland Public Schools (Part C Commissioners), Portland Public Schools

2. SIXCO Halheur IED (Part C Commissioners), Malheur, IED

NEW PROJECTS FUNDED:

1. Implementation of Integrated Foreign Language and Career Education, Clackamas Community College

2. Utilization of Applied Research in Career Education Programs, John Adams High School

3. A Creative Career Ed. Language Arts Program for Disadvantaged, Portland Area III

4. Consortium for Planning, Developing and Implementing Exploratory Industrial Arts Careers, OSU

5. An approach to Changing Teacher Attitudes and Upgrading Teacher Information about Career Education, Grants Pass #7

6. Community Involvement with Disadvantaged Students, Klamath County SD

7. Guidance Awareness Program, Narrowing the Gap Between Home and School, Bend School District

8. Elementary Career Awareness, Eugene 4 J

9. Integration of Career and Consumer Ed. a Reading and Language Arts Program Level Goals, Protland-Area III

10. Improving Instruction in Innovative areas Through Improved Administration, Lane Community College

Oregon

11. Local Production of Relevant Awareness - Exploratory Media, Central S.D. 13 J

12. Refinement, Implementation and Dissemination of Career Exploratory, Vale High School

13. The Oregon Vo-Tech Math Project, Linn Benton C. C.

14. Interrelating Music and Career Education, Portland Public Schools

15. Utilizing Community Resources, Multnomah County IED

16. Exemplary and Innvoative Career Exploratory Program, Sherwood School District

RESEARCH RELATED ACTIVITIES:

1. Current status of Statewide follow-up of Vocational Students.

2. Current status of the "Oregon Career Education Document System".

3. Current status of Manpower/Curriculum Management System with use of Part C Commissioners funds.

PROJECTS AND ACTIVITIES PLANNED:

1. The Department of Education will publish two interim reports during the six month period ending June 30, 1975. One reflecting the high school follow-up information and a second reflecting the community college student follow-up information.

2. The Coordinator of Applied Research is developing request for Proposals (RFP) guidelines and procedures for maximizing effective use of state and federal funds within the Career/Vocational Division.

PENNSYLVANIA

John W. Struck, State Director of Vocational Education
Carroll A. Curtis, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED:

1. The Interrelationships of Preadolescents Student Characteristics Influencing Selection of Career Exploration Courses

2. Development of a Job-Opportunity Based Planning Model for High School Vocational Agriculture Programs

3. A Study of Intraclass Grouping and Traditional Grouping on Student's Terminal Achievements During the Last Nine Weeks in First Semester Typewriting

4. Data Instrument Development for Accounting Program Improvement Study

5. An Examination of the Relationship Between High School Experiences of Youth and Success and Satisfaction in Postsecondary Endeavors

6. VEMIS Backup Facility and Transfer of Functions

7. Forecasting the Future Food Service World of Work

8. The Use of Infra Sound Therapy with Deaf and Hard-of-Hearing Adults

9. An Analysis of the In-Service Education Practices, Procedures and Perceptions of Vocational-Technical Teachers and Supervisory Leaders in AVTS of Pennsylvania

10. Continuation and Diffusion of a Model Occupational-Oriented Curriculum

11. A Career Approach to Natural Resource Management in Wildlife and Recreation

Pennsylvania

12. Nursing and Auxiliary Nursing Articulation

13. Home Health Management Assistant

14. Home Health Management Aide

15. Prevocational Education Resource Center

16. An In-Service, Preservice Vocational Development Strategy

17. School-Based Job Placement Service Model: Phase III, Implementation

18. Product Installation and Evaluation

19. School-Based Job Placement Service Model: Phase III

20. Vocational Education Curriculum Center for Pennsylvania

21. Job Placement

22. Implementation of the Cluster Concept in Two Vocational Areas in an Area Vocational-Technical School Setting

23. A Project to Improve Career Education

24. TIME SCHEDULING: A Method of Individualizing Instruction

RESEARCH RELATED ACTIVITIES:

1. Career Resource Center Implementation and Evaluation - An in-progress report was prepared synthesizing the activities of 17 career resource centers operating in Pennsylvania during fiscal year 1973-74. The purpose of the centers is to provide current and accurate career information to students, faculty, parents and others. Input for the development of the centers was derived from: 1) the evaluation by the Pennsylvania RCU of five pilot CRCs developed during the period 1970-73, 2) the RCU guidelines for

establishing CRCs and 3) the consultative services of the five pilot CRC directors. The report will be distributed to all local school districts in Pennsylvania as well as state-level personnel.

2. PENNscripts - The evaluative questionnaires are being revised as a result of piloting the original forms for the forthcoming comprehensive evaluation of PENNscripts. A sampling procedure is presently being developed to determine the students, teachers and guidance counselors to be involved in the statewide study.

3. Evaluation of Educational Programs in Correctional Institutions - Preliminary discussions were held with james Smith, Chief, Division of Corrections Education, relative to the RCU's responsibility in conducting an evaluation of vocational education programs in the state's correctional institutions. Previously developed instruments are being revised as a result of last year's initial evaluation. Additional evaluative activities will also be a part of the current year's effort.

4. Coordination of Commissioner's Share of Discretionary - Part C Proposals - The RCU was assigned the responsibility of disseminating information about the Discretionary - Part C monies to local educational agencies. The staff worked with some of the LEAS in the preparation of proposals. All LEA proposals were reviewed by RCU staff and prepared for the State Board of Education's approval. The RCU is currently working with the State Director of Vocational Education to determine if any of the proposals submitted to OE are duplications of ongoing state research activities.

5. Manpower Research Activities - The primary goal is to improve the manpower research and information efforts as they relate to occupational education planning and decision-making. Working with the Pennsylvania Department of Labor and Industry and the Governor's Office, a procedure was developed for soliciting opinions from knowledgeable people in the field of occupational training and employment.

Specifically, an attempt was made to obtain advice and suggestions for improving manpower information to better serve the needs of occupational and manpower planners. Assistance was provided to the Governor's Office in the preparation of a planning grant proposal for the development of an occupational information system. The proposal, submitted to the Manpower Administration, was approved. Presently, efforts are being directed towards assisting in the development of a proposal for a larger operational grant. In addition, in order to assist vocational education program planners at both the state and local level, members of the RCU have produced the following reports:

a) Annual Occupational Withdrawal Rates for Pennsylvania and the Major Labor Market Areas
b) Post-high School Activities of the 1973 Graduates by Rach and Sex
c) A Study to Determine the Feasibility of Establishing a Community College to Serve a Five-County Area in Pennsylvania

PROJECTS AND ACTIVITIES PLANNED:

1. Conduct the evaluation of PENNscripts.

2. Complete and forward to USOE the Second Annual Report of the Discretionary - Part C Career Education Projects.

3. Assist local educational agencies to implement approved Research (Part C) and Exemplary (Part D) projects funded directly from USOE.

4. Continue assisting local educational agencies to implement a model occupational placement service.

5. Continue participating in the evaluation of Pennsylvania's pilot distributive education curriculum project (LAPS).

6. Continue manpower activities.

Pennsylvania

7. Develop and secure approval of a research plan to utilize 1975 Part C and D funds to achieve research objectives that are based on established federal and state priorities and the State Plan for Vocational Education.

8. Provide staff assistance to the Governor's Office and the Bureau of Employment Security in the development of a comprehensive occupational information system proposal for the US Department of Labor.

9. Evaluate vocational programs in the eight state adult correctional institutions and the 16 youth development centers.

10. Plan and conduct an evaluation of three pilot job placement centers implementing a previously developed model. Develop procedures for implementing job placement activities in Pennsylvania's youth development centers.

11. Develop a forms manual for job placement activities in Pennsylvania.

12. Develop a preemployment course of study for youth development centers.

RHODE ISLAND

Peter Bowen, State Director of Vocational Education
Jacqueline Nelson, RCU Director

PROJECTS COMPLETED: NONE

NEW PROJECTS FUNDED:

1. Reading into Careers, Lincoln, Mr. Richard Sheehan
2. Career Awareness in Communication, Conventry, Mr. Thomas Roche
3. First Step Consumer Awareness, Cranston, Dr. Joseph Picano, Jr.
4. Basic Carpentry, Cranston, Dr. Joseph Picano, Jr.
5. HOPE, Mr. Albert Manning, North Scituate
6. Art Career Awareness/Exploration, Providence, Dr. Charles Bernardo
7. Project: Career Planning, Providence, Dr. Charles Bernardo
8. World of Work, Hope Valley, Mr. Richard Cobleigh
9. Focus on the Future, Hope Valley, Mr. Richard Cobleigh
10. Creating and Vocational Awareness, Ashaway, Mr. Richard Cobleigh
11. Career Opportunities in the Natural Environment, Ashaway, Mr. Richard Cobleigh
12. Printing Without Ink, Ashaway, Mr. Richard Cobleigh
13. Environmental Workings-Career Ed. in Natural Resources, Coventry, Mr. Thomas Roche
14. Let's Put Science to Work, Lincoln, Mr. Richard Sheehan
15. Project: H.E.L.P., Cranston, Dr. Joseph Picano, Jr.

Rhode Island

RESEARCH RELATED ACTIVITIES:

1. The Research Unit at the Department of Education is developing a Vocational Education module of a Management Information System (MIS) designed to collect, process, and disseminate information about Vocational Education to enhance decisionmaking in this area at State and local levels, for the purposes of program control, program management, and planning.

2. The vocational office is also supporting the Diocese of Providence in their efforts to develop and pilot career education program for system-wide use among non-public schools, grades 7-12.

PROJECTS AND ACTIVITIES PLANNED:

1. The Vocational Office plans to continue support of the development of the MIS and to expand Career Education efforts including non-public as well as public endeavors.

SOUTH CAROLINA

L.L. Lewis, State Director of Vocational Education
Gregory Morrison, RCU Director

PROJECTS COMPLETED:

1. Phase II of the Model Career Education Project, at Lexington School District #3, in Batesburg

NEW PROJECTS FUNDED:

1. The second of a two-phase Career Education Project was funded until June 1975, at Spartanburg School District #5, in Duncan, South Carolina. The program will provide opportunities for the development, demonstration and testing of a Career Education model suitable for state-wide implementation. The project activities are designed to complement the existing structure, resources and programs of Spartanburg District #5.

RESEARCH RELATED ACTIVITIES:

1. A series of workshops were conducted for inservice training pertaining to Career Education, utilizing the "Orientation to Career Education" package, which consists of programmed materials for teacher/administrators, with videotape and ideas booklet.

2. A Graphic Communications Teacher Training Workshop was conducted to assist instructors in developing plans and strategies necessary for effective implementation and administration of the new curriculum materials recently developed for their use.

3. An instrument was developed and plans were made to evaluate the VIEW delivery system by surveying approximately 8,000 students in grades 7, 9, and 11 at various locations throughout the state.

4. A plan and proposal were prepared to establish a non-statistical vocational information component for the existing State Department of Education information system. This effort would consist of a one-year pilot

to determine the need for such a system and would rely on resources from the ERIC, AIM/ARM systems.

5. The Career Cluster Phase III Curriculum Development effort is continuing, with emphasis on the preparation of LAP's consisting of self-paced student work sheets, complemented by slide-tape programs, in the areas of Machine Shop and Heating, Air Conditioning and Refrigeration.

6. Workshops were conducted for guidance counselors, principals and superintendents in the fall, for the purpose of discussing innovative approaches for implementing VIEW programs and identifying remedies for problems encountered.

7. Request for proposals were prepared and distributed in an attempt to secure a third party evaluation, to design a plan and construct instruments necessary to determine the effectiveness of the Career Cluster curriculum materials upon their implementation in the fall of 1975.

PROJECTS AND ACTIVITIES PLANNED:

1. Continuation of inservice workshops for teacher/administrators pertaining to Career Education

2. Continuation of the Career Cluster curriculum development project, Phase III.

3. The Career Development staff will revise and refine the South Carolina Department of Education "Position Paper."

4. A survey will be conducted to identify all programs in South Carolina operating under the banner of Career Education.

5. The VIEW delivery system will be evaluated, utilizing the instruments previously developed and a sample selected ramdomly.

6. The completion, reproduction and dissemination of the Career Cluster curriculum materials to vocational and technical education instructors

7. Orientation and teacher training workshops will be conducted to familiarize the instructors with and train them in the use of the newly developed Career Cluster curriculum materials

8. The preliminary phase (Phase I) of the Career Cluster evaluation effort will be initiated to design the evaluation plan strategies and establish the procedures that will be used during the 18 months' evaluation cycle. The test instruments will be prepared and validated prior to use in the fall of 1975.

9. A one-year pilot test effort will be initiated to determine the need for a non-statistical vocational information system that will complement the existing State Department of Education information system, utilizing ERIC, AIM/ARM as the primary information sources.

10. Workshops will be conducted to tap the experience and knowledge of the vocational student placement and adult project coordinators in gathering preliminary final project report information, opinions and recommendations. Final reports will be prepared and submitted upon conclusion of the Student Placement and Adult Projects in July 1975.

SOUTH DAKOTA

E. B. Oleson, State Director of Vocational Education
E. B. Oleson, RCU Director

NO REPORT RECEIVED

TENNESSEE

W. M. Harrison, State Director of Vocational Education
Garry R. Bice, RCU Director

PROJECTS COMPLETED:

1. "The Development of a Framework for Curriculum and Professional Personnel Development for Comprehensive Vocational'Technical Education in the State of Tennessee" - Contract with Tennessee State Department of Education, Comprehensive Vocational Education.", Tennessee State Department of Education, Comprehensive Vocational Education

2. "Follow-up Study of Vocational Office Education Graduates of Springfield High School," Robertson County

3. "An Approach to Individualized Study in Vocational Agriculture at Gallatin Senior High School", Sumner County

4. "Follow-up of Graduates at Columbia Central High School: Survey of Job Placement" - Columbia Central High School, Maury County

5. "Developing a Curriculum Guide for Vocational English at Green Brier School", Robertson County Board of Education

6. "Job Placement Services: An Exploratory Program, Hiwassee College 1972-73", Monroe County

7. "Career Information" An Experiment in the Sheffield Community, Memphis, Tennessee" - Memphis City Schools, Shelby County

NEW PROJECTS FUNDED:

1. "A Follow-up of 1973 Secondary Vocational Educational Students and Area Vocational Education Students", Tennessee Research Coordinating Unit

2. "Career Orientation/Career Guidance - Seventh Grade", Henry County

Tennessee

3. "Development of Materials for a Life Planning Curriculum for Summertown High School, Lawrence County

4. "A Comparative Follow-up Study of Vocational and Non-Vocational Graduates at Waverly Central High School from 1967-1974", Humphreys County

RESEARCH RELATED ACTIVITIES:

1. Tennessee Management Information System.

2. Occupational Information System.

3. Information Retrieval and Dissemiation System.

PROJECTS AND ACTIVITIES PLANNED:

1. Wage Data Survey: The Tennessee RCU has entered into an agreement with the State Department of Economic and Community Development to provide two quarterly reports on wage data for manufacturing type occupations. This project will involve the Department of Employment Security and will be conducted during the period January 16, 1975, through June 30, 1975. The first quarterly survey will be completed by April 1, 1975, and the update survey will be completed by June 30, 1975.

2. Project Interface: Under the Comprehensive Training and Education Act of 1974 and through the auspices of the Department of Economic and Community Development, interfacting tables are being developed that allow the articulation between and among various occupational classifications. These tables will be used to enable manpower forecasters to improve. Specifically, interface deals with the articulation of the Occupational Employment Security (OES) codes as used by the Department of Economic and Community Development with the (USOE) codes as used by the Tennesse State Department of Education, for classification of training of various occupational categories. It is anticipated that this portion of the

project will take approximately 4,000 hours of professional staff time as it requires a great deal of primary analysis. "Interface" is expected to produce a totally computerized articulation system for use by manpower planners throughout Tennessee and across the nation.

3. THEC: In April, 1974, the Tennessee Higher Education Commission performed a survey entitled "The Tennessee Education Monitoring Survey" (OEMS). This survey makes available a primary data base of approximately 43,00 students and includes such information as name, address, and zip code. The Higher Education Commission of the State of Tennessee also maintains an information base for both public and private institution (HIS). The Division of Vocational-Technical Education currently maintains a data base including the names and addresses of all students enrolled in area vocational-technical schools in Tennessee. THEC requested that the Research Coordinating Unit do a follow-up of the students occuring in the OEMS file but not in the "HIS' or "AVTS" files. Postcards and a letter will be mailed to students that were missed.

TEXAS

John R. Guemple, State Director Vocational Education
Ray Barber, RCU Director

PROJECTS COMPLETED:

1. Vocational Education in Texas High Schools - An Ethnic Comparison, University of Houston

2. A Study of Construction Technology Curriculum and Construction Industry Needs, Paris Junior College

3. A Study of Manpower Training Requirements for the Texas Agricultural Industry, Texas A&M University

4.

4. Statewide Survey of Current and Future Employment Lends of Licensed Dental Hygienists, Texas State Technical Institute

5. Evaluation of the Texas Supply/Demand System for Vocational Education, University of Texas

6. The Application of Systems Analysis to Vocational Occupational Curricula Planning, East Texas State University

7. Training in a Summer Camp Setting for Paraprofessionals Working with the Dear and Hard of Hearing, McLennan Community College

8. Occupational Orientation Projects, 37 project sites

NEW PROJECTS FUNDED:

1. Evaluation of the Texas Supply/Demand System for Vocational Education, University of Texas

2. The Application of Systems Analysis to Vocational-Occupational Curricula Planning, East Texas State University

3. Training in a Summer Camp Setting for Paraprofessionals Working with the Deaf and Hard of Hearing, McLennan Community College

4. Identification of Actual Tasks Performed and Relative Amount of Time Spent on Tasks by Vocational-Technical Personnel, EPD Consortium D

5. The Development of a Plan for a Competency Based Industrial Arts Curriculum with Direct Implications for Occupational Education Program Development, Southwest Texas State University

6. Employment Opportunities and Training Needs in Agribusiness, Texas A&M University

7. General Follow-up Study, Windham School District

8. Occupational Orientation (Investigation) Projects, 18 new project sites

9. Career Education Counseling Project, Corpus Christi ISD

10. Project RACE, Weatherford ISD

11. Career Guidance and Dissemination Center, Austin ISD

12. Career Exploration of Health Occupations, Port Arthur ISD

13. Improving Occupational Exploration and Career Planning Through the Development and Widespread Utilization of Career Development Resources, East Texas State University

RESEARCH RELATED ACTIVITIES:

1. Ten research proposals were reviewed and evaluated during the six month period. Seven projects were approved for funding. Five projects initiated prior to June 30, 1974, were continued. Seven projects were completed.

2. Members of the staff continued to participate in the coordination of exemplary projects funded under Part D, Public Law 90-576, and the development and coordination of pilot-demonstration projects in

occupational education for handicapped students funded under Section 122(c)(3).

3. Members of the staff continued to participate in the activities of a special interagency task force to develop and implement a comprehensive manpower supply/demand data system for the State of Texas.

4. Members of the staff continued to participate in a special project to computerize the statistics and financial inputs required for the preparation of the Annual Report for Vocational Education.

5. The staff participated in a wide variety of activities related to research and development in occupational education and other components of career education.

PROJECTS AND ACTIVITIES PLANNED:

1. Seven previously described projects will be continued during the next six month period. Two new projects have been approved for initiation during the six month period. Approval of approximately ten additional new projects is anticipated.

2. Emphasis will continue to be placed on curriculum development projects, manpower needs and development studies, evaluation projects, and follow-up and placement studies. Continued emphasis will be placed on the role of occupational education as an integral part of the total career education process.

3. Continued emphasis will be placed on the initiation of exemplary projects focused on career awareness, investigation, and exploration.

4. Development and initiation of pilot-demonstration projects in occupational education for the handicapped will be continued.

5. The Texas State Plan for Vocational Education for Fiscal Year 1976 will be completed and forwarded to the USOE.

6. The staff will continue to participate in a wide

variety of activities related to research and development in occupational education and other components of career education.

7. The division's library facilities will continue to be improved. Continued progress will be made in the development of improved dissemination procedures.

UTAH

Walter Ulrich, State Director of Vocational Education
N. Craig Kennington, RCU Director

PROJECTS COMPLETED:

1. Evaluation of Chamber of Commerce Work Observation Program, SLC, Davis, Granite, Jordan, Murray, UTCSL

2. The application of approved standards for Post Secondary Curriculum in Utah

NEW PROJECTS FUNDED:

1. Career Education in the Junior High School, Statewide

2. Industrial Arts Education in Career Education Setting, Selected districts

RESEARCH RELATED ACTIVITIES:

1. Evaluation of Vocational-Technical education at College of Eastern Utah.

2. Administration, evaluation, consultation for State funded, "Career Development (Dropout Prevention) Program.

PROJECTS AND ACTIVITIES PLANNED:

1. Evaluation of Vocational Technical Education at Skills Center (South), Sevier Area Vocational Center, and Snow College.

2. Skills Center (North) Intake-Assessment Program Evaluation.

3. A study to determine the extent to which Vocational Certificates, Associate of Applied Science degrees and Associate of Science degrees enhance the employability of job seekers.

4. Develop and implement survey procedures that will yield accurate job demand information.

5. A study to determine criterion referenced instruction approach to teacher education.

6. A study to determine career education and implications for business education programs at the junior high school level.

7. Assess educational needs and occupational opportunities available to youth and adults in agriculture in Utah.

8. Evaluation of home or related occupational programs.

VERMONT

Arthur Ericson, State Director of Vocational Education
Joseph P. Kisko, RCU Director

PROJECTS COMPLETED:

1. Identifying a Non-Verbal Aptitude Measure for Use in Counselling Secondary Level Mentally Retarded, Randolph

2. Post-Secondary Education Follow-Up Study, Montpelier

3. Review & Analyze Enrollment Trends at Barre City Regional Vocational Technical Center, Barre

NEW PROJECTS FUNDED:

1. Instructional System Development Model for Vermont Vocational Area Centers, NERCDE

2. Evaluation of Testing Materials for Use in Career Guidance and Education, Burlington

3. Twin State Educational Information System, Montpelier

RESEARCH RELATED ACTIVITIES: NONE

PROJECTS AND ACTIVITIES PLANNED:

1. Discussion and decisions on research needs with staff.

2. Request, evaluate and recommend proposals for approval that meet the needs of vocational education in the State.

3. Prepare annual reports.

VIRGINIA

George S. Orr, Jr., State Director of Vocational Education
Lloyd M. Jewell, Jr., RCU Director

PROJECTS COMPLETED:

1. Research and Development Project in Career Education, Richmond

NEW PROJECTS FUNDED:

1. Development and Implementation of Career Education in VA, State Dept. of Education

2. Further Development of the Voc. Education Management Information System, VPI & SU

3. The Design, Field-testing, and Implementation of a Curriculum for the Course 'Introductions to Vocations' for the Middle Schools and Junior High Schools of the Commonwealth of Virginia, VPI & SU

4. A Compilation, Preparation, and Distribution of Instructional Materials in Positive Work Ethics in Relation to Occupational Choice

5. A Study to Provide the Tidewater Area Industrial Arts Teachers with the Information, Equipment, and Coordinating Agencies Necessary for the Establishment and Operation of Secondary School Chapters of the Virginia Industrial Arts Students Association, Old Dominion University

6. An Evaluation of the Health Careers Program At Jefferson Senior High School, Roanoke City Schools

7. Design for a One Semester Curriculum for Exploratory Business, Portsmouth City Schools

8. Career Opportunities in Transportation, Harrisonburg City Schools

9. Vocational In-Service for Secondary Guidance Counselors, York County Schools

Virginia

10. Public Information on Vocational Education, Wise County Schools

11. Assessment of the Impact of Vocational Media on Russell County Sophomores, Russell County Schools

12. Activities Relating to Recruiting and Selecting Voc. Students, Henry County Schools

13. A Project to Provide Student Orientation and Public Information on teh Vocational Education Program in Appomattox County, Appomattox County Schools

14. Teacher Use of Career Counseling Modules in Developing Career Awareness, Alleghany County Schools

15. Five Year Follow-Up of Albemarle High School Graduates, Albemarle County Schools

16. Career Development Counseling with Video Tape Recordings, New Kent County Schools

17. The Establishment of Baseline Data on Students Leaving George Washington High School through Graduation or Dropping Out; 1970-74 as a Basis for Future Follow-Up Coordinated Curricular Strategies for a Countywide K-12 Vocational Program, Washington County Schools

18. Hampton Student Job Placement, Hampton High School

19. Alexandria City Student Job Placement, T. C. Williams High School

20. Harrisonburg/Rockingham Student Job Placement, Massanutten Voc-Tech Ctr

21. Delmarva Career Education Project, Northampton County Schools

RESEARCH RELATED ACTIVITIES:

1. Continued the research and development project in career education at Radford and Petersburg school division with state funding.

Virginia

2. Published an analysis of the follow-up study of secondary student completions 1972-73.

3. Conducted follow-up study of secondary and adult student completions for 1973-74.

4. Continued participation in V-TECS.

PROJECTS AND ACTIVITIES PLANNED:

1. Prepare an analysis of 1973-74 follow-up secondary and adult student completions.

2. Update and improvement of the Management Information Sysetm.

3. Receive, review, and evaluate proposals to consider for fudning during 1975-76.

WASHINGTON

Arthur A. Binnie, State Director, Vocational Education
Gene W. Bigger, RCU Director

PROJECTS COMPLETED:

1. Placement Service Training Model, Seattle

2. Surveying Restaurant Skills Needs to Establish a Food Service Class, Mercer Island

3. Articulation of Secondary to Postsecondary Vocational Education Programs, Ellensburg

NEW PROJECTS FUNDED:

1. Basic Mathematics Skills Laboratory Program for Adults, Tacoma Community College

2. Project REPRO, Edmonds Community College

3. Wildlife Conservation and Recreation Curriculum Guide, Selkirk High School

4. Specialized Career Guidance for Dropouts, Yakima School District #7

5. Recreational Area Management and Program Development, Wenatchee Valley College

6. Curricular Change for Teaching Teenage Parents, Yakima

7. Development of an Instrument for Prescribing Compensatory Education for Vocational Technical Trainees, Renton

8. Survey and Documentation of Vocational Skills/Needs and Corresponding Job Availability in the Ortin School District, Orting

9. Surveying Restaurant Skills Needs to Establish a Food Service Class, Mercer Island

10. Intensive Care for Nursing Personnel, Mt. Vernon

Washington

11. Occupational Education Occupational Student Attrition Study, Midway

12. Designing Data Gathering Instruments for Voc. Educators, Pullman

RESEARCH RELATED ACTIVITIES:

1. Participation in meetings of groups and agencies as host, member, or consultant:
   Common school districts
   Community colleges
   4-year institutions
   National RCU Conference

2. Addition of specialist to RCU staff to evaluate and disseminate R&D materials.

3. Statewide distribution of newsletter articles promoting use of ERIC System and Statewide distribution of newsletter articles promoting use of ERIC System and microfilm equipment, development of bibliographies and automated ERIC searches for inservice training groups, workshops and seminars, and the distribution of microfiche, at no cost, to vocational teachers in the state.

PROJECTS AND ACTIVITIES PLANNED:

1. Research Techniques.

2. Workshops in three or four geographical regions on the state.

3. Development of a Monograph (How to write a proposal).

4. Dissemination of project results.

5. Develop an index of projects ("C" and "D") funded in the state.

WEST VIRGINIA

Clarence E. Burdette, State Director of Vocational Education
Glenn E. Smith, RCU Director

PROJECTS COMPLETED:

1. The Development of a Master Plan for the Financial Support of Vocational Education Programs in West Virginia, Ohio State University

NEW PROJECTS FUNDED:

1. A Study of Factors Affecting Student Enrollment and Scheduling in Vocational Education Programs in West Virginia, Associated Educational Consultants, Inc.

RESEARCH RELATED ACTIVITIES:

1. Conducted a Task Force study on the availability of vocational education in West Virginia.

2. Developed and submitted a proposal for further development of the West Virginia vocational education mangement information system, under the Commissioner's Part C, Discretionary awards program.

3. Completed an EPDA project designed to acquaint vocational instructors with new curriculum materials.

PROJECTS AND ACTIVITIES PLANNED:

1. Determination of priority projects for Part C funding in FY 76.

2. Initiate a project to develop policy and procedure manuals for vocational education.

3. Establish a state vocational education curriculum laboratory for the identification, acquisition, storage and dissemination of curriculum materials.

4. Continue operation of the state management information system for vocational education.

WISCONSIN

Eugene Lehrmann, State Director of Vocational Education
Roland J. Krogstad, RCU Director

PROJECTS COMPLETED:

1. Evaluation of Civil Structural Curriculum, Eau Claire
2. Individualized Instruction for Rural Day Care Services, La Crosse
3. Attitudes Toward Instruction, Fennimore
4. Evaluation of Architectural Curriculum, Madison
5. Physics Requirements for Engineering Technicians, Kenosha
6. Computer Augmented Accounting, Milwaukee
7. Program Evaluation Model, Fond du Lac
8. Task Analysis for Optometric Assistant, Cleveland
9. Evaluation of Civil Highway Curriculum, Green Bay
10. Multi Research and Curriculum Project, Wausau
11. Feasibility of Health Related Occupations Curricula, Rhinelander
12. Multi Research and Development Project, Shell Lake
13. Graduate Student Research Grants - III, Menomonie
14. Impact of Research and Exemplary Programs, Columbus
15. Conceptual Framework for Cost-Benefit Studies, Madison
16. Evaluation of Metals Curriculum, La Crosse
17. Follow-Up of Summer Program, Wausau

Wisconsin

18. Attitudes of Potential Early Withdrawals, Wausau
19. Task Analysis for Maintenance of Loading Equipment, Wausau
20. Computerized Career Development (DPI), Milwaukee
21. Agriculture Career Workshop (DPI), Madison
22. Comprehensive Student Follow-Up (DPI), La Crosse
23. Multi-School Consortium (DPI), Madison
24. Evaluation of Career Education Program (DPI), Menomonie
25. Home Economics Materials for EMR's (DPI), Stevens Point
26. Business Education Curriculum (DPI), Madison
27. Career Mobile Project, La Crosse
28. Career Consultant Project, La Crosse
29. Career Decisions - II, Pewaukee
30. Small Store for Fashion Merchandising, Madison
31. Career Telephone Service, Kenosha
32. Career Education Center, Fond du Lac
33. Learning Resource Center Assessment, Wausau
34. Self Instruction for Fluid Power, Kenosha
35. Evaluation of OVIS, Shell Lake

NEW PROJECTS FUNDED:

1. Career Education Project Office (WB-DPI), Milwaukee
2. Interaction of Learning Styles, Appleton
3. Information Retrieval Demonstration with CRT, Madison

Wisconsin

4. Self-Instructional Slide/Tape for ERIC/NTIS Users, Madison

5. Mini Grants for Research and Curriculum Development, La Crosse

6. Competencies for Utility Operators, Fennimore

7. Vocational Coordinated Curriculum for General Education, Fond du Lac

8. Evaluation of Farm Training, Appleton

9. Graduate Student Research Grants - IV, Menomonie

10. Effectiveness of CMI in Individualized Instruction, Menomonie

11. Inter-District Vocational Education (DPI), Waupun

12. Analysis of Agriculture Instructors (DPI), Madison

13. Vocational Education Curriculum Unit (DPI), Madison

14. Office Occupations Classifications, Eau Claire

15. Instructional Materials for Industrail Education (DPI), Menomonie

16. Food Service Workshop (DPI), Madison

17. Computer Oriented Accounting, Madison

18. Career Information - Group Counseling, Kenosha

19. Office Simulation, Kenosha

20. Office Simulation, Cleveland

21. Computer Assisted Instruction, Appleton

22. Year-round Education - II, Appleton

23. Career Information for Area High Schools, Rhinelander

Wisconsin

24. Employability Skills - Job Placement Education, Madison

25. Career Education (DPI), Muskego

26. Career Education (DPI), Wisconsin Rapids

27. Industrial Education Curriculum Development, Clintonville

28. Accounting II (DPI), Boyceville

29. Multi-Lateral Vocational Project (DPI), Oshkosh

30. Health Occupations Education Project (DPI), Shawano

31. Project Invest (DPI), Madison

RESEARCH RELATED ACTIVITIES:

1. Interaction of Learning Styles Project.

2. Determination of Professional Development Priorities.

3. Alternative Delivery Systems.

4. Staff Exchange Projects.

PROJECTS AND ACTIVITIES PLANNED:

1. Reassessment of Research Priorities.

2. Revision of RFP System .

3. Improvement of Articulation Between Secondary and Post-Secondary Vocational-Technical Education Curricula.

WYOMING

Fred Black, State Director of Vocational Education
Richard Rowles, PCU Director

NO REPORT RECEIVED

AMERICAN SAMOA

Pat Benioni, Director of Vocational Education
Pat Benioni, RCU Director

NO REPORT RECEIVED

GUAM

Duane I. Pierce, Director of Vocational Education
Duane I. Pierce, RCU Director

NO REPORT RECEIVED

121

PUERTO RICO

Jose Lema Moya, State Director of Vocational Education
Vidal Velez, RCU Director

PROJECTS COMPLETED:

1. Study to evaluate students achievement in the different business subjects at the Mayaguez Educational Region. No funds were allocated for year 1974-75.

2. Study to determine the consumer patterns of the Puerto Rican families. An abstract of the final report will be prepared and sent to Eric Clearinghouse Center.

3. Effectiveness of the Business Education Program in preparing Students for job Opportunities in the Caguas Region Final report is available.

4. Career Education Program at Palmarejo Rual Second Unit in Lajas School District to Acquaint Elementary and Junior High School Students with Career Possibilities. (No funds were allocated on FY 1974-75)

5. In service training program for teachers of the Vocational Industrial Occupational Program for 126 teachers.

6. In-service training to acquaint school directors and supervisors with the course Introduction to the Technology of Occupations.

7. Leadership training program for teaching personnel of the Industrial Arts Program and the Vocational Industrial Program.

8. Preservice training program for the preparation of assistant teachers for Home Economics, Industrail Arts, Vocational Industrial Education and Counseling and Guidance.

9. Preservice training program for the preparation of 28 Vocational Industrial teachers in coordination with the Inter American University.

Puerto Rico

10. Cooperative approach for the training of vocational education personnel under provisional contracts.

11. In-service training for Home Economic and Industrial Arts teachers in new concepts and techniques in the teaching for handicapped students.

NEW PROJECTS FUNDED:

1. Management Information System

2. Development of Occupation Enrollment Projection in terms of Occupational Demand

3. Evaluation of the Health Realted Occupations Program

4. Business Vocabulary Count in Spanish

5. Follow-Up Study of Vocational Graduates for the year 1973-74

6. Study on training needs on specialized Vocational Agriculture in PR

7. Establishment of a Management Control System for the Vocational and Technical Education Programs using PERT technique

8. Curriculum Development for the Vocational and Technical Education Programs adapted to the Extended Calendar School Year: a) Guides for the course Pharmacist Assistant b) Guides and Tests for self-study in Business Education c) Guides for the course "Principles of selling" for the Distribution and Marketing Program d) Curriculum development basic to the training of individuals for employment in agri-business e) Teaching modules in consumer education f) Curriculum Development in the areas of jewelry, hardware, home furnishings, real estate, ticket agent, and automobile parts sales g) Modules in the area of communications for Industrial Arts Junior High School Students h) Curriculum development for the areas of construction, manufacturing, and services for Vocational Industrial Education.

9. Development of an Exemplary Career Education Comprehensive Program in the Regular and the Vocational and Technical Education Program in Puerto Rico.

10. A Model State Pedagogical Resources Center for Designing, Producing, Testing, Revising and Disseminating Teaching, Audiovisual, and other Educational materials for students of Regualr, special and Post secondary Programs for Vocational and Technical Education in Puerto Rico.

11. Evaluation project for the Business Education and Distribution and Marketing Program.

12. Development of a comprehensive model for Career Education in Puerto Rico.

13. Establishment of a Vocational and Adult Education Department at the School of Education of the University of Puerto Rico.

14. Cooperative Program for the improvement of leadership in Vocational Education personnel.

15. In-service training program for industrial coordinators of the Vocational and Technical Education Program.

16. In-service training for educational personnel assigned to the new curriculum centers at the area vocational schools.

17. In-service training for Home Economic and Industrial Arts Teachers in new concepts and techniques in the teaching for handicapped students.

18. In-service training program for Distribution and Marketing teachers in sales promotion and merchandise display.

19. In-service training to acquaint school Directors and supervisors with the course introduction to Technology Occupations.

Puerto Rico

RESEARCH RELATED ACTIVITIES:

1. The semiannual report to the U.S.O.E. for the period of January to June 1974 was prepared.

2. The State Vocational and Technical Education Annual Plan for School Year 1974-75 was revised.

3. The State Vocational and Technical Education Annual Report for School Year 1973-74 was prepared in English.

4. The following federal reports were prepared: "Enrollment in Vocational Education Programs" (OE Form 346-3, 4/74) and Number of Teachers, Status of Teacher Training and Local Administrative Staff in Vocational Education (OE Form 346-2,4/74).

5. A final and an evaluation report of the translation and adaptation component was prepared in coordination with the Evaluating Office of the Department of Education.

6. The Curriculum Development Plan for the year 1974-75 was prepared and distributed.

7. The Four-year Curriculum Development Plan is in process.

8. A final report of the In-service training Program for teachers of the Vocational Industrial Occupation Program was submitted to the Federal Office of Education.

9. A training for the writing of modules and validation of job analysis charts was provided to Vocational Education teachers. Another training was offered to curriculum technicians in the use of these job analysis charts.

10. The annual report of the R.C.U. for the School year 1973-74 was prepared in English and Spanish.

11. A training related to the Management Information System operation was provided in the six Educational

Regions of the Island in coordination with the Computer Center of the Department of Education.

12. The Final Report of the E.P.D.A. project "TEchnical Assistance for the development and implementation of a long range master plan for the preparation of vocational industrial education" was prepared.

13. A revision of the proposal "Proposal for the Implementation of a Driver Education Program in the Public High Schools of Puerto Rico" was conducted.

14. Proposal for the development of a center for training in fishing techniques, vessel construction for deep sea fishing, and seamanship, in Arroyo, PR

15. Proposal for the training of vocational education personnel working under provisional contract with the Commonwealth Department of Education.

16. Proposal for the establishment of a vocational and adult education program at the College of Education of the University of Puerto Rico.

17. Proposal for the development of a Management Information System at the Puerto Rico Research Coordinating, Phase II.

18. Proposal for a pilot project to establish an Agribusiness Educational Service Center for the training of adult farmer in Naranjito.

19. Proposal for the Development of a Technological Institute in Ramey Air Base in Aguadilla.

20. Proposal for evaluating the effectiveness of the Health Related Occupation Program in preparing qualified personnel to serve different occupational demands.

21. Proposals for the organization of Area Vocational Schools using Mobile Units.

22. Proposal for an intensive training program for employment in the Northwestern Region of Puerto Rico.

Puerto Rico

23. Proposal for an In-Plant training program to develop the optimum degree of specialization of the Area Vocational School students of Carolina and Guayama.

24. Proposal for the development of a workshop for the training of vocational education personnel who will assume leadership roles in Vocational and Technical Education in Puerto Rico.

25. Proposal for an In-service training program for Marketing and Distribution teachers in Sales Promotion and Display of Merchandise.

26. Proposal for an In-service training program for industrial coordinators of the Vocational and Technical Education Program.

27. Proposal for the preparation of instructional materials for the vocational programs adopted to the extended calendar school year.

28. Proposal to offer a televised course in Basic Technology.

29. Proposal for an Occupational Training Information Delivery System for Puerto Rico.

30. Proposal for the Development of Occupational Enrollemtn Projections in terms of Occupational Deamnd for the Vocational and Technical Education Programs.

31. Proposal for the training in basic occupational English for Puerto Rican agricultural workers working in New Jersey and Connecticut farms.

32. Retraining of laborers displaced from the sugar cane industry to prepare them as artificial inseminators, milking machine operators and dairy cows caretakers.

33. Warehouse training project leading to the preparation of shipping and receiving clerks.

34. Training in marketing techniques for children and relatives of seasonal migrant agricultural laborers at the Ponce area.

127

35. Waiter-waitrees training geared to relatives of seasonal and migrant laborers.

36. Training of agricultural workers to be employed in the coffee harvest in agricultural mechanics, coffee machnie operator and coffee machinery and equipment maintenance.

37. Proposal for the training of niney agricultural migrant workers as chefs.

38. Proposal for the training of agricultural workers in the production of tobacco, minor crops and fruits.

39. Training for seasonal and migrant agricultural laborers.

40. Proposal for the training of coffee farm workers as nursery operators, ornamental plant productors and flower production.

PROJECTS AND ACTIVITIES PLANNED:

1. Implementation of the Management Information System in coordination with the Computer Center of the Department of Education.

2. Establishment of the Fishing school in the Arroyo school district.

3. Establishment of the Agriculture Residential School in Adjuntas.

4. Establishment of a Technological Institute in the facilities of the Ramey Base in Aguadilla.

5. Continue with the evaluation of the following Vocational Programs: Distribution and Marketing, Business Education, Health Related Occupations and Vocational Agriculture Program.

6. Proposal for the Development of a Comprehensive Curricula for Environmental Education in Puerto Rico.

Puerto Rico

7. Proposal for the Establishment of a Shipbuilding Skills Training Center in the Ponce Area.

8. Proposal for the Development of a Bilingual Occupational Education Comprehensive Program.

9. Development and submission of a proposal for a Demonstration Project in Safe Performance Secondary School Driver Education Curriculum to the National Highway Traffic Safety Administration through the Commonwealth Commission for Traffic Security.

TRUST TERRITORIES OF THE PACIFIC ISLANDS

Neal W. Baker, Director of Vocational Education
Neal W. Baker, RCU Director

NO REPORT RECEIVED

VIRGIN ISLANDS

Wilburn Smith, Jr., Director of Vocational Education
Wilburn Smith, Jr., RCU Director

NO REPORT RECEIVED

ACCESSION NUMBER: VT102177

PUBLICATION DATE: APR75

TITLE: CAREER THRESHOLDS: A LONGITUDINAL STUDY OF THE EDUCATIONAL AND LABOR MARKET EXPERIENCE OF MALE YOUTH. VOLUME FIVE.

PERSONAL AUTHOR: ANDRISANI, PAUL; KOHEN, ANDREW I.

DESCRIPTOR: *EMPLOYMENT EXPERIENCE; *SALARY DIFFERENTIALS; LONGITUDINAL STUDIES; COMPARATIVE ANALYSIS; LABOR UNIONS; *COLLECTIVE BARGAINING; RACIAL DIFFERENCES; LABOR FORCE; YOUTH EMPLOYMENT; MALES; *BLUE COLLAR OCCUPATIONS

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 101P.

ABSTRACT: PART OF A LARGER LONGITUDINAL STUDY BEGUN IN 1966 OF THE EDUCATIONAL AND LABOR MARKET EXPERIENCES OF YOUNG MEN, THIS REPORT FOCUSES ON THE IMPACT OF COLLECTIVE BARGAINING ON THE EMPLOYMENT EXPERIENCE OF YOUNG MEN (17 TO 27 YEARS OLD IN 1969) WORKING IN BLUE COLLAR JOBS. UNION-NONUNION DIFFERENTIALS IN LABOR MARKET EXPERIENCE AND IN PERSONAL AND SITUATIONAL CHARACTERISTICS WERE INVESTIGATED USING MULTIVARIATE ANALYSIS. OTHER VARIABLES CONSIDERED WERE RACIAL DIFFERENCES AND THE EFFECTS OF COLLECTIVE BARGAINING ON EARNINGS AND LABOR MARKET EXPERIENCE. FINDINGS INDICATE THAT COLLECTIVE BARGAINING COVERAGE HAS A SUBSTANTIAL NET IMPACT ON THE HOURLY EARNINGS OF BOTH THE WHITE AND BLACK WORKERS STUDIED. FURTHER, AMONG BLACKS THERE IS EVIDENCE THAT THE UNIONIZED EXPERIENCES LESS UNEMPLOYMENT THAN THEIR NONUNIONIZED COUNTERPARTS. APPENDIXES INCLUDE SUPPLEMENTARY TABLES, BIBLIOGRAPHY, GLOSSARY, INTERVIEWING AND ESTIMATING PROCEDURES, AND THE 1970 INTERVIEW SCHEDULE. (NJ)

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. CENTER FOR HUMAN RESOURCE RESEARCH.

SPONSORING AGENCY NAME: MANPOWER ADMINISTRATION (DOL), WASHINGTON, D.C.

VT 102 177

Matte Primarily from Recycled Fibres

CAREER THRESHOLDS:

A longitudinal study of the educational and labor market experience of male youth

Paul Andrisani
Andrew I. Kohen

VOLUME FIVE
April 1975

Center for Human
Resource Research
College of Administrative
Science
The Ohio State University
Columbus, Ohio

This report was prepared under a contract with the Manpower Administration, U.S. Department of Labor, under the authority of the Manpower Development and Training Act. Researchers undertaking such projects under Government sponsorship are encouraged to express their own judgment. Interpretations or viewpoints stated in this document do not necessarily represent the official position or policy of the Department of Labor.

This volume is an interim report on a longitudinal study of the educational and labor market experiences of young men. In early 1965, the Center for Human Resource Research, under a contract with the U.S. Department of Labor, began the planning of longitudinal studies of the labor market experience of four groups in the United States population: men 45 to 59 years of age, women 30 to 44, and young men and women 14 to 24. For each of these population groups, a national probability sample of the noninstitutionalized civilian population was drawn by the U.S. Bureau of the Census. These four groups were selected for study because of the special labor market problems that each faces. In the case of the young men, for example, the problems are those revolving around the process of occupational choice and include both the preparation for work and the frequently difficult period of accommodation to the labor market. As of this writing, the young men have been surveyed annually from 1966 through 1971 and again in 1973. (For information on the sampling design see Appendix E.)

While the more-or-less unique problems of each of the subject groups to some extent dictate separate orientations for the four studies, there is, nevertheless, a general conceptual framework and a general set of objectives common to all of them. Each of the studies views the experience and behavior of individuals in the labor market as deriving from interactions between the characteristics of the environment and a variety of economic, social, demographic and attitudinal characteristics of the individual. Each study seeks to identify and measure those characteristics that appear to be important in explaining variations in several facets of labor market experience: labor force participation, unemployment experience, earnings, and various types of labor mobility. Knowledge of this kind is expected to make an important contribution to our understanding of the way in which labor markets operate and thus to be useful for the development and implementation of appropriate labor market policies.

This report represents a significant departure from the earlier volumes in the series on young men,[1] each of which contained analyses

---

[1]Herbert S. Parnes, Robert C. Miljus, Ruth A. Spitz and Associates, Career Thresholds: A longitudinal study of the educational and labor market experiences of male youth, vol. 1, U.S. Department of Labor, Manpower Research Monograph no. 16 (Washington: U.S. Government Printing Office, 1970); Frederick A. Zeller, John R. Shea, Andrew I. Kohen, and Jack A. Meyer, Career Thresholds, vol. 2, U.S. Department of

of several topics using tabular data exclusively. In contrast, this report relies very heavily on multivariate statistical analysis to explore a rather narrowly defined problem for only a subset of the larger cohort. More specifically, the focus is the impact of collective bargaining coverage on the 1969-1970 labor market experiences of young men working in blue collar jobs. In addition to increasing our understanding of the labor market behavior of young adult workers, the findings of the study are relevant to the continuing research on the impact of unionization on the American economy.

Both the overall study and this report are products of the joint effort of a great many persons, not all of whom are even known to us. The research staff of the Center has enjoyed the continuous expert and friendly collaboration of personnel of the Bureau of the Census, which, under a separate contract with the Department of Labor, is responsible for developing the samples, conducting all of the interviews, and processing the "raw" data. We are indebted to Earle Gerson, Chief of the Demographic Surveys Division, and to his predecessor, Daniel Levine; to Robert Mangold, Chief of the Longitudinal Surveys Branch; and to Dorothy Koger, our principal point of contact with the Bureau. We also wish to acknowledge our indebtedness to Alvin Etzler, James Johnson, and the staff of the Field Division who were responsible for collecting the data; to David Lipscomb, Eleanor Brown and their staff for editing and coding the interview schedule; and to Barbara Wilson and Kenneth Kaplan for computer preparation of the data tape.

The advice and counsel of many persons in the Department of Labor have been very helpful to us both in designing the study and in interpreting some of the findings. Without in any way implicating them in whatever deficiencies may remain in this report, we wish to acknowledge especially the continuous interest and support of Howard Rosen, Director of the Office of Manpower Research and Development of the Manpower Administration, and the valuable advice provided by Stuart Garfinkle, Jacob Schiffman and Ellen Sehgal, our principal contacts in the Office of Manpower Research and Development.

Herbert S. Parnes, Director of the NLS Project, provided us with his invariably valuable insights, reactions and guidance. Other colleagues who gave us the benefit of their reactions to an earlier version of the

---

Labor, Manpower Research Monograph no. 16 (Washington: U.S. Government Printing Office, 1971); Andrew I. Kohen and Herbert S. Parnes, Career Thresholds, vol. 3, U.S. Department of Labor, Manpower Research Monograph no. 16 (Washington: U.S. Government Printing Office, 1971); Andrew I. Kohen and Paul Andrisani, Career Thresholds, vol. 4, U.S. Department of Labor, Manpower Research Monograph no. 16 (Washington: U.S. Government Printing Office, 1974).

manuscript are Francine Blau, Susan Breinich, John T. Grasso, Gilbert Nestel, Steven Sandell and Richard L. Shortlidge of the Center for Human Resource Research; and Stuart Garfinkle, Walter J. Gershenfeld, Richard D. Leone and J. Joseph Loewenberg of Temple University. The complex tasks of preparing variables and producing the statistical analyses we requested were ably accomplished by the following members of the Center's Data Processing Staff: Harvey Forstag, Gary Schoch, Darlene Shuman and Mark Smith. Patricia Shields, Constantine Karmas and Marc Parnes made noteworthy contributions in deciphering, recording and making additional calculations from the computer printout. Brenda Feder was primarily responsible for maintaining the necessary liaison with the Census Bureau. Finally, we wish to thank Kandy Bell for typing this and earlier versions of the manuscript.

Center for Human Resource Research
College of Administrative Science
The Ohio State University
April 1975

Paul Andrisani
Andrew I. Kohen

TABLE OF CONTENTS

Page

FOREWORD iii

UNIONIZATION AND THE LABOR MARKET EXPERIENCES OF YOUNG BLUE COLLAR WORKERS. 1
INTRODUCTION. 1
GROSS UNION-NONUNION DIFFERENCES IN LABOR MARKET EXPERIENCE, 1969-1970. 3
UNION-NONUNION DIFFERENCES IN PERSONAL AND SITUATIONAL CHARACTERISTICS. 10
NET EFFECTS OF COLLECTIVE BARGAINING ON EARNINGS AND LABOR MARKET EXPERIENCE, 1969-1970 15
COMPARISON OF RACIAL DIFFERENCES IN THE UNION AND NONUNION SECTORS 25
SUMMARY AND CONCLUSIONS 30

APPENDIXES
APPENDIX A: SUPPLEMENTARY TABLES 35
APPENDIX B: BIBLIOGRAPHY 43
APPENDIX C: GLOSSARY 47
APPENDIX D: ATTRITION FROM THE SAMPLE. 53
APPENDIX E: SAMPLING, INTERVIEWING AND ESTIMATING PROCEDURES 61
APPENDIX F: 1970 INTERVIEW SCHEDULE. 67

UNIONIZATION AND THE LABOR MARKET EXPERIENCES OF YOUNG BLUE COLLAR WORKERS

I INTRODUCTION

The effects of collective bargaining on the institution of work in America undoubtedly have been profound. Nonetheless, the magnitude of the effects of unionism on relative earnings is still subject to considerable controversy. In the classic study by H.G. Lewis (1963),[1] for example, the overall effect of unionism on earnings was estimated to be in the range of only 10 to 15 percent. Moreover, Lewis reported only occasional instances since the early 1930's in which the union advantage had been as high as 25 percent. The more contemporary evidence on the overall earnings effect of unionism is mixed, with some investigators presenting estimates higher than Lewis' and some calculating the effect about the same or smaller than Lewis did.[2]

On the other hand, most recent studies that have utilized data which are more disaggregated than those available to Lewis have concluded that in many segments of the economy the effect of unionization on earnings is larger than Lewis estimated. For example, focusing on men in blue collar jobs Ashenfelter (1972, 1973), Boskin (1972), Ryscavage (1974) and Stafford (1968) estimated a net union-nonunion earnings differential ranging from 15 to 40 percent, depending on the particular year to which the data apply, the occupation-industry group, and the time unit for measuring earnings (i.e., hourly, weekly or annually). This study brings new evidence to bear on this subject by utilizing the National Longitudinal Surveys' sample of younger males (17 to 27 years old in 1969). In addition, by focusing upon this particular cohort, we seek to gain important insights concerning the accommodation of younger workers to the labor market in general and to the trade union movement in particular. In addressing these issues the analysis is restricted to blue collar wage and salary workers and is confined to the period between the 1969 and 1970 survey dates.

Specifically, this study examines the effects of collective bargaining on five dimensions of labor market experience: (1) hourly rate of pay;

---

[1] All citations in the text and footnotes refer to items listed in the bibliography in Appendix B.

[2] For studies suggesting a larger overall effect of unions on earnings, see for example: Ashenfelter and Johnson (1969); Blinder (1971); Rosen (1970); and Throop (1968). For studies whose findings are more consistent with those of Lewis, see for example, Boskin (1972); Oaxaca (1973); Raimon and Stoikov (1969); Rosen (1969); and Weiss (1966).

(2) hours worked per week; (3) susceptibility to unemployment; (4) duration of unemployment; and (5) growth in hourly earnings. In contrast to all previous research with micro data, we are able to speak of the effect of collective bargaining rather than union membership on an individual worker's earnings, hours, etc. To the best of our knowledge, all other micro data sets merely indicate whether or not an individual is a member of a union or employee association. The effect of membership is an imperfect proxy for the effect of collective bargaining because some workers who are not union members are nonetheless covered by collectively bargained agreements.[3] Thus, for example, comparing the average wages of union members and nonmembers probably understates the impact of collective bargaining because the average of the nonmember group is artificially inflated by including the wages of covered nonmembers.

In addition, we examine the relationship between collective bargaining coverage and racial differentials in each of the measures of labor market experience. Throughout the analysis, we attempt to ascertain the effects of collective bargaining on "labor of a given relative quality."[4] Thus, for example, we define "relative earnings effects of unionism" as the extent to which unions raise the earnings of workers for whom they bargain above the earnings of comparable unorganized workers.

As previous studies have also noted, union-nonunion comparisons of wages or other dimensions of labor market experience almost always confound the effects of unionism with the effects of other forces that would have contributed to differentials in the absence of unions. According to Lewis, "the errors resulting from incomplete adjustment of the gross wage differences more frequently lead to overestimation than to underestimation of the effect of unionism."[5] It is therefore necessary to consider carefully and to control adequately for the influence of forces which may be correlated with both unionism and dimensions of earnings, and which may therefore lead to an overstatement of the effects of collective bargaining. Since the NLS data provide considerable detail in measuring differences in skills, abilities, and

---

[3] To a lesser extent the imperfection results from some union members working in firms without collective bargaining agreements.

[4] Lewis (1962), p. 327.

[5] Ibid.

situational characteristics, it is possible to control for a wide range of such differences between union and nonunion workers.

Ih the section which follows, "gross" union-nonunion[6] differences in several dimensions of labor market experience during the 1969-1970 period are highlighted by major occupation group and race. In addition to the five dimensions listed above, union-nonunion differences in total annual earnings, weeks worked, occupational status, overtime arrangements, job satisfaction, voluntary turnover, and incidence of layoff are also included. In Section III, we present and discuss data on union-nonunion differences in a wide range of personal and situational characteristics--some of which may act to confound the effects of unionism. Then, to capture the effects of collective bargaining on relative earnings, in Section IV we control for relevant personal and situational characteristics and focus directly on the remaining union-nonunion differences in each of the five dimensions of labor market experience noted above. In this process, we investigate the relationship between unionization and racial differentials by comparing racial differences in the union sector with racial differences in the nonunion sector. The study is concluded with a brief summary.

II GROSS UNION-NONUNION DIFFERENCES IN LABOR MARKET EXPERIENCE, 1969-1970

In examining the effects of unionism, the importance of focusing on labor of a given quality cannot be overemphasized, for there is considerable reason to suspect that unionized blue collar workers have different characteristics than their unorganized counterparts and, therefore, would earn more and have more favorable labor market experiences even in the absence of unionism. Nonetheless, it is useful to compare the labor market experience of the unionized with that of the unorganized within each race and major skill category. First, a comparison of "gross" union-nonunion differences in experience during the period of this study places the subsequent and more intensive analysis of earnings in clearer perspective. Second, it highlights some important aspects of the process whereby young men are accommodated to the labor market and the trade union movement. Third, it provides an overview of how young blue collar workers fared during the course of the economic downturn of the 1969-1970 period.

Before turning to this comparison, however, the distribution of the sample according to occupation, collective bargaining coverage,

---

[6] With the exception of references to Table 1 below, we utilize the distinctions "union-nonunion" and "covered-noncovered" interchangeably for the sake of exposition. However, the reader is reminded that the latter is the accurate one.

union membership and race is presented in Table 1. Overall, slightly less than half of these young blue collar workers were employed in jobs in which their wages and working conditions were determined by collective bargaining agreements. For whites and blacks alike, operatives were more likely than craftsmen or laborers to be covered by such agreements. Of the covered workers, seven out of ten blacks and eight out of ten whites were members of the union or employee association which bargained on their behalf.[7]

That the 1969-1970 labor market experience of blue collar workers in this cohort differs markedly according to collective bargaining status is convincingly demonstrated by the data presented in Table 2. In particular, union-nonunion differences in earnings appear to be very substantial. Among craftsmen and laborers, for example, the differentials in average hourly earnings at both the 1969 and 1970 survey dates--and in total annual earnings during the 12-month interim--are particularly large. Although differences may not be attributable solely to the effects of unionism, it is interesting to note that in all cases the earnings differences are larger than the overall effect estimated by Lewis (1963) and within the range of estimates in more contemporary studies.[8]

The data also suggest, however, that the union hourly earnings advantage declined somewhat between 1969 and 1970. In each case where sample sizes permit confident comparison, relative growth in average hourly earnings was greater for nonunion than union workers and the ratio of union to nonunion wage rates declined demonstrably between 1969 and 1970. The fact that the union advantage in 12-month earnings is smaller than the advantage in 1969 hourly earnings partly reflects the reduction in the hourly wage advantage. However, it reflects other differences as well--e.g., in hours worked, weeks worked, overtime arrangements, mobility, and in the proportion who hold second jobs. Needless to say, considerable caution should be exercised in generalizing

---

[7]These data may be used to illustrate a point made more abstractly above. If we were to define union status in our study in the same way as in previous research on this subject, about 15 percent of those who would be classified as "nonunion" workers would, in fact, be covered by collective bargaining (i.e., for whites it would be 12 percent = (45) (1-.83)/(55 + 45 (1-.83)) and for blacks it would be 19 percent = (45) (-1.72)/(55 + 45(1-.72)).

[8]For example, Ryscavage (1974), p. 7, estimates a difference in usual hourly earnings which ranges from 20 percent among black male craftsmen to 38 percent among white men working as transportation equipment operators.

Table 1 Collective Bargaining Coverage and Union Membership in 1969 of Blue Collar Workers, by Occupation and Race[a]

Occupation	Total number of respondents[b]	Percent[c] covered by collective bargaining	Total number of respondents covered by collective bargaining	Percent[c] union members
	WHITES			
Total or average	952	45	416	83
Craftsmen	315	38	115	87
Operatives	468	51	232	85
Nonfarm laborers	169	43	69	68
	BLACKS			
Total or average	471	45	193	72
Craftsmen	74	45	29	70
Operatives	252	47	113	78
Nonfarm laborers	145	41	51	63

a Respondents 17 to 27 years of age, not enrolled in school and employed as blue collar wage and salary workers in 1969.

b Portions of the subsequent analysis rely on fewer than the 1,423 sample cases shown here either because of instances where one or more necessary pieces of information were not ascertained or because some analyses are confined to those employed in both the 1969 and 1970 survey weeks.

c All statistics (percentages, means, regression coefficients) in this study are based on weighted observations. For a discussion of the sampling methods, see Appendix E.

Table 2 Earnings and Employment Experience of Blue Collar Workers in 1969 and 1970, by Race, Occupation and Collective Bargaining Coverage in 1969[a]

Earnings and employment experience[b]	WHITES				BLACKS			
	Total or average	Craftsmen	Operatives	Laborers	Total or average	Craftsmen	Operatives	Laborers
Total number of respondents[c]								
Union	416	115	232	69	193	29	113	51
Nonunion	536	200	236	100	278	45	139	94
Average hourly earnings, 1969								
Union	$3.72	$4.28	$3.50	$3.52	$3.00	$3.38	$2.99	$2.79
Nonunion	2.69	2.97	2.63	2.25	2.16	2.49	2.21	1.90
Union advantage[d]	39%	44%	33%	56%	39%	36%	35%	47%
Average hourly earnings, 1970								
Union	$4.01	$4.62	$3.76	$3.63	$3.03	j	$2.95	$2.90
Nonunion	3.09	3.29	3.06	2.63	2.42	$2.57	2.52	2.15
Union advantage[d]	30%	40%	23%	38%	25%	j	17%	35%
Average percentage increase in hourly earnings, 1969-70[e]								
Union	8.9	9.7	9.0	6.4	7.9	j	3.3	11.3
Nonunion	14.1	12.3	14.8	17.1	15.1	11.3	14.1	19.2
Average annual earnings, 1969-70[f]								
Union	$7,528	$8,861	$7,303	$5,841	$5,427	j	$5,230	$4,999
Nonunion	6,010	6,467	6,229	4,278	4,288	$5,426	4,496	3,291
Union advantage[d]	25%	37%	17%	37%	27%	j	16%	52%
Percent with provision for overtime pay differential, 1969 job								
Union	94	97	93	93	89	74	94	89
Nonunion	67	65	71	63	75	64	83	69

Table continued on next page.

Table 2 Continued

Earnings and employment experience[b]	WHITES				BLACKS			
	Total or average	Craftsmen	Operatives	Laborers	Total or average	Craftsmen	Operatives	Laborers
Average hours usually worked per week, 1969 job								
Union	41.8	41.5	42.3	40.6	42.1	41.3	42.8	41.3
Nonunion	43.5	43.9	44.5	40.2	42.2	40.4	43.0	41.9
Average number of weeks worked, 1969-70[g]								
Union	46.0	47.6	46.1	42.7	44.2	j	43.3	43.5
Nonunion	45.7	47.4	44.9	43.6	42.9	43.9	44.3	40.0
Percent with any weeks unemployed 1969-70[g]								
Union	27	18	26	46	27	j	32	25
Nonunion	22	18	21	35	37	26	34	47
Average number of weeks unemployed 1969-70[g,i]								
Union	3.0	2.4	2.5	6.0	3.8	j	5.4	2.1
Nonunion	2.0	1.8	1.9	2.5	4.7	3.9	4.3	5.8
Average socioeconomic status of occupation, 1969 job[h]								
Union	23.3	34.6	22.0	8.6	17.3	29.3	19.0	6.7
Nonunion	22.0	31.0	19.8	8.1	16.2	25.2	18.8	7.4
Percent highly satisfied with job, 1969								
Union	42	54	37	34	36	56	30	34
Nonunion	46	58	40	31	39	58	36	33
Percent highly satisfied with job, 1970								
Union	41	54	36	36	38	j	33	40
Nonunion	43	56	32	41	43	40	43	46

Table continued on next page.

Table 2 Continued

Earnings and employment experience[b]	WHITES				BLACKS			
	Total or average	Craftsmen	Operatives	Laborers	Total or average	Craftsmen	Operatives	Laborers
Percent receiving training, 1969-70[g]								
Union	26	34	24	16	16	j	13	13
Nonunion	22	30	20	6	10	8	14	5
Percent making voluntary job change, 1969-70[g]								
Union	15	16	12	24	15	j	15	23
Nonunion	20	21	18	25	20	19	18	23
Percent laid-off permanently or discharged, 1969-70[g]								
Union	15	16	14	16	13	j	14	16
Nonunion	10	10	8	14	17	19	17	16

a Respondents not enrolled in school and employed as blue collar wage and salary workers in 1969.
b For detailed definitions of some measures, see Glossary, Appendix C.
c The number of cases upon which any mean or percentage is based may vary slightly from this figure due to nonresponses on the particular variable.
d Defined as $\left[\frac{\text{union mean}}{\text{nonunion mean}} - 1\right] 100$.
e Defined as the mean of $\left[100 \left(\frac{\text{hourly earnings 1970}}{\text{hourly earnings 1969}}\right) - 100\right]$.
f Annual earnings refers to income from wages and salaries during the 12-month period between the 1969 and 1970 surveys.
g Refers to the 12-month period between the 1969 and 1970 surveys.
h Socioeconomic status is defined in terms of the Duncan index.
i Refers to all respondents, not solely to those who experienced unemployment during the period.
j Means and percentages not shown where base represents fewer than 25 sample cases.

trends from these movements over a single year, especially since many workers covered by collective bargaining agreements renegotiated in 1968-1969 received deferred wage increases in 1970 which were disproportionately small because of the practice of "front-loading" of new contracts.[9]

Although there are several instances--in particular among white craftsmen and operatives--where the hourly earnings advantage of the unionized may be somewhat offset by virtue of their having worked fewer hours per week, in the main the data suggest that the large union advantage in hourly earnings is not significantly counteracted either by fewer hours usually worked per week or by fewer weeks worked in a 12-month period. Furthermore, workers covered by a collective bargaining agreement are far more likely to receive a premium for working overtime, which would contribute to widening the differential in annual earnings.

Despite the similarity between the union and nonunion groups in the number of weeks worked, the data suggest that white union workers were more prone than their nonunion counterparts to layoff and unemployment during the 1969-1970 period and to a longer duration of unemployment when it occurred. Among blacks, however, union-nonunion differences are exactly the reverse, as the young men who were covered by collective bargaining were less prone to layoff or a spell of unemployment and--at least among the laborers--they averaged fewer weeks of unemployment on occasions when unemployment was actually experienced. The extent to which these racial differences may be explained by white-black differences in industrial affiliation is addressed at a later point in this study.

At least in part, the union-nonunion differential in earnings may be attributable to differences in the occupational distributions of the two groups within each of the major blue collar categories examined. Even within occupation groups, the data in Table 2 suggest that those covered by collective bargaining tend to be disproportionately employed in the higher status and typically better paying trades. To a certain extent, this may mean that the unionized tend to possess greater abilities and skills--as is suggested by the differences in the likelihood of receiving training--and that they perhaps command higher earnings as a consequence of their superior talents as well as through collective bargaining coverage.

Although the economic advantages of collective bargaining are further evidenced by the data on the incidence of overtime premiums and by the greater protection from layoff and dismissal among blacks, there is little to suggest that job satisfaction is higher for union

---

[9] Estey (1970).

than nonunion workers. On the contrary, the data provide some reason to suspect that covered workers are less highly satisfied with their jobs than are their noncovered counterparts. Since the unionized appear less prone to voluntary turnover, since they also possess a large advantage in earnings and status, and since unions are generally thought to increase "industrial democracy," one would expect that the unionized would be considerably more satisfied with their jobs than the nonunion workers.

On the other hand, the existence of a union is likely to make workers more aware than they otherwise would be of factors in the job situation that could be sources of discontent. In addition, to what extent the expressed dissatisfaction among these young workers is focused against unions themselves, rather than against employers, is a subject about which we have no direct evidence. Nevertheless, that our data indicate less satisfaction among covered than noncovered employees may be an important finding--especially in light of the growing concern for discontent among young blue collar workers.[10]

III UNION-NONUNION DIFFERENCES IN PERSONAL AND SITUATIONAL CHARACTERISTICS

Union-nonunion differences in earnings may stem from many sources, only one of which is the effect of collective bargaining. To repeat the example mentioned earlier, within a major occupation group such as craftsmen, union workers may have more favorable labor market experiences because they have brought to their trade greater abilities and skills and are therefore more productive. In such a case, they would have earned more than their nonunion counterparts even in the absence of unions. As another example, differences may reflect the fact that union jobs tend to be disproportionately concentrated in urban areas and in the North where wage rates tend to be higher.[11] Finally, union-nonunion

---

[10] This growing concern has been clearly presented in many recent studies. See, for example, Work in America (1972) and Sheppard and Herrick (1972). It is also well to note in this context that the extent to which covered workers are not union members (Table 1) may reflect dissatisfaction with the union or that many young workers are serving probationary periods of employment during which they are not required to join the union--even under a union-shop agreement.

[11] A recent BLS report clearly demonstrates the existence of substantial differences in the extent of unionization on the basis of both region and degree of urbanization. Selected Earnings and Demographic Characteristics of Union Members, 1970 (1972), Table 11, pp. 22-25.

differentials may reflect differences in the ways in which the unionized and nonunionized sectors determine wages, hours, and conditions of employment. That is, union-nonunion earnings differentials may indeed reflect the "pure" effects of collective bargaining.

This section of the study serves essentially to highlight differences between covered and noncovered workers which may distort the effects of unionism on earnings and other aspects of labor market experience.[12] Union-nonunion differences in several personal characteristics of our sample of young male workers are presented in Table 3. Most of these characteristics reflect differences in abilities and skills that may contribute to the differentials in labor market experience over the 1969-1970 period previously observed. To begin with, the nonunion blue collar workers in the sample are 15 to 20 percentage points more likely than their union counterparts to be high school dropouts. Put another way, this means that in most cases the nonunion workers are one-and-one-half to two times as likely as the union workers to have dropped out of school. Moreover, the differences in the proportions who had received post-school vocational training by 1969 are even greater and the training gap widens monotonically for both whites and blacks with increasing skill level. On the other hand, there are no systematic differences in the high school curriculum pursued by union and nonunion workers.[13]

---

[12] It should be made explicit at the outset, however, that it is not possible to control perfectly for all relevant union-nonunion differences. It is not possible, for example, to control for a spillover effect. That is, where union gains spill over into the nonunion sector--e.g., to prevent the organization of nonunion workers--differentials in wages, hours, and working conditions will inevitably understate the full impact of collective bargaining. See Rees (1962), p. 74. An institutionalized instance of the spillover effect is where the Davis-Bacon Act and/or its state-level counterparts operate to eliminate real union-nonunion differentials. Moreover, even if error-free measures of all relevant union-nonunion differences were available, it would not be possible to specify perfectly the exact functional relationships among the relevant variables. For these reasons, our estimates of the effects of unionism should be viewed as only approximations.

[13] Data not displayed here indicate that, in comparison to the nonunionized workers, the unionized came from families of higher socioeconomic status, where status is measured by a composite index based on five characteristics of the parental family. For details see Kohen (1973). This difference is consistent with contemporary hypotheses about segmented labor markets in which racial and ethnic minorities and those from lower social class backgrounds are disproportionately relegated to the worst jobs, which are also the jobs least likely to be organized.

Table 3 Personal Characteristics of Blue Collar Workers in 1969, by Race, Occupation, and Collective Bargaining Coverage[a]

Characteristic	WHITES			BLACKS		
	Craftsmen	Operatives	Laborers	Craftsmen	Operatives	Laborers
Total number of respondents[b]						
Union	115	232	69	29	113	51
Nonunion	200	236	100	45	139	94
Percent high school graduates						
Union	81	70	71	59	58	55
Nonunion	65	56	49	39	49	33
Percent with post-school vocational training, prior to 1969[c]						
Union	72	51	29	71	42	30
Nonunion	47	36	28	39	25	16
Percent who took vocational curriculum in high school						
Union	18	17	15	28	18	10
Nonunion	20	14	15	20	15	20
Average number of years of labor market experience[d]						
Union	6.6	5.8	5.4	7.0	6.3	6.0
Nonunion	6.2	6.0	4.4	8.5	6.8	6.5
Average years of service with 1969 employer						
Union	2.0	1.6	0.8	1.5	1.1	0.7
Nonunion	1.6	1.3	0.4	1.2	1.2	0.8
Average score on 1966 test of occupational information[e]						
Union	35.0	34.6	34.8	31.1	29.4	28.6
Nonunion	34.5	33.1	31.0	25.2	27.3	23.4

Table continued on next page.

Table 3 Continued

Characteristic	WHITES			BLACKS		
	Craftsmen	Operatives	Laborers	Craftsmen	Operatives	Laborers
Percent with no health limitations[f]						
Union	92	91	98	92	91	88
Nonunion	89	87	91	95	94	99

a Respondents 17 to 27 years of age, not enrolled in school and employed as blue collar wage and salary workers in 1969.

b The number of cases upon which any mean or percentage is based may vary slightly from this figure due to nonresponses on the particular variable.

c Post-school vocational training is defined here as training received outside of regular school and outside of military service.

d Defined as age minus years of school completed minus 5. Therefore, the variable represents potential labor market experience and treats civilian and military experience equivalently.

e Test scores range from 0 to 56.

f Based on the response to questions asked in 1970 concerning the existence and duration of health limitations on the kind or amount of work the respondent can perform.

Another relevant characteristic, years of labor market experience as of 1969, captures experience in the broad sense of the term--i.e., the number of years since leaving school. Among whites, the unionized craftsmen and laborers are somewhat more experienced on the average than their nonunion counterparts, while unionized operatives are slightly less experienced. Among blacks, however, the unionized workers are from 6 to 18 months less experienced than nonunion workers depending upon whether skilled, semi-skilled, or unskilled. Although these differences are not entirely systematic with respect to unionism, the observation of some differences along with the importance of experience as a determinant of labor market success, necessitate controlling for this variable in examining the net effects of unionism.

Although union-nonunion differences in tenure with current employer are nowhere large, in the case of whites and among black craftsmen the differentials may nevertheless work to overstate the positive effects of unionism. A similar conclusion may also be reached in the case of the next characteristic shown in Table 3--extent of labor market information. Measured by a battery of test items, the labor market information scale purportedly captures a worker's understanding of occupational differences in function, entry requirements, and earnings.[14] To some extent, and most notably in the case of blacks, the higher earnings of unionized young males may also reflect their greater awareness of the ways in which the labor market operates and/or their higher level of general mental ability.[15]

Health characteristics, on the other hand, might cause gross earnings differentials between covered and noncovered workers to overstate the net effect of collective bargaining for whites, while having the opposite effect for blacks. Blacks covered by collective bargaining agreements are on the average about 6 percentage points more likely to report some form of health limitation, either temporary or more permanent, which restricts the kind or amount of work they are capable of performing. Among whites, the unionized are 3 to 7 percentage points <u>less</u> likely to be constrained by a health limitation.

---

[14] There is evidence of a systematic relation between earnings and the extent of occupational information as measured by this scale. See Parnes and Kohen (1975). For a discussion of the reliability and validity of the scale itself, including a factor analysis, see Kohen and Breinich (1975).

[15] In the absence of a direct, independent measure of general mental ability it can be assumed that the measure of labor market information partially represents the effect of general ability on earnings. See Parnes and Kohen (1975) and Kohen (1973).

Because some situational characteristics may also account for some of the advantage of union workers, union-nonunion differences in industrial affiliation, region of residence, and size of community are presented in Table 4. Among whites, the unionized tend to be more concentrated in construction and manufacturing than their nonunion counterparts. Among blacks, the unionized craftsmen and operatives are substantially more likely to be in manufacturing industries, but they are somewhat less likely to be in the construction industry. It is quite possible, as these proportions indicate, that the white-black differences in susceptibility to layoff and unemployment may be partly attributable to racial differences in industrial distribution--since unionized blacks are 14 percentage points more likely than unionized whites to be in manufacturing and 8 percentage points less likely to be in construction. Finally, among both blacks and whites, the unionized tend to be disproportionately concentrated in the non-South and in large urban areas.[16] As a consequence, union-nonunion differences in wage rates may be overstated because of geographic differences in price level.

IV THE NET EFFECTS OF COLLECTIVE BARGAINING ON EARNINGS AND LABOR MARKET EXPERIENCE, 1969-1970

It has been demonstrated that numerous personal and situational characteristics must be controlled in order to ascertain the net effects of collective bargaining on earnings (Tables 3 and 4). These characteristics--which include industrial affiliation, education, training, experience, job tenure, extent of occupational information, health, region of residence, and degree of urbanization--reflect differences between union and nonunion workers which may confound the effects of collective bargaining. To control for these differences, multiple regression analysis has been applied, with separate analyses for whites and blacks within both the union and nonunion sectors.[17]

---

[16] Urban areas have been defined on the basis of labor force size in the local labor market where a respondent resides. Local labor markets--or metropolitan areas--with more than 300,000 persons in the labor force as of 1960 were classified as large urban areas.

[17] A series of statistical tests supported our hypotheses that significant interactions exist between race and other determinants of the several "dependent" variables on the one hand, and between collective bargaining coverage and those determinants on the other. More specifically, Chow tests of the regression coefficients forced us to reject the hypotheses of equality between the coefficients for different groups. For details on the statistical procedure see Chow (1960). Examples of the outcomes of the statistical procedure are as follows: (1) the

Table 4 Situational Characteristics of Blue Collar Workers in 1969 by Occupation, Race, and Collective Bargaining Coverage[a]

Characteristic	Craftsmen	Operatives	Laborers
	WHITES		
Total number of respondents			
Union	115	232	69
Nonunion	200	236	100
Percent in construction			
Union	36	11	34
Nonunion	21	6	38
Percent in manufacturing			
Union	40	68	31
Nonunion	36	57	20
Percent in the South[b]			
Union	20	15	21
Nonunion	37	41	39
Percent in large urban areas[c]			
Union	42	33	30
Nonunion	25	23	24
	BLACKS		
Total number of respondents			
Union	29	113	51
Nonunion	45	139	94
Percent in construction			
Union	36	1	26
Nonunion	38	9	16
Percent in manufacturing			
Union	49	88	38
Nonunion	20	49	37
Percent in the South[b]			
Union	62	34	30
Nonunion	71	76	83
Percent in large urban areas[c]			
Union	67	49	42
Nonunion	32	26	18

a Respondents 17 to 27 years of age, not enrolled in school and employed as blue collar wage and salary workers in 1969.

b The South includes 16 states and the District of Columbia.

c Large urban areas are defined as those whose labor force (in 1960) contained at least 300,000 persons.

In addition to controlling for these differences in examining the effects of collective bargaining on hourly earnings, we have similarly examined the effects of unionism on four other dimensions of 1969-1970 labor market experience: relative growth in hourly earnings over the 1969-1970 period, the incidence of unemployment, number of weeks unemployed in a 12-month period, and number of hours usually worked per week. Hence, it is possible to examine the degree to which any net advantage of the unionized in hourly earnings may be offset by fewer hours of work, more unemployment, and/or less growth in earnings.

The importance of investigating the possibility of offsetting effects stems mainly from the fact that institutionalized seniority arrangements in the union sector may work to the disadvantage of the young. Especially in a period such as 1969-1970 when unemployment was rising, those lowest in seniority may have seen the effect of unionism on their hourly earnings eroded considerably by shorter hours of work and/or greater unemployment than might have occurred had these same individuals been employed in the nonunion sector. Although the gross union-nonunion differences in Table 2 with respect to usual hours worked and unemployment provide little consistent evidence that this was the case, it is not implausible that the gross differences may understate the adverse effects of unionism. That is, since in many respects the covered workers possessed greater abilities and skills than their noncovered counterparts (Table 3), one would have expected them to fare better than the noncovered if unionism had no disadvantageous impact whatsoever on these labor market experiences. Additionally, the hourly earnings advantage of the unionized at the beginning of the period may have been reduced by greater growth in earnings in the nonunion than union sector, because of the small (deferred) wage increases received by the unionized in 1970.[18]

The effects of collective bargaining on each of these five dimensions of 1969-1970 labor market experience--controlling for union-nonunion differences in personal and situational characteristics--are estimated for our sample of young blue collar workers by race and

---

value of the F-ratio in testing for equality between covered and noncovered white workers in the hourly earnings equation was 15.21, when the critical value ($\alpha < .01$) for rejection was 2.09; (2) the corresponding figures for blacks were 7.30 and 2.12; (3) the calculated and critical values of F in testing for racial equality among covered workers were 4.09 and 2.10, respectively; and (4) the corresponding figures among noncovered workers were 8.71 and 2.10.

[18] See footnote 9.

occupation in Table 5.[19] The actual regression results upon which these estimates are based are presented in Appendix A.

Craftsmen

The effects of collective bargaining on the earnings of young craftsmen were indeed substantial (Table 5). At the beginning of the period, unionized whites earned about 39 percent more per hour than comparable nonunion workers, although they worked almost two hours less per week and experienced less growth in earnings during the period. Furthermore, unionized whites were not dissimilar to the nonunionized in terms of unemployment experience. Among blacks, unionized craftsmen enjoyed a 26 percent advantage in hourly wage at the beginning of the period. Additionally, the effects of collective bargaining on average hourly earnings were not offset by shorter hours. In fact, young black craftsmen covered by a collective bargaining agreement worked about one hour more per week than their counterparts who were not covered. All in all, collective bargaining per se accounts for over 80 percent of the observed union-nonunion difference in earnings among white craftsmen and the corresponding proportion among black craftsmen is about 70 percent.

The effects of unionism on relative earnings also varies substantially according to major industry division, as can be seen by the differences in the regression coefficients for the dummy variable representing industry in Table A-1. Thus, for example, being covered by collective bargaining is far more advantageous in terms of earnings in the construction industry than in manufacturing. Among whites, unionized construction craftsmen enjoyed a 53 percent advantage over their nonunion counterparts and their earnings grew more rapidly during the 1969-1970 period as well (Table 6). Their unionized counterparts in manufacturing, however, enjoyed only a 23 percent differential, and even this declined during the period as manufacturing earnings apparently grew faster in the nonunion sector. In both industries the unionized craftsmen worked fewer hours than the nonunionized, and the unionized in manufacturing averaged slightly fewer than comparable union workers in construction.

In contrast to these greater union earnings advantages in the construction industry are the effects of collective bargaining on the incidence and duration of unemployment. In this case, union workers

---

[19]The estimate is calculated by evaluating the regression equation for respondents covered by collective bargaining at the mean values of the variables for those not covered--within each race-occupation group. Thus, the estimate represents what nonunion workers would experience or earn if they were in the union sector.

Table 5 Estimated Net[a] Effect of Collective Bargaining on Selected Earnings and Employment Experience of Blue Collar Workers, by Occupation and Race[b]

Earnings or employment experience	Craftsmen		Operatives		Laborers	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Average hourly earnings, 1969						
a) Union mean-actual	$4.28	$3.38	$3.50	$2.99	$3.52	$2.79
b) Nonunion mean-actual	2.96	2.49	2.62	2.22	2.25	1.90
c) Nonunion mean-estimated in union situation[c]	4.10	3.13	3.41	2.68	3.41	2.17
Gross union/nonunion differential [100(a/b)-100]	45%	36%	34%	35%	56%	47%
Net union effect [100(c/b)-100]	39%	26%	30%	21%	52%	14%
Percentage change in hourly earnings, 1969-70						
a) Union mean-actual	9.7	e	9.5	5.6	8.2	12.1
b) Nonunion mean-actual	13.1	10.1	14.4	13.7	15.3	19.8
c) Nonunion mean-estimated in union situation[d]	7.4	e	9.0	2.4	7.3	10.8
Gross union/nonunion difference [a-b]	- 3.4	e	- 4.9	- 8.1	- 7.1	- 7.7
Net union effect [c-b]	- 5.7	e	- 5.4	-11.3	- 8.0	- 9.0
Likelihood of unemployment between 1969 and 1970 surveys						
a) Union mean-actual	.19	e	.26	.32	.47	.25
b) Nonunion mean-actual	.19	.26	.21	.35	.34	.47
c) Nonunion mean-estimated in union situation[c]	.17	e	.25	.30	.48	.23
Gross union/nonunion difference [a-b]	.00	e	.05	- .03	.13	- .22
Net union effect [c-b]	- .02	e	.04	- .05	.14	- .24
Number of weeks unemployed between 1969 and 1970 surveys						
a) Union mean-actual	2.3	e	2.2	3.9	5.8	0.6
b) Nonunion mean-actual	1.9	3.9	2.1	4.6	2.7	6.0
c) Nonunion mean-estimated in union situation[c]	2.0	e	2.0	2.6	5.9	0.4
Gross union/nonunion difference [a-b]	0.4	e	0.1	- 0.7	3.1	- 5.4
Net union effect [c-b]	0.1	e	- 0.1	- 2.0	3.2	- 5.6

Table continued on next page.

Table 5 Continued

Earnings or employment experience	Craftsmen		Operatives		Laborers	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Usual hours worked per week on 1969 job						
a) Union mean-actual	41.6	41.5	42.3	42.6	40.5	41.7
b) Nonunion mean-actual	43.8	40.5	44.3	43.2	39.8	41.7
c) Nonunion mean-estimated in union situation[c]	42.2	41.4	42.8	43.1	40.4	43.8
Gross union/nonunion difference [a-b]	- 2.2	1.0	- 2.0	- 0.6	0.7	0.0
Net union effect [c-b]	- 1.6	0.9	- 1.5	- 0.1	0.6	2.1

a The differences shown are "net" in the sense of indicating the covered/noncovered difference after other characteristics have been held constant by regression analysis. These characteristics are industry group, education, race, occupational training, labor market experience, high school curriculum, tenure, occupational information, health, region of residence, and size of local labor market.

b The universe for the analysis of average hourly earnings in 1969 and usual hours worked per week is respondents 17 to 27 years of age, not enrolled in school and employed as blue collar wage and salary workers in the 1969 survey week. For the analyses of unemployment and change in average hourly earnings the universe is further confined to those employed at the time of the 1970 survey. Since nonrespondents on any of the variables included in the regressions are excluded, the "actual" means shown here may differ slightly from those displayed in Tables 1-4.

c The estimate is calculated by evaluating the regression equation for respondents covered by collective bargaining at the mean values of the variables for those not covered--within each race-occupation group. Thus, the estimate represents what nonunion workers would experience or earn if they were in the union sector.

d In addition to the description in footnote c, the estimate is based on evaluating the union equation at the estimated average hourly earnings (in 1969) of the nonunion workers, which are shown on line c of the first panel of this table.

e Means and differences not shown where the base represents fewer than 25 respondents.

Table 6 Estimated Net[a] Effect of Collective Bargaining on Selected Earnings and Employment Experience in Selected Occupation-Industry-Race Groups[b]

Earnings or employment experience	Craftsmen			Operatives		
	WHITES			WHITES		BLACKS
	Manufacturing	Construction	Other[c]	Manufacturing	Other[c]	Manufacturing
Average hourly earnings, 1969						
a) Union mean-actual	$3.79	$4.99	$4.05	$3.32	$3.58	$3.00
b) Nonunion mean-actual	3.05	3.23	2.75	2.72	2.42	2.24
c) Nonunion mean-estimated in union situation[d]	3.74	4.94	4.00	3.24	3.50	2.76
Gross union/nonunion differential [100(a/b)-100]	24%	54%	47%	22%	48%	34%
Net union effect [100(c/b)-100]	23%	53%	45%	19%	45%	23%
Percentage change in hourly earnings, 1969-70						
a) Union mean-actual	0.2	18.6	9.2	3.7	12.7	5.1
b) Nonunion mean-actual	10.2	15.1	12.6	12.8	15.2	3.2
c) Nonunion mean-estimated in union situation[e]	0.0	18.4	9.0	4.9	13.9	0.1
Gross union/nonunion difference [a-b]	-10.0	3.5	- 3.4	- 9.1	- 2.5	1.9
Net union effect [c-b]	-10.2	3.3	- 3.6	- 7.9	- 1.3	- 3.1
Usual hours worked per week on 1969 job						
a) Union mean-actual	41.3	41.7	41.9	42.1	42.7	42.9
b) Nonunion mean-actual	42.9	43.5	44.7	43.6	45.4	44.5
c) Nonunion mean-estimated in union situation[d]	41.9	42.3	42.5	42.6	43.2	44.6
Gross union/nonunion difference [a-b]	- 1.6	- 1.8	- 2.8	- 1.5	- 2.7	- 1.6
Net union effect [c-b]	- 1.0	- 1.5	- 2.2	- 1.0	- 2.2	0.1
Likelihood of unemployment between 1969 and 1970 surveys						
a) Union mean-actual	.13	.29	.12	.24	.24	.33
b) Nonunion mean-actual	.18	.31	.17	.22	.21	.37
c) Nonunion mean-estimated in union situation[d]	.14	.30	.13	.25	.24	.28
Gross union/nonunion difference [a-b]	- .05	- .02	- .05	.05	.05	- .04
Net union effect [c-b]	- .04	- .01	- .04	.03	.03	- .09

Table continued on next page.

Table 6 Continued

Earnings or employment experience	Craftsmen			Operatives		
	WHITES			WHITES		BLACKS
	Manufacturing	Construction	Other[c]	Manufacturing	Other[c]	Manufacturing
Number of weeks unemployed between 1969 and 1970 surveys						
a) Union mean-actual	1.8	3.1	0.7	2.2	1.1	4.0
b) Nonunion mean-actual	2.1	2.7	1.4	2.3	1.6	4.9
c) Nonunion mean-estimated in union situation[d]	2.2	3.5	1.1	2.3	1.2	2.9
Gross union/nonunion difference [a-b]	- 0.3	0.4	- 0.7	- 0.1	- 0.5	- 0.9
Net union effect [c-b]	- 0.1	0.8	- 0.3	0.0	- 0.4	- 2.0

a See footnote a, Table 5.

b For a general description of the universe, see footnote b, Table 5. The subgroups shown here are the only ones with sufficient sample cases of both covered and noncovered workers to provide reliable statistical estimates.

c The term "other" includes all nonmanufacturing and nonconstruction industries.

d See footnote c, Table 5.

e See footnote d, Table 5.

in manufacturing were better off than those in construction relative to their nonunion counterparts. In the construction industry white nonunion craftsmen were only slightly more likely (31 versus 29 percent) to experience a spell of unemployment than comparable union workers, and the unorganized actually averaged about one-half week less joblessness. In manufacturing, however, the nonunionized were one-third again as likely as the unionized (18 versus 13 percent) to have been unemployed and the nonunionized averaged about one-half week longer duration of unemployment during the 12-month period. Thus, the greater impact of unionism on relative earnings among construction workers is at least partially offset by the greater union impact on the stability of employment in nonconstruction industries.[20]

Operatives

Among both white and black operatives, the overall effects of collective bargaining on 1969 average hourly earnings are substantial, but noticeably smaller than the union effects observed among craftsmen (Table 5). Likewise, the effects of unionism on the incidence of unemployment and on growth in earnings are somewhat smaller among operatives than craftsmen. On balance however, the evidence suggests that unions have raised the earnings of operatives for whom they bargain considerably above those of comparable unorganized workers. Among whites, for example, the unionized enjoyed a net 30 percent hourly wage advantage at the beginning of the period. Furthermore, the unionized averaged about the same number of weeks of unemployment as their nonunion counterparts. Although they worked about one and one-half hours less per week, and although their earnings grew less rapidly than comparable nonunion workers, it is doubtful that their annual earnings advantage was appreciably diminished.

Among blacks, the effects of collective bargaining on 1969 hourly wages were on average about 21 percent (Table 5). While this effect was offset somewhat during the course of the period by the greater wage advancements in the nonunion sector, there were virtually no adverse effects of unionism on hours worked per week or on either the incidence or duration of unemployment. In fact, unionized black operatives averaged about one and one-half weeks less joblessness than their nonunion counterparts.

Among both white and black operatives the effects of collective bargaining on the various dimensions of earnings examined also appear to vary according to industry (Table 6). In manufacturing, for example,

---

[20] The small number of sample cases of unionized black craftsmen in the construction industry with data available on all relevant variables precludes an analysis comparable to that for whites.

the effects of unionism on hourly earnings are only slightly smaller for operatives than for craftsmen. The smaller effect observed among all operatives in Table 5 appears to be almost solely the effect of the construction industry. In industries other than construction and manufacturing--i.e., the service-producing sector--the wage effects of unionism are large and show little evidence of being offset through more unemployment or lesser growth in earnings. In manufacturing, however, the wage differentials between union and nonunion operatives--being somewhat smaller at the beginning of the period--may possibly be reduced to a level which is more consistent with the overall estimates of Lewis (1963).

As was found for craftsmen, among white operatives only a small proportion of the gross union-nonunion differential can be attributed to different personal and situational characteristics of covered and noncovered workers. In contrast, as much as one-third of the gross union-nonunion difference in hourly earnings among black operatives in manufacturing is eliminated when personal and situational characteristics are held constant--i.e., the wage differential declines from 34 to 23 percent (Table 6). This intercolor difference, of course, is consistent with the historically greater selectivity of the trade union movement among black workers than among white workers.

Laborers

The net effects of collective bargaining on the earnings of laborers were also substantial, but they varied considerably by race (Table 5). Among whites, the net union-nonunion differential in 1969 hourly earnings was 52 percent--13 percentage points greater than the effect among white craftsmen and more than 20 percentage points greater than the effect among white operatives. The comparable union advantage among blacks, in contrast, was only 14 percent--smaller than the effects among black craftsmen and operatives. The effects of unionism on other dimensions of total earnings, however, were working systematically to reduce union-nonunion differences in annual earnings among whites, and to widen the union advantage among blacks.

While white union laborers averaged 5.8 weeks of unemployment, for example--three weeks more than their nonunion counterparts--black union laborers averaged about one-half week of unemployment--almost five and one-half weeks less than their nonunion counterparts. Likewise, while white union laborers were a third (47 versus 34 percent) more likely to experience a spell of unemployment than comparable nonunion laborers, black union laborers were only half as likely as their nonunion counterparts to have experienced any unemployment (25 versus 47 percent). In addition, the data on hours usually worked per week suggest that

the union advantage among black laborers was larger than the 14 percent estimated on the basis of hourly earnings.[21]

V COMPARISON OF RACIAL DIFFERENCES IN THE UNION AND NONUNION SECTORS

In the preceding section it has not been possible to examine racial differences in earnings within the union and nonunion sectors of the labor market.[22] Nonetheless, it has been observed that unionism is often differentially effective for blacks and whites--e.g., in terms of reducing susceptibility to unemployment. Yet while unions may in some cases be more advantageous for blacks than whites, this does not mean that there are no racial differences in a particular dimension of labor market experience in the unionized sector. On the contrary, as Ashenfelter has also noted, it may simply mean that there is "less discrimination against black workers in the average unionized labor market than in the average nonunion labor market, but not that discrimination is absent from the former."[23]

The purpose of this section of the analysis is to compare racial differences in several dimensions of labor market experience among comparable whites and blacks in the union sector, with racial differences among comparable whites and blacks in the nonunion sector. The dimensions of experience that are examined are the same ones explored in the preceding section. It should be noted, however, that racial differences within the union sector cannot capture whatever effects unionism may have that result from discrimination in access to union membership.

Data displaying the estimates of gross and net racial differences in each aspect of labor market experience are presented by occupation and collective bargaining status in Table 7. The regression results from which these estimates were obtained, presented in Appendix A, are the same as those used for the calculation of the net effects of collective bargaining coverage. The procedure used to move from the

---

[21] The small number of sample cases of laborers covered by collective bargaining precludes our analysis of union effects within industry groups.

[22] In the preceding section our standardization for comparable characteristics was done <u>within</u>, not <u>across</u>, racial groups. Thus, for example, unionized whites were not made comparable to unionized blacks. For a more technical explanation, see footnote 24 below.

[23] Ashenfelter (1972), p. 462.

Table 7 Estimated Net[a] Racial Differences in Selected Earnings and Employment Experience, by Occupation and Collective Bargaining Coverage[b]

Earnings or employment experience	Craftsmen		Operatives		Laborers	
	Union	Nonunion	Union	Nonunion	Union	Nonunion
Average hourly earnings, 1969						
a) White mean-actual	$4.28	$2.96	$3.50	$2.62	$3.52	$2.25
b) Black mean-actual	3.38	2.49	2.99	2.22	2.79	1.90
c) Black mean-estimated with white opportunities[c]	4.18	2.92	3.32	2.62	3.38	2.15
Gross racial differential [100(a/b)-100]	27%	19%	17%	18%	26%	18%
Net race effect [100(c/b)-100]	25%	18%	12%	18%	22%	13%
Percentage change in hourly earnings, 1969-70						
a) White mean-actual	9.7	13.1	9.5	14.4	8.2	15.3
b) Black mean-actual	e	10.1	5.6	13.7	12.1	19.8
c) Black mean-estimated with white opportunities[d]	e	5.6	4.1	11.3	2.2	10.9
Gross racial difference [a-b]	e	3.0	3.9	0.7	- 3.9	- 4.5
Net race effect [c-b]	e	- 4.5	- 1.5	- 2.4	- 9.9	- 8.9
Likelihood of unemployment between 1969 and 1970 surveys						
a) White mean-actual	.19	.19	.26	.21	.47	.34
b) Black mean-actual	e	.26	.32	.35	.25	.47
c) Black mean-estimated with white opportunities[c]	e	.25	.24	.21	.44	.29
Gross racial difference [a-b]	e	- .07	- .06	- .14	.22	- .13
Net race effect [c-b]	e	- .01	- .08	- .14	.19	- .18
Number of weeks unemployed between 1969 and 1970 surveys						
a) White mean-actual	2.3	1.8	2.2	2.1	5.8	2.7
b) Black mean-actual	e	3.9	3.9	4.6	0.6	6.0
c) Black mean-estimated with white opportunities[c]	e	2.4	1.8	1.4	5.3	2.0
Gross racial difference [a-b]	e	- 2.1	- 1.7	- 2.5	5.2	- 3.3
Net race effect [c-b]	e	- 1.5	- 2.1	- 3.2	4.7	- 4.0

Table continued on next page.

Table 7 Continued

a The differences shown are "net" in the sense of indicating the white/black difference after other characteristics have been held constant by regression analysis. These characteristics are industry group, education, occupational training, labor market experience, high school curriculum, tenure, occupational information, health, region of residence, and size of local labor market.

b The universe for the analyses of average hourly earnings in 1969 and usual hours worked per week is respondents 17 to 27 years of age, not enrolled in school and employed as blue collar wage and salary workers in the 1969 survey week. For the analyses of unemployment and change in average hourly earnings the universe is further confined to those employed at the time of the 1970 survey. Since nonrespondents on any of the variables included in the regressions are excluded, the "actual" means shown here may differ slightly from those displayed in Tables 1-4.

c The estimate is calculated by evaluating the regression equation for white respondents at the mean value of the variables for black respondents--within each unionization-occupation group.

d In addition to the description in footnote c, the calculation is based on evaluating the white equation at the estimated average hourly earnings of the black workers, which are shown on line c of the first panel of this table.

e Means and differences not shown where base represents fewer than 25 sample cases.

gross racial difference to the net difference was identical to the one used to adjust the gross union-nonunion differences to net differences. Thus, for example, we estimate what a black craftsmen covered by collective bargaining would earn if his wages were determined in the same way as those of his white counterpart by evaluating the wage regression equation for white union workers at the mean values for black union craftsmen.[24] In contrast to the earlier presentation (Tables 5 and 6) in which we showed the net effect of collective bargaining, here we display the net effect of race (i.e., the net effect "of being white"). One may, of course, label this as the effect of racial discrimination.

Underlying all of the findings discussed below is a complex set of effects displayed in the individual regression equations (Tables A-1 to A-5). For example, while irrespective of collective bargaining coverage, the gain to the wages of blacks from living outside of the South is larger than for whites, the differential gain is larger among the unionized. This, of course, is consistent with unions in the North being more racially egalitarian than their Southern counterparts. Both labor market knowledge and experience yield greater payoffs for whites than for blacks, and the racial difference seems more pronounced among

---

[24] It must be noted that the procedure used here may yield rather different numerical estimates from those used to isolate the "pure" effect of collective bargaining. Thus, it is not legitimate to employ, say, the estimated earnings shown in Table 6 to assess racial differences, holding all other things constant. This may be demonstrated by reference to the following equations, using the hourly earnings equation as an example. Consider the four estimated equations for white union (WU), white nonunion (WNU), black union (BU) and black nonunion (BNU) workers, respectively.

(1) $\overline{WUE}\ (\bar{E}_1) = \Sigma\ \hat{\alpha}_i\ \bar{X}_{1i}$, (2) $\overline{WNUE}\ (\bar{E}_2) = \Sigma\ \hat{\beta}_i\ \bar{X}_{2i}$,

(3) $\overline{BUE}\ (\bar{E}_3) = \Sigma\ \hat{\gamma}_i\ \bar{X}_{3i}$, (4) $\overline{BNUE}\ (\bar{E}_4) = \Sigma\ \hat{\delta}_i\ \bar{X}_{4i}$. To assess the net impact of unionism (collective bargaining) on hourly earnings we compared $\bar{E}_1$ with $\bar{E}_2^* = \Sigma\ \hat{\alpha}_i\ \bar{X}_{2i}$ and $\bar{E}_3$ with $\bar{E}_4^* = \Sigma\ \hat{\gamma}_i\ \bar{X}_{4i}$ for whites and blacks, respectively. To calculate net racial differentials within the union and nonunion sectors, respectively, we compare $\bar{E}_1$ with $\bar{E}_3' = \Sigma\ \hat{\alpha}_i\ \bar{X}_{3i}$ and $\bar{E}_2$ with $\bar{E}_4' = \Sigma\ \hat{\beta}_i\ \bar{X}_{4i}$. Clearly, $\bar{E}_2^*$ and $\bar{E}_4^*$ cannot be used to examine the net racial differentials in the nonunion sector because they have not been calculated "holding all other racial differences constant." Furthermore, it is clear that $\bar{E}_4^*$ and $\bar{E}_4'$ will only be equal under very special circumstances, e.g., when each $\hat{\beta}_i$ equals its counterpart $\hat{\gamma}_i$.

workers not covered by collectively bargained agreements. In contrast, education appears to yield a greater monetary return among blacks than among whites in the unionized sector, while the opposite is true for the nonunionized. As a final example, among workers covered by collective bargaining, having completed a vocational curriculum in high school yields a much larger (nearly three times) advantage to blacks than to whites. Among the nonunionized there is no appreciable intercolor difference in the impact of high school curriculum on earnings.

Craftsmen

Gross racial differences in 1969 average hourly earnings are about 27 percent in favor of whites in the union sector of the labor market and 19 percent in the nonunion sector, and the respective net race effects are 25 and 18 percent. That is, within each sector, nearly all of the black-white difference in hourly earnings is due to differential treatment of (or "returns" to) the attributes of whites and blacks. Thus, the net racial differentials among craftsmen imply somewhat greater racial equality in the nonunion sector. This conclusion must be tempered by our inability to analyze racial differences (according to collective bargaining coverage) in other employment experiences because of the small number of sample cases of unionized black craftsmen for whom the relevant information is available.

Operatives

In terms of 1969 average hourly earnings, gross racial differentials among operatives are about the same size in the unionized and nonunionized sectors and are somewhat smaller than among craftsmen (Table 7). As was found in the case of craftsmen, in each sector the vast majority of the white wage advantage is attributable to racially unequal effects of the characteristics of workers. However, in contrast to the conclusion concerning craftsmen, the evidence on net racial wage differentials among operatives indicates greater racial equality among those covered by collective bargaining than among those not covered. That is, eliminating the racial differentials in treatment in the union sector would reduce the white wage advantage from 17 to 5 percent, but the same change in the nonunion sector would reduce it from 18 to 0 percent. This intersector difference is somewhat attenuated by the data relevant to hourly earnings growth insofar as the white wage advantage widened more between 1969 and 1970 among the unionized.

The data with respect to unemployment suggest that hourly earnings information probably understate the racial differentials in annual earnings, because black workers experienced more and longer spells of joblessness, irrespective of unionization status. Consistent with the wage data, the unemployment data imply greater racial equality in the union sector--i.e., the black-white difference is larger among those not covered by collective bargaining. In sum, among young operatives

it is clear that the relative annual earnings disadvantage of blacks is diminished by collective bargaining coverage.

Laborers

The evidence on racial differences in hourly earnings among nonfarm laborers yields nearly the same inference as was drawn for craftsmen, namely that racial equality seems to be more prevalent among workers not covered by collective bargaining agreements. Furthermore, it is only among these unskilled workers that we observe any narrowing of the black-white relative wage differential over the 1969-1970 period, with the narrowing being of about the same magnitude for union and nonunion workers. However, the unemployment data tell a different story than the wage data so that unambiguous conclusions are not possible. More specifically, among the unionized laborers susceptibility to and duration of unemployment are actually higher for whites than for blacks, whereas the opposite is true among the nonunionized.

VI SUMMARY AND CONCLUSIONS

The purpose of this study has been to examine the effects of collective bargaining on the relative earnings and employment experience of young blue collar males over the 1969-1970 period. Specifically, we have examined the effects of collective bargaining on five dimensions of labor market experience: (1) hourly rate of pay at the beginning of the period; (2) hours usually worked per week; (3) likelihood of being unemployed during the 12-month period; (4) duration of unemployment; and (5) growth in hourly earnings during the period. Additionally, we have examined the relationship between unionism and racial differentials in these measures of labor market experience. In all cases, we have attempted to ascertain the effects of collective bargaining on comparable workers within each race group.

As an introduction to this analysis, the study highlighted "gross" union-nonunion differences in several dimensions of labor market experience during the period. In addition to the five listed above, union-nonunion differences in number of weeks worked, occupational status, provisions for overtime pay premiums, level of job satisfaction, frequency of voluntary turnover, and incidence of layoff were presented by major occupational category and race. Union-nonunion differences in a wide range of personal and situational characteristics--i.e., education, training, amount of labor market experience, tenure, extent of occupational information, health, industry, region of residence, and size of community of residence--were also presented and discussed.

The findings of this study leave little doubt that collective bargaining coverage has a substantial net impact on the hourly earnings of both white and black blue collar males in the early stages of their work careers. Furthermore, among blacks, there is considerable

evidence that the unionized experienced a good deal less unemployment than their nonunionized counterparts. In terms of average hourly earnings, our estimates of the relative net advantage of the unionized range from 14 percent among black nonfarm laborers to 52 percent among white nonfarm laborers, with the figure for operatives and craftsmen falling in the 20-40 percent range. Our data suggest some net narrowing of these wage differentials during the 1969-1970 period, probably partly as a result of the small deferred wage increases built into union contracts renegotiated in 1968-1969.[25]

Within major occupational categories the union earnings advantage was found to vary substantially according to major industry division, being noticeably smaller in manufacturing than in construction. Although young black men working in blue collar jobs covered by collective bargaining clearly are better off than their counterparts in noncovered jobs, our analysis does not yield an unambiguous answer to the question of whether the disadvantage of blacks relative to whites is greater in the unionized or nonunionized sector. The data on hourly earnings among craftsmen and laborers (but not operatives) tend to support a hypothesis of greater racial equality in the nonunion sector. In contrast, the data on unemployment of operatives and laborers suggest greater racial equality in the union sector. Thus, we are not as confident about the impact of unionization on racial inequality in annual income as some writers, e.g., Hill (1974), seem to be.

Overall, our findings are in accord with several recent studies which have demonstrated greater effects of unionism on relative earnings than were estimated by Lewis (1963). Ashenfelter (1973) and Stafford (1968) used microeconomic data to estimate union effects on the earnings of blue collar workers during the 1960's which exceeded those of Lewis. Similarly, a study by Ryscavage (1974) using data on 1973 earnings contains estimates of union wage effects ranging from 20 to 45 percent among male blue collar workers.

Of course, our findings are not strictly comparable to those of previous research. For one thing, they are based on a restricted age cohort of blue collar males--young men who were between 17 and 27 years old in 1969--for whom the effects of unionism may well be below average because their generally short tenure leaves them relatively unprotected by the powerful seniority arrangements in the union sector. Thus, the findings are not necessarily generalizable to all blue collar males. On the other hand, for this particular cohort, our findings probably yield a better estimate of the impact of unionism since, to the best of our knowledge, ours is the only study based on micro data that uses collective bargaining coverage rather than union membership as the criterion of organization.

---

[25] For discussion of the practice of "front-loading" new contracts, see Estey (1970).

APPENDIXES

APPENDIX A

SUPPLEMENTARY TABLES

Table A-1 Regression Results: Determinants of 1969 Average Hourly Earnings, by Race and Collective Bargaining Coverage[a]

(t-ratios in parentheses)

Explanatory variables[b]	WHITES		BLACKS	
	Union	Nonunion	Union	Nonunion
Craftsmen	0.64*	0.35*	0.45**	0.41*
	(3.74)	(3.06)	(2.02)	(3.39)
Operatives	0.23	0.16	0.37**	0.16**
	(1.51)	(1.39)	(2.14)	(1.88)
Construction	0.94*	0.48*	1.48*	0.14
	(5.85)	(4.28)	(6.25)	(1.17)
Manufacturing	- 0.26**	0.30*	0.23	0.07
	(- 1.92)	(3.57)	(1.24)	(0.79)
Highest year of school completed	0.04	0.17*	0.13*	0.10*
	(0.84)	(5.76)	(2.62)	(3.97)
Occupational training prior to 1969	- 0.04	- 0.05	- 0.18	- 0.01
	(- 0.39)	(- 0.64)	(- 1.29)	(- 0.06)
Vocational curriculum	0.17	- 0.03	0.54*	- 0.09
	(1.13)	(- 0.23)	(2.83)	(- 0.74)
Labor market experience	0.07*	0.12*	0.05**	0.03*
	(3.22)	(8.61)	(1.89)	(2.38)
Tenure with 1969 employer	0.02	0.03	0.04	0.00
	(0.76)	(1.52)	(0.83)	(0.15)
Occupational information	0.02**	0.02*	- 0.00	0.00
	(2.18)	(2.85)	(- 0.11)	(0.26)
No health limitation, 1969	0.04	0.09	- 0.01	0.18
	(0.24)	(0.91)	(- 0.05)	(1.31)
Residence in South, 1969	- 0.42*	- 0.17**	- 0.77*	- 0.43*
	(- 2.98)	(- 2.01)	(- 4.92)	(- 3.94)
Residence in large city, 1969	0.21**	0.35*	0.29**	0.16
	(1.85)	(3.79)	(1.88)	(1.50)
Constant	1.81*	- 0.95*	0.79	0.82**
	(3.24)	(- 2.80)	(1.28)	(2.52)
$\bar{R}^2$	.27	.32	.37	.23
F ratio	12.6	19.8	9.58	7.45
Total number of respondents	415	531	193	275
Mean of dependent variable	3.72	2.68	3.00	2.16

a Respondents 17 to 27 years of age not enrolled in school and employed as blue collar wage and salary workers in 1969.

b For a complete description of the variables and units of measurement, see Glossary and text.

* Significant at $\alpha < .01$.

** Significant at $.01 < \alpha < .05$.

Table A-2 Regression Results: Determinants of the Likelihood of Unemployment between the 1969 and 1970 Surveys, by Race and Collective Bargaining Coverage[a]

(t-ratios in parentheses)

Explanatory variables[b]	WHITES		BLACKS	
	Union	Nonunion	Union	Nonunion
Craftsmen	-21.9*	- 6.3	- 1.4	-23.3*
	(- 3.00)	(- 1.10)	(- 0.11)	(- 2.43)
Operatives	-13.8**	- 3.5	19.7	-12.9**
	(- 2.08)	(- 0.60)	(2.15)	(- 1.76)
Construction	16.7*	14.6*	32.4*	8.8
	(2.46)	(2.65)	(2.50)	(0.94)
Manufacturing	0.8	0.9	1.2	3.6
	(0.14)	(0.23)	(0.12)	(0.52)
Highest year of school completed	- 3.8**	- 1.4	- 5.5**	- 1.8
	(- 2.06)	(- 1.03)	(- 2.11)	(- 0.89)
Occupational training, 1969-70	0.2	8.4**	2.9	10.9
	(0.04)	(2.15)	(0.38)	(1.46)
Vocational curriculum	- 9.6	- 6.0	9.6	- 3.9
	(- 1.54)	(- 1.11)	(1.04)	(- 0.38)
Labor market experience	- 1.7**	- 0.7	- 3.4*	- 1.1
	(- 1.94)	(- 1.01)	(- 2.64)	(- 0.95)
Tenure with 1969 employer	- 2.7**	- 4.5*	- 4.5**	- 4.0**
	(- 2.11)	(- 4.28)	(- 1.72)	(- 2.16)
Occupational information	0.4	- 0.3	- 0.8	0.7
	(1.11)	(- 1.13)	(- 1.63)	(1.33)
No health limitation, 1969	5.1	-12.7**	- 2.3	-20.8
	(0.60)	(- 2.19)	(- 0.20)	(- 1.34)
Residence in South, 1969	- 5.4	- 5.4	-12.2	- 4.3
	(- 0.90)	(- 1.33)	(- 1.48)	(- 0.46)
Residence in large city, 1969	5.4	9.6**	1.5	- 2.6
	(1.16)	(2.12)	(0.19)	(- 0.29)
Constant	76.9*	68.5*	125.7*	79.6*
	(3.22)	(3.94)	(3.96)	(2.65)
$\bar{R}^2$	0.08	0.10	0.18	0.04
F ratio	3.68	5.01	3.58	1.72
Total number of respondents	387	475	156	247
Mean of dependent variable	27.1	22.2	27.0	37.1

a Respondents 17 to 27 years of age not enrolled in school and employed as blue collar wage and salary workers in 1969 and 1970.

b For a complete description of the variables and units of measurement, see Glossary and text.

* Significant at $\alpha < .01$.

** Significant at $.01 < \alpha < .05$.

Table A-3 Regression Results: Determinants of Weeks Unemployed between 1969 and 1970 Surveys, by Race and Collective Bargaining Coverage[a]

(t-ratios in parentheses)

Explanatory variables[b]	WHITES		BLACKS	
	Union	Nonunion	Union	Nonunion
Craftsmen	- 2.5**	0.3	0.8	- 2.0
	(- 2.18)	(0.33)	(0.29)	(- 1.03)
Operatives	- 2.8*	0.1	3.9*	- 1.6
	(- 2.67)	(0.16)	(2.05)	(- 1.12)
Construction	2.4**	1.3	2.1	2.7
	(2.22)	(1.51)	(0.79)	(1.46)
Manufacturing	1.1	0.7	0.9	1.1
	(1.23)	(1.03)	(0.42)	(0.80)
Highest year of school completed	- 0.6**	- 0.7*	0.0	- 0.4
	(- 1.97)	(- 3.21)	(0.05)	(- 1.01)
Occupational training, 1969-70	- 0.6	1.2	- 0.3	0.0
	(- 0.73)	(1.96)	(- 0.17)	(- 0.03)
Vocational curriculum	- 1.8**	- 0.3	0.8	- 0.7
	(- 1.75)	(- 0.31)	(0.41)	(- 0.36)
Labor market experience	- 0.3**	- 0.2**	- 0.4	- 0.5**
	(- 2.01)	(- 1.94)	(- 1.49)	(- 2.10)
Tenure with 1969 employer	- 0.4**	- 0.4**	- 0.7	0.3
	(- 1.80)	(- 2.16)	(- 1.31)	(0.92)
Occupational information	0.1	0.0	- 0.3*	0.1
	(1.67)	(0.07)	(- 2.52)	(0.87)
No health limitation, 1969	1.9	- 1.8**	- 0.4	- 2.6
	(1.43)	(- 1.91)	(- 0.15)	(- 0.83)
Residence in South, 1969	- 0.5	- 1.2	- 3.0	- 1.3
	(- 0.47)	(- 1.79)	(- 1.74)	(- 0.70)
Residence in large city, 1969	0.3	1.3	0.0	- 0.5
	(0.47)	(1.82)	(0.02)	(- 0.30)
Constant	8.5**	12.2*	12.7**	13.7*
	(2.22)	(4.36)	(1.93)	(2.29)
$\bar{R}^2$	0.06	0.05	0.11	0.00
F ratio	3.02	2.82	2.52	0.79
Total number of respondents	387	475	156	247
Mean of dependent variable	3.0	2.0	3.8	4.7

a Respondents 17 to 27 years of age not enrolled in school and employed as blue collar wage and salary workers in 1969 and 1970.

b For a complete description of the variables and units of measurement, see Glossary and text.

* Significant at $\alpha < .01$.

** Significant at $.01 < \alpha < .05$.

Table A-4 Regression Results: Determinants of Usual Hours Worked per Week on 1969 Job, by Race and Collective Bargaining Coverage[a]

(t-ratios in parentheses)

Explanatory variables[b]	WHITES		BLACKS	
	Union	Nonunion	Union	Nonunion
Craftsmen	1.1 (1.21)	3.7* (2.92)	- 2.3 (- 1.38)	- 0.2 (- 0.13)
Operatives	2.0* (2.53)	4.7* (3.68)	- 1.1 (- 0.91)	2.1 (1.49)
Construction	- 0.2 (- 0.25)	- 1.2 (- 1.00)	- 0.4 (- 0.25)	1.7 (0.97)
Manufacturing	- 0.6 (- 0.85)	- 1.8** (- 1.98)	2.9** (2.11)	2.9** (2.23)
Highest year of school completed	0.5** (2.15)	0.1 (0.17)	- 0.1 (- 0.35)	0.6 (1.45)
Occupational training, prior to 1969	- 1.6* (- 2.78)	- 1.0 (- 1.13)	3.6* (3.62)	- 3.2** (- 2.29)
Vocational curriculum	0.4 (0.49)	1.6 (1.30)	- 3.3* (- 2.66)	- 0.3 (- 0.14)
Labor market experience	0.3* (3.09)	0.3** (2.09)	0.0 (- 0.05)	0.4** (2.05)
Tenure with 1969 employer	0.2 (1.63)	- 0.3 (- 1.31)	- 0.1 (- 0.20)	- 0.6 (- 1.72)
Occupational information	0.0 (- 0.16)	0.1 (1.38)	0.0 (- 0.57)	- 0.2 (- 2.35)
No health limitation, 1969	- 0.6 (- 0.54)	2.7** (2.13)	3.1** (2.00)	1.4 (0.48)
Residence in South, 1969	0.4 (0.51)	0.9 (1.04)	1.3 (1.13)	6.0* (3.44)
Residence in large city, 1969	- 0.8 (- 1.42)	0.5 (0.46)	0.2 (0.17)	3.2** (1.96)
Constant	34.7* (12.14)	33.0* (8.51)	39.4* (9.17)	31.4* (5.57)
$\bar{R}^2$	0.05	0.04	0.10	0.11
F ratio	2.68	2.63	2.37	3.40
Total number of respondents	387	475	156	247
Mean of dependent variable	41.8	43.3	42.2	42.2

a Respondents 17 to 27 years of age not enrolled in school and employed as blue collar wage and salary workers in 1969.

b For a complete description of the variables and units of measurement, see Glossary and text.

* Significant at $\alpha < .01$.

** Significant at $.01 < \alpha < .05$.

Table A-5 Regression Results: Determinants of Percent Change in Average Hourly Earnings 1969-1970, by Race and Collective Bargaining Coverage[a]

(t-ratios in parentheses)

Explanatory variables[b]	WHITES		BLACKS	
	Union	Nonunion	Union	Nonunion
Craftsmen	10.4**	0.9	17.6**	- 2.0
	(2.01)	(0.18)	(1.87)	(- 0.29)
Operatives	7.0	1.4	2.0	1.0
	(1.50)	(0.26)	(0.29)	(0.17)
Construction	9.4	2.5	13.0	-14.9**
	(1.81)	(0.49)	(1.19)	(- 2.08)
Manufacturing	- 9.0**	- 2.4	- 3.3	-22.5*
	(- 2.41)	(- 0.66)	(- 0.44)	(- 4.57)
Highest year of school completed	- 2.1	2.6**	1.8	- 0.7
	(- 1.54)	(1.91)	(0.83)	(- 0.46)
Occupational training, 1969-70	- 0.7	3.3	- 2.0	- 0.9
	(- 0.20)	(0.95)	(- 0.34)	(- 0.16)
Vocational curriculum	7.7	- 2.6	9.5	- 7.2
	(1.80)	(- 0.54)	(1.30)	(- 0.84)
Labor market experience	0.0	0.4	0.9	- 1.5
	(0.04)	(0.65)	(0.88)	(- 1.75)
Tenure with 1969 employer	1.0	0.9	- 0.1	- 0.9
	(1.14)	(1.00)	(- 0.07)	(- 0.71)
Occupational information	0.6*	0.6**	0.1	0.6**
	(2.39)	(2.30)	(0.22)	(1.67)
No health limitation, 1969	- 0.3	10.0	13.4	22.8**
	(- 0.05)	(1.84)	(1.25)	(2.09)
Residence in South, 1969	0.0	2.0	-23.4*	-21.4*
	(0.01)	(0.56)	(- 3.34)	(- 3.02)
Residence in large city, 1969	- 0.2	2.6	7.1	-14.3**
	(- 0.07)	(0.61)	(1.08)	(- 2.17)
Average hourly earnings on 1969 job	-11.6*	-12.6*	-23.0*	-14.1*
	(- 6.27)	(- 6.68)	(- 5.44)	(- 3.42)
Constant	48.7*	- 15.0	39.7	61.2*
	(2.75)	(- 0.89)	(1.53)	(2.61)
$\bar{R}^2$	.11	.10	.16	.19
F ratio	3.78	4.20	2.63	3.99
Total number of respondents	322	385	122	181
Mean of dependent variable	9.2	14.3	9.1	15.2

a Respondents not enrolled in school and employed as blue collar wage and salary workers in 1969 and 1970.

b For a complete description of the variables and units of measurement, see Glossary and text.

* Significant at $\alpha < .01$.

** Significant at $.01 < \alpha < .05$.

APPENDIX B

BIBLIOGRAPHY

Ashenfelter, O. "Discrimination and Trade Unions," in O. Ashenfelter and A. Rees (eds.) Discrimination in Labor Markets. Princeton: Princeton University Press, 1973.

_____. "Racial Discrimination and Trade Unionism." Journal of Political Economy 80 (May/June 1972, Part 1):435-464.

Ashenfelter, O., and Johnson, G. E. "Unionism, Relative Wages, and Labor Quality in U.S. Manufacturing Industries." International Economic Review 13 (October 1972):488-508.

Blinder, A.S. "Estimating a Micro Wage Equation: Pitfalls and Some Provisional Estimates." Research memorandum no. 131, Princeton Econometric Research Program. Princeton University, 1971.

Boskin, W.J. "Unions and Relative Real Wages." American Economic Review 62 (June 1972):466-472.

Bureau of Labor Statistics. Selected Earnings and Demographic Characteristics of Union Members, 1970. Report no. 417, U.S. Department of Labor. Washington: U.S. Government Printing Office, 1972.

Chow, G.C. "Tests of Equality between Sets of Coefficients in Two Linear Regressions." Econometrica 28 (July 1960):591-605.

Ehrenberg, R.G. "Municipal Government Structure, Unionization, and the Wages of Fire Fighters." Industrial and Labor Relations Review 27 (October 1973):36-48.

Estey, M. "Wage Changes Under Collective Bargaining, 1969, 1970." Wharton Quarterly 4 (Spring 1970):17-20.

Fogel, W., and Lewin, D. "Wage Determination in the Public Sector." Industrial and Labor Relations Review 27 (April 1974):410-431.

Freund, J.L. "Market and Union Influences on Municipal Employee Wages." Industrial and Labor Relations Review 27 (April 1974): 391-404.

Hill, R.C. "Unionization and Racial Income Inequality in the Metropolis." American Sociological Review 39 (August 1974): 507-522.

Johnson, G.E., and Youmans, K.C. "Union Relative Wage Effects by Age and Education." Industrial and Labor Relations Review 24 (January 1971):171-179.

Kohen, A.I. Determinants of Early Labor Market Success Among Young Men: Race, Ability, Quantity and Quality of Schooling. Columbus: Center for Human Resource Research, The Ohio State University, 1973.

Kohen, A.I. and Breinich, S.C. "Knowledge of the World of Work: A Test of Occupational Information for Young Men." Journal of Vocational Behavior 6 (1975):133-144.

Lewis, H.G. "The Effects of Unions on Industrial Wage Differentials." In Aspects of Labor Economics. New York: National Bureau of Economic Research, Inc., 1962.

_____. Unionism and Relative Wages in the United States. Chicago: University of Chicago Press, 1963.

Northrup, H.R. "Construction Labor Crisis." Wharton Quarterly 4 (Winter 1969):25-28.

Oaxaca, R. "Sex Discrimination in Wages," in O. Ashenfelter and A. Rees (eds.) Discrimination in Labor Markets. Princeton: Princeton University Press, 1973.

O'Hanlon, T. "The Case Against Unions," in John A. Delehanty (ed.) Manpower Problems and Policies: Full Employment and Opportunity for All. Scranton, Pennsylvania: International Textbook Company, 1969.

Parnes, H.S. and Kohen, A.I. "Occupational Information and Labor Market Experience: The Case of Young Men." Journal of Human Resources 10 (Winter 1975):44-55.

Parnes, H.S.; Nestel, G.; and Andrisani, P. The Pre-Retirement Years, vol. 3. Columbus: Center for Human Resource Research, The Ohio State University, 1972.

Raimon, R.L. and Stoikov, V. "The Effects of Blue-collar Unionism on White-collar Earnings." Industrial and Labor Relations Review 22 (April 1969):358-374.

Rees, A. The Economics of Trade Unionism. Chicago: University of Chicago Press, 1962.

Reynolds, L. "The Balance Sheet of Trade Unionism," in Labor Economics and Industrial Relations. Englewood Cliffs, N.J.: Prentice-Hall, 1970, Chapter 24.

Rosen, S. "Trade Union Power, Threat Effects and Extent of Organization." Review of Economic Studies 36 (April 1969):185-196.

_____. "Unionism and the Occupational Wage Structure in the U.S." International Economic Review 11 (June 1970):269-286.

Ryscavage, P.M. "Measuring Union-Nonunion Earnings Differences." Monthly Labor Review 97 (December 1974):3-9.

Sheppard, H. and Herrick, N. Where Have All the Robots Gone? Worker Dissatisfaction in the 70's. New York: The Free Press, 1972.

Stafford, F.P. "Concentration and Labor Earnings: Comment." American Economic Review 58 (March 1968):174-180.

Throop, A.W. "The Union-Nonunion Wage Differential and Cost-Push Inflation." American Economic Review 58 (March 1968):79-99.

Weiss, L. "Concentration and Labor Earnings." American Economic Review 56 (March 1966):96-117.

Work in America, Report of a Special Task Force to the Secretary of HEW. Cambridge, Mass.: MIT Press, 1972.

APPENDIX C

GLOSSARY

AGE

Age of respondent as of last birthday prior to April 1, 1970.

"ANNUAL" EARNINGS

The sum of wages, salaries, commissions and tips (before deduction) earned by the respondent during the 12-month period prior to the survey.

ATTRITION RATE

The attrition rate between year x and year y is the proportion of respondents interviewed in year x who were not reinterviewed, for whatever reason, in year y. The "noninterview rate" between year x and year y is the proportion of respondents in year x who were not interviewed in year y for reasons other than entry into the armed forces.

AVERAGE HOURLY EARNINGS: See HOURLY RATE OF PAY

CLASS OF WORKER

Wage and Salary Worker

A person working for a rate of pay per time-unit, commission, tips, payment in kind, or piece rates for a private employer or any government unit.

Self-employed Worker

A person working in his own unincorporated business, profession, or trade, or operating a farm for profit or fees.

Unpaid Family Worker

A person working without pay on a farm or in a business operated by a member of the household to whom he is related by blood or marriage.

COLOR

In this report the term "blacks" refers only to Negroes; "whites" refers to Caucasians. Thus, there is a difference in terminology between this report and the first two volumes of this series in which "blacks" referred to the group now referred to in U.S. Government reports as "Negro and other races."

EDUCATIONAL ATTAINMENT: See HIGHEST YEAR OF SCHOOL COMPLETED

EMPLOYED: See LABOR FORCE AND EMPLOYMENT STATUS

HEALTH

A binary variable assigned the value "1" if the respondent reported no work limiting health condition in 1970 or if a reported condition was of a shorter duration than one year, and the value "0" otherwise.

HIGHEST YEAR OF SCHOOL COMPLETED

The highest year finished by the respondent in "regular" school, where years of school completed are denoted in integer units (e.g., a high school graduate who did not enter college is coded as 12).

HOURLY RATE OF PAY

Compensation--in dollars--for work performed. This is limited to wage and salary workers because it is virtually impossible to ascertain to what extent the earnings of the self-employed are wages as opposed to other kinds of returns. If a time unit other than an hour was reported, hourly rates were computed by first converting the reported figure into a weekly rate and then dividing by the number of hours usually worked per week.

INDUSTRY

There are 12 one-digit-level classes of the Bureau of the Census' functional classification of employers on the basis of nature of final product. In this study, binary variables were used to distinguish, on the one hand, the construction industry from all others, and on the other hand, manufacturing industries from all others.

JOB

A continuous period of service with a given employer.

Current (or Last) Job

For those respondents who were employed during the survey week: the job held during the survey week. For those respondents who were either unemployed or out of the labor force: the most recent job.

KNOWLEDGE OF THE WORLD OF WORK: See OCCUPATIONAL INFORMATION TEST

LABOR FORCE AND EMPLOYMENT STATUS

In the Labor Force

All respondents who were either employed or unemployed during the survey week.

Employed

All respondents who during the survey week were either (1) "at work"--those who did any work for pay or profit or worked without pay for 15 hours or more on a family farm or business; or (2) "with a job but not at work"--those who did not work and were not looking for work, but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, bad weather, or because they were taking time off for various other reasons.

Unemployed

All respondents who did not work at all during the survey week and (1) either were looking or had looked for a job in the four-week period prior to the survey; (2) were waiting to be recalled to a job from which they were laid off; or (3) were waiting to report to a new job within 30 days.

Out of the Labor Force

All respondents who were neither employed nor unemployed during the survey week.

LABOR MARKET EXPERIENCE

The total number of years between the time the respondent left school and 1969. For the purpose of this study the variable was computed as (AGE-EDUCATIONAL ATTAINMENT-5), and thus it actually is "potential" experience since it abstracts from discontinuities in formal schooling and from military service subsequent to schooling.

LARGE CITY

A binary variable denoting the size of the population in the area in which the respondent resided in 1969. The variable was assigned the value "1" if the area had a (1960) labor force containing at least 300,000 persons which corresponds approximately to areas with populations of 500,000 or more.

NONUNIONIZED: See UNIONIZED

OCCUPATION

The ten occupation groups are the ten one-digit classes used by the Bureau of the Census in the 1960 Census. The four types of occupation are white collar (professional and technical workers; managers, officials, and proprietors; clerical workers; and sales workers); blue collar (craftsmen and foremen, operatives, and nonfarm laborers); service; and farm (farmers, farm managers, and farm laborers).

OCCUPATIONAL INFORMATION TEST (measured in 1966 survey only)

A series of questions designed to measure the extent of the respondent's information about the labor market. First, the respondent is asked to choose one of several job descriptions that best matches each of 10 specified job titles. Second, he is asked to indicate the amount of regular schooling typically achieved by men in each of the occupations. Third, he chooses from a pair of occupations the one in which he thinks average annual earnings is higher. For scoring procedures see Kohen and Breinich, "Knowledge of the World of Work."

OCCUPATIONAL TRAINING OUTSIDE SCHOOL

Program(s) taken outside the regular school system for other than social or recreational purposes. Sponsoring agents include government, unions, and business enterprises. A training course sponsored by a company must last at least six weeks to be considered a "program."

PSU (PRIMARY SAMPLING UNIT)

One of the 235 areas of the country from which the sample for this study was drawn; usually an SMSA (standard metropolitan statistical area) or a county.

SATISFACTION WITH JOB, LEVEL OF

Respondent's report of his feelings toward his job when confronted with the following four alternatives: "like it very much, like it fairly well, dislike it somewhat, dislike it very much." When used as a binary variable, the first response is characterized as "highly satisfied" in distinction to all of the others.

SELF-EMPLOYED: See CLASS OF WORKERS

SOCIOECONOMIC STATUS OF OCCUPATION

An index devised by Duncan which assigns a two-digit status score to each three-digit occupational category in the Census classification scheme. For details see O. D. Duncan, "A Socioeconomic Index for All Occupations," in A. J. Reiss Jr., et al., Occupations and Social Status (New York: Free Press of Glencoe, 1961).

SOUTH

A binary variable characterizing the Census region of residence of the respondent in 1969. It was assigned the value "1" if the respondent lived in the District of Columbia or one of the following states: Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma or Texas.

SURVEY WEEK

For convenience, the term "survey week" is used to denote the calendar week preceding the date of interview. In the conventional terminology of the Bureau of the Census, it means "reference week."

TENURE

The total number of years spent by the respondent in the job in which he was employed during the 1969 (or 1970) survey week.

TRAINING: See OCCUPATIONAL TRAINING

UNEMPLOYED: See LABOR FORCE AND EMPLOYMENT STATUS

UNEMPLOYMENT

Rate

The proportion of the labor force classified as unemployed.

Spell of

A continuous period of unemployment of at least one week's duration.

Weeks of

Number of weeks during which the respondent reported that he was looking for work or on lay-off from a job.

UNIONIZED

As used in this study, the term refers to a worker whose wages (salary) were set by a collective bargaining agreement. It does not refer exclusively to workers who were members of the union or employee association that participated in reaching the collectively bargained agreement.

UNPAID FAMILY WORKER: See CLASS OF WORKER

VOCATIONAL TRAINING OUTSIDE SCHOOL: See OCCUPATIONAL TRAINING OUTSIDE SCHOOL

WAGE AND SALARY WORKERS: See CLASS OF WORKER

WAGE RATE: See HOURLY RATE OF PAY

WEEKS IN LABOR FORCE

Cumulative number of weeks that the respondent reported that he was either working, looking for work, or on lay-off from a job.

APPENDIX D

ATTRITION FROM THE SAMPLE

Of the 5,225 members of the sample interviewed in 1966, 3,993 were reinterviewed in 1970. The sample has thus diminished by about one-fourth (22 percent of the whites and 28 percent of the blacks) (Table D-1).[1,2] As has been noted in previous reports, this proportion considerably overstates the error involved in using the sample to represent the national civilian population of men 18 to 28 years of age in 1970 because about half of the noninterviewees had entered the armed forces.[3] About 4 percent of the initial sample refused (by 1970) to continue their participation in the survey, another 3 percent could not be located by Census interviewers, and an additional 4 percent were not interviewed for other reasons.[4]

As has been indicated in earlier volumes, the likelihood of dropping out of the sample for each of the several reasons mentioned above varies systematically according to a number of characteristics of the young men. Irrespective of color, young men who were students in 1966 were more likely than those out of school to have dropped from

---

[1]In this report the term "blacks" refers exclusively to Negroes; "whites" refers to Caucasians. This terminology is the same as that used in the third and fourth volumes in the series, but different from that used in the first two volumes, in which "blacks" referred to the group now shown in U.S. Government reports as "Negro and other races."

[2]This report departs from the format of earlier volumes by displaying only sample sizes, rather than population estimates. With the exception of the attrition discussion, all analyses have been performed by applying the appropriate population weight to each sample case.

[3]On the other hand, the national civilian population of men 18 to 28 in 1970 includes some men who were not surveyed in the initial sample, namely those who were 14 to 24 and in the armed forces in 1966.

[4]These reasons include temporary absence from the home, institutionalization, and death.

Table D-1 Interview Status 1970 by Interview Status 1967-1969 and Color: All Respondents in the Initial (1966) Sample[a]

Interview status 1970 and 1967-69	WHITES		BLACKS	
	Percent of total	Percent of subtotal	Percent of total	Percent of subtotal
Interviewed 1970	78	100	72	100
Interviewed last in 1969	73	92	63	88
Interviewed last in 1968	2	3	4	5
Interviewed last in 1967	2	3	3	5
Interviewed last in 1966	1	2	1	2
Not interviewed 1970	22	100	28	100
Interviewed last in 1969	6	27	9	32
Interviewed last in 1968	6	29	9	30
Interviewed last in 1967	6	26	7	23
Interviewed last in 1966	4	17	4	15
Total percent	100	---	100	---
Total number of respondents	3,734	---	1,438	---

a The total sample in 1966 consisted of 5,225 men 14 to 24 years of age. This table excludes 53 respondents who are classified as neither white nor black (e.g., Chinese Americans, American Indians).

the sample as of 1970. This is a function of the aging of the sample and the consequently greater eligibility for entrance to the armed forces of those who were students in 1966. Among 1966 students the attrition rate due to entrance into the armed forces was about four-and-one-half times the corresponding rate for 1966 nonstudents (Table D-2). In general, blacks have had a higher net rate of attrition from the sample than whites, despite the fact that blacks have exhibited a higher return-to-the-sample rate. As has been pointed out in previous volumes, this intercolor difference is not due to a different rate of entrance to military service, but to a higher rate of "disappearance" among blacks than among whites.

A detailed breakdown of the net attrition rate by selected demographic characteristics is presented in Tables D-2 and D-3. Above-average net attrition rates characterized the youngest (i.e., under 18) members of the sample, principally because of their susceptibility to the military draft. Among black respondents attrition has been particularly pronounced among youth residing outside of the South at the initial interview. Between the fourth (1969) and fifth (1970) surveys, attrition was disproportionately high among young men who left school between the third and fourth surveys and among those who changed county (SMSA) of residence between 1968 and 1969.

Several aspects of the gross changes in the sample over time are also noteworthy, because the net attrition rates do not reveal the entire picture of changes in the sample's size and composition. For example, more than 9 percent of those interviewed in 1970 had been noninterviewees in 1969 (Table D-1). In fact, over 5 percent of those interviewed in 1970 were not interviewed in either of the preceding surveys (i.e., 1968 and 1969). This phenomenon of recovering temporary absentees has grown, as we anticipated.[5] As can be seen from Table D-4, the decline in net year-to-year attrition has been produced principally by a steady increase in the proportion and number of respondents returning to the sample. These figures attest both to the diligence and expertise of the Census interviewers and to the cooperativeness of the respondents. Stated in somewhat different terms these facts are even more striking. Of the young men who were not interviewed in 1969 but were "eligible"[6] for interview in 1970, more than four-fifths were

---

[5]See Kohen, Career Thresholds, vol. 4, p. 5.

[6]For purposes of this discussion, those eligible for interview in 1970 were respondents who, in 1970, were in the civilian noninstitutional population and who had not been dropped from the sample due to (1) a refusal to participate previously or (2) two consecutive (nonmilitary) noninterviews previously.

Table D-2 Attrition Rate between 1966 and 1970 by Reason and Selected Characteristics of Respondents, 1966

1966 Characteristic	Total number of sample cases, 1966	Noninterview rate			Armed forces	Total attrition rate
		Refusal	Unable to locate	Total[a]		
All respondents						
White	3,734	4	2	9	12	22
Black	1,438	4	6	16	13	28
Enrolled in school						
White	2,334	4	1	8	17	25
Black	834	4	5	13	19	32
Not enrolled in school						
White	1,400	6	3	12	4	16
Black	604	4	7	19	4	24
Student, 14-17 years old						
White	1,625	4	2	8	18	25
Black	708	4	5	13	19	32
Student, 18-19 years old						
White	383	3	b	6	22	29
Black	87	3	3	9	21	30
Student, 20-24 years old						
White	326	4	1	8	11	19
Black	39	5	3	10	15	26
Student, living in South						
White	674	3	2	7	18	26
Black	597	1	5	10	19	29
Student, living in non-South						
White	1,660	4	1	8	17	25
Black	237	10	5	20	17	38
Nonstudent, 14-17 years old						
White	162	6	4	16	16	31
Black	124	6	9	28	9	37
Nonstudent, 18-19 years old						
White	294	3	2	11	8	19
Black	144	4	5	14	10	24
Nonstudent, 20-24 years old						
White	944	6	2	12	1	13
Black	336	4	7	18	1	19
Nonstudent, living in South						
White	459	6	4	13	4	17
Black	411	2	5	14	5	20
Nonstudent, living in non-South						
White	941	5	2	12	4	16
Black	193	9	10	30	3	33

a Total includes some respondents who were not interviewed for other reasons including temporary absence, institutionalization and death.

b Between 0.1 and 0.5 percent.

Table D-3 Attrition Rate between 1969 and 1970 by Reason and Selected Characteristics of Respondents, 1969

1969 Characteristic	Total number of sample cases, 1969	Noninterview rate			Armed forces	Total attrition rate
		Refusal	Unable to locate	Total[a]		
All respondents						
White	3,933	1	2	3	4	8
Black	1,057	1	5	7	5	13
Student 1968 and 1969						
White	973	b	1	2	5	8
Black	259	1	2	4	5	9
Student 1968, nonstudent 1969						
White	354	1	2	2	13	16
Black	147	0	5	6	14	20
Nonstudent 1968 and 1969						
White	1,380	1	2	3	2	5
Black	565	1	6	8	2	11
Married, 1968 and 1969						
White	628	1	1	2	0	2
Black	131	2	5	8	0	8
Never married, 1969						
White	1,674	1	2	4	7	11
Black	717	1	5	7	7	14
Never married 1968, married 1969						
White	537	b	1	2	2	4
Black	169	1	2	5	4	8
Migrant 1968-1969						
White	275	0	3	4	6	10
Black	74	0	15	16	7	23
Nonmigrant 1968-1969						
White	2,652	1	1	3	4	7
Black	982	1	4	6	5	11
Student 1969, nonmigrant 1968-1969						
White	1,006	1	1	3	5	8
Black	268	2	2	4	5	9
Nonstudent 1969, migrant 1968-1969						
White	192	0	4	4	6	10
Black	63	0	18	19	8	27
Nonstudent 1969, nonmigrant 1968-1969						
White	1,646	1	2	3	4	7
Black	714	1	5	7	5	12

a Total includes some respondents who were not interviewed for other reasons including temporary absence, institutionalization and death.

b Between 0.1 and 0.5 percent.

Table D-4 Gross and Net Changes in Sample Size, by Race and Survey Year

Survey year and interview status	Total number of respondents	Percent of initial sample
	WHITES	
Interviewed 1966, not interviewed 1967	305	8.2
Interviewed 1967, not interviewed 1968	359	9.6
Not interviewed 1967, interviewed 1968	47	1.3
Net attrition 1967-1968	312	8.3
Interviewed 1968, not interviewed 1969	322	8.6
Not interviewed 1968, interviewed 1969	138	3.7
Net attrition 1968-1969	184	4.9
Interviewed 1969, not interviewed 1970	222	5.9
Not interviewed 1969, interviewed 1970	212	5.7
Net attrition 1969-1970	10	0.2
Net attrition 1966-1970	811	21.7
	BLACKS	
Interviewed 1966, not interviewed 1967	125	8.7
Interviewed 1967, not interviewed 1968	176	12.2
Not interviewed 1967, interviewed 1968	26	1.8
Net attrition 1967-1968	150	10.4
Interviewed 1968, not interviewed 1969	177	12.3
Not interviewed 1968, interviewed 1969	71	4.9
Net attrition 1968-1969	106	7.4
Interviewed 1969, not interviewed 1970	129	9.0
Not interviewed 1969, interviewed 1970	103	7.2
Net attrition 1969-1970	26	1.8
Net attrition 1966-1970	407	28.3

actually interviewed and this proportion rises to nine-tenths when one focuses on those who were in the armed forces in 1969.

Finally, it is of interest to note that some changes in the sample's composition as a result of selective attrition actually are smaller than they would have been in the absence of respondents returning to the sample. First, black respondents have had a higher return-to-the-sample rate than whites, partially offsetting the higher gross attrition among blacks. Second, as suggested above, many of the returnees are young men who entered military service subsequent to the initial interview, and entrance to the military during this period is closely related to several important demographic characteristics. For example, while net attrition has been above average among respondents 18 and 19 years of age in 1966, their return rate also has been disproportionately high.

APPENDIX E

SAMPLING, INTERVIEWING AND ESTIMATING PROCEDURES

The Survey of Work Experience of Young Men is one of four longitudinal surveys sponsored by the Manpower Administration of the U.S. Department of Labor. Taken together these surveys comprise the National Longitudinal Surveys.

The 1970 survey was the fifth of a series of six annual interviews conducted for the Survey of Work Experience of Young Men. The respondents were between the ages of 14 and 24 at the time of the first interview conducted in 1966; thus, the age range in 1970 was 18 to 28.

The Sample Design

The National Longitudinal Surveys are based on a multi-stage probability sample located in 235 sample areas comprising 485 counties and independent cities representing every state and the District of Columbia. The 235 sample areas were selected by grouping all of the nation's counties and independent cities into about 1,900 primary sampling units (PSU's) and further forming 235 strata of one or more PSU's that are relatively homogeneous according to socioeconomic characteristics. Within each of the strata a single PSU was selected by chance to represent the stratum. Within each PSU a probability sample of housing units was selected to represent the civilian noninstitutionalized population.

Since one of the survey requirements was to provide separate reliable statistics for Negroes and other races, households in predominantly Negro and other race enumeration districts (ED's) were selected at a rate three times that for households in predominantly white ED's. The sample was designed to provide approximately 5,000 interviews for each of the four surveys--about 1,500 Negroes and other races and 3,500 whites. When this requirement was examined in light of the expected number of persons in each age-sex color group it was found that approximately 42,000 households would be required in order to find the requisite number of Negroes and other races in each age-sex group.

An initial sample of about 42,000 housing units was selected and a screening interview took place in March and April 1966. Of this number about 7,500 units were found to be vacant, occupied by persons whose usual residence was elsewhere, changed from residential use, or demolished. On the other hand, about 900 additional units were found which had been created within existing living space or had been changed from what was

previously nonresidential space. Thus, 35,360 housing units were available for interview; of these, usable information was collected for 34,622 households, a completion rate of 98.0 percent.

The original plan called for using this initial screening to select the sample for all sample groups. On reflection it was decided to rescreen the sample in the fall of 1966 prior to the first interview of males 14 to 24. Males in the upper part of that age group are the most mobile group in the entire population and a seven-month delay between the initial screening and the first interview seemed to invite problems.

To increase efficiency, it was decided to stratify the sample for the rescreening by the presence or absence of a 14- to 24-year-old male in the household. The probability is great that a household which contained a 14- to 24-year-old in March will also have one in September. However, we had to insure that the sample also represented persons who had moved into sample households in the intervening period, so that a sample of addresses which had no 14- to 24-year-old males was also included in the screening operation.

This phase of the screening began in early September 1966. Since a telephone number had been recorded for most households at the time of the initial interview, every attempt was made to complete the short screening interview by telephone.

Following this screening operation, 5,704 males age 14 to 24 were designated to be interviewed for the Survey of Work Experience. These were sampled differentially within four strata: whites in white ED's (i.e., ED's which contained predominantly white households), Negroes and other races in white ED's, whites in Negro and other races ED's, and Negroes and other races in Negro and other races ED's.

The Field Work

Three hundred and twenty-five interviewers were assigned to this panel. Many of the procedures and the labor force and socioeconomic concepts used in this survey were identical or similar to those used in the Current Population Survey (CPS); all the interviewers selected to work on this survey had CPS experience and most of them (92.3 percent) had also worked on at least one of the earlier panels of the National Longitudinal Surveys. Consequently, the quality of the interviewing staff was high and at the same time, the time and costs required for training were reduced.

Interviewer training consisted of a home study, consisting of a set of exercises covering the procedures and concepts explained in the reference manual, which was reviewed by a survey supervisor. In addition, those interviewers who had no previous experience with the longitudinal surveys attended one day of classroom training conducted by a supervisor.

The supervisor was provided with a "verbatim" training guide which included lecture material and a number of structured practice interviews which were designed to familiarize the interviewers with the questionnaire. All training materials were prepared by the Bureau staff and reviewed by the Manpower Administration and the Center for Human Resource Research of The Ohio State University. Three hundred and twenty-five interviewers were trained in 22 training sessions held around the country. Professional staff members of the participating organizations observed the training sessions, and later, the actual interviewing.

Interviewing began October 19, 1970 and continued until early January. Completion of the field work was delayed for several reasons--the interviewers had to devote about one week a month to CPS, and a number of the interviewers had other surveys for which they were responsible. However, there were several other significant factors which affected the interviewer's ability to complete her assignment on time:

1. At least a year had passed since the respondent was last contacted and the listed addresses were obsolete for a number of the respondents. Therefore, a great deal of time was spent in locating respondents.

2. Most of the respondents were of draft age and some of them were in the armed forces, about to go in or had already completed their tour of duty and had been discharged.

3. Many respondents were attending school and/or working; thus, there were only certain times of the day that the respondent was potentially available for interviewing.

A preliminary edit to check the quality of the completed questionnaires was done by the Data Collection Center staffs. This consisted of a "full edit" of each questionnaire returned by each interviewer. The editor reviewed the questionnaires from beginning to end to determine if the entries were complete and consistent and whether the skip instructions were being followed.

The interviewer was contacted by phone concerning minor problems and, depending on the nature of the problem, was either merely told of her error and asked to contact the respondent for further information or for clarification, or, for more serious problems, was retrained, either totally or in part, and the questionnaire was returned to her for completion.

Estimating Methods

The estimation procedure implemented for this survey in 1966 was a multi-stage ratio estimate. The first step was the assignment to each sample case of a basic weight which took into account the over-representation of the Negro and other race strata, the rescreening

procedure, and the sampling fraction of the stratum from which it was selected. The sample drawn from the white stratum was selected at an eight-out-of-nine ratio, while the selection for the sample for the Negro and other race stratum was a seven-out-of-eight ratio. Thus, from the Survey of Work Experience of Young Men, there were four different base weights reflecting the differential sampling by color within stratum (i.e., white ED's) during both the rescreening and selection operations.

1. Noninterview Adjustment

The weights for all interviewed persons were adjusted to the extent needed to account for persons for whom no information was obtained because of absence, refusals, or unavailability for other reasons. This adjustment was made separately for each of 24 groupings: Census region of residence (Northeast, North Central, South, West), by residence (urban, rural farm, rural nonfarm), by color (white, Negro and other races).

2. Ratio Estimates

The distribution of the population selected for the sample may differ somewhat, by chance, from that of the nation as a whole, in such characteristics as age, color, sex, and residence. Since these population characteristics are closely correlated with the principal measurements made from the sample, the latter estimates can be substantially improved when weighted appropriately by the known distribution of these population characteristics.[1] This was accomplished through two stages of ratio estimation, as follows:

a. First-Stage Ratio Estimation

This is a procedure in which the sample proportions were adjusted to the known 1960 Census data on the color-residence distribution of the population. This step took into account the differences existing at the time of the 1960 Census between the color-residence distribution for the nation and for the sample areas.

b. Second-Stage Ratio Estimation

In this final step, the sample proportions were adjusted to independent current estimates of the civilian noninstitutional

---

[1]See U.S. Bureau of the Census, Technical Paper No. 7, "The Current Population Survey--A Report on Methodology" (Washington, D.C., 1963), for a more detailed explanation of the preparation of estimates.

population by age and color. These estimates were prepared by carrying forward the most recent Census data (1960) to take account of subsequent aging of the population, mortality, and migration between the United States and other countries.[2] The adjustment was made by color within five age groupings: 14 to 15, 16 to 17, 18 to 19, 20 to 21, and 22 to 24.

After this step, each sample person has a weight which remains unchanged throughout the five-year life of the survey. The universe of study was thus fixed at the time of interview for the first cycle. No reweighting of the sample is made after subsequent cycles since the group of interviewed persons is an unbiased sample of the population group (in this case, civilian noninstitutionalized males age 14 to 24) in existence at the time of the first cycle only.

Coding and Editing

Most of the data could be punched directly from the questionnaire, since many of the answers were numerical entries or in the form of precoded categories. However, the Bureau's standard occupation and industry codes which are used in the monthly CPS were also used for the job description questions and these codes are assigned clerically. In addition, the answers for all the "open-end" questions had to be clerically coded, using categories which were previously developed in conjunction with the Center for Human Resource Research from hand tallies of a subsample of completed questionnaires.

The consistency edits for the questionnaire were completed on the computer. A modification of the CPS edit was used for the parts of the questionnaire which were similar to CPS; separate consistency checks were performed for all the other sections. None of the edits included an allocation routine which was dependent on averages or random information from outside sources, since such allocated data could not be expected to be consistent with data from subsequent surveys. However, where the answer to a question was obvious from others in the questionnaire, the missing answer was assigned to the item on the tape. For example, if item 14b ("Do you have a scholarship, fellowship, assistantship, or other type of financial aid this year?") was blank, but legitimate entries appeared in 14c and d ("What kind?" and "How much is it per year?") a "Yes" was inserted in 14b. In this case, only if 14b was marked "Yes," could 14 c-d be filled; therefore, the assumption was made that either the key punch operator failed to punch the item or the interviewer failed to mark it.

---

[2] See U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 352, November 18, 1966, for a description of the methods used in preparing these independent population estimates.

Further, some of the status codes which depend on the answers to a number of different items were completed using only partial information. For example, the current employment status of the respondent (that is, whether he was employed, unemployed, or not in the labor force) is determined by the answers to a number of related questions. However, if one or more of these questions is not completed but the majority are filled and consistent with each other, the status is determined on the basis of the available answers. This procedure accounts for an artifically low count of "NA's" for certain items.

APPENDIX F

1970 INTERVIEW SCHEDULE

NOTICE – Your report to the Census Bureau is confidential by law (Title 13, U.S. Code). It may be seen only by sworn Census employees and may be used only for statistical purposes.

FORM LGT-341
(7-27-70)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

NATIONAL LONGITUDINAL SURVEYS
SURVEY OF WORK EXPERIENCE OF YOUNG MEN

1970

METHODS OF LOCATING RESPONDENT WHO HAS MOVED

	Successful	Unsuccessful		Date	Time	Comments
002	1 ☐	2 ☐	New occupants		a.m. / p.m.	
003	1 ☐	2 ☐	Neighbors		a.m. / p.m.	
004	1 ☐	2 ☐	Apartment house manager		a.m. / p.m.	
005	1 ☐	2 ☐	Post office		a.m. / p.m.	
006	1 ☐	2 ☐	School		a.m. / p.m.	
007	1 ☐	2 ☐	Persons listed on information sheet		a.m. / p.m.	
008	1 ☐	2 ☐	Other – *Specify*		a.m. / p.m.	

RECORD OF INTERVIEW

Date completed Month / Day / Year	Interview time: Began	Interview time: Ended	Interviewed by
009	a.m. / p.m.	a.m. / p.m.	

Length of interview (minutes) 010 ☐☐

NONINTERVIEW REASON

011
- ☐ Unable to contact respondent – *Specify*
- 6 ☐ Temporarily absent – *Give return date*
- 7 ☐ Armed Forces – *Specify release date*
- 8 ☐ Institutionalized – *Specify type*
- 9 ☐ Refused
- 0 ☐ Deceased
- A ☐ Other – *Specify*

TRANSCRIPTION FROM HOUSEHOLD RECORD CARD

Item 13 – Marital status of respondent

012
- 1 ☐ Married, spouse present
- 2 ☐ Married, spouse absent
- 3 ☐ Widowed
- 4 ☐ Divorced
- 5 ☐ Separated
- 6 ☐ Never married

If respondent has moved, enter new address

013 1. Number and street

014

015	2. City	3. County	4. State	5. ZIP code

I. EDUCATIONAL STATUS

1. Are you attending or enrolled in regular school? — 1. (314) 1 ☐ Yes – *ASK 2a* 2 ☐ No

When were you last enrolled? (317) _____ Month _____ Year – *SKIP to Check Item B*

2a. What grade are you attending? — 2a. (318) 1 Elementary 1 2 3 4 5 6 7 8; 2 High school 1 2 3 4; 3 College 1 2 3 4 5 6+

b. Are you enrolled as a full-time or part-time student? — b. (319) 1 ☐ Full-time 2 ☐ Part-time

CHECK ITEM A
Refer to item 96R on Information Sheet
☐ Respondent not in school in 1969 – *ASK 3a*
☐ Respondent in school in 1969 – *SKIP to Check Item C*

CHECK ITEM B
Refer to item 96R on Information Sheet
☐ Respondent in school in 1969 – *SKIP to Check Item F, page 3*
☐ All others – *SKIP to 22a, page 5*

3a. At this time last year, you were not enrolled in school. How long had you been out of school before returning? — 3a. (320) _____ Years

b. Why did you return? — b. (321) ☐

c. In what curriculum are you enrolled? — c. (322) ☐ _____ *SKIP to 5*

CHECK ITEM C
Refer to items 2a and 96R on Information Sheet
☐ Respondent in high school in 1969, college now – *SKIP to 5*
☐ Other – *ASK 4*

4. Are you attending the same school as you were at this time last year? — 4. (323) 1 ☐ Yes – *SKIP to 10* 2 ☐ No – *ASK 5*

5. What is the name of the school you now attend? — 5.

6. Where is this school located? — 6. (324) ☐ _____ City _____ County _____ State

7. Is this school public or private? — 7. (325) 1 ☐ Public 2 ☐ Private

8. When did you enter this school? — 8. (326) _____ Month _____ Year

CHECK ITEM D
Refer to item 2a or item 96R on Information Sheet
☐ Respondent in college 1 now – *SKIP to 16a*
☐ Respondent in high school 1 now } *SKIP to 22a, page 5*
☐ Respondent not in school in 1969 }
☐ Other – *ASK 9*

9. Why did you change schools? — 9. (327) ☐

10. Would you say you now like school more, about the same, or less than you did last year? — 10. (328) 1 ☐ More 2 ☐ Less 3 ☐ About the same

I. EDUCATIONAL STATUS – Continued

11. Are you enrolled in the same curriculum now as you were last year? — 11. (329)
- 1 ☐ Yes
- 2 ☐ College – *SKIP to 14a*
- 3 ☐ High school
- 4 ☐ Elementary
- 5 ☐ No – *ASK 12*

SKIP to 22a, page 5

12. In what curriculum are you enrolled now? — 12. (330) ☐☐

13. How did you happen to change your curriculum? — 13. (331) ☐

☐ Respondent not now in college – *SKIP to Check Item E*

14a. How much is the full-time tuition this year at the college you attend? — 14a. (332) $ _____

b. Do you have a scholarship, fellowship, assistantship, or other type of financial aid this year? — b. (333)
- 1 ☐ Yes – *ASK c*
- 2 ☐ No – *SKIP to Check Item E*

c. What kind? — c. (334)
- 1 ☐ Scholarship
- 2 ☐ Fellowship
- 3 ☐ Assistantship
- 4 ☐ Loan
- 5 ☐ Other – *Specify* _____

d. How much is it per year? — d. (335) $ _____

CHECK ITEM E

Refer to item 94R on Information Sheet
- ☐ Respondent in college 3–6 in 1969 – *ASK 15a*
- ☐ Other – *SKIP to 22a, page 5*

15a. Have you received a degree since last year at this time? — 15a. (336)
- 1 ☐ Yes – *ASK b*
- 2 ☐ No – *SKIP to 22a, page 5*

b. What degree was it? — b. (337)
- 1 ☐ Bachelor's (B.A., B.S., A.B.)
- 2 ☐ Master's (M.S., M.B., M.B.A.)
- 3 ☐ Doctor's (Ph.D.)
- 4 ☐ Other – *Specify* _____

c. In what field did you receive your degree? — c. (338) ☐☐

d. Why did you decide to continue your education after receiving this degree? — d. (339) ☐

_____

SKIP to 22a, page 5

CHECK ITEM F

Refer to item 94R on Information Sheet
- ☐ Respondent in high school 1–3 last year – *ASK 16a*
- ☐ Respondent in high school 4 last year – *SKIP to 17a*
- ☐ Respondent in college 1–3 last year – *SKIP to 19a*
- ☐ Respondent in college 4+ last year – *SKIP to 20a*
- ☐ Respondent in elementary school last year – *ASK 16a*

16a. At this time last year, you were attending your _____ year of high school. Did you complete that year? — 16a. (340)
- 1 ☐ Yes
- 2 ☐ No

b. Why did you drop out of high school? — b. (341) ☐

c. Do you expect to return? — c. (342)
- 1 ☐ Yes – *ASK d*
- 2 ☐ No – *SKIP to 20, page 5*

d. When do you expect to return? — d. (343)
- 1 ☐ This school year
- 2 ☐ Next school year
- 3 ☐ Don't know
- 4 ☐ Other _____

SKIP to 22a, page 5

I. EDUCATIONAL STATUS – Continued

17a. Did you graduate from high school? 17a. (340)
1 ☐ Yes – *SKIP to Check Item C*
2 ☐ No – *ASK b*

b. Why not? b. (341) ☐

CHECK ITEM 6 — *Refer to item 95R on Information Sheet*

(342)
1 ☐ Respondent had planned to enter college when last interviewed – *ASK 18a*
2 ☐ Respondent had not planned to enter college when last interviewed – *SKIP to 22a, page 5*
3 ☐ Respondent not asked about educational goal – *SKIP to 22a, page 5*

18a. When we last interviewed you, you said you planned to go to college. Have your plans changed? 18a. (347)
1 ☐ Yes – *ASK b*
2 ☐ No – *SKIP to c*

b. What caused your plans to change? b. (348)
1 ☐ Poor grades, lacked ability, wasn't accepted because of low grades, etc.
2 ☐ Economic reasons (couldn't afford, had to work instead, unable to obtain financial assistance)
3 ☐ Disliked school, lost interest, had enough school
4 ☐ Military service
5 ☐ Personal health reasons
6 ☐ Other – *Specify* _____
SKIP to d

c. Why are you presently not enrolled in college? c. (349)
1 ☐ Economic reasons (couldn't afford, have to work, unable to obtain financial assistance, etc.)
2 ☐ Was rejected or turned down
3 ☐ Waiting to be accepted by a school
4 ☐ Military service
5 ☐ Personal health reasons
6 ☐ Other – *Specify* _____

d. When do you plan to enroll in college? d. (350)
_____ Month _____ Year – *SKIP to 22a*
0 ☐ Don't plan to enroll – *SKIP to 24*

19a. Last year at this time you were in college. Why did you decide to drop out? 19a. (351) ☐
_____
0 ☐ Received degree – *SKIP to 21a*

b. Do you expect to return? b. (352)
1 ☐ Yes – *ASK c*
2 ☐ No – *SKIP to 24*

c. When do you think you will return? c. (353)
1 ☐ This school year
2 ☐ Next school year
3 ☐ Don't know
4 ☐ Other
SKIP to 22a

20a. Last year at this time you were in college. Did you receive a degree? 20a. (354)
1 ☐ Yes – *SKIP to 21a*
2 ☐ No – *ASK b*

b. Why did you decide to drop out? b. (355) ☐

c. Do you expect to return? c. (356)
1 ☐ Yes – *ASK d*
2 ☐ No – *SKIP to 24*

d. When? d. (357)
1 ☐ This school year
2 ☐ Next school year
3 ☐ Don't know
4 ☐ Other
SKIP to 22a

I. EDUCATIONAL STATUS – Continued

21a. What degree did you receive? 21a.

1 ☐ Associate (2 year course)
2 ☐ Bachelor's (B.A., B.S., A.B.)
3 ☐ Master's (M.S., M.B., M.B.A.)
4 ☐ Doctor's (Ph.D.)
5 ☐ Other – *Specify* _____

b. In what field of study did you receive your degree? b. ☐☐

22a. How much education would you like to get? 22a.

If "Other," *Specify* _____

High school: 1 ☐ 1 yr. 2 ☐ 2 yrs. 3 ☐ 3 yrs. 4 ☐ 4 yrs.
College:
5 ☐ 2 yrs. (complete junior college)
6 ☐ 4 yrs. (graduate from 4-year college)
7 ☐ 6 yrs. (master's degree or equivalent)
8 ☐ 7 + yrs. (Ph.D. or professional degree)
Other: 9 ☐ None, don't know, other responses

b. As things stand now how much education do you think you will actually get? b.

If "Other," *Specify* _____

High school: 1 ☐ 1 yr. 2 ☐ 2 yrs. 3 ☐ 3 yrs. 4 ☐ 4 yrs.
College:
5 ☐ 2 yrs. (complete junior college)
6 ☐ 4 yrs. (graduate from 4-year college)
7 ☐ 6 yrs. (master's degree or equivalent)
8 ☐ 7 + yrs. (Ph.D. or professional degree)
Other: 9 ☐ None, don't know, other responses

CHECK ITEM H

Refer to item 22a and item 910 on Information Sheet
☐ Educational goal different from when last interviewed – 410 & 23
☐ Educational goal same as when last interviewed } 1810P to 24
☐ Respondent not asked about educational goal

23. When we last interviewed you, you said you would like to get *(amount of education indicated in 910)*
Why have you changed your plans? 23. ☐

24. How much encouragement has your father given you to continue your education beyond high school? 24.

1 ☐ Much
2 ☐ Some
3 ☐ None
4 ☐ Does not live with father

25. How much encouragement has your mother given you to continue your education beyond high school? 25.

1 ☐ Much
2 ☐ Some
3 ☐ None
4 ☐ Does not live with mother

26. How much help in continuing your schooling after high school do you expect to get (have you received) from your parents? 26.

1 ☐ Much
2 ☐ Some
3 ☐ None

27. How much encouragement have (did) your teachers and other adults in your high school given (given) you to continue your education beyond high school? 27.

1 ☐ Much
2 ☐ Some
3 ☐ None

28. How many of your friends plan to go to college or are actually attending college? 28.

1 ☐ Many of them
2 ☐ Some of them
3 ☐ Few or none of them

Notes

I. EDUCATIONAL STATUS – Continued

☐ Respondent now attends school – *SKIP to Check Item I*

29a. Since this time last year have you taken any training courses or educational programs of any kind, either on the job or elsewhere?

29a. (068)
1 ☐ Yes – *ASK b*
2 ☐ No – *SKIP to Check Item I*

b. What kind of training or education program did you take? *(Specify below, then mark one box)*

_____

_____

b. (069)
1 ☐ Professional, technical
2 ☐ Managerial
3 ☐ Clerical
4 ☐ Skilled manual
5 ☐ Other

c. Where did you take this training course? *(Specify below, then mark one box)*

_____

_____

c. (070)
1 ☐ Business college, technical institute
2 ☐ Company training school
3 ☐ Correspondence course
4 ☐ Regular school
5 ☐ Other

d. How long did you attend this course or program?

d. (071) _____ Months
99 ☐ Still attending

e. How many hours per week did you spend on this training?

e. (072)
1 ☐ 1–4
2 ☐ 5–9
3 ☐ 10–14
4 ☐ 15–19
5 ☐ 20 or more

f. Did you complete this program?

f. (073)
1 ☐ Yes – **When?**
_____ Month _____ Year – *SKIP to h*
2 ☐ No, dropped out – **When?**
_____ Month _____ Year – *ASK g*
x ☐ No, still enrolled – *SKIP to h*

g. Why didn't you complete this program?

g. (074)
1 ☐ Found a job
2 ☐ Interfered with school
3 ☐ Too much time involved
4 ☐ Lost interest
5 ☐ Too difficult
6 ☐ Other – *Specify* _____

h. Why did you decide to get this training?

h. (075)
1 ☐ To obtain work
2 ☐ To improve current job situation
3 ☐ To get better job than present one
4 ☐ Wanted to continue education
5 ☐ Need it; worthwhile
6 ☐ Other – *Specify* _____

i. Do you use this training on your present job?

i. (076)
1 ☐ Yes
2 ☐ No
3 ☐ Not employed

CHECK ITEM I

☐ Respondent a college graduate (Item 94R or item 2 equals college 4+) – *ASK 30a*

☐ Respondent not a college graduate (Item 94R or item 2 does not equal college 4+) – *SKIP to 31*

Notes

I. EDUCATIONAL STATUS – Continued

30a. Prior to October of 1967, did you take any training courses or educational programs of any kind, either on the job or elsewhere? — 30a. (077)
1 ☐ Yes – *ASK b*
2 ☐ No – *SKIP to 31a*

b. What kind of training or education program did you take? *(Specify below, then mark one box)* — b. (078)
1 ☐ Professional, technical
2 ☐ Managerial
3 ☐ Clerical
4 ☐ Skilled manual
5 ☐ Other

c. Where did you take this training course? *(Specify below, then mark one box)* — c. (079)
1 ☐ Business college, technical institute
2 ☐ Company training school
3 ☐ Correspondence course
4 ☐ Regular school
5 ☐ Other

d. How long did you attend this course or program? — d. (080)
_____ Months
99 ☐ Still attending

e. How many hours per week did you spend on this training? — e. (081)
1 ☐ 1–4
2 ☐ 5–9
3 ☐ 10–14
4 ☐ 15–19
5 ☐ 20 or more

f. Did you complete this program? — f. (082)
1 ☐ Yes – **When?**
_____ Month _____ Year – *SKIP to h*
2 ☐ No, dropped out – **When?**
_____ Month _____ Year – *ASK g*
x ☐ No, still enrolled – *SKIP to h*

g. Why didn't you complete this program? — g. (083)
1 ☐ Found a job
2 ☐ Interfered with school
3 ☐ Too much time involved
4 ☐ Lost interest
5 ☐ Too difficult
6 ☐ Other – *Specify* _____

h. Why did you decide to get this training? — h. (084)
1 ☐ To obtain work
2 ☐ To improve current job situation
3 ☐ To get better job than present one
4 ☐ Wanted to continue education
5 ☐ Need it; worthwhile
6 ☐ Other – *Specify* _____

i. Do you use this training on your present job? — i. (085)
1 ☐ Yes
2 ☐ No
3 ☐ Not employed

Notes

(086)

(087)

(088)

II. CURRENT LABOR FORCE STATUS

31. **What were you doing most of LAST WEEK – working, going to school, or something else?**

(089)
1 ☐ WK – Working – *SKIP to 32b*
2 ☐ J – With a job but not at work
3 ☐ LK – Looking for work
4 ☐ S – Going to school
5 ☐ U – Unable to work – *SKIP to 35*
6 ☐ OT – Other – *Specify* →

32a. **Did you do any work at all LAST WEEK, not counting work around the house?**

(092) 1 ☐ Yes 2 ☐ No – *SKIP to 33a*

b. **How many hours did you work LAST WEEK at all jobs?**

(093) _____ Hours

CHECK ITEM J

Respondent worked –

☐ 49 hours or more – *SKIP to 36a and enter job worked at last week*

☐ 1–34 hours – *ASK c*

☐ 35–48 hours – *ASK d*

32c. **Do you USUALLY work 35 hours or more a week at this job?**

(090)
1 ☐ Yes – **What is the reason you worked less than 35 hours LAST WEEK?**
2 ☐ No – **What is the reason you USUALLY work less than 35 hours a week?**

(Mark the appropriate reason)

(091)
1 ☐ Slack work
2 ☐ Material shortage
3 ☐ Plant or machine repair
4 ☐ New job started during week
5 ☐ Job terminated during week
6 ☐ Could find only part-time work
7 ☐ Labor dispute
8 ☐ Did not want full-time work
9 ☐ Full-time work week under 35 hours
10 ☐ Attends school
11 ☐ Holiday (legal or religious)
12 ☐ Bad weather
13 ☐ Own illness
14 ☐ On vacation
15 ☐ Too busy with housework, personal business, etc.
16 ☐ Other – *Specify* →

(SKIP to 36a and enter job worked at last week)

32d. **Did you lose any time or take any time off LAST WEEK for any reason such as illness, holiday, or slack work?**

☐ Yes – **How many hours did you take off?**

(094) _____ Hours

0 ☐ No – *GO to 32e*

NOTE: Correct item 32b if lost time not already deducted; if item 32b is reduced below 35 hours, ask item c, otherwise SKIP to 36a.

e. **Did you work any overtime or at more than one job LAST WEEK?**

☐ Yes – **How many extra hours did you work?**

(095) _____ Hours

0 ☐ No

NOTE: Correct item 32b if extra hours not already included and SKIP to 36a.

(If "1" in 31, SKIP to b)

33a. **Did you have a job (or business) from which you were temporarily absent or on layoff LAST WEEK?**

(096) 1 ☐ Yes
2 ☐ No – *ASK 34a*

b. **Why were you absent from work LAST WEEK?**

(097)
1 ☐ Own illness
2 ☐ On vacation
3 ☐ Bad weather
4 ☐ Labor dispute
5 ☐ New job to begin within 30 days } *ASK 34c and 34d(2)*
6 ☐ Temporary layoff (less than 30 days)
7 ☐ Indefinite layoff (30 days or more or no definite recall date) } *ASK 34d(3)*
8 ☐ School interfered
9 ☐ Other – *Specify* →

c. **Are you getting wages or salary for any of the time off LAST WEEK?**

(098)
1 ☐ Yes
2 ☐ No
3 ☐ Self-employed

d. **Do you usually work 35 hours or more a week at this job?**

(099)
1 ☐ Yes
2 ☐ No

(GO to 36a and enter job held last week)

Notes

II. CURRENT LABOR FORCE STATUS – Continued

(If "LK" in 31, ASK b)

34a. Have you been looking for work during the past 4 weeks?

(100) 1 ☐ Yes 2 ☐ No – *SKIP to 35*

b. What have you been doing in the last 4 weeks to find work?

(Mark all methods used; do not read list)

(101) 0 ☐ Nothing – *SKIP to 35*

Checked with:
- 1 ☐ State employment agency
- 2 ☐ Private employment agency
- 3 ☐ Employer directly
- 4 ☐ Friends or relatives

5 ☐ Placed or answered ads

6 ☐ School employment service

7 ☐ Other – *Specify – e.g., MDTA, union or professional register, etc.*

_____

c. Why did you start looking for work? Was it because you lost or quit a job at that time *(pause)* **or was there some other reason?**

(102)
- 1 ☐ Lost job
- 2 ☐ Quit job
- 3 ☐ Left school
- 4 ☐ Wanted temporary work
- 5 ☐ Enjoy working
- 6 ☐ Help with family expenses
- 7 ☐ Other – *Specify*

_____

d. (1) How many weeks have you been looking for work?

(2) How many weeks ago did you start looking for work?

(3) How many weeks ago were you laid off?

(103) _____ Weeks

e. Have you been looking for full-time or part-time work?

(104) 1 ☐ Full-time

2 ☐ Part-time

f. Is there any reason why you could not take a job LAST WEEK?

(105)

Yes →
- 1 ☐ Needed at home
- 2 ☐ Temporary illness
- 3 ☐ Going to school
- 4 ☐ Other – *Specify*

_____

5 ☐ No

g. When did you last work at a regular job or business lasting two consecutive weeks or more, either full-time or part-time?

☐ October 1, 1969 or later –

Specify

(106) | Month | Day | Year | – *SKIP to 41a*

3 ☐ All others – *SKIP to 42a*

35. When did you last work at a regular job or business, lasting two consecutive weeks or more, either full-time or part-time?

☐ October 1, 1969 or later –

Specify

(107) | Month | Day | Year | – *SKIP to 41a*

2 ☐ Before October 1, 1969 and "unable" now and "unable" in item 96R on the Information Sheet – *SKIP to 71a, page 18*

3 ☐ All others – *SKIP to 42a*

DESCRIPTION OF JOB OR BUSINESS

36a. Do you have more than one job?

(108) 1 ☐ Yes – *Record information about primary job only*

2 ☐ No

(109) ☐

b. For whom did you work? *(Name of company, business, organization, or other employer)*

(110) ☐☐

c. In what city and State is . . . located?

_____ City _____ State

(111) ☐☐☐

d. What kind of business or industry is this? *(For example: TV and radio manufacturer, retail shoe store, State Labor Department, farm)*

e. Were you –

(112)
- 10 ☐ P – **An employee of a PRIVATE company, business, or individual for wages, salary, or commissions?**
- 20 ☐ G – **A GOVERNMENT employee (Federal, State, county, or local)?**
- 30 ☐ O – **Self-employed in your OWN business, professional practice, or farm?**

  (If not a farm)

  Is this business incorporated?

  31 ☐ Yes 32 ☐ No
- 40 ☐ WP – **Working WITHOUT PAY in family business or farm?**

(113) ☐☐☐

f. What kind of work were you doing? *(For example: car salesman, high school English teacher, stock clerk)*

g. What were your most important activities or duties? *(For example: selling clothing, keeping account books, teaching mathematics, finishing concrete)*

h. What was your job title?

i. When did you start working for (ENTRY IN 36b)?

☐ October 1, 1969 or later – *Specify*

(114) | Month | Day | Year |

2 ☐ Before October 1, 1969

II. CURRENT LABOR FORCE STATUS – Continued

CHECK ITEM K

☐ "P" or "G" in item 36e – *ASK 37a*
☐ "O" or "WP" in item 36e – *SKIP to 38a*

37a. Altogether, how much do you usually earn at this job before deductions? — 37a.

(113) $ _____ (Dollars) . _____ (Cents) per: →

(116) 1 ☐ Hour

(117) $ _____ (Dollars only) per: →

(118)
2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* _____

b. How many hours per week do you usually work at this job? — b.

(119) _____ Hours

c. Do you receive extra pay when you work over a certain number of hours? — c.

(120)
1 ☐ Yes – *ASK d*
2 ☐ No
3 ☐ No, but received compensating time off
4 ☐ Never work overtime
} *SKIP to f*

d. After how many hours do you receive extra pay? — d.

(121) _____ Hours per day

(122) _____ Hours per week

e. For all hours worked over *(entry in d)* are you paid straight time, time and one-half, double time or what? — e.

(123)
1 ☐ Compensating time off
2 ☐ Straight time
3 ☐ Time and one-half
4 ☐ Double time
5 ☐ Other – *Specify* _____

f. Are your wages (salary) on this job set by a collective bargaining agreement between your employer and a union or employee association? — f.

(124)
1 ☐ Yes – *ASK g*
2 ☐ No – *SKIP to 38a*

g. What is the name of the union or employee association? — g.

(125) ☐ _____

h. Are you a member of that union or employee association? — h.

(126)
1 ☐ Yes
2 ☐ No

38a. Before you began to work as a *(entry in 36f)* for *(entry in 36b)*, did you do any other kind of work for *(entry in 36b)*? — 38a.

(127)
1 ☐ Yes – *SKIP TO 39a*
2 ☐ No

b. Excluding vacations and paid sick leave, during the time you have worked at this job, were there any full weeks in which you didn't work (since October 1, 1969)? — b.

☐ Yes – **How many weeks?**

(128) _____ Weeks

0 ☐ No – *SKIP to Check Item L*

c. Why were you not working during these _____ weeks? — c.

(129)
1 ☐ School
2 ☐ Personal, family reasons
3 ☐ Own illness
4 ☐ Layoff
5 ☐ Labor dispute
6 ☐ Did not want to work
7 ☐ Other

Notes

II. CURRENT LABOR FORCE STATUS – Continued

CHECK ITEM L

Refer to item 36i

☐ Current job started before October 1, 1969 – *SKIP to Check Item S*

☐ Current job started October 1, 1969 or later – *SKIP to 40*

39a. When did you start working as a *(entry in 36f)* for *(entry in 36b)*? 39a. (130) Month ___ Day ___ Year ___

b. Excluding vacations and paid sick leave, during the time you have worked as a *(entry in 36f)* for *(entry in 36b)*, were there any full weeks in which you didn't work, (since October 1, 1969)? b. (131)

☐ Yes – **How many weeks?** _____ Weeks

0 ☐ No – *SKIP to Check Item M*

c. Why were you not working during these _____ weeks? c. (132)

1 ☐ School
2 ☐ Personal, family reasons
3 ☐ Own illness
4 ☐ Layoff
5 ☐ Labor dispute
6 ☐ Did not want to work
7 ☐ Other

CHECK ITEM M

☐ Item 39a is earlier than October 1, 1969 – *SKIP to Check Item S*

☐ Item 39a is October 1, 1969 or later – *ASK 40*

40. Just before you started on this job, was there a period of a week or more in which you were not working? 40. (133)

1 ☐ Yes – *SKIP to 52*
2 ☐ No – *SKIP to 43a*

41a. You said you last worked at a regular job on *(entry in 34g or 35)*.

(Interviewer: Use calendar to determine the number of weeks since respondent last worked.)

41a. (1) (134) _____ Weeks since last worked

That would be about _____ weeks since you last worked. In how many of these weeks were you looking for work or on layoff from a job? (2) (135) _____ Weeks looking or on layoff

CHECK ITEM N

☐ 41a(1) is equal to 41a(2) – *SKIP to 43*

☐ 41a(1) is greater than 41a(2) – *ASK b*

41b. That leaves _____ weeks that you were not working or looking for work. What would you say was the main reason you were not looking for work during that period? 41b. (136) _____ Weeks

(137)

1 ☐ Personal, family reasons
2 ☐ Ill or disabled, unable to work
3 ☐ In school
4 ☐ Couldn't find work
5 ☐ Vacation
6 ☐ Did not want to work
7 ☐ Other – *Specify* _____

SKIP to 43

42a. Since October 1, 1969 have you spent any weeks looking for work or on layoff from a job? 42a. (138)

☐ Yes – **How many weeks?** _____ Weeks

0 ☐ No

CHECK ITEM O

Interviewer: Use calendar to determine the number of weeks since October 1, 1969.

(1) (139) _____ Weeks since last worked, after October 1, 1969

(2) (140) _____ Weeks on layoff or looking for work

☐ (1) is equal to (2) – *SKIP to Check Item S*

☐ (1) is greater than (2) – *ASK b*

42b. What would you say was the main reason you were not looking for work during (the rest of) that time? 42b. (141)

1 ☐ Personal, family reasons
2 ☐ Ill or disabled, unable to work
3 ☐ In school
4 ☐ Couldn't find work
5 ☐ Vacation
6 ☐ Did not want to work
7 ☐ Other – *Specify* _____

SKIP to Check Item S

Notes

(142)

(143)

(144)

III. WORK EXPERIENCE AND ATTITUDES

43. Now let's talk about – { The job you worked at before you started to work as a (ENTRY IN 36f OR 43a) for (ENTRY IN 36b OR 43a) / The last job you worked at; that is, the one which ended on (ENTRY IN 34g OR 35) } — 43a. (143) ☐ Same as 36h – SKIP to 43e

a. For whom did you work? (Name of company, business, organization or other employer) — b. (146) City, State

b. In what city and State is . . . located? — c. (147)

c. What kind of business or industry is this? *(For example: TV and radio manufacturer, retail shoe store, State Labor Department, farm)* — d. (148) 1 ☐ P 2 ☐ G 3 ☐ O 4 ☐ WP

d. Class of worker. — e. (149)

e. What kind of work were you doing? *(For example: stock clerk, high school English teacher, car salesman)* — f.

f. What were your most important activities or duties? *(For example: selling clothing, keeping account books, teaching mathematics, finishing concrete)* — g.

g. What was your job title?

44a. Altogether, how much did you usually earn at this job before all deductions? — 44a. (150) $_____ (151) ☐ per _____

b. How many hours per week did you usually work at this job? — b. (152) _____ Hours

45a. When did you start working as a (ENTRY IN 43a) for (ENTRY IN 43a)? — 45a. (153) Month | Day | Year

b. When did you stop working as a (ENTRY IN 43a) for (ENTRY IN 43a)? — b. (154) Month | Day | Year — X ☐ Still working there – *SKIP to 47a*

46a. Why did you happen to leave this job (change the kind of work you were doing)? — 46a. (155)

b. Did you have a new job lined up before you left this one? — b. (156) 1 ☐ Yes 2 ☐ No

47a. Excluding vacations, during the time you worked at this job were there any full weeks in which you didn't work on this job (since October 1, 1969)? — 47a. ☐ Yes – How many weeks? (157) _____ Weeks – *ASK b* 0 ☐ No – *SKIP to 48*

b. Why were you not working during these . . . weeks at this job? — b. (158) 1 ☐ Layoff 2 ☐ Labor dispute 3 ☐ In school 4 ☐ Personal family reasons 5 ☐ Own illness 6 ☐ Did not want to work 7 ☐ Other

c. Were you working for someone else during this period(s)? — c. (159) 1 ☐ Yes – *GO to next column and record information about this job* 2 ☐ No

48. Did you do any other kind of work for (ENTRY IN 43a) just before (DATE IN 45a)? — 48. (160) 1 ☐ Yes – *GO to next column and record information about this job* 2 ☐ No

CHECK ITEM P	Item 45a is: 1. October 1, 1969 or later	1. ☐ – *SKIP to 50*
	2. Before October 1, 1969	2. ☐ – *ASK 49*

49. Have you worked for anyone else since October 1, 1969? — 49. (161) 1 ☐ Yes – *GO to next column and record information* 2 ☐ No – *SKIP to Check Item S*

50. While you were working for (ENTRY IN 43a), were you also working for someone else? — 50. (162) 1 ☐ Yes – *GO to next column and record information about simultaneous job* 2 ☐ No – *ASK 51*

51. JUST before you started working as a (ENTRY IN 43a) for (ENTRY IN 43a) was there a period of a week or more in which you were not working? — 51. (163) 1 ☐ Yes – *ASK 52* 2 ☐ No – *GO to next column and record information about previous job*

52. When did this period in which you were not working start? — 52. (164) Month | Day | Year — X ☐ Never worked before

53a. Interviewer: Determine number of weeks not working. If item 52 is before October 1, 1969, count only weeks since that time. — 53a. (165) _____ Weeks not working

b. That would be about . . . weeks that you were not working. How many of those weeks were you looking for work or on layoff from a job? — b. (166) _____ Weeks looking or on layoff

CHECK ITEM Q	1. 53a is equal to 53b	1. ☐ – *SKIP to Check Item R*
	2. 53a is greater than 53b	2. ☐ – *ASK 54*

54. That leaves . . . weeks that you were not working or looking for work. What would you say was the main reason that you were not looking for work during that period? — 54. (167) 1 ☐ Ill or disabled, unable to work 2 ☐ In school 3 ☐ Personal family reason 4 ☐ Vacation 5 ☐ Couldn't find work 6 ☐ Did not want to work 7 ☐ Other

CHECK ITEM R	1. Item 52 is October 1, 1969 or later	1. ☐ – *GO to next column and record information about previous job*
	2. Item 52 is before October 1, 1969	2. ☐ – *SKIP to Check Item S*

III. WORK EXPERIENCE AND ATTITUDES – Continued

	(2)	(3)	(4)
43a.	168 ☐ Never worked before – *SKIP to Check Item T* ☐ Same as _____ – *SKIP to 43e*	191 ☐ Never worked before – *SKIP to Check Item T* ☐ Same as _____ – *SKIP to 43e*	214 ☐ Never worked before – *SKIP to Check Item T* ☐ Same as _____ – *SKIP to 43e*
b.	169 ☐☐ City, State	192 ☐☐ City, State	215 ☐☐ City, State
c.	170 ☐☐☐	193 ☐☐☐	216 ☐☐☐
d.	171 1☐ P 2☐ G 3☐ O 4☐ WP	194 1☐ P 2☐ G 3☐ O 4☐ WP	217 1☐ P 2☐ G 3☐ O 4☐ WP
e.	172 ☐☐☐	195 ☐☐☐	218 ☐☐☐
f.			
g.			
44a.	173 $ _____ 174 ☐ per _____	196 $ _____ 197 ☐ per _____	219 $ _____ 220 ☐ per _____
b.	175 _____ Hours	198 _____ Hours	221 _____ Hours
45a.	176 Month Day Year	199 Month Day Year	222 Month Day Year
b.	177 Month Day Year X ☐ Still working there – *SKIP to 47a*	200 Month Day Year X ☐ Still working there – *SKIP to 47a*	223 Month Day Year X ☐ Still working there – *SKIP to 47a*
46a.	178 ☐☐	201 ☐☐	224 ☐☐
b.	179 1☐ Yes 2☐ No	202 1☐ Yes 2☐ No	225 1☐ Yes 2☐ No
47a.	☐ Yes – How many weeks? 180 _____ Weeks – *ASK b* 0☐ No – *SKIP to 48*	☐ Yes – How many weeks? 203 _____ Weeks – *ASK b* 0☐ No – *SKIP to 48*	☐ Yes – How many weeks? 226 _____ Weeks – *ASK b* 0☐ No – *SKIP to 48*
b.	181 1☐ Layoff 5☐ Own illness 2☐ Labor dispute 3☐ In school 6☐ Did not want to work 4☐ Personal family reasons 7☐ Other	204 1☐ Layoff 5☐ Own illness 2☐ Labor dispute 3☐ In school 6☐ Did not want to work 4☐ Personal family reasons 7☐ Other	227 1☐ Layoff 5☐ Own illness 2☐ Labor dispute 3☐ In school 6☐ Did not want to work 4☐ Personal family reasons 7☐ Other
c.	182 1☐ Yes – *GO to next column and record information about this job* 2☐ No	205 1☐ Yes – *GO to next column and record information about this job* 2☐ No	228 1☐ Yes – *GO to next column and record information about this job* 2☐ No
48.	183 1☐ Yes – *GO to next column and record information about this job* 2☐ No	206 1☐ Yes – *GO to next column and record information about this job* 2☐ No	229 1☐ Yes – *GO to next column and record information about this job* 2☐ No
1.	☐ – *SKIP to 50*	☐ – *SKIP to 50*	☐ – *SKIP to 50*
2.	☐ – *ASK 49*	☐ – *ASK 49*	☐ – *ASK 49*
49.	184 1☐ Yes – *GO to next column and record information* 2☐ No – *SKIP to Check Item S*	207 1☐ Yes – *GO to next column and record information* 2☐ No – *SKIP to Check Item S*	230 1☐ Yes – *GO to next column and record information* 2☐ No – *SKIP to Check Item S*
50.	185 1☐ Yes – *GO to next column and record information about simultaneous job* 2☐ No – *ASK 51*	208 1☐ Yes – *GO to next column and record information about simultaneous job* 2☐ No – *ASK 51*	231 1☐ Yes – *GO to next column and record information about simultaneous job* 2☐ No – *ASK 51*
51.	186 1☐ Yes – *ASK 52* 2☐ No – *GO to next column and record information about previous job*	209 1☐ Yes – *ASK 52* 2☐ No – *GO to next column and record information about previous job*	232 1☐ Yes – *ASK 52* 2☐ No – *GO to next column and record information about previous job*
52.	187 Month Day Year X ☐ Never worked before	210 Month Day Year X ☐ Never worked before	233 Month Day Year X ☐ Never worked before
53a.	188 _____ Weeks not working	211 _____ Weeks not working	234 _____ Weeks not working
b.	189 _____ Weeks looking or on layoff	212 _____ Weeks looking or on layoff	235 _____ Weeks looking or on layoff
1.	☐ – *SKIP to Check Item R*	☐ – *SKIP to Check Item R*	☐ – *SKIP to Check Item R*
2.	☐ – *ASK 54*	☐ – *ASK 54*	☐ – *ASK 54*
54.	190 1☐ Ill or disabled, unable to work 5☐ Couldn't find work 2☐ In school 6☐ Did not want to work 3☐ Personal family reason 4☐ Vacation 7☐ Other	213 1☐ Ill or disabled, unable to work 5☐ Couldn't find work 2☐ In school 6☐ Did not want to work 3☐ Personal family reason 4☐ Vacation 7☐ Other	236 1☐ Ill or disabled, unable to work 5☐ Couldn't find work 2☐ In school 6☐ Did not want to work 3☐ Personal family reason 4☐ Vacation 7☐ Other
1.	☐ – *GO to next column and record information about previous job*	☐ – *GO to next column and record information about previous job*	☐ – *GO to next column and record information about previous job*
2.	☐ – *SKIP to Check Item S*	☐ – *SKIP to Check Item S*	☐ – *SKIP to Check Item S*

III. WORK EXPERIENCE AND ATTITUDES – Continued

CHECK ITEM S

Respondent is in –
- ☐ Labor Force Group A ("WK" or "J" in 31 or "Yes" in 32a or 33a) – *SKIP to Check Item T*
- ☐ Labor Force Group B ("LK" in 31 or "Yes" in 34a) – *SKIP to 57a*
- ☐ Labor Force Group C (All others) – *ASK 55a*

55a. Do you intend to look for work of any kind in the next 12 months? — 55a. (306)
- 1 ☐ Yes – definitely } *ASK b*
- 2 ☐ Yes – probably } *ASK b*
- ☐ Maybe – **What does it depend on?** _____ } *SKIP to 56a*
- 3 ☐ No } *SKIP to 56a*
- 4 ☐ Don't know } *SKIP to 56a*

b. When do you intend to start looking for work? — b. (307) _____ Month

c. What kind of work do you think you will look for? — c. (308) ☐☐☐

d. What will you do to find work? *(Mark as many as apply)* — d. (309)

Check with:
- 1 ☐ State employment agency (or counselor)
- 2 ☐ Private employment agency
- 3 ☐ Employer directly
- 4 ☐ Friends or relatives
- 5 ☐ Placed or answered ads
- 6 ☐ School employment service
- 7 ☐ Other – *Specify* _____

56a. Why would you say that you are not looking for work at this time? — 56a. (310)
- 1 ☐ School
- 2 ☐ Personal family reasons
- 3 ☐ Health reasons
- 4 ☐ Waiting to be called into military service
- 5 ☐ Believes no work available
- 6 ☐ Does not want to work at this time of year
- 7 ☐ Other or no reason

b. If you were offered a job by some employer in THIS AREA, do you think you would take it? — b. (311)
- 1 ☐ Yes, definitely } *ASK c*
- 2 ☐ Yes, if it is something I can do } *ASK c*
- 3 ☐ Yes, if satisfactory wage } *ASK c*
- 4 ☐ Yes, if satisfactory location } *ASK c*
- 5 ☐ Yes, if other _____ } *ASK c*
- 6 ☐ No, health won't permit } *SKIP to 65 page 17*
- 7 ☐ No, it will interfere with school } *SKIP to 65 page 17*
- 8 ☐ No, parents don't want me to } *SKIP to 65 page 17*
- 9 ☐ No, don't need the money } *SKIP to 65 page 17*
- 10 ☐ No, other _____ } *SKIP to 65 page 17*

c. How many hours per week would you be willing to work? — c. (312)
- 1 ☐ 1–4
- 2 ☐ 5–14
- 3 ☐ 15–24
- 4 ☐ 25–34
- 5 ☐ 35–40
- 6 ☐ 41–48
- 7 ☐ 49 or more

d. What kind of work would it have to be? — d. (313) ☐☐☐

e. What would the wage or salary have to be? — e.

(314) $ _____ . _____ per: →
(Dollars) *(Cents)*

(315) 1 ☐ Hour

(316) $ _____ per: →
(Dollars only)

(317)
- 2 ☐ Day
- 3 ☐ Week
- 4 ☐ Biweekly
- 5 ☐ Month
- 6 ☐ Year
- 7 ☐ Other – *Specify* _____
- 8 ☐ Any pay

SKIP to 65, page 17

III. WORK EXPERIENCE AND ATTITUDES – Continued

57a. What type of work are you looking for? 57a. (318) ☐☐☐

b. What would the wage or salary have to be for you to be willing to take it? b.

(319) $ _____ . _____ per: →
(Dollars) (Cents)

(320) 1 ☐ Hour

(321) $ _____ per: →
(Dollars only)

(322)
2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* _____
8 ☐ Any pay

c. Are there any restrictions, such as hours or location of job that would be a factor in your taking a job? c. (323)
1 ☐ Yes – *ASK d*
2 ☐ No – *SKIP to 65, page 17*

d. What are these restrictions? d. (324) ☐
_____
_____
SKIP to 65, page 17

CHECK ITEM T

Respondent is currently in Labor Force Group A and –
☐ Was in Labor Force Group C last year *(Item 96R on Information Sheet)* – *ASK 58*
☐ All others – *SKIP to 59*

58. At this time last year, you were not looking for work. What made you decide to take a job? 58. (325)
1 ☐ Recovered from illness
2 ☐ Bored
3 ☐ Completed education
4 ☐ Needed money
5 ☐ Other – *Specify* _____

59. How do you feel about the job you have now? Do you like it very much, like it fairly well, dislike it somewhat, dislike it very much? 59. (326)
1 ☐ Like it very much
2 ☐ Like it fairly well
3 ☐ Dislike it somewhat
4 ☐ Dislike it very much

60. What are the things you like best about your job? 60.
(1) (327) ☐☐ _____
(2) (328) ☐☐ _____
(3) (329) ☐☐ _____

61. What are the things about your job that you don't like? 61.
(1) (330) ☐☐ _____
(2) (331) ☐☐ _____
(3) (332) ☐☐ _____

Notes

62. Suppose someone IN THIS AREA offered you a job in the same line of work you're in now. How much would the new job have to pay for you to be willing to take it? 62.

(If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.)

(332) $ _____ . _____ per: →
(Dollars) (Cents)

(334) 1 ☐ Hour

(335) $ _____ _____ per: →
(Dollars only)

(336) 2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* _____

(337) 8 ☐ I wouldn't take it at any conceivable pay
9 ☐ I would take a steady job at same or less pay
10 ☐ Would accept job; don't know specific amount
11 ☐ Don't know
12 ☐ Other

CHECK ITEM U
☐ Respondent is enrolled in school this year – *SKIP to 64a*
☐ All others – *ASK 63*

63. What if this job were IN SOME OTHER PART OF THE COUNTRY – how much would it have to pay in order for you to be willing to take it? 63.

(If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.)

(338) $ _____ . _____ per: →
(Dollars) (Cents)

(339) 1 ☐ Hour

(340) $ _____ per: →
(Dollars only)

(341) 2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* _____

(342) 8 ☐ I wouldn't take it at any conceivable pay
9 ☐ I would take a steady job at same or less pay
10 ☐ Would accept job; don't know specific amount
11 ☐ Depends on location, cost of living
12 ☐ Don't know
13 ☐ Other

CHECK ITEM V
Refer to item 96R on the Information Sheet
☐ Respondent in Labor Force Group A in 1969 – *ASK 64a*
☐ All other – *SKIP to 65, page 17*

64a. Would you say you like your present job more, less, or about the same as (the job you held) last year? 64a.

(343) 1 ☐ More } *ASK b*
2 ☐ Less }
3 ☐ Same – *SKIP to 65, page 17*

b. What would you say is the main reason that you like your present job (more, less)? b. (344) ☐☐

Notes

(345) _____
(346) _____
(347) _____

IV. FUTURE JOB PLANS

65. Now I would like to talk to you about your future job plans. What kind of work would you like to be doing when you are 30 years old? — 65. (348) ☐☐☐

(349) 1 ☐ Same as present job
2 ☐ Don't know

CHECK ITEM V — *Refer to Item 98R on the Information Sheet*

(350) 1 ☐ Respondent's future job plans are the same as when last interviewed – *(Entries in 65 and item 98R on the Information Sheet are the same) – SKIP to Check Item X*
2 ☐ Respondent's future job plans differ from when last interviewed – *(Entries in 65 and item 98R of Information Sheet differ) – ASK 66*

66. When we last interviewed you, you said you thought that you'd like to be *(Entry in item 98R of Information Sheet)*. Why would you say you have changed your plans? — 66. (351) ☐

V. HEALTH

CHECK ITEM X
☐ Respondent is currently in school – *ASK 67a*
☐ Respondent is not currently enrolled in school – *SKIP to 67b*

67a. Do you have any health problems that limit in any way your activity in school? — 67a. (352) 1 ☐ Yes – *SKIP to 68*; 2 ☐ No – *ASK b*

b. Do you have any health problems that limit in any way the amount or kind of work you can do? — b. (353) 1 ☐ Yes – *SKIP to 68*; 2 ☐ No – *ASK c*

c. Do you have any health problems that in any way limit your other activities? — c. (354) 1 ☐ Yes – *ASK 68*; 2 ☐ No – *SKIP to 69*

68. How long have you been limited in this way? — 68. (355) _____ Years

☐ Respondent not married – *SKIP to 71a*

69a. Does your wife's health limit the amount or kind of work she can do? — 69a. (356) 1 ☐ Yes – *SKIP to 70*; 2 ☐ No – *ASK b*

b. Does your wife's health limit the amount or kind of housework she can do? — b. (357) 1 ☐ Yes – *ASK 70*; 2 ☐ No – *SKIP to 71a*

70. How long has she been limited in this way? — 70. (358) _____ Years

Notes

VI. ASSETS AND INCOME

71a. In far as your overall financial position is concerned, would you say you are better off, about the same, or worse off now than you were at this time last year?	71a.	1 ☐ Same – *SKIP to Check Item 7* 2 ☐ Better off 3 ☐ Worse off *ASK b*
b. In what ways are you better, worse off?	b.	☐
CHECK ITEM 7	☐ Respondent is NOT head of household – *SKIP to 76a* ☐ Respondent is head of household – *ASK 72a*	
72a. In the last 12 months, did you (or your wife) receive financial assistance from any of your relatives?	72a.	1 ☐ Yes – *ASK b–c* 2 ☐ No – *SKIP to item 73a*
b. From whom?	b.	☐
c. How much did you receive?	c.	$ _____
73a. Is this house(apartment) owned or being bought by you (or your wife)?	73a.	1 ☐ Yes 2 ☐ No – *SKIP to 74a*
b. About how much do you think this property would sell for on today's market?	b.	$ _____
c. About how much do you (or your wife) owe on this property for mortgages, back taxes, home improvement loans, etc?	c.	$ _____ ☐ None
74a. Do you (or your wife) have any money in savings or checking accounts, savings and loan companies or credit unions?	74a.	1 ☐ Yes – How much altogether? $ _____ 2 ☐ No – *GO to b*
b. Do you (or your wife) have any – (1) U.S. Savings Bonds?	b. (1)	1 ☐ Yes – What is their face value? $ _____ 2 ☐ No – *GO to (2)*
(2) Stocks, bonds, or mutual funds?	(2)	1 ☐ Yes – About how much is their market value? $ _____ 2 ☐ No
75a. Do YOU (or your wife) rent, own, or have an investment in a farm, business, or any other real estate?	75a.	1 ☐ Yes – *ASK b–d* 2 ☐ No – *SKIP to 76a*
b. Which one?	b.	1 ☐ Farm 2 ☐ Business 3 ☐ Real estate
c. About how much do you think this (business, farm, or other real estate) would sell for on today's market?	c.	$ _____
d. What is the total amount of debt and other liabilities on this (business, farm, or other real estate)?	d.	$ _____ ☐ None
76a. Do you (or your wife) own an automobile(s)?	76a.	1 ☐ Yes – *ASK b–d* 2 ☐ No – *SKIP to 77*
b. What is (are) the make and model year?	b.	_____ Model year _____ Make _____ Model year _____ Make _____ Model year _____ Make
c. Do you owe any money on this (these) automobile(s)?	c.	☐ Yes – How much? $ _____ $ _____ $ _____ ☐ No
d. How much would this (these) car(s) sell for on today's market?	d.	$ _____ $ _____ $ _____
77. Do you (or your wife) owe any (other) money to stores, banks, doctors, or anyone else, excluding 30-day charge accounts?	77.	☐ Yes – How much? $ _____ ☐ No

VI. ASSETS AND INCOME – Continued

Now I would like to ask a few questions about your income in the last 12 months.

		RESPONDENT	WIFE ☐ Not married
78a. How much did you (and your wife) receive from wages, salary, commissions, or tips from all jobs, before deductions for taxes or anything else?	78a.	(W) $_____ ☐ None	(W) $_____ ☐ None
b. Did you (and your wife) receive any income from working on your own or in your own business or farm? $_____ (Gross income) less $_____ (Expenses) = $_____ (Net income)	b.	(W) ☐ Yes – How much? $_____ ☐ No	(W) ☐ Yes – How much? $_____ ☐ No
c. Did you (or your wife) receive any unemployment compensation?	c. (1)	☐ Yes → How many weeks? (W) _____	☐ Yes → How many weeks? (W) _____
	(2)	How much? (W) $_____ ☐ No	How much? (W) $_____ ☐ No
d. Did you (or your wife) receive any other income, such as rental income, interest or dividends, income as a result of disability or illness, etc.?	d.	☐ Yes – How much? (W) $_____ ☐ No	☐ Yes – How much? (W) $_____ ☐ No

CHECK ITEM Z	(W) 1 ☐ Respondent (and wife and children) live alone – *SKIP to 79b* 2 ☐ All others – *ASK 79a (If two or more RELATED respondents in household, ask 79a–b only once, and transcribe answers from the first to the other questionnaires.)*

79a. In the past 12 months, what was the total income of ALL family members living here? *(Show flashcard)*	79a.	(W) 1 ☐ Under $1,000 2 ☐ $1,000–$1,999 3 ☐ 2,000– 2,999 4 ☐ 3,000– 3,999 5 ☐ 4,000– 4,999 6 ☐ 5,000– 5,999 7 ☐ 6,000– 7,499 8 ☐ 7,500– 9,999 9 ☐ 10,000–14,999 10 ☐ 15,000–24,999 11 ☐ 25,000 and over
b. Did anyone in this family receive any welfare or public assistance in the last 12 months?	b.	(W) 1 ☐ Yes 2 ☐ No

Notes

VII. FAMILY BACKGROUND

80a. How many persons not counting yourself (or your wife) are dependent upon you for at least one-half of their support? — 80a.

398 _____ Number

0 ☐ None – *SKIP to Check Item AA*

b. Do any of these dependents live somewhere else other than here at home with you? — b.

☐ Yes – **How many?**

399 _____ Number – *ASK c*

0 ☐ No – *SKIP to Check Item AA*

c. What is their relationship to you? — c.

400 ☐

CHECK ITEM AA — *Refer to name and address label on cover page*

401 1 ☐ Respondent lives in same area (SMSA or county) as when last interviewed – *SKIP to 83*

2 ☐ Respondent lives in different area (SMSA or county) than when last interviewed – *ASK 81a*

81a. When we last interviewed you, you were living in *(city in address on cover page)*. **How many miles from here is that?** — 81a.

402 _____ Miles

b. How did you happen to move here? — b.

403 ☐

☐ Respondent currently in school – *SKIP to 82c*

82a. Did you have a job lined up here at the time you moved? — 82a.

404 1 ☐ Yes, different from job held at time of move
2 ☐ Yes, same as job held at time of move
3 ☐ Yes, transferred job in same company
} *SKIP to c*
4 ☐ No – *ASK b*

b. How many weeks did you look before you found work? — b.

405 _____ Weeks

0 ☐ Did not look for work

99 ☐ Still haven't found work

c. Since we last interviewed you, have you lived in any area (SMSA or county) other than the present one or the one in which you lived when we interviewed you last? — c.

☐ Yes – **How many?**

406 _____

0 ☐ No

} *SKIP to 84a*

83. Have you lived in any area (SMSA or county) other than the present one since we last interviewed you? — 83.

☐ Yes – **How many?**

407 _____

0 ☐ No

84a. What is your present draft classification? — 84a.

408 ☐☐

_____

0 ☐ Respondent is under 18 – *SKIP to 85*

b. *(If 1-Y or 4-F)* **Why were you rejected?** — b.

409 1 ☐ Failed both physical and written test
2 ☐ Failed physical test
3 ☐ Failed written test
4 ☐ Not accepted for other reasons
5 ☐ Don't know reason.

85. How many rooms are there in this house or apartment? Do not count bathrooms, porches, balconies, foyers, halls, or half rooms. — 85.

410 _____ Rooms

Notes

411

412

413

NOTES

Now I have a few questions about the education and work experience of the other family members living here.

Line number 86a	Name List below all persons living here who are related to respondent. *Enter line number from the Household Record Card in Column 86a.* 86b	Relationship to respondent *Example wife, son, daughter-in-law, brother, etc.* 86c	Age *As of October 1, 1970* 86d	Persons 6–24 years old: Is . . . attending or enrolled in school? *Circle* Y – *Yes* N – *No* 87	*If "Yes" –* What grade (year)? *If "No" –* What is the highest grade (year) . . . ever attended? 88	Did . . . finish this grade (year)? 89	Persons 14 years old and over: In the past 12 months how many weeks did . . . work either full- or part-time (not, counting work around the house)? 90	If person worked at all in the past 12 months – In the weeks that . . . worked, how many hours did . . . usually work per week? 91	What kind of work was . . . doing in the past 12 months? *If more than one, record the longest.* 92	
		414 Respondent								
		415		416 Y N		Y N	417			418
		419		420 Y N		Y N	421			422
		423		424 Y N		Y N	425			426
		427		428 Y N		Y N	429			430
		431		432 Y N		Y N	433			434
		435		436 Y N		Y N	437			438
		439		440 Y N		Y N	441			442
		443		444 Y N		Y N	445			446
		447		448 Y N		Y N	449			450
		451		452 Y N		Y N	453			454
		455		456 Y N		Y N	457			458
		459		460 Y N		Y N	461			462
		463		464 Y N		Y N	465			466
		467		468 Y N		Y N	469			470
		471		472 Y N		Y N	473			474
		475		476 Y N		Y N	477			478
		479		480 Y N		Y N	481			482
		483		484 Y N		Y N	485			486
		487		488 Y N		Y N	489			490
		491		492 Y N		Y N	493			494
		495		496 Y N		Y N	497			498
		499		500 Y N		Y N	501			502
		503		504 Y N		Y N	505			506

93. When we last interviewed you, you mentioned *(read names from item 19R on Information Sheet)* **as persons who will always know where you can be reached even if you moved away. Is this still true?** *(If so, verify the addresses and telephone numbers and enter below. If not, enter information about other persons who will know the respondent's whereabouts.)*

Name	Relationship to respondent	Address	Telephone number
(1)			
(2)			

Notes

INFORMATION SHEET
DATA FROM 1969 INTERVIEWS

94R. Whether Respondent was attending or enrolled in school in 1969

(507)
1 ☐ Yes
2 ☐ No
3 ☐ Armed Forces

Grade Respondent was attending OR highest year of regular school completed:

(508)
0 ☐ None 0
1 ☐ Elem. 1 2 3 4 5 6 7 8
2 ☐ High 1 2 3 4
3 ☐ College 1 2 3 4 5 6 7+

95R. Respondent's educational goal in 1969

(509)
☐ Not asked educational goal
☐ High 1 2 3 4
☐ College 2 4 6 7+

96R. Respondent's labor force status in 1969

(510)
1 ☐ Unable to work
2 ☐ Labor Force Group A
3 ☐ Labor Force Group B
4 ☐ Labor Force Group C
5 ☐ Labor Force Group C – Armed Forces

97R. Name of employer in 1969

_____

☐ Not employed in 1969

98R. Plans for age 30 in 1969

☐ Working – *Specify kind*

_____

_____

☐ Other or don't know

99R. Names and address of persons who will always know where respondent can be reached.

1. _____

_____

_____

2. _____

_____

_____

100R. Month of last interview

ACCESSION NUMBER: VT102188

PUBLICATION DATE: JUN74

TITLE: GREATER MILWAUKEE METROPOLITAN AREA CAREER EDUCATION PROJECT. INTERIM REPORT.

DESCRIPTOR: *PROGRAM DEVELOPMENT; *DEVELOPMENTAL PROGRAMS; *CAREER EDUCATION

IDENTIFIER: MILWAUKEE; WISCONSIN

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 40P.

ABSTRACT: THIS REPORT OF THE SECOND PHASE OF AN EXEMPLARY CAREER EDUCATION PROJECT, CONDUCTED IN THE MILWAUKEE METROPOLITAN AREA, SUMMARIZES THE PROJECT ACTIVITIES FROM JULY, 1973 TO JUNE, 1974. THE OVERALL PURPOSE OF THE PROJECT WAS TO PROVIDE LEADERSHIP AND PROMOTE THE DEVELOPMENT AND COORDINATION OF CAREER EDUCATION PROGRAMS IN THE MILWAUKEE SCHOOLS AT ALL LEVELS. THE REPORT LISTS THE OBJECTIVES, DESCRIBES THE PROCEDURES, AND PRESENTS THE OUTCOMES OF THE PROJECT. PROJECT RESEARCH SURVEYS FURNISHED INFORMATION CONCERNING SUCH AREAS AS NEEDS ASSESSMENT, FOLLOW-UP STUDIES, AND THE CAREER EDUCATION NEEDS OF ADULTS. PROJECT EFFORTS TO ENCOURAGE LOCAL FUNDING OF CAREER EDUCATION PROGRAMS MET WITH SOME SUCCESS. SEVERAL PILOT PROGRAMS WERE INTIATED OR CONDUCTED WITH PROJECT ASSISTANCE. THE PROJECT ALSO PLANNED AND CONDUCTED A SERIES OF CAREER EDUCATION LEADERSHIP SEMINARS AND WORKSHOPS WHICH RECEIVED FAVORABLE EVALUATIONS FROM THE PARTICIPANTS. IN ADDITION, THE COLLECTION AND DISSEMINATION OF INFORMATION ON ALL AREA CAREER EDUCATION ACTIVITIES WAS CARRIED OUT AND CONTINUES VIA NEWSLETTER AND PROJECT LENDING LIBRARY OF FILMS AND MATERIALS. APPENDED ARE WORKSHOP EVALUATIONS, SURVEY INSTRUMENTS WITH TABULATED RESULTS, AND LISTS OF CAREER EDUCATION CONTACT PERSONS IN THE MILWAUKEE AREA. (NJ)

INSTITUTION NAME: MILWAUKEE AREA TECHNICAL COLL., WISC.

SPONSORING AGENCY NAME: WISCONSIN STATE BOARD OF VOCATIONAL, TECHNICAL, AND ADULT EDUCATION, MADISON.; OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 188

INTERIM REPORT

Project No. 09-~~002~~-151-224
022

GREATER MILWAUKEE METROPOLITAN AREA

CAREER EDUCATION PROJECT

VT 102 188

INTERIM REPORT

Project No. 09-082-151-224

GREATER MILWAUKEE METROPOLITAN AREA

June 1974

Dr. Calvin M. McIntyre
Project Director

Mr. Bernard D. Greeson
Associate Director

Applicant Organization
Milwaukee Area Technical College
Board of Vocational, Technical
and Adult Education
1015 North Sixth Street
Milwaukee, Wisconsin 53203
Tele:(414) 278-6600

Delegate Agency
Cooperative Education
Service Agency No. 19
9722 Watertown Plank Road
Milwaukee, Wisconsin 53226
Tele: (414) 257-5391

The research reported herein was performed pursuant to a grant or contract with the Wisconsin Board of Vocational, Technical and Adult Education, partially reimbursed from an allocation of Federal funds from the U.S. Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official CESA 19, MATC district (19), State Board or U.S. Office of Education position or policy.

CHAPTER 1

INTRODUCTION

The first phase of the Greater Milwaukee Metropolitan Area Career Education Project was completed on June 30, 1973 (See copy of INTERIM REPORT Project No. 09-082-154-223 GREATER MILWAUKEE METROPOLITAN AREA CAREER EDUCATION PROJECT OFFICE PROPOSAL). A proposal for a second phase had been sent to the State Board of Vocational. Technical and Adult Education and the Wisconsin Department of Public Instruction, however, the grant award was not accepted until October 23, 1974. During the interim period the Project received financial support from the Milwaukee Area Technical College sufficient to maintain the office and pay the director. Any other project activities requiring monetary expenditures were drastically curtailed.

After funding was received, a secretary was employed and the project resumed full operation. Project objectives for Phase II, as amended by the State Board of Vocational, Technical and Adult Education Staff Research Review Committee were:

1. To provide leadership for an area-wide Career Education Needs Assessment K-12 carried on at the local school level. To provide at the very least, a pilot Career Education Needs Assessment Project in the hope that all 24 school districts will provide the funds and personnel to make a thorough assessment of local programs.

2. To work with district high schools to find ways to eliminate unnecessary duplication of programs and facilities and explore ways of articulation and cooperation between high schools and between secondary schools and post-secondary schools.
3. To work with local school district and/or groups of districts in development of Career Education pilot programs at all grade levels. To also work with Career Education and Guidance Committees at Milwaukee Area Technical College to develop Career Education programs for post-secondary grade level students and adults in day and evening schools, at central and regional campuses.
4. To encourage local funding of Career Education programs as well as cooperative school and outside agency funding.
5. To involve secondary and post-secondary vocational-technical advisory committees in studying local manpower needs.
6. To cooperatively plan and conduct a continuing series of Career Education leadership seminars and workshops on an area wide basis or on a pod basis as well as to encourage local in-service programs of Career Education orientation.
7. To collect and disseminate on a periodic basis information on all Career Education activities taking place in the Greater Metropolitan Milwaukee Area for a period from February 1, 1973, to June 30, 1974.

Project policy development and implementation during both phases of the project has been provided by a steering committee of area superintendents, local vocational education coordinators and representatives of CESA 19 and Milwaukee Area Technical College. (See Appendix A).

CHAPTER 11

PROCEDURES

Procedures for accomplishing project objectives varied with the specific objective involved. To accomplish objective one a survey letter was sent to all area career education contact parsons (See Appendix B) asking two specific questions. These were: "has the district or any school within the district conducted any needs assessments within the last 2-3 years?" and "Has the district or any high school within the district conducted any follow-up studies on graduates and/or drop-outs within the last 2-3 years?" In the event of an affirmative answer to the first question respondents were asked to state the needs assessed and how the assessment had been conducted. Those responding positively to the second question were asked how they had conducted their follow-up study. Both groups of affirmative respondents were also asked to furnish the Project office with copies of any instruments used. A telephonic follow-up of non-respondents to the written query was conducted several months later to insure responses from all area school districts.

Information dissemination was conducted through a series of meetings and the use of the Career Education Newsletter. Project activities in this regard were coordinated with those of the Wisconsin Department of Public Instruction and CESA 19.

Objective two involved a series of meetings between representatives of high schools and the Milwaukee Area Technical College. This was done on a systematic district-by-district basis so that most area high school districts had been visited by the end of the 1973-74 fiscal year. These visits form the basis for further consultation between teachers and coun-

selors from the high schools and those from the technical college in the coming year.

In a similar fashion objective three required a series of meetings, this time between the Project Director and representatives of specific programs such as Project I.C.E., Project GEM or representatives of a specific institution or district such as MATC or the West Allis-West Milwaukee Schools. Objective three also required the use of a survey instrument developed and distributed in partnership with MATC. This instrument was distributed to persons attending MATC's adult evening classes in order to determine interest in adult career education and career counseling.

The procedures involved in objective four involve attending meetings to speak on career education and arouse local interest in it and the use of the NEWSLETTER for the same purpose.

Procedures used to accomplish objective five are identical with those used for objective one. A survey letter was sent to all area career education contact persons. Later a telephonic follow-up of all nonrespondants was conducted to insure complete responses. The survey asked whether the district used voc-tech advisory committees and whether those committees, if used, studied local manpower needs. In addition pod meetings were used as sites to discuss these questions.

Objective six involved travel in Wisconsin and Illinois and meeting with knowledgeable persons to learn about outstanding examples of career education in the schools. These schools were personally visited, where possible, for a first-hand view of the career education taking place. Achievement of this objective involved the use of consultants to present

programs in their area of expertise.

The procedures involved in objective seven are those of collecting and disseminating career education news through the monthly newsletter, and the project lending library. To facilitate use of the lending library a bibliography of project materials currently listing over 156 items has been sent to area educators. This bibliography includes curriculum guides, resource guides, career education newsletters from school districts throughout the country, current articles about career education, catalogs, handbooks, and films. Thus far three contemporary career education films have been purchased for the use of counselors and teachers in their classrooms, as well as in teacher workshops and in-services. All the materials in the library are available to area educators by contacting the project office.

CHAPTER III

RESULTS

OBJECTIVE I

A survey of 24 area school districts was conducted to determine the use of needs assessments and student follow-up studies. The results of the needs assessment and follow-up survey of area school districts are as follows:

Has the district or any school within the district conducted any needs assessments within the last 2-3 years?

Yes	58% (14)*
No	42% (10)

Has the district or any high school within the district conducted follow-up studies of graduates and/or dropouts within the last 2-3 years?

Yes	79% (19)
No	8% (2)
N/A	13% (3)**

*It is important to note that five of the districts conducting needs assessments did so only in an elementary school or schools while others assess on a programmatic basis. Complete community needs assessments were recently completed in Franklin, Greendale, Greenfield, and Whitnall. This survey indicates that the term "needs assessment" is one which is subject to different interpretations among area school districts.

**These are the three K-8 districts in the area who were not involved in the follow-up study survey.

Additional leadership activities included meetings with the Director

of Project I.C.E. to share needs assessment information and provide assistance. These meetings led to a Project I.C.E. Steering Committee meeting at which Dr. Sara Sherkow of the Wisconsin Department of Public Instruction (DPI) reviewed the needs assessment materials and discussed the assistance the DPI could provide. Project I.C.E. subsequently adopted the DPI materials for use in its four district needs assessment. To further disseminate needs assessment the September, 1973 issue of the project's Career Education Newsletter published an article on the topic by Dr. Sherkow. A complete set of DPI needs assessment materials was received for the project lending library and a file of such materials was established for use. The Project Director discussed needs assessments at pod meetings (See Appendix C) throughout the area, met with persons from other districts who had conducted needs assessments and attended several state and local meetings at which the topic was discussed.

The Project Steering Committee felt it unnecessary to sponsor a pilot needs assessment project in the area because of the needs assessment Project I.C.E. was conducting in Franklin, Greendale, Greenfield and Whitnall. It should be noted that Project I.C.E. did not exist at the time objective one for this project was written.

OBJECTIVE II

The second project objective involved a series of meetings held with individual school districts. During the 1973-74 project year meetings were held in a total of 18 districts. At these meetings the Project Director and/or Associate Director, generally accompanied by several Milwaukee Area Technical College faculty members, met with teachers, counselors, and administrators from the school district to explore methods of facilitating articu-

lation and eliminating unnecessary programmatic duplication. These frank exchanges led, in some cases, to exchange of curricula so that specific changes to facilitate articulation could be considered. In addition, the Project Director discussed this topic at every pod meeting.

OBJECTIVE III

Project objective three, as amended, was met through meetings, and a research survey which later resulted in a conference, pilot projects and in-service programs. A series of meetings has been held with Mr. Arne Engebretson, Director of Project I.C.E. in an effort to assist him with that program and coordinate, where possible, the efforts of the two projects. Meetings have also been held with CESA 19 Coordinator Richard Manske and research consultant David Krieger regarding Project GEM (Guidance and Counseling Evaluation Model).

During the winter several meetings were held with MATC personnel to discuss career education needs in adult education. These meetings ultimately led to a career education survey of the 26,967 persons attending MATC adult evening classes (See Appendix D) and a half-day "New Careers Conference" for adults co-sponsored by this career education project and MATC. The survey was directed toward learning about six topics: reasons for enrollment in evening classes; whether student felt the classes helped them achieve their objectives and if not, why; student interest in attending a workshop on entering the job market or changing jobs; student interest in career counseling; where students would turn for help if they had to change jobs; and, the age of the adult evening school population.

The survey elicited a 39 percent (10,557) return. Results indicated

that most adults were attending evening classes for personal improvement, recreation, to learn a skill or to help them get a better job. Only 10 percent (1,080) responded negatively when asked if their class had helped them achieve their objective, a strong vote of confidence in the evening program.

Respondents made clear their interest in acquiring more information about entering the labor market or changing jobs. Twenty-three percent (2,415) indicated an interest in attending a workshop for that purpose while a slightly larger number (2,591) indicated an interest in specific vocational counseling. In response to another question, thirty-five percent (3,735) indicated an interest in counseling if it were available at the evening center they were attending. Insofar as age is concerned, seventy-five percent (7,891) of the respondents fell between 21 and 50, the ages in which persons are most likely to be actively employed.

The New Careers Conference held on February 9, 1974, at MATC attracted some 140 participants. They heard three panels discuss the major components of career choice including self-awareness, employment trends and job opportunities and the best ways to gain employment once a choice has been made. Of the 140 persons attending, 25 percent (35) indicated an interest in guidance and/or testing assistance while 31 percent (44) indicated interest in group career counseling sessions. Thirty-four percent (47) said they were interested in acquiring more information about career opportunities.

Since that time the Project Director has cooperated with Dean Greeson of MATC in writing a pilot project proposal to extend career counseling services to Milwaukee area adults. Dr. McIntyre, the Project Director, assisted Mr. Robert Thompto of the West Allis-West Milwaukee Public Schools in writing a successful pilot project to evaluate processes and activities

for implementing the Wisconsin Design for Career Education K-12 and has met with personnel from other districts to discuss tentative project proposals. Teachers involved in the West Allis-West Milwaukee project have attended career education workshops which the Greater Milwaukee Area Career Education Project sponsors.

OBJECTIVE IV

Encouragement of local funding for career education programs as well as cooperative school and outside agency funding has been accomplished through an editorial in the July 1973, Career Education Newsletter and meetings with area educators, PTA groups and civic groups. Local support for career education in-service activities is now evident in such areas as Milwaukee, Cudahy, Greenfield, and Brown Deer. However, it should be noted that school districts facing increasing costs and declining enrollments are in a very difficutt position when contemplating extending financial support to a new educational concept such as career education.

OBJECTIVE V

A survey of area school districts concerning the existence of voc-tech advisory committees and their use to study local manpower needs produced the following results:

Does your district have a voc-tech advisory committee or committees?

n=21	Yes	13 or 54%
	No	8 or 33%
	N/A	3 or 13% (These are K-8 districts)

Does the voc-tech committee or committees study local manpower needs?

n=13	Yes	3 or 23%
	No	10 or 77%

Discussion with local vocational education coordinators indicates that while

some voc-tech advisory committees do provide guidance with regard to manpower needs, it is generally done on an experiential, non-systematic basis. Several area districts, however, do conduct periodic local surveys to elicit this information.

The Milwaukee Area Technical College also utilizes voc-tech advisory committees in a variety of learning areas. These committees are consulted concerning manpower needs in their area of expertise but not on a systematic, formalized basis. MATC's Placement Office does collect and annually summarize employer requests for various types of workers. The summary is then distributed in-house and sent to area high school counselors, the state employment services and other government agencies. Additional information on the job market is derived from student follow-ups conducted six months, two years and five years after graduation.

OBJECTIVE VI

Procedures for achieving this objective involved three general aspects: (1) meetings with and speaking before groups of educators regarding career education as either a single program or part of a larger in-service program; (2) planning and conducting career education workshops and conferences; and, (3) using these meetings, speeches, and workshops to encourage the creation of local in-service programs. During the 1973-74 fiscal year the Project Director has discussed the project and the general topic of career education before such groups as:

(1) Oak Creek elementary school teachers

(2) Germantown Public Schools career education workshop

(3) the state CESA Coordinators Conference

(4) the Cudahy All-City PTA

(5) Milwaukee Public Schools Career Education in-service program

(6) Oak Creek principals

(7) Teachers, counselors, and administrators at Cudahy Junior High-West

(8) Mukwonago K-6 career education in-service program

(9) MATC's Milwaukee Public Schools High School Principals Meeting

(10) Parents group - Greenfield Middle School

(11) Greenfield Public Schools administrators and central office personnel

(12) Marquette University's Institute for Elementary Principals

(13) Participants in project's 1974 Middle School/Junior High School Career Education Workshop

(14) the Shorewood Public Schools Career Education Committee

(15) West Allis-West Milwaukee Junior High teachers

In addition to these presentations, numerous meetings have been held with individual educators from throughout the area to try to interest them in career education and act as a resource person.

The project has co-sponsored the Adult "New Careers Conference" with MATC and has sponsored completely three one week career education workshops for area educators. The New Careers Conference was held at MATC's Continuing Education Building Auditorium on February 9, 1974. Approximately 140 adults were in attendance to hear three panels of experts discuss three basic areas of career education, self-awareness; job awareness and how to get the job. Participant evaluation forms indicated that the audience felt the conference was worthwhile and should be repeated.

Three one week career education workshops for area educators were planned, organized and supervised by the Project Director. Each workshop was aimed at a specific participant group; elementary, middle school/ junior high and senior high. Participants could choose to attend either morning or afternoon sessions, each lasting three hours per day. They could also elect to attend the workshops for University of Wisconsin credit by registering paying appropriate fees and performing extra assignments.

A total of 89 teachers, counselors, and administrators from nineteen school districts, private schools and MATC attended the workshops. (See Appendix E) In an effort to determine the status of their career education knowledge and the impact of the workshop on that knowledge, they were given a career education pre-test (Appendix F) when they initially entered the workshop. They were retested at the end of the final period of instruction for the week. The result indicated an increase in career education

knowledge over the course of the week of instruction in all three workshops. (See Appendix G) Evaluation instruments were distributed at the close of the workshops. Responses indicated that participants uniformly felt the workshops to be worthwhile experiences. (See Appendix H) These responses are on file at the Project Office.

In an additional effort to determine the impact of the workshop on participants, each was asked on the first day of the workshop to prepare a one-page statement of the career education needs of his class or school. On the last day they were asked to prepare a one-page statement concerning the personal impact of the workshop and what they felt they could do to meet some of the needs they had previously expressed. The statements indicate that there was an increase in the generalized awareness of what career education involves and a concurrent increase in plans to use specific techniques learned in the workshops in their own classes or schools. These statements will form a basis for an individualized follow-up of teachers and counselors to study the project's ultimate impact on students. These statements are on file at the Project Office.

OBJECTIVE VII

This objective was met by the continued publication of the Milwaukee Area Career Education Newsletter. Since publication began in April, 1973, the Newsletter's readership has expanded to approximately 880 per issue. The publication reaches every public and private school in the area served by the project and is distributed elsewhere to persons interested in career education. Multiple copies of the Newsletter are sent to any school requesting them.

A total of 26 public school districts and private educational centers

have borrowed materials from the project lending library. Many curriculum and resource guides have been utilized by districts for their own career education in-service activities. Teachers and counselors from 14 school districts have borrowed the project's films since April 1, 1974. Each borrowee was encouraged to assess the film by filling out evaluation forms. The response, both in written and verbal form, has been very favorable. Currently the Project has films reserved into the month of October 1974.

CHAPTER IV

COMPLETION OF OBJECTIVES

Completion of certain portions of the project objectives has taken place, However, most are of a continuing nature such that completion in a total sense does not take place. For example, the project provided leadership and acted as a vital resource for career education needs assessments in this area. The actual pilot assessment, however, was conducted by Project I.C.E. as part of its program, not this project. While some area districts, particularly West Allis-West Milwaukee, are working on needs assessments, much remains to be done in other districts.

Much progress has been made in the articulation program which is closely coordinated with MATC and area high schools. However, time and circumstances did not permit articulation visits to all area high school districts during this project year. It is anticipated that this will be completed during the next phase of the project.

The Project Director has worked closely with several schools in the development of career education pilot programs K-adult. A project proposal written in conjunction with West Allis-West Milwaukee has been accepted while that written with MATC remains pending.

Steps have been taken to encourage local funding of career education programs and several are now underway. The fiscal constraints in which local school districts find themselves do act to restrict this type of activity despite the recognition of need.

Three successful one-week career education workshops and one New Careers Conference have been planned and conducted. The project director

has attended, given and participated in speaking engagements and in-service meetings. The circulation of the Career Education Newsletter has more than tripled since the beginning of the 1973-74 fiscal year. In addition persons from 26 area schools have used publications and films from the project lending library. All of these are continuing project activities.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The project's leadership role in Milwaukee Area career education became more evident during the 1973-74 fiscal year. Requests for assistance from public and private schools increased as did opportunities for public speaking engagements. The nature of the requests, moreover, tended to indicate a deepening interest in career education as more school districts requested in-service assistance rather than simply a talk about the general topic of career education. Still another indication of interest is the circulation of the Career Education Newsletter which rose from a few hundred to almost nine hundred in the space of a year. The Newsletter is sent to every Milwaukee area public and private school as well as to interested individuals here and elsewhere in the Midwest. Attendance at project-sponsored conferences and workshops also demonstrated increased interest in career education. Some 140 Milwaukee area adults attended the New Careers Conference held in February. Later in the year, 89 area educators attended the three one-week career education workshops which the project sponsored. The positive responses received from conference and workshop participants indicate a continued need for this type of activity in the Greater Milwaukee area. More efforts in this area are included in the Phase III project proposal.

Project research surveys have furnished information concerning such areas of interest as needs assessments, follow-up studies, the existence of voc-tech advisory committees, and their use to study local manpower needs and on the career education needs of adults. The survey of needs assessments and follow-up studies revealed that the term "needs assessment"

needs clarification in the Milwaukee area since responses were widely divergent in terms of scope and procedures. Project efforts regarding needs assessments were directed toward publicizing and disseminating information, in conjunction with the DPI and CESA 19, rather than conducting a pilot program because such an activity would have unnecessarily duplicated the needs assessment effort of Project I.C.E. The change of project focus on the needs assessment objective in order to prevent unnecessary duplication and waste indicates one of the benefits to be derived from having a central clearing house for career education information such as this project within a given geographic area. Otherwise there could have been two pilot needs assessment efforts conducted virtually side-by-side in the Milwaukee area.

Results of the survey of student follow-up studies indicates that almost every K-12 district is conducting some type of follow-up of its graduates. While some are more extensive than others, these studies do provide the basis for a data base which could be expanded in the future. Their existence provides an indicator of school district interest in receiving feedback from graduates concerning programmatic effectiveness.

A survey of high school vocational-technical advisory committees and their use to study manpower needs showed that a significant number, 38%, of area school districts lack such committees. Of those districts possessing committees, only three used them to study local manpower needs. Conversations with local vocational education coordinators (LVEC's) indicate that when such committees furnish some manpower information it is on an informal, personal knowledge basis. The lack of voc-tech advisory committees in the area goes hand-in-hand with the lack of LVEC's. Excluding the three K-8

districts, only eleven of the 24 school districts in the area which this project serves currently have LVEC's. With no LVEC's there can be no CAPSTONE programs where voc-tech advisory committees are normally used. There would seem to be a need for more emphasis on vocational education in many Milwaukee area schools. The use of voc-tech committees to study manpower needs also seems to be precluded, in part, by the size and complexity of the employment picture in Milwaukee, a major metropolitan area. A knowledge of the employment picture in the local area may be too narrow to effectively serve districts whose graduates can seek employment throughout the entire Greater Milwaukee Metropolitan Area.

The survey of adult career education needs conducted in cooperation with MATC provided a clear indication of the need for career counseling among Milwaukee area adults. This, in turn, provided the basis for a project proposal which would fund a traveling counseling van which could visit evening schools and other areas to reach adults who are working during the day. The results of this survey are also in accord with national career education priorities as leadership at the federal level seeks to discern and then meet adult career education needs. Further work in this area has been included in the project's Phase III proposal.

Considerable progress has been made in exploring methods of articulation between secondary schools and the Milwaukee Area Technical College. The fruits of meetings held this year should begin to show during the coming school term. Articulation too, is included as a continuing item in the Phase III project proposal.

Encouragement of local funding for career education programs is a slow process. Nonetheless progress has been achieved as some area school districts begin to implement career education in-service programs funded

wholly or in part from district funds. The attendance of 89 local educators at our career education workshops would tend to indicate an interest in the topic which is likely to be reflected in increased activity at the local school district level.

Several pilot programs have been initiated or conducted with project assistance. West Allis-West Milwaukee has begun a Title III project with which this project is cooperating. Milwaukee Area Technical College has written a proposal to fund a mobile adult career counseling van to bring counseling help to adults at convenient times and locations. The project director has been in contact with the directors of other area career education projects in order to coordinate activities and act as a resource person. An area-wide resource person and coordinator is in a position to provide this assistance by acting as a knowledgeable referral agent to persons working on purely local projects.

Project sponsored conferences and workshops have proven to be very successful. Evaluations indicate that most participants found them to be worthwhile experiences which would be of definite benefit to others. Such activities enable the project to make a significant impact on the area in terms of publicizing career education and spreading techniques for its implementations. Further publicity and information dissemination is carried on via the Career Education Newsletter and the project lending library of films and materials. The increased circulation of the Newsletter and increased usage of the library films and materials demonstrates the response that career education is getting in this area. These activities are included in the Phase III project proposal and would seem to be well worth continuing after the project is completed.

APPENDIX A

STEERING COMMITTEE MEMBERS 1973-74

Chairman: Dr. William Knapp, Superintendent
Greendale School District

Mr. Nicholas Cupery, Superintendent
Glendale UHS District

Dr. John Fochs, Superintendent
Wauwatosa School District

Mr. Gilbert Grosenick, Superintendent
Oak Creek School District

Mr. James Murray, Superintendent
Grafton School District

Dr. Raymond Waier, Superintendent
Brown Deer School District

Dr. Jack Marcussen, LVEC
Milwaukee School District

Mr. Robert Thompto, LVEC
West Allis-West Milwaukee School District

Mr. Richard Manske, Agency Coordinator
CESA 19

Mr. Bernard Greeson, Dean of Career Education
Milwaukee Area Technical College

APPENDIX B

GREATER MILWAUKEE AREA
CAREER EDUCATION CONTACT PERSONS

DISTRICT	NAME
Brown Deer	Jerry Enloe , LVEC
Cedarburg	Greg McElwee, Curriculum Coordinator
Cudahy	Gerald Benka, Director of Instruction
Fox Point-Bayside*	Dr. George Lovos, Superintendent
Franklin	Al Block, LVEC
Fredonia	Fred Casper, LVEC
Germantown	Earl Hill, LVEC
Glendale	Donn Leussler, Curriculum Coordinator
Glendale-River Hills*	Roger Tietz, Principal
Grafton	Carol Sanok, Guidance Counselor
Greendale	Ray Heard, LVEC
Greenfield	Mark Sanders, Guidance Director John Hedstrom, LVEC
Maple Dale-Indian Hills*	John Wierscham, Superintendent
Mequon-Thiensville	Dr. Merton Campbell, Superintendent
Milwaukee	Dr. Jack Marcussen, LVEC
Oak Creek-Franklin	Walter Mountin, LVEC
Port Washington	Richard Rokus, LVEC
St. Francis	Claude Rogan, Guidance Counselor
Shorewood	Dr. Lloyd Geiken, High School Principal
South Milwaukee	A.L. Brown, Asst. Superintendent

DISTRICT	NAME
Wauwatosa	Stanley Kordus, Director of Instruction
West Allis-West Milwaukee	Robert Thompto, LVEC
Whitefish Bay	Dr. Myron Anderson, Director of Curriculum
Whitnall	Merton Bowyer, Superintendent

*Elementary School Districts

APPENDIX C

LIST OF PODS IN GREATER MILWAUKEE AREA

Central - West Region

- Milwaukee Public Schools
- Wauwatosa Public Schools
- West Allis-West Milwaukee Public Schools

North Shore Region

- Brown Deer Public Schools
- Fox Point-Bayside Public Schools
- Glendale U.H.S. Public Schools
- Glendale-River Hills Public Schools
- Maple Dale-Indian Hills Public Schools
- Mequon-Thiensville Public Schools
- Shorewood Public Schools
- Whitefish Bay Public Schools

Ozaukee-Washington Region

- Cedarburg Public Schools
- Fredonia Public Schools
- Germantown Public Schools
- Grafton Public Schools
- Port Washington Public Schools

Southeast Region

- Cudahy Public Schools
- Oak Creek-Franklin Public Schools
- South Milwaukee Public Schools
- St. Francis Public Schools

Southwest Region

Franklin Public Schools

Greendale Public Schools

Greenfield Public Schools

Whitnall Public Schools

APPENDIX D

MILWAUKEE ADULT CAREER EDUCATION SURVEY

Population -- all persons attending evening classes in Milwaukee Area Technical College Adult Evening Schools in January, 1974. N= 26,967. Responses = 10,557 for a 39 percent rate of return. Persons attending more than one class were instructed to complete only one survey form.

I. Why did you enroll for this class(es)? Please name the class(es) in which you are enrolled at this evening center.

QUESTIONS	RESPONSES	PERCENTAGE
1. To help me get a better job.	1972	19
2. For recreation (hobby)	2850	27
3. For personal improvement	4485	42
4. To help me become a better homemaker	901	8
5. To prepare for citizenship	52	.5
6. To learn a skill	2345	22
7. Other	991	9

* Note that the total of the responses is greater than the N for the study and that the percentages add up to more than 100 percent. The reason is because some respondents picked more than one choice.

II. Did this class help you achieve your objectives?

QUESTIONS	RESPONSES	PERCENTAGE
1. YES	8725	83
2. NO	1080	10
3. Did not answer	752	7

If your answer is "no" please check the reason(s) you think the class did not meet your needs.

QUESTIONS	RESPONSES	PERCENTAGE
1. Semester too short	499	46
2. I was absent too often	63	6
3. Class hours insufficient	91	8
4. Subject matter too advanced	54	5
5. Subject matter covered too fast	191	18
6. Subject matter not relevant to my goals	112	10
7. Other	276	25

** Note that the N being used is 1080, the number of NO responses. The total of the responses is greater than this N and the percentages add up to more than 100 percent because some respondents picked more than one choice.

III. We are planning a Workshop on Changing Jobs; would you be interested in attending? The workshop will be free of charge, half day long and will give you introductory information on who, where, when and how to go about choosing and/or making a change in your job.

QUESTIONS	RESPONSES	PERCENTAGE
1. YES	2415	23
2. NO	7151	68
3. Did not answer	991	9

IV. Would you take advantage of counseling if a guidance counselor were available to you at this evening center?

QUESTIONS	RESPONSES	PERCENTAGE
1. YES	3735	35
2. NO	5857	56
3. Did not answer	965	9

V. Would you be interested in talking to a guidance counselor at the Downtown Campus with regard to what is available for you in a second career and how to go about getting the training you need to make the change?

QUESTIONS	RESPONSES	PERCENTAGE
1. YES	2591	24
2. NO	7048	67
3. Did not answer	918	9

VI. If it became necessary for you to change your occupation, which of the following would you do?

QUESTIONS	RESPONSES	PERCENTAGE
1. Contact friends for tips as to other jobs	1624	15
2. Enroll in Vocational School	1515	14
3. Follow-up newspaper ads	3710	35
4. Contact employment agencies	2657	25
5. Take a short term course in a special field	2134	20
6. Take vocational aptitude test	1977	19
7. Talk to a vocational counselor	1976	19
8. Other	849	8

* Note that the total of the responses is greater than the N for the study and that the percentages add up to more than 100 percent. The reason is because some respondents picked more than one choice.

VII. What age group are you in?

QUESTIONS	RESPONSES	PERCENTAGE
1. Under 20	675	6
2. 21 - 30	4165	40
3. 31 - 40	2150	20
4. 41 - 50	1576	15
5. 51 and over	1504	14
6. Did not answer	487	5

Survey conducted by: Mr. Bernard Greeson, Dean of Career Education, Milwaukee Area Technical College and Dr. Calvin McIntyre, Director, Greater Milwaukee Area Career Education Project.

APPENDIX E

ELEMENTARY CAREER EDUCATION WORKSHOP PARTICIPANTS - JUNE 17-21,1974

Ann Marie Camacho, Teacher, Oak Creek-Franklin School District

Irene Fiend, School Counselor, Wisconsin Telephone Company, Milwaukee

Carol Fishman, Teacher, Milwaukee Public Schools

Kent Freeland, 6th grade teacher, Wauwatosa School District

Marikay Groh, Work-Study Coordinator, Elmbrook Schools

John Hedstrom. LVEC, Greenfield School District

Karen Murawski, Teacher, 1st grade, Cudahy Public Schools

John Phipps, Director of Research, Cudahy Public Schools

Marjorie Siegworth, 2nd grade teacher, Brown Deer

Nancy Wigdale, 5th grade teacher, Maple Dale-Indian Hills School District

Jane Bjoriem,Physically Handicapped Teacher, Irving School-West Allis

Muriel Fisher,Special Education Teacher, West Allis-West Milwaukee Public Schools

Mary Gemoll, 4th grade teacher, West Allis - West Milwaukee Public Schools

John Good, Principal, Oak Creek School District

Belle Keane,1st grade teacher, West Allis - West Milwaukee Public Schools

Jim Judkins, 6th grade teacher, West Allis - West Milwaukee Public Schools

George Mann,, 6th grade teacher, West Allis - West Milwaukee Public Schools

Marlene Migliaccio, teacher, Cudahy Public Schools

Carol Rowan, Art Teacher, West Allis-West Milwaukee Public Schools

Sue Smith, Teacher, Cudahy Public Schools

Sue Spector, 2nd grade teacher, Brown Deer

Lawrence Watt, Guidance Counselor, Milwaukee

Marty Wiley teacher, West Allis-West Milwaukee Public Schools

JUNIOR HIGH/MIDDLE SCHOOL CAREER EDUCATION WORKSHOP PARTICIPANTS

JUNE 17-21,1974

Douglas Bainbridge, Teacher, Industrial Arts, Greendale High School

Gabe Beckers,Teacher-Junior High, Cudahy Public Schools

Louise Berg, Teacher, Cudahy Public Schools

Dolores Grunke, Teacher, Milwaukee Public Schools

Gunther W. Heller, Guidance Director, Junior High, Milwaukee Public Schools

Richard Klein, Junior High Counselor, Milwaukee Public Schools

Kathleen Kral, Junior High Counselor, Milwaukee Public Schools

John Krause, Junior High Principal, Cudahy Public Schools

Marion Magin, Educational Representative, Wisconsin Telephone Company, Milwaukee

Neal Michel, Assistant Principal, Cudahy Public Schools

Robert Peterson, Assistant Principal, Cudahy Public Schools

Arnold Polisky, Teacher, Milwaukee Public Schools

Kathy Preston, Crestview Community Center, Milwaukee

William E. Roots, Principal, Fox Point-Bayside

Cory Rosencranz, Crestview Community Center, Milwaukee

Sister Angela Szopinski, 8th grade Teacher, West Allis Public Schools

Diane Alders, Counselor, Greenfield Public Schools

Dennis Bartel, Career Education Coordinator, West Allis-West Milwaukee Public Schools

Donald Bellile, Counselor, Greenfield Public Schools

Jill Carroll, Home Economics Instructor, West Allis-West Milwaukee Public Schools

John Cancellier, Teacher, Milwaukee Public Schools

Linda Elko, Reading Teacher, West Allis-West Milwaukee Public Schools

Gladys Howard, Reading Teacher, West Allis-West Milwaukee Public Schools

Caroline Knoteck, 7th grade Teacher,Maple Dale-Indian Hills District

Marilyn Larsen, 6th grade teacher, Brown Deer Public Schools

Nancy Pawlowski, Science teacher, West Allis-West Milwaukee Public Schools

John Weber, Principal, Greenfield Public Schools

HIGH SCHOOL CAREER EDUCATION WORKSHOP PARTICIPANTS

JUNE 24-28, 1974

Verne Appleman, Counselor, Port Washington

Alex Atlas, Vocational Guidance Counselor, Milwaukee Public Schools

David Bartz, Work-Study Coordinator, Hamilton-Sussex School District

Fred Casper, LVEC, Ozaukee High SChool, Fredonia

Rosemary Cook, Counselor, Port Washington

Wilbert Hermann, LVEC, Mukwonago High School, Mukwonago

Geraldine Jaworski, Business Education Instructor, Franklin High School

Pauline Kasper, Chairman- Math Department, Greendale High SChool

Joseph Katalinich, Industrial Arts Teacher, Greendale High School

Eleanor Lyon, Counselor, Greendale High School

Carol Pederson, Home Economics Teacher, Shorewood Public Schools

Betty Peterson, Home Economics Teacher, Shorewood Public Schools

Edward Race, Guidance Counselor, Cudahy High School

Henry Ross, Principal, Greendale High School

Mark Sanders, Guidance Director, Greenfield Public Schools

William Schaller, Power Mechanics Teacher, Greendale High School

John Van Slyke, Chemsitry/Physics Teacher, Fredonia

Gail Burrill, Math Teacher and Dep't. Chairman, Whitnall

Arne Engebretson, Project ICE Director, Greendale PUblic Schools

Ray Heard, LVEC, Greendale High School

Jerry Hitchler, Teacher, Greendale High School

Robert Johnson, Teacher Fine-Applied Arts, Nicolet High School

Cathy Kessler, Crestview Community Center, Milwaukee

Richard Kumbler, Teacher-Physics, Greendale High School

Barbara J. May, Crestview Community Center, Milwaukee

Donald Mikolajzak, Guidance Counselor, Milwaukee Area Technical College

Jim Morgan, Counselor, Nicolet High School

Gary Petersen, Counselor, Brown Deer High School

Lawrence Pfleger, Counselor, Greendale High School

Cheryl Smith, Art Teacher, Nicolet High School

Ben Szymaszek, Social Studies Teacher, Greendale High School

Kathy Stamm, Work Study Coordinator, Nicolet High School

Eva Wibracht, Milwaukee County Mental Health Center

Kitty Willkomm, Teacher, West Allis Central High School

APPENDIX F

WHAT IS YOUR CAREER EDUCATION QUOTIENT?

T	F		
_____	_____	1.	A career is the general course of action or progress of a person through life.
_____	_____	2.	A person's career is his/her work.
_____	_____	3.	Career Education is another name for vocational education.
_____	_____	4.	Every school should have a course in Career Education.
_____	_____	5.	Research has shown Career Education to be an effective vehicle for teaching basic subjects.
_____	_____	6.	Career Education is a vehicle for making classroom instruction meaningful and important for every student.
_____	_____	7.	Career Education tries to encourage elementary school children to make a career choice.
_____	_____	8.	Career Education at the middle school/junior high level focuses on career and self-exploration.
_____	_____	9.	Career Education doesn't apply to the student who wants to become a professional.
_____	_____	10.	Career Development is advanced through Career Education.
_____	_____	11.	The State of Wisconsin has a set of guidelines for Career Development.
_____	_____	12.	Students are very interested in acquiring more vocational information during their school years.
_____	_____	13.	Career Education is an important part of vocational education.
_____	_____	14.	Career Education is closely related to individualized education.
_____	_____	15.	Career Education requires a dramatic overhaul of the entire curriculum.
_____	_____	16.	Implementing Career Education in the classroom requires that teachers learn new methods of instruction.
_____	_____	17.	Career Education develops student respect for work,both paid and unpaid.
_____	_____	18.	Career Education doesn't involve Music, Art, and Physical Education teachers.
_____	_____	19.	Career Education is primarily for members of minority groups or disadvantaged youth.
_____	_____	20.	Career Education is concerned only with occupationally related information.

APPENDIX G

the 20 elementary school workshop participants who completed both the pre- and post-tests showed an increase in correct responses from 73% on the pre-test to 95% on the post-test. Among the 26 middle school/junior high workshop participants who completed both tests, the number of correct responses increased from 84% on the pretest to 90% on the post-test. Similarly the number of correct responses from those in the high school workshop who completed both the pre-test and post-test increased from 84% to 90%. The test, which contained only 20 questions, was not sufficiently lengthy to reveal differences between persons completing it. However it does indicate consistent progress in learning about career education on the part of all participants during the course of their workshop experience.

APPENDIX H

ELEMENTARY, JUNIOR HIGH AND HIGH SCHOOL
CAREER EDUCATION WORKSHOP EVALUATION

1. What workshop did you attend?

20	Elementary
27	Middle School/Junior High
30	High School

2. What workshop sessions did you attend?

ELEMENTARY

	Monday	Tuesday	Wednesday	Thursday	Friday	TOTAL
Morning	10	10	10	10	13	53
Afternoon	10	10	9	10	7	46
	20	20	19	20	20	99

JUNIOR HIGH/MIDDLE SCHOOL

	Monday	Tuesday	Wednesday	Thursday	Friday	TOTAL
Morning	16	16	14	16	17	79
Afternoon	10	10	10	9	10	49
	26	26	24	25	27	128

HIGH SCHOOL

	Monday	Tuesday	Wednesday	Thursday	Friday	TOTAL
Morning	15	16	16	15	15	77
Afternoon	13	14	14	14	15	70
	28	30	30	29	30	147

3. Which sessions did you feel was most worthwhile?

ELEMENTARY		MIDDLE SCHOOL/JUNIOR HIGH		HIGH SCHOOL	
Monday	10	Monday	1	Monday	8
Tuesday	13	Tuesday	5	Tuesday	9
Wednesday	5	Wednesday	8	Wednesday	1
Thursday	4	Thursday	} 15	Thursday	14
Friday	8	Friday		Friday	9
All	4	All	8	All	5

4. Which sessions did you feel was least worthwhile?

ELEMENTARY		MIDDLE SCHOOL/JUNIOR HIGH		HIGH SCHOOL	
Monday	0	Monday	11	Monday	8
Tuesday	0	Tuesday	4	Tuesday	4
Wednesday	4	Wednesday	1	Wednesday	8
Thursday	7	Thursday	1	Thursday	1
Friday	2	Friday	1	Friday	1
None	4	None	9	None	5
No Answer	2	No Answer	3	No Answer	3

5. What was your overall impression of the workshop?

ELEMENTARY

Very Good 6 (Excellent, good, great, well done)
Interesting and worthwhile 5 (Stimulating, absolutely fantastic, gratifying and fascinating, interesting and worthwhile, entertaining)
Well organized 3
Practical 4
Good ideas for fall 2
Informative 3
Good introduction to career education 1
Positive experience 1 (good for anyone beginning a career education program)
Would rather do things than be lectured to 1

MIDDLE SCHOOL/JUNIOR HIGH

Very good 14 (Excellent)
Practical 4
Well organized 3
Extremely beneficial 3 (interesting and worthwhile, informative and stimulating)
Fantastic, much work involved 2
Very good, but different from previous definition of career education 1
Good, but almost too guidance oriented 1 (reinforced concept of teacher as more than a presenter of facts)

HIGH SCHOOL

Worthwhile, very good, excellent, very interesting, great, very helpful - 25
Helpful in clarifying terms and concepts--got us to thinking in terms of career education
Very well put together
Part good, part bad, do feel career education can be a vital force in school systems.
I thought there should be more audience participation rather than a lecture series.
Somewhat valuable, but not extensively so-- think it more worthwhile for those completely unfamiliar with career education concepts.

6. Do you have any plans for change in your classes as a result of this workshop?

All responses to this question. were positive. The following statements are representative of those responses.

ELEMENTARY

Take better advantage of community and parents as resource people 4
Will use interview/guest speaker/field trip approach 4
Will use career development concepts set forth by the Wisconsin DPI 1
Will focus on people- in their life careers rather than just the job 1
Use Child of the Week concept 4
Will take ideas back to other teachers 3
Provides a basis for future in-service 1

JUNIOR HIGH/MIDDLE SCHOOL

Will encourage adoption in our school district K-12 1
Use more "circle" techniaues 5
Attempt to orient the faculty to creating interest in the area of self 1
Group guidance sessions 1
Steer away from occupational information and towards self-awareness 3
Will lay plans for a multi-family unit if funds materialize 1
Have begun compiling my own curriculum 1
Working with curriculum coordinator in the use of this material 1
Subtle presentation of careers 2
Become a more "human" teacher 2
As an administrator hope to include new ideas related to Achievement Motivation 1

HIGH SCHOOL

Further implement career education concepts in my department 8
Would like to try some innovative ideas and activites acquired during the workshop 8
Inform and encourage staff members to implement career education concepts--act as a catalyst within my school 6
Plan to implement a broader view in group guidance, extend guidance groups, change approaches to counseling 3

HIGH SCHOOL (continued)

Utilize more people outside the school to share occupational information 4
Will personally try to acquire additional career education materials 2
Realization that changes are both necessary and desirable. Feel strongly about the need for career awareness and education in the academic areas. 2
Develop own in-service workshops and career education program and
Write own objectives 2
More relevancy between subject matter and application to career development 1

7. Do you feel that it would be worthwhile to hold workshops like this for other teachers, counselors, and administrators?

All of the responses to this question in both the elementary and the junior high/middle school workshops were positive. The high school participants responded with 27 positive answers, one negative answer and two did not respond.

8. Did you attend the workshop for University credit?

ELEMENTARY	JUNIOR HIGH/MIDDLE SCHOOL	HIGH SCHOOL
Yes 9	Yes 7	Yes 10
No 11	No 19	No 18
	No answer 1	No answer 2

9. What is your position?

ELEMENTARY	JUNIOR HIGH/MIDDLE SCHOOL	HIGH SCHOOL
Teacher 14	Teacher 12	Teacher 14
Counselor 1	Counselor 8	Counselor 7
Administrator 4	Administrator 5	Administrator 3
Other 1	Other 1	Other 4
	No answer 1	No answer 2

T 102 189

PUBLICATION DATE: AUG73

TITLE: DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM. A "5 TO 12" MODEL FOR AN URBAN SCHOOL DISTRICT. FINAL REPORT.

PERSONAL AUTHOR: SIMS, WILLIAM I.

DESCRIPTOR: *DEVELOPMENTAL PROGRAMS; *VOCATIONAL EDUCATION; *CAREER EDUCATION; MODELS; *URBAN SCHOOLS; *PROGRAM DESCRIPTIONS; SUMMATIVE EVALUATION; ECONOMICALLY DISADVANTAGED

IDENTIFIER: CLEVELAND; OHIO; MODELS CITIES PROGRAM

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 313P.; SEE RELATED DOCUMENTS VT 101 953, VT 101 954 AND VT 101 955 IN THIS ISSUE.

ABSTRACT: COVERING THE TIME INTERVAL FROM SEPTEMBER, 1970 THROUGH AUGUST, 1973, THIS DOCUMENT SERVES AS THE FINAL REPORT OF A CAREER DEVELOPMENT PROGRAM DESIGNED FOR STUDENTS IN THE HIGH POVERTY CLEVELAND MODEL CITIES AREA SCHOOLS. THE GOAL OF THE PROJECT WAS TO BRIDGE THE GAP BETWEEN SCHOOL AND EARNING A LIVING THROUGH A DEVELOPMENTAL PROGRAM BEGINNING IN THE UPPER ELEMENTARY GRADES AND CONTINUING THROUGH THE COMPLETION OF HIGH SCHOOL. AT THE ELEMENTARY LEVEL STUDENTS WERE OFFERED A BROAD BASE OF VOCATIONAL INFORMATION AND ORIENTATION TO THE WORLD OF WORK, WITH SPECIAL STUDY UNITS BASED ON THE USE OF OCCUPATIONAL CLUSTERS INJECTED INTO THE SOCIAL STUDIES CLASSES. AT THE JUNIOR HIGH LEVEL THE PROGRAM MOVED INTO AN EXPLORATORY PHASE. THE EXPLORATORY PREPARATION PHASE AT THE SENIOR HIGH LEVEL INVOLVED A WORK STUDY PROGRAM, JOB PLACEMENT UPON LEAVING SCHOOL, AND GUIDANCE TOWARD FURTHER TRAINING. CURRICULA WAS DEVELOPED FOR EACH OF THE LEVELS. THE PARTICULAR ACCOMPLISHMENTS OF THE PROGRAM INCLUDE THE DEVELOPMENT OF SOUND-SLIDES FOCUSING ON CLEVELAND, THE USE OF THE CLUSTER CONCEPT TO PROVIDE AN ORGANIZATIONAL OVERVIEW, AND THE DEVELOPMENT OF CURRICULUM GUIDES. THIS REPORT SUMMARIZES THE PROJECT, DEFINES THE PROBLEM AREA, DESCRIBES THE PROJECT DESIGN, AND PRESENTS THE RESULTS AND ACCOMPLISHMENTS ALONG WITH CONCLUSIONS AND RECOMMENDATIONS. APPENDICES CONTAIN A BIBLIOGRAPHY, THE THIRD PARTY EVALUATION REPORT, AND SAMPLE INSTRUMENTS. (NJ)

CONTRACT NUMBER: OEC-0-71-0585(361)

INSTITUTION NAME: CLEVELAND PUBLIC SCHOOLS, OHIO.

EDUCATION (DHEW/OE), WASHINGTON, D.C.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL

Made Primary from Reduced Image

FINAL REPORT

PROJECT No. 0-361-0154

CONTRACT No. OEC-0-71-0585(361)

Developmental Vocational Education Program

A "5 to 12" Model for an Urban School District

Exemplary Project in Vocational Education

Conducted Under

Part D of Public Law 90-576

William I. Sims
Cleveland City School District
1380 East Sixth Street
Cleveland, Ohio 44114

AUGUST 1973

VT 102 189

Final Report

Project No. 0-361-0154
Contract No. OEC-0-71-0585 (361)

Developmental Vocational Education Program
A "5 to 12" Model for an Urban School District

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects and Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent Official Office of Education position of policy.

William I. Sims
Cleveland City School District
1380 East Sixth Street
Cleveland, Ohio 44114

TABLE OF CONTENTS

Summary..... 1

Problem Area..... 4

Goals And Objectives 9

Project Design..... 15

Results And Accomplishments..... 27

Conclusions And Recommentations..... 62

Appendices 65

Appendix A Bibliography

Appendix B Instruments Used

Appendix C Evaluation

Appendix D Catholic Component

List of Figures

Figure Number	Title	Page
1	Participating Schools within Model Cities Area	5
2	Declining Rate of Attendance	6
3	Pyramidal Design	8
4	Willson and Addison's Vocational Enrollment	17
5	East High Enrollment	18
6	East High Business Education and Home Economics	19
7	East High Industrial Arts	20
8	Line of Administrative Authority	21
9	Occupational Clusters	23
10	Speakers	24
11	First-Year Field Trips	25
12	Subsequent Field Trips	26
13	List of Sound Slides	28
14	List of Films	29
15	List of Filmstrips	30
16	List of Transparencies	31
17	List of Posters and Bulletin Boards	32
18	Occupations Related to Mathematics	33
19	Occupations Related to English	34
20	Occupations Related to Social Studies	35
21	Occupations Related to Home Economics	36
22	Occupations Related to Industrial Arts and Shop	37
23	Occupations Related to Art	38
24	Occupations Related to Science	39
25	Occupations Related to Music	40

List of Figures Cont'd

Figure Number	Title	Page
26	Television Programs Related to Disciplines	47
27	Television Programs Related to Occupational Clusters	48
28	Radio Programs Related to Occupational Clusters	49
29	Newspaper Articles Related to Occupational Clusters	50
30a-f	Local Evaluating Test	52
31	Certificate of Appreciation	60
32	Newspaper Survey of Help and Position Wanted Ads	61

SUMMARY

Covering the interval from the beginning of the Developmental Vocational Education Program September 1, 1970, through the termination of the program on August 31, 1973, this report serves as the final report of the project.

The overall goal of the program was to bridge the gap between school and earning a living through a Career Development Program beginning in elementary school and continuing through the completion of high school.

To facilitate the attainment of this goal, specific objectives were delineated at the beginning of the program. The objectives included the following:

1. To improve the elementary students' knowledge of occupational clusters. Students in upper elementary grades will be able to identify and describe a significantly greater number of occupational classifications than children in control schools as measured by locally constructed tests.

2. To improve the elementary students' knowledge of the basic operations and uses of basic industrial and business equipment. Children in upper elementary grades will demonstrate a significantly greater knowledge of the operation and uses of basic shop tools than children in control schools as measured by locally constructed tests.

3. To improve the junior high students' knowledge of the interrelations between different functional areas of business and industry.

4. To improve the junior high students' level of knowledge of requirements and operations involved in a variety of occupations.

5. To improve the junior high students' ability to perceive the relation between specific vocational education activities and "real" occupations.

6. To improve the senior high students' attitude toward vocational education.

7. To increase the number of students completing Grade 12.

8. To increase the number of graduates attaining and holding jobs that promise room for advancement.

The vocational education program was developmental in nature and pyramidal in design, beginning in the upper elementary grades and continuing through high school. At the upper elementary level students were offered a broad base of vocational information and orientation to the world of work. At this level the special study units based on the use of occupational clusters were injected into the social studies classes.

Students learned of the broad range of occupational areas in business and industry, the role of different work areas in society, and were exposed to actual operations involved in different types of jobs.

At the junior high level the program moved into an orientational exploratory phase. The student analyzed his interests and proved his abilities and aptitudes. Students learned the processes by which goods and services were produced and the inter-relationship between the production, management and service areas of business and industry. At this level and at the senior high level the material was injected into each of the disciplines offered at the schools.

On the senior high level the student progressed to an exploratory preparational phase. Students continued the exploratory experience initiated in junior high by sampling various skill areas and finally selecting one for intensive training. A work study program enabled the students to use their major skill area in gainful employment. Services to the senior high students included job placement upon leaving school and guidance toward further training.

On all three levels career guidance was related to the special study units on the world of work, films, slides and other visual aides. Speakers from local companies and businesses were used for reinforcement. Field trips were taken to local companies and businesses. Appropriate classroom activities were developed such as simulation games, time organization problems, and role playing. Each school had a career information center which included books, pamphlets, brochures, films and filmstrips. Curricula was also developed for each of the levels.

The project has been evaluated twice prior to this final evaluation. The regional evaluation was conducted in the summer of 1971 while the local evaluation was conducted during the summer of 1972. The third and final evaluation has been compiled and serves as Appendix C of this report.

Although hindered by several problems, the project was implemented and has several accomplishments to its credit. These accomplishments include the development of sound-slides focusing on Cleveland, the use of the cluster concept which gave the student an organizational overview, the use of the discipline concept which facilitated relating the various school subjects to earning a living, and the development of a curricula guide which

includes materials from the elementary-level as well as the junior and senior high levels.

In the future, the program should be expanded to include all grades, K-12. The expansion of this program and its accompanying activities would allow the elementary students more opportunities to enhance their self-images as well as gain useful knowledge and build positive attitudes for future use.

The materials that have already been developed will continue to be used in the school attendance center in which the Developmental Vocational Education Project was first implemented. This attendance center includes all the elementary schools and junior high schools that feed into the one high school. These materials will be used as part of an ongoing career education program.

The materials used will be continually up-dated as the need arises as will the career information centers already established. These career information libraries will serve all students whether they are directly enrolled in the career education program or not, and as such render even greater service.

6 A.

The Developmental Vocational Education Program was formulated on the premise that getting a job was the next major step in the lives of over 60% of the students graduating from high school within the Model Cities area. In its role of preparing today's youth for lives as productive citizens, the schools have often failed to make the students' school experience relevant to the occupational work area that the students enter upon graduation. The Developmental Vocational Education Program has been an effort to bridge the gap between school and earning a living through a career development program beginning in elementary school and continuing through high school.

The schools involved in the project serve the Model Cities area of Cleveland (See figure 1). The number of children in these schools whose families are on public assistance averages 53%. The high poverty index underscores the need of the children in these schools for knowledge and skills that will enable them to secure gainful employment upon leaving the public school system. The schools served by the project also reflect a poor attendance rate. The rates of attendance declined from the elementary through the secondary grades (See figure 2) supports the contention that as the children progress through the public schools, they increasingly view the education offered as irrelevant to their needs. The need for measures is vital to enable them to see the relationship between what the schools offer and earning a living after leaving school.

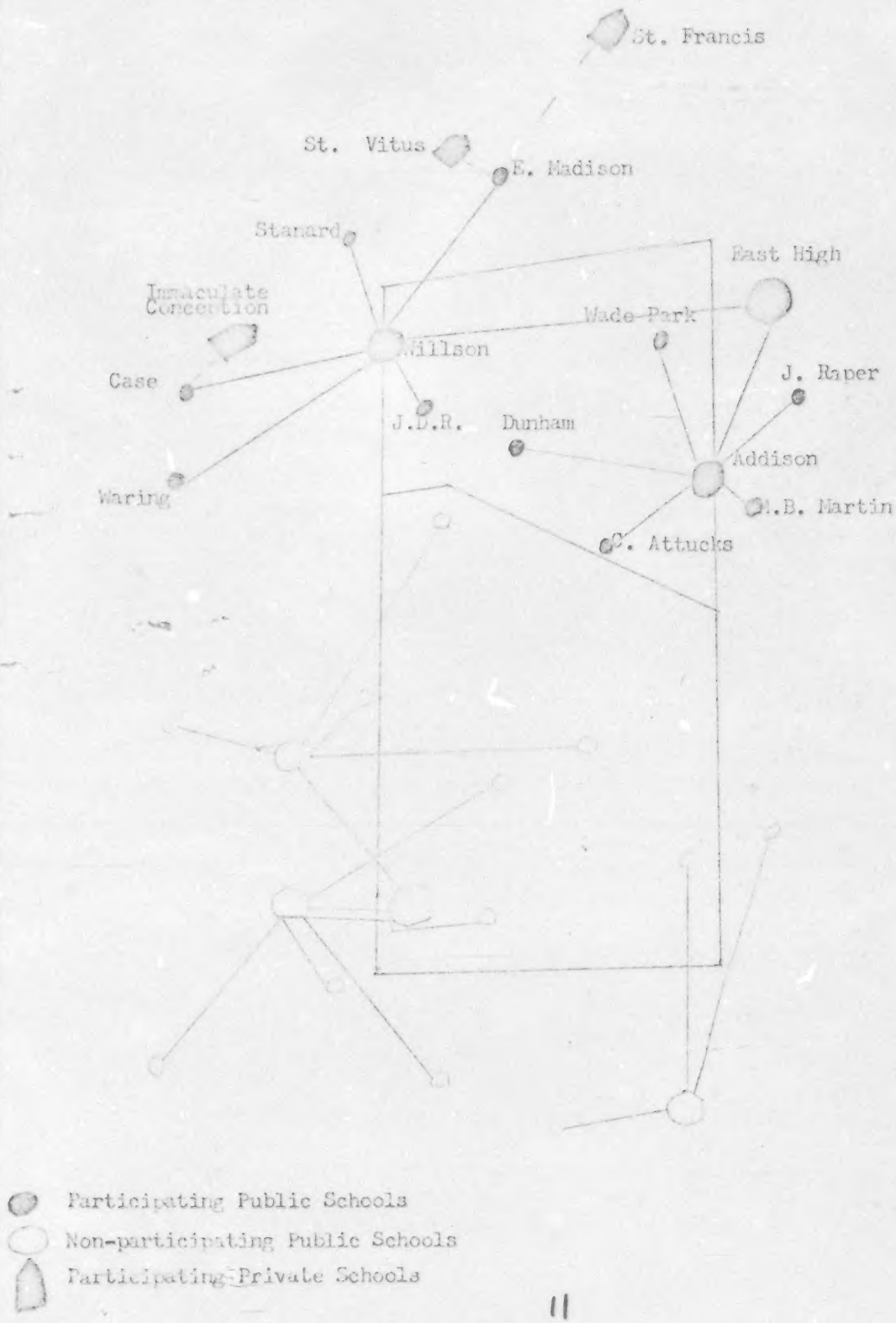
At the time the Developmental Vocational Education Program was conceived, no elementary school in the Cleveland system had a vocational information program. Only one junior high was involved in a pilot project of a similar nature although career information had traditionally been provided through the junior high guidance programs. The need for occupational information and developmental programs at the elementary level had been expoused by Ginsburg[1] as early as 1951 and by Super[2] in 1957. Also at this time the junior high programs were structured so that the students were taking a group of skills courses but the skills acquired were not necessarily related to the students' preferred career choices.

With the Georgia Plan[3] in mind, the original proposal for the Developmental Vocational Education Program intended that youngsters in the upper elementary grades would be provided with multi-faceted, child centered program that would result in a demonstrably greater knowledge of occupational areas and a broader range of career aspirations.

The junior high vocational program envisioned by the DVEP proposal was to be restructured. Bateson and Stern[4] had advocated the use of model industries within a school so that the students could be made

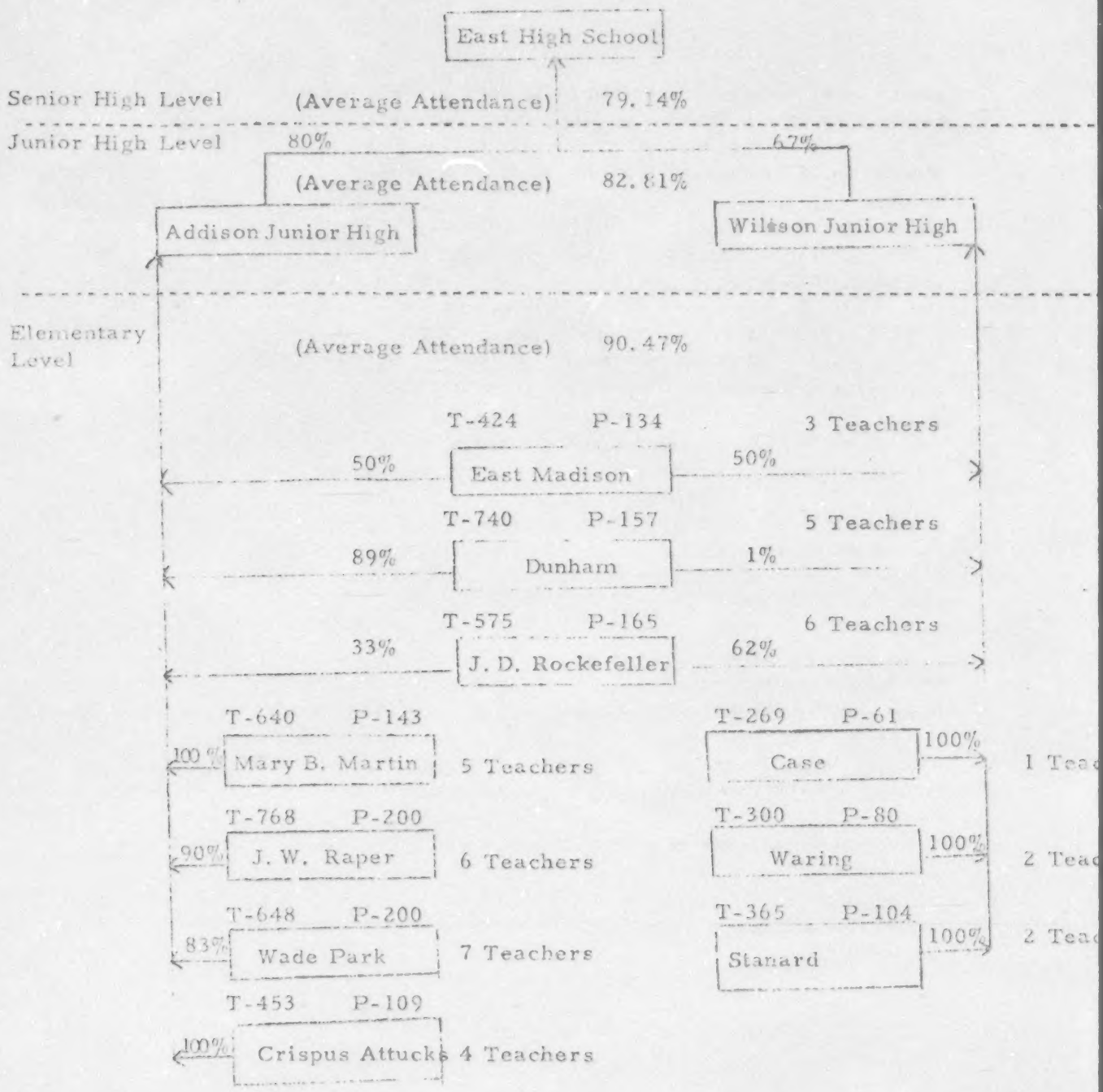
Figure 1

Participating Schools within the Model Cities Area



11

FIGURE 2



* P - Participating 1,353

T - Total Enrollment 5,182

Percents indicated the percent of the students from each school that "Feed" into the indicated schools on the next level.

12

aware of what role or function each facet played in the functioning of the entire industry. The use of this model industry, implemented with field trips to work sites, and employee-student interaction, would provide the students with first-hand knowledge of job conditions, requirements and wages.

Under the proposed Developmental Vocational Education Program the occupational skill sampling approach that has been successful in the Pittsburgh Occupational Vocational and Technical Program[5] was to be implemented in the senior high. This approach would facilitate the student in acquiring different skills and eventually narrowing his occupational options on the basis of his sampling experience. A second stage of the senior high implementation would be to work-study experience of attending school for 1/2 day and holding a part-time job with a cooperating firm for the remainder of the day.

Campbell's idea[6] was to be implemented also. Campbell's idea was to guide students in career choices and underscore the relation between the students' vocational education activities and the real occupational world.

As originally proposed and generally implemented, the Developmental Vocational Education Program was developmental in nature and pyramidal in design (See figure 3). The pyramidal design has been endorsed by the National Advisory Council on Vocational Education[7]. In accordance with this approach, a student who entered the program in the fifth grade and continued in it until graduation from senior high would move successively from a broad informational orientational approach at the elementary level to an orientational-explorational approach at the junior high level and then to an exploratory-preparational approach in senior high. This approach would give the student the opportunity to make better informed and broader-ranging choices at each level.

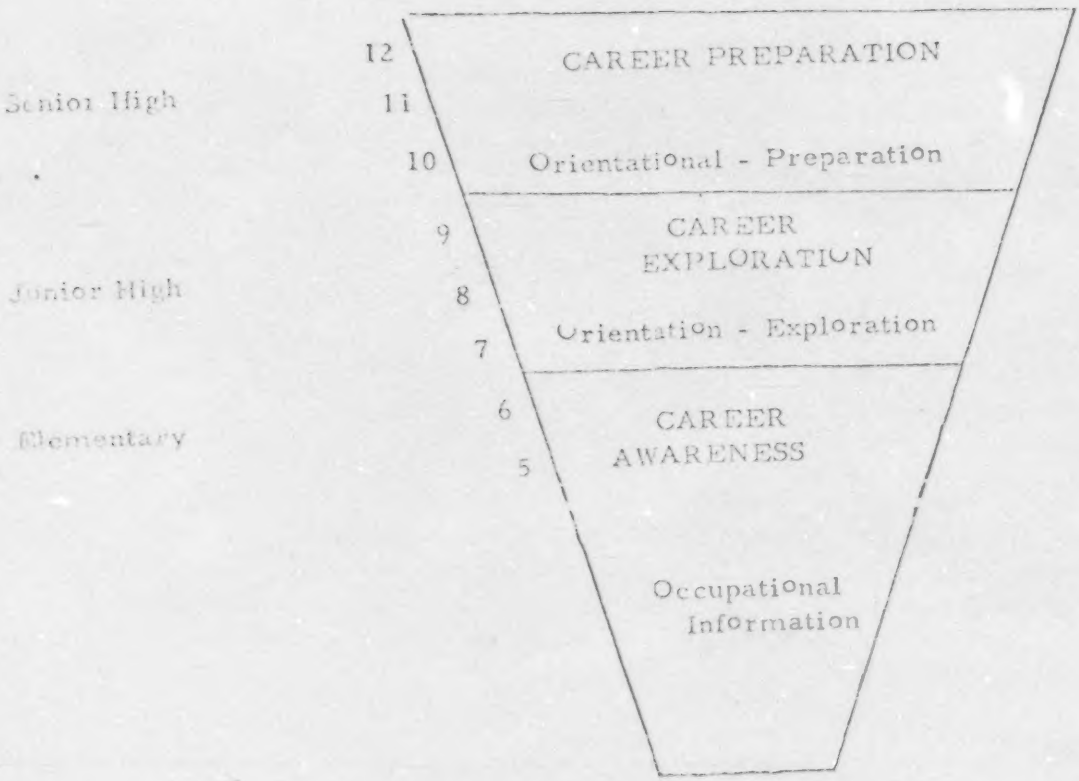
References

1. Ginsberg, Eli. Occupational Choice: An Approach to a General Theory. New York: Columbia University Press, 1951

2. Super, Donald E. The Psychology of Careers: An Introduction to Vocational Development. New York Harper Row, 1957

3. The Georgia Plan for Industrial Arts. In: Cochran, Leslie H. Innovative Programs in Industrial Education Bloomington, Ill.: McKnight and McKnight, 1970, pp. 45-49.

FIGURE 3


Senior High
Junior High
Elementary
12
11
10
9
8
7
6
5
CAREER PREPARATION
Orientational - Preparation
CAREER EXPLORATION
Orientation - Exploration
CAREER AWARENESS
Occupational Information

4. Bateson, Willard M. and Stern, Jacob. Functions of Industry: Bases for Vocational Guidance. School Shop Magazine, March, 1962, p. 7

5. Occupational, Vocational and Technical Program. In: Cochran, Leslie H. Innovative Programs in Industrial Education. Bloomington, Ill : McKnight and McKnight 1970, pp. 62-66.

6. Campbell, Robert E. Vocational Guidance in Secondary Education: Selected Findings of a National Survey Which Have Implications for State Program Development. Paper presented at the National Conference on Vocational Guidance: Development of State Programs, U.S. Office of Education, Washington, D.C.: January 16-18, 1968.

7. Advisory Council on Vocational Education, Vocational Education--The Bridge Between Man and His Work, Highlight and Recommendations from the General Report Publication, Washington, D.C.: U.S. Office of Education, 1968.

6 B.

The overall goal of the Developmental Vocational Education Program was to bridge the gap that exists between the schools and world of work through a career development program that begins in the elementary schools and continue through the students' completion of high school. Objectives were specified that would facilitate achieving this overall goal.

Objectives

The program was designed to achieve the following objectives:

1. Students in upper elementary grades will be able to identify and describe a significantly greater number of occupational classifications than children in control schools as measured by locally constructed tests.

2. Children in upper elementary grades will demonstrate a significantly greater knowledge of the operation and uses of basic shop tools than children in control schools as measured by locally construction tests.

3. Students at the junior high level will demonstrate a significantly greater knowledge of the different func-

tional areas of business and industry than children in control schools as measured by locally constructed tests.

4. Students at the junior high level will demonstrate significantly greater knowledge of the requirements of an operations involved in a wide variety of occupations than students in control schools.

5. Students at the junior high level will demonstrate a significantly greater ability to describe the relation between specific vocational education activities and "real" occupations than students in control schools.

6. Students at the senior high level will demonstrate significantly more possitive attitudes toward their vocational education than students in control schools as measured by locally constructed tests.

7. A significantly greater proportion of students enrolled in vocational education at the senior high level will complete grade 12 than in control schools as determined by project records.

8. A significantly greater number of students graduating from high school will obtain and hold jobs with room for advancement than students in control schools as determined by a follow-up study.

Other objectives implied by the project rationale and operations included:

1. The Developmental Vocational Education Program will broaden the occupational aspirations and opportunities of the Model Cities area youth.

2. Cooperation between schools and local manpower agencies will be promoted by visits of the students to company work sites.

3. Students will be more aware of the relation between what they learn in school and earning a living upon graduation.

Specific procedural objectives for each level of instruction were delineated:

Elementary Level

1. Special units on the world of work will be injected into social studies and language art classes.

   The units will introduce the students to a broad range of occupational areas and the value of each to society. The emphasis will be on occupational areas rather than on specific jobs, including new occupational areas that are expected to emerge in the future as a result of improving technology.

2. A career information center will be created in the library of each participating elementary school.

   The centers will include books, pamphlets, and films describing different occupational areas and on choosing a career.

3. A floating work orientation team will be provided to work with the elementary school teachers on developing appropriate classroom activities such as role playing, simulation games, time organization problems.

   The work orientation team will be responsible for developing the career information centers in the schools and organizing field trips.

4. Field trips to local companies and speakers from the same will be provided for a first hand exposure to the real world of work, to reinforce classroom units on the variety of occupational areas, and to see the actual operations involved in different work areas.

5. Students will participate in field trips to junior high and high school vocational education facilities to perform a number of simulated work tasks in different occupational areas.

   These activities will be organized by the work orientation team with the assistance of students at the junior and senior high levels. The use of older students will help elementary age children identify with a work role model.

Junior High Level

Grade 7

1. All students in Grade 7 will take vocational education.

Students will continued to learn the full range of occupational opportunities along with the requirements and advantage of each. Instruction will be organized around how different occupations fit into the production-management-service cycle of business and industry so that students will see business and industry as a totality.

2. A model industrial system will be established with management, production, and service components to enable the students to relate the concepts they have learned to actual experience in planning and managing the production of a product. A production line will actually produce the product and a service department will service and repair the product. Each student will spend 12 weeks learning the operations of each of the three areas.

3. A series of field trips to company work sites will enable the students to spend time with and talk to employees working in different areas to get a feel of the actual duties performed, working conditions, wages, job requirements, and advantages of the occupation.

4. The work orientation team will conduct group and individual counseling sessions in which students will discuss their reactions to the field trips and the role they play in the model industrial system. The team will assist the students in a self-evaluation procedure where the students begin analyzing their own abilities, aptitudes, and the interests in the context of future employment possibilities. Counseling will be coordinated with activities of the Guidance Department. The team will be responsible for the organizing and conducting of field trips, model industrial system activities, and instruction in the way of an economic system functions.

5. A career information center will be established in the library of participating junior high schools. The centers will contain books, pamphlets, brochures, and films on the opportunities available in different occupational areas.

6. Parent-pupil clubs will be formed for after school or evening meetings using school facilities in which the parents will join their children in working on projects of interest to the students. The clubs will be organized and conducted by the work orientation team.

Grade 8 and 9

1. The vocational course of study will become optional to the student at grades 8 and 9.

2. On the basis of his sampling of a broad range of occupations and his exposure to and experience with some of the operations involved, the student with the aid of the work orientation team will choose areas that are of interest to him for further study and experience.

3. Counseling, field trips, industrial speakers, use of the career information center, participation in the model industrial system, and parent-pupil clubs will continue as in grade 7, but more time will be spent on instruction and experiences in narrower work areas. The orientation will remain exploratory, but on a deeper level and within a more restricted range. Students will begin to build competance in a number of skill areas. Instruction will be offered in the following areas:

   a. Woodwork
   b. Mechanical Drawing
   c. Printing
   d. Metal Shop
   e. Materials and Processes
   f. Typing
   g. Introduction to Management
   h. Retailing
   i. Home Economics (Food and Clothing)

4. Students will participate in instructing children from the elementary schools in the operations of various shop tools and machinery.

High School Level

1. A career information center will be established in the senior high school with a broad array of information on job opportunities, post graduate training programs, job requirements, and career planning.

2. At each grade level the work orientation team will provide intensive occupational counseling to help the student analyze his interests, aptitudes and abilities,

make decisions as to the next step to take in his career development. Such counseling will be coordinated with the activities of the Department of Guidance.

3. At grade 10 the students will sample among different job skills. Guided by the work orientation team student will choose four occupation areas among which to rotate on a nine-week basis. Instruction will be offered in the following areas:

   a. Typing, Shorthand, and Office Practice
   b. Bookkeeping
   c. Retailing and Sales
   d. Wood Shop
   e. Metal Shop
   f. Drafting
   g. Appliance Mechanics

4. In grade 10 the work orientation team will instruct the student in how the particular skills they are learning form the basis for the operations involved in particular occupations. This instruction will be supplemented by work site visits to observe the operations involved in related occupations and by demonstration visits by tradesmen and other employees from cooperating companies to reinforce the idea that the skills being learned bear a real relation to the opportunities available in the world or work.

5. At grade 11, on the basis of their previous experiences and with the guidance of the work orientation team the students will choose one major occupational skill in which to major for intensive training. Instruction will be offered in the following areas:

   a. Cooperative Office Education (typing, shorthand, bookkeeping, office programming)
   b. Merchandizing, Retailing and Sales
   c. Banking
   d. Home Economics (foods and food service, home nursing, vocational homemaking)
   e. Carpentry
   f. Appliance Mechanics
   g. Auto Mechanics

h. Machine Shop
i. Mechanical Drawing and Drafting
j. Graphic Arts and Printing
k. Building Maintenance

6. In grade 11 students majoring in different work areas will continue to make work-site visits to observe how the skills they are learning match those used by employees working in different occupations. They will also observe at work and talk to students in grade 12 who are involved in a work-site program, so that they may see first-hand that the skills they learn in school are saleable skills and form the basis for earning a living.

7. At grade 12, the students will enter a work-study program in which they will attend school for 1/2 day and hold a part-time job with a cooperating company for the other half. The job will enable them to earn money while putting their training to use in a real work situation. Placement for work-study will be the responsibility of the work orientation team, who will monitor the students' performance on the job, provide guidance and support and assist the student in interpreting his work experience in terms of what his next step in career development will be.

8. The work orientation team will play a large role in helping the student find employment or plan for further vocational training following graduation. These efforts will be coordinated with the job placement program operated by the Job Development Project, a program currently operating under state funds which has record of placing 95% of its student clientele in jobs after graduation.

6 C.

Being pyramidal in design and developmental in nature, the program was to facilitate the natural progression of the student from one phase to another with a maximum of continuity and a minimum of disruption. Upon completion of the multi-faceted program offering information and orientation to the gamut of occupations, the fifth and sixth grade pupil was to progress naturally to the next plateau in the design.

At the junior high level the student was to embark upon an orientational-explorational course of study. Within this framework the student was acquiring skills to add to his previously gained knowledge about the various occupational clusters (See figure 4). The acquisition of these skills was not to be in the traditional project-centered junior high industrial arts program. Instead a "model" industry was to be used to illustrate to the student the inter-relations between production, management and service areas of business and industry. In one junior high, the production woodshop achieved a fair amount of success.

Upon entering senior high, the student is at the threshold of the last major phase of the pyramid. The culmination of this program will be graduation from high school with enough skills to obtain and retain a job that offers opportunities for advancement (See figures 5-7). In strving for this end the student found the program narrowing from a career-orientation-explorational one to a career-preparational one. Having allowed the student to sample various skills, his school program now provided for intensive training in one skill area of his choice. The student's school program in his senior year was supplemented with a half-day work experience that not only provided on-the-job experience but offered the incentive and satisfaction of earning a wage.

The line of administrative authority and responsibility is represented by figure 8. Solid lines represent a line relationship and broken lines a staff relationship. Provision had been made for advisory input from Model Cities at all administrative levels.

In addition, there was established a Developmental Vocational Education Committee composed of seven members: Four representatives of the Cleveland Model Cities Association and three representatives of the Cleveland Board of Education, one of which was the Project Manager of the program. The Committee made recommendations for effective implementation of the program. Recommendations were carried to the administration of the Cleveland Public Schools through the Model Cities Cleveland Public Schools Liaison person.

The staff that implemented the Developmental Vocational Education Program involved three work orientation teachers, 10 vocational aides and the project director. During the second year there were staff additions that resulted in four work orientation teachers, and 13 vocational aides. At the end of the third year, however, the number of vocational aides had been reduced to seven. Participating teachers within the Cleveland School System totaled 215 while teacher participation in the non-public schools totaled eight.

In the public school system, the 10 participating elementary schools had a total of 5,182 students. Of this total 1,353 students par-

FIGURE 4

WILLSON JUNIOR HIGH

TOTAL ENROLLMENT 692

TOTAL VOCATIONAL EDUCATION ENROLLMENT 551

	% OF STUDENTS	% OF STUDENTS ENROLLED
Industrial Arts	232	33.3%
Business Education	145	20.1%
Home Economics	152	22.4%
Occupational Work Adjustment	22	3.2%
	551	

ADDISON JUNIOR HIGH

TOTAL ENROLLMENT 1425

TOTAL VOCATIONAL EDUCATION ENROLLMENT 1301

Industrial Arts	657	46%
Home Economics	504	35%
Business Education	140	9%
	1301	

FIGURE 5

EAST HIGH SCHOOL
TOTAL ENROLLMENT 1550

Entering 10th grade 800 students - 1969

Graduating seniors 290 - 1972

% of students graduating in this class 36.25%

% of students in Inductrial Arts Program - 22.1%

% of students in Business Education Programs - 50.1%

% of students in Home Economics Program - 22.8%

% of students in College Prepratory Programs - 8%

FIGURE 6

EAST HIGH SCHOOL
BUSINESS EDUCATION
777 students
enrolled

SUBJECT	% OF STUDENTS ENROLLED
Bookkeeping	16.8%
Business English	5.1%
Co-orperative Office Education	2.4%
Distributive Education	.3%
Office Practice	2.1%
Shorthand	6.1%
Vocational Sales	2.7%
Work Experience in Banking	.5%
Typing	69%

HOME ECONOMICS
401 students
enrolled

SUBJECT	% OF STUDENTS ENROLLED
Co-operative Home Economics	.5%
Clothing	20.7%
Dynamic Living	21%
Foods	14.8%
Food Service	11.1%
Homemaking	12.2%
Home Nursing	11.2%

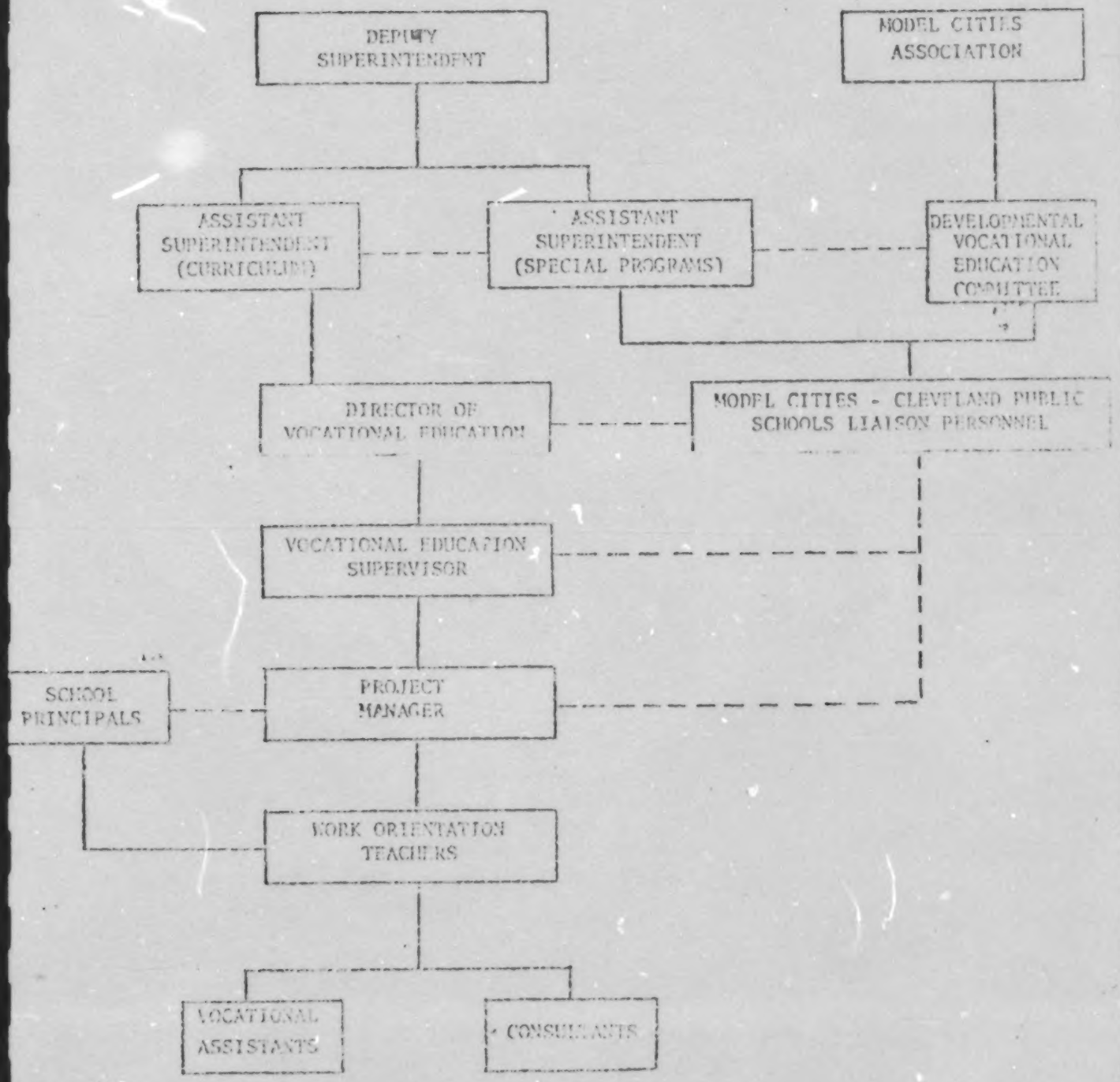
FIGURE 7

EAST HIGH SCHOOL
INDUSTRIAL ARTS
421 students
enrolled

SUBJECT	% OF STUDENTS ENROLLED
Vocational Machine Shop	4.5%
Occupational Work Experience	9.7%
Vocational Printing	2.8%
Building Maintenance	3.6%
Auto Mechanics	11%
Appliance Mechanics	8%
Mechanical Drawing	17.8%
Metal	20.3%
Wood	18%
Graphic Arts	8%

FIGURE 8

LINE OF ADMINISTRATIVE AUTHORITY FOR
DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM



ticipated in the fifth and sixth grade program. The three participating non-public schools had 241 students participating.

METHODS AND MATERIALS

Elementary Level:

1. The program was injected into social studies classes using fifteen occupational clusters as guides. The clusters introduced the students to a broad range of occupational areas and the value of each to society.

   The emphasis on the elementary level was on introduction to the occupations rather than detailed facts about them. Between September and November, 1971, five occupational clusters were introduced to the elementary schools. In the period of December, 1971 to March, 1972, two more clusters were added to the list. By June of 1973 the list had been expanded to include a a total of 15 (See figure 9). Using the 15 clusters as a guide, role-playing and simulation games were used. Also curriculum for the various clusters were developed (See accompanying Career Development Curriculum Guide).

2. In each elementary school a career information center was established. Each center contained books, pamphlets and similar materials.

3. To each elementary school a vocational aide was assigned to work with classroom teachers in the development of appropriate activities. One such activity manifested itself as "Operation Shoebox".

4. Speakers were scheduled to address classes within the schools on various topics related to careers. From December 1, 1970 through June 30, 1971 students at Mary B. Martin and John W. Raper Elementary Schools heard several speakers on several different subjects (See figure 10). Subsequently students were addressed on the communication and manufacturing clusters.

5. Field trips were scheduled to local business for first hand exposure to the real world of work. Again, various clusters were dealt with during the period of December, 1970 and June, 1971 (See figure 11). Other field trips were taken throughout the program (See figure 12).

FIGURE 9

OCCUPATIONAL CLUSTERS

Business and Office Occupations

Marketing and Distribution Occupations

Communication and Media Occupations

Construction Occupations

Manufacturing Occupations

Transportation Occupations

Argi-Business and Natural Resources Occupations

Marine Science Occupations

Environmental Control Occupations

Fine Arts and Humanities

Public Service Occupations

Health Occupations

Hospitality and Recreation Occupations

Personal Services Occupations

Consumer and Homemaking-Related Occupations

FIGURE 10

Speakers	Title	Topic of Speech	No. of Students Attended	Date
Mrs. Aretha Woods	Community Relations Specialist, Ohio Bell	Introduction to the World of Work, (Part of staff orientation)	9 Staff Members	February 11, 1971
Mrs. Pauline Crawford	Director of Nursing, Forest City Hospital	Nursing as a Career	35	May 12, 1971
Mr. W.J. Marbury	Public Defenders Office	Law Enforcement	60	May 21, 1971
Mr. Myles Smith	Manager, Issac Higgins Realty Company	Job Possibilities in Real Estate	40	May 26, 1971
Mr. Michael Hodges	Manager, Home Improvement Loans Division, Second Federal Savings and Loans	Loans	43	May 27, 1971
Mr. Clayborne Fagan	Insurance Agent, New York Life	Insurance	40	May 28, 1971

FIGURE 11

Visitation Sites	No. of Students Attended	Date
Cleveland: World Port	63*	May 13, 1971
Computer Center	30*	May 19, 1971
Max S. Hayes Technical High School	35 boys	May 20, 1971
Jane Addams Vocational High School	40 girls	May 25, 1971
Fisher Body - Division of General Motors	50*	May 25, 1971
W.B.O.E. Radio Station	33*	May 26, 1971
Cleveland: World Port	35*	June 2, 1971
Tip Top Bakery	35*	June 3, 1971

*Groups contained both boys and girls.

FIGURE 12

FIELD TRIPS

Places Visited	Times Visited
Cleveland Public Library	1
Emerson's Press	1
Hot Shoppe Restaurant	1
The Playhouse	1
Cuyahoga Meat Company	2
Eaton Telecomputer Company	2
The Plain Dealer	8
The Art Museum	4
Cuyahoga Community College	2
Filtration Plant	2
NASA	2
The Health Museum	1
Ship Yard	2
Jones Drug Center	1
East Ninth Street Pier	1
B.O.E. Ship Woodbine	4
WVIZ-TV	3
Western Electric	2
Cleveland Aquarium	2
Public Hall	1
Cuyahoga Courthouse	1
WJMO Radio Station	1
Halle's	1
The Ohio Bell	1
City Hall	1
Auto Aviation Museum	2
McDonald's Restaurant	3
Cooper'School	1
Picker Corporation	1
Charity Hospital	1
Dan-Dee Potatoe Chips	1
International Business Machines	1
Mt. Sinai Hospital	1
Cleveland Press	2
Cleveland Trust Bank	1
U.S. Postal Services	2

6. The sound-slides, films, filmstrips, transparencies, posters and bulletin boards served as audio-visual aids in illustrating various occupational areas (See figures 13-17).

Junior And Senior High Levels:

1. At the junior and senior high levels the program was injected in all areas (See figures 18-25). The occupational clusters were related to the subject being studied through lesson plans that included objectives, activities, materials needed and tests (See accompanying Career Development Curriculum Guide).

2. As at the elementary schools, career information centers were created in the libraries, speakers and work-site visitations scheduled, along with the use of appropriate level audio-visual aids.

3. A specialized aspect of the junior and senior high levels was the individual/group counseling. Conducted by members of the program staff and co-ordinated with the guidance department, these sessions were to serve as a period for student reactions to the activities of the career programs and to assist the students in self-analyzation of their own abilities, aptitudes and interests in the context of a career choice.

4. Father and son vocational courses at the East High Annex used.

6 D.

The results of the program can best be highlighted by the strengths and weaknesses of the program. Following this highlight section the results and accomplishments will be dealt with in greater detail.

Strength 1:

The use of a developmental program with a pyramidal design which started in the upper elementary grades and continued until graduation from senior high school.

Result

Provisions were made for the student to start with a broad career informational base and move successively to a career-explorational phase and then to a career-preparational phase.

FIGURE 13

Sound Slides

WABQ (Radio)

WVIZ (Television)

Call-N-Post

Post Office

Cleveland Hopkins International Airport

Cleveland International Port

Cleveland Transit System

Penn Central Railroads

Cleveland Fire Department

St. Vincent Charity Hospital

Richmond Brothers Clothing

Foods

Clothing

Infant Care

East High School Academic Program

East High School Vocational Program

East High School Work Study Program

East High School Extra-Curricular Activities

Manpower Training Center

FIGURE 14

16 MM Films

Careers in Transportation

Money in the Bank and Out

Horizons Unlimited (Health Careers)

Building a House

The Joys of Selling

Seaport

Careers in Machine Trades

Careers in Building Trades

Careers in Communication

Careers in Skilled Services (Sales)

Careers in Personal Services

Careers in Industry

Careers in Business and Office Occupations

The City

Our City Government

Trucks in Our Neighborhood

Dairy: Farm to Door

Postman: Rain or Shine

FIGURE 15

Filmstrips

Who Are You?

How Do You Get There?

What Do You Like To Do?

What Is A Job?

What Good Is School?

Motion Pictures

Radio

Television

The Newspaper

The Telephone

Books

Communicating Ideas

Communicating Without Words

Conservation For Today's America (Series with Sound)

Land Conservation Today

Water Conservation Today

Urban Conservation Today

Wildlife Conservation Today

Mineral Conservation Today

Forest Conservation Today

Soil Conservation Today

FIGURE 16

Transparencies

Review of Working Drawings, Conventions and Symbols

Map of Model Cities Area

Participation Schools and Attendance

Line of Administrative Authority

Request Form

Lesson Guide

Field Trip Form

Certificate of Application

Occupations Related to Physical Education

Occupations Related to English

Occupations Related to Business Education

Job Families Related to Business Education

Disciplines and Related TV Shows

Occupational Clusters and Related TV Programs

Occupational Clusters and Related Newspaper Items

Occupational Clusters and Related Radio Programs

Comic Strip Illustrating Occupation and Cluster

Labor Statistics of the 1970's

Projected Changes in Labor Force for the 1970's

Occupational Growth during the 1970's

Training Needs Determined by Growth plus Replacement

Forced Air Systems

Fundamentals of Carpentry

House Heating Complaints

House Circuit Layout

Forced Hot Air Systems

Plumbing Fixtures

Parts of a Faucet

Refrigeration Unit

FIGURE 17

Posters Developed

Business and Office
Manufacturing
Fine Arts and Humanities
Marine Science
Marketing and Distribution
Environmental Control
Hospitality and Recreation
Agri-Business and Natural Resources
Communication
Transportation--Ships
Manufacturing--Apparel
Health Services

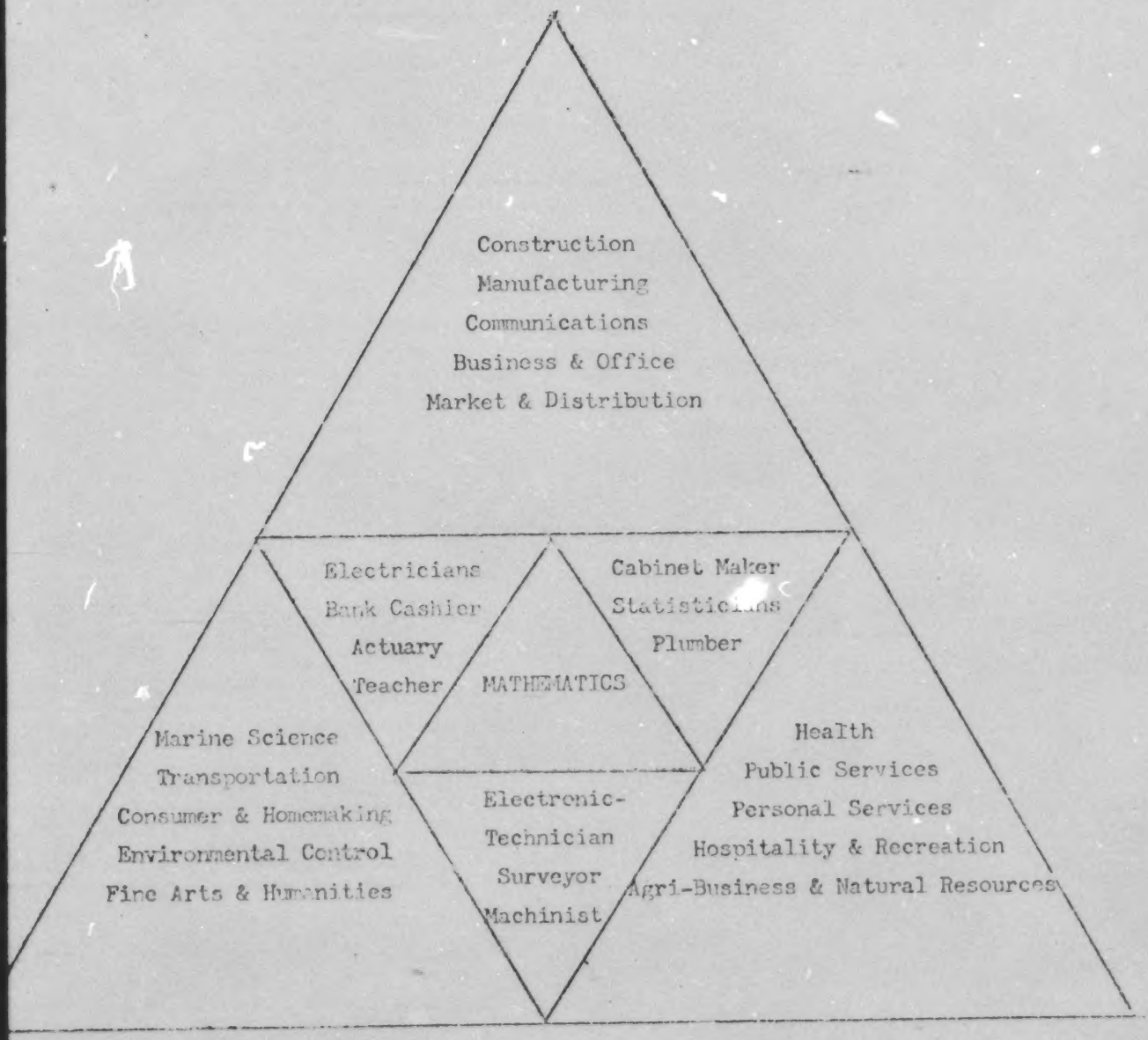
Bulletin Boards Developed

Health Occupations
Communication Media
Transportation
Manufacturing
Public Services

FIGURE 18

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

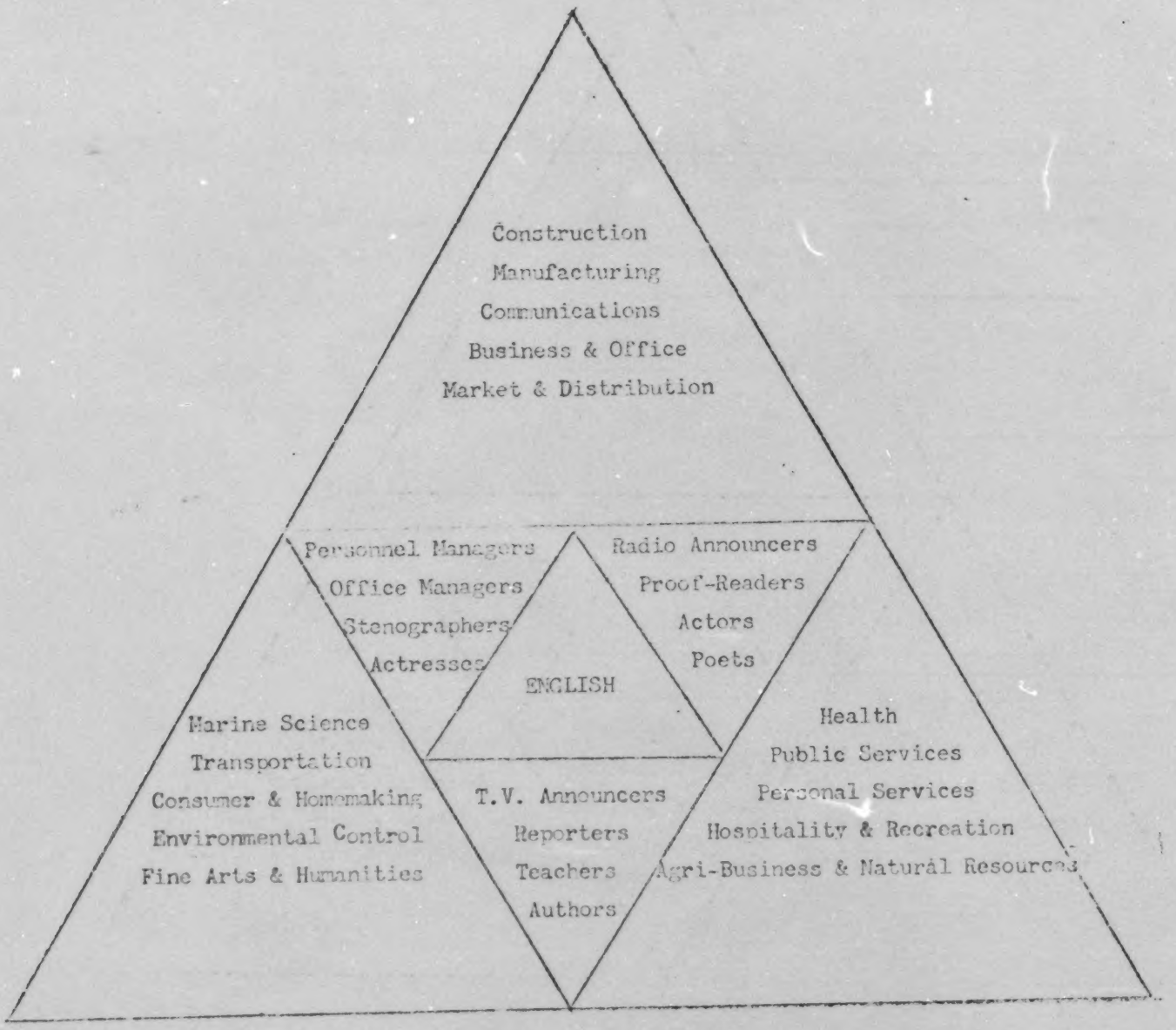


OCCUPATIONS RELATED TO MATHEMATICS

FIGURE 19

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

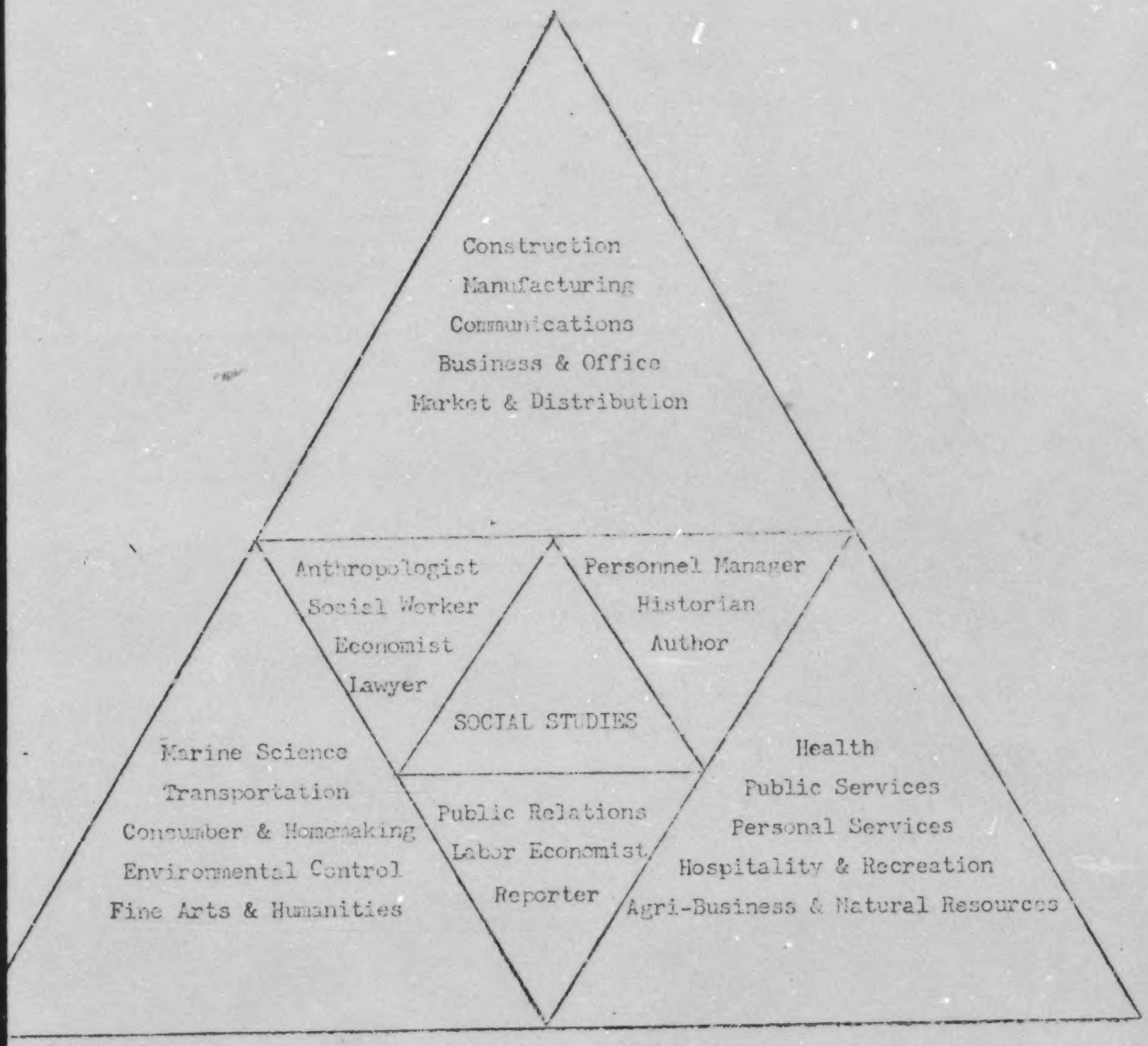


OCCUPATIONS RELATED TO ENGLISH

FIGURE 20

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

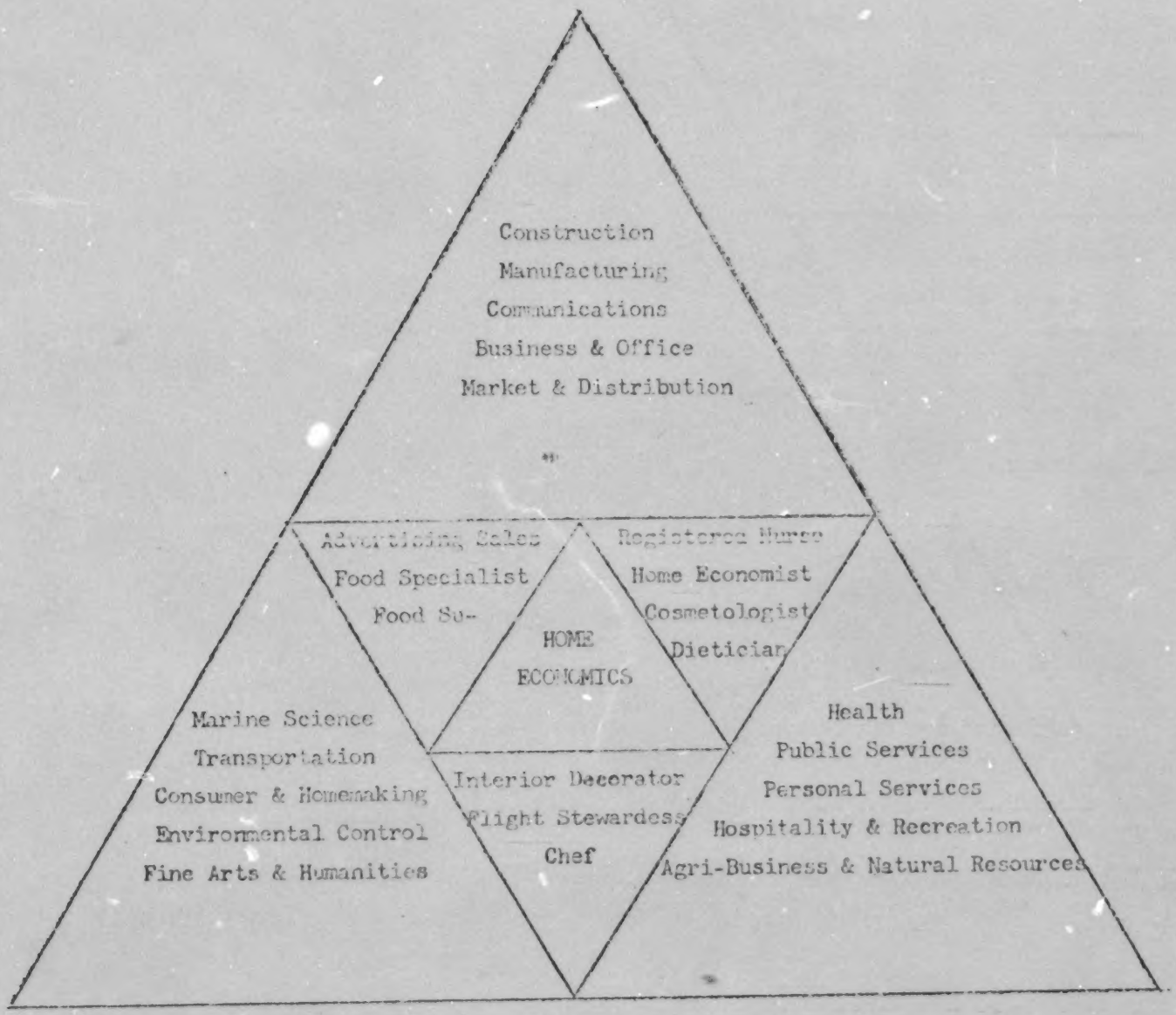


OCCUPATIONS RELATED TO SOCIAL STUDIES

FIGURE 21

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

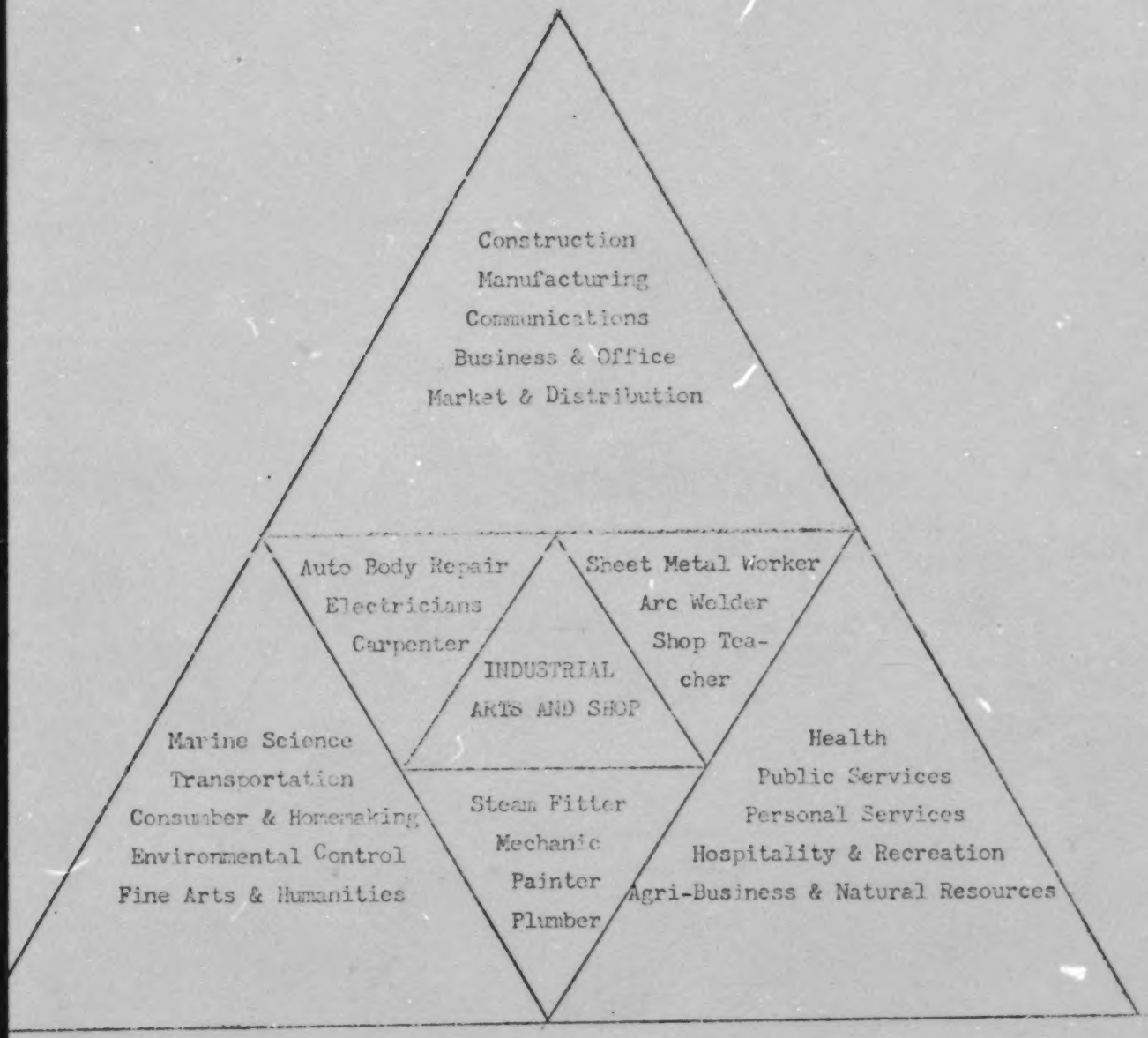


OCCUPATIONS RELATED TO HOME ECONOMICS

FIGURE 22

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

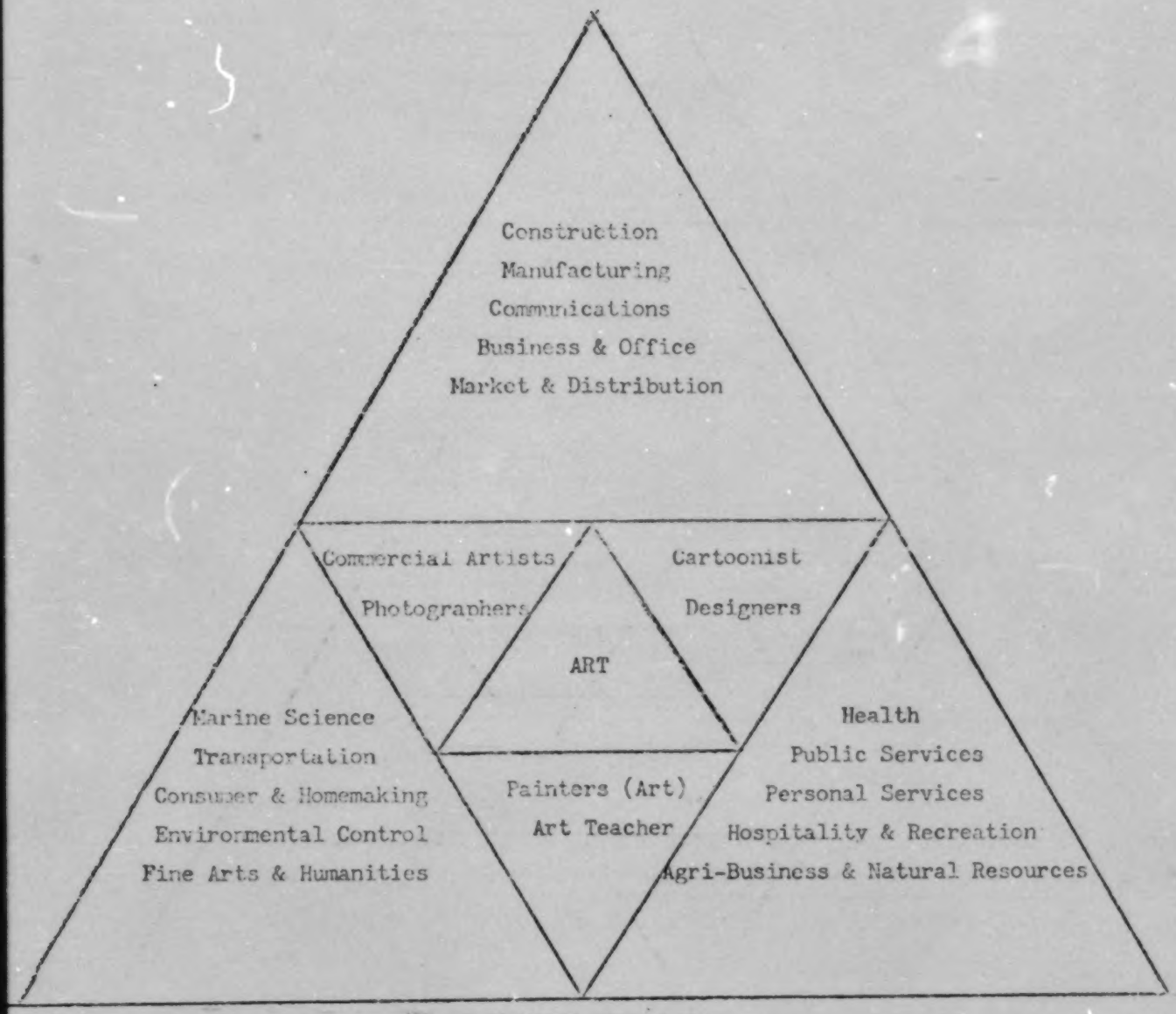


OCCUPATIONS RELATED TO INDUSTRIAL ARTS AND SHOP

FIGURE 23

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

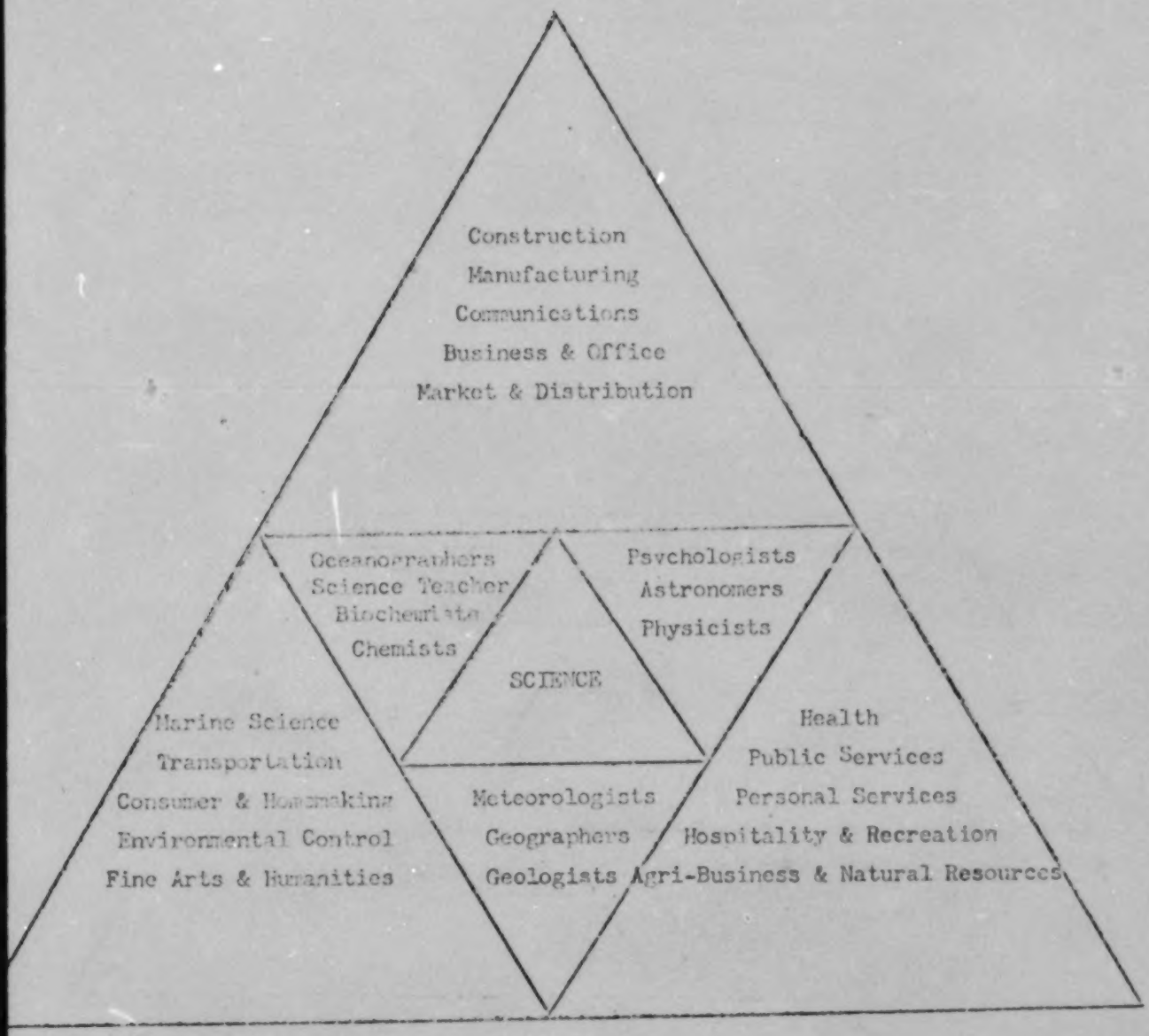


OCCUPATIONS RELATED TO ART

FIGURE 24

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II

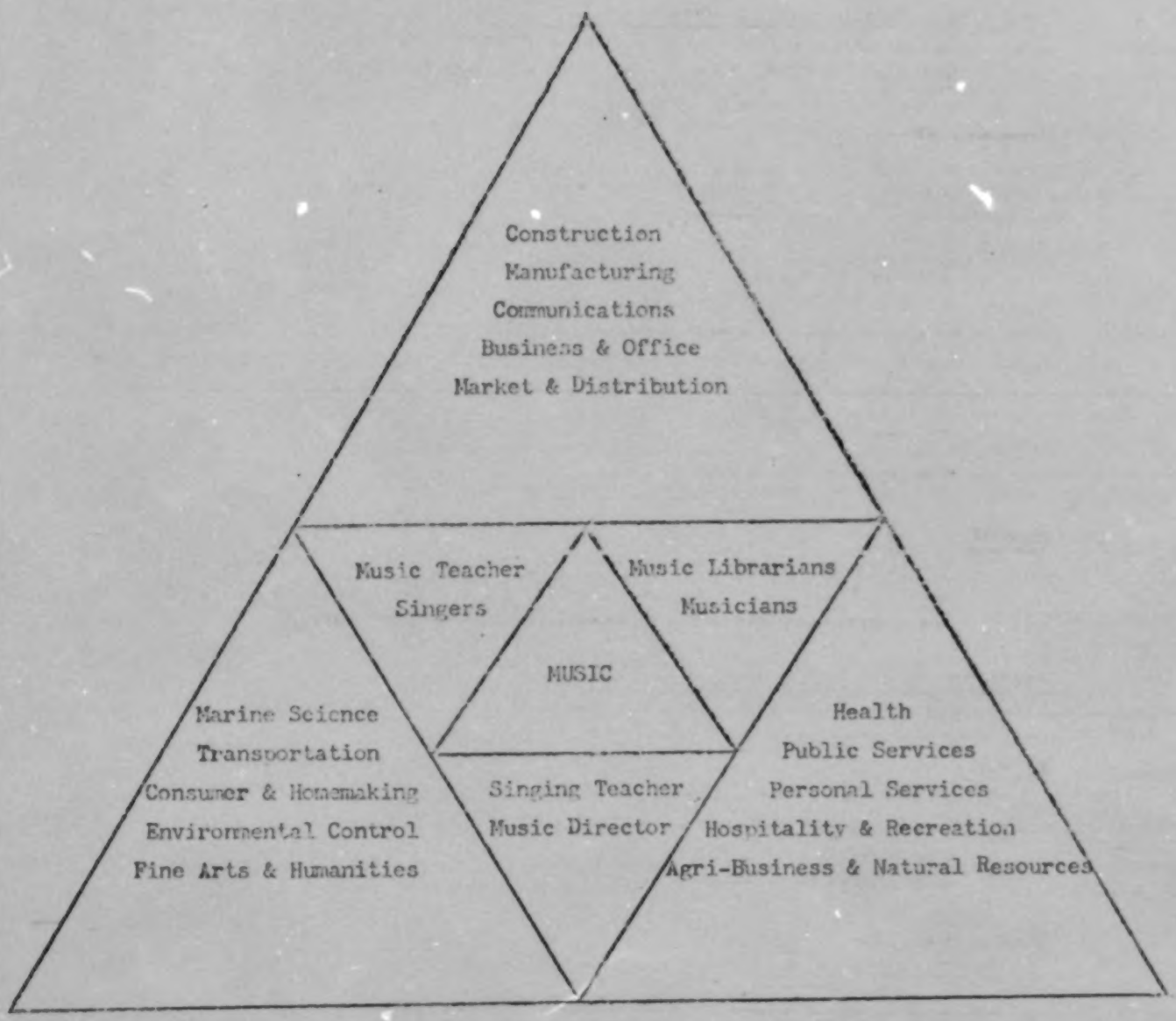


OCCUPATIONS RELATED TO SCIENCE

FIGURE 25

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

PHASE II



OCCUPATIONS RELATED TO MUSIC

Strength 2:

The use of the cluster and discipline concepts.

Result

Through the use of the cluster concept the children were equipped with the organizational advantage of grouping. Through the use of the discipline concept, students were able to grasp the relation between what they were studying and occupational choices.

Strength 3:

The opportunity of students to develop positive attitudes toward the world of work in general and various specific occupations.

Result

Evaluative evidence indicated that student attitudes were changed by being in the program. DVEP students exhibited occupational preferences different from those of the control students and specifically were more willing to express positive attitudes to lower prestige jobs.

Strength 4:

Senior high students involved in on-the-job training.

Result

Through the work-study program the students were able to use the skills acquired in the classroom, develop good work habits, and enhance their self-image through earning a wage.

Strength 5:

Program designed as a child-centered activity.

Result

With this approach, the child's needs were more profitably met than had the approach been in a teacher-dominated, teacher-orientated room in which teacher preferences might have been a hinderance.

Strength 6:

Enrichment of Model Cities area students' world through speakers, field trips and other supplemental activities.

Result

The speakers provided the students with face-to-face presentations and served as models for the students. The field trips not only provided at-the-site information and stimulation, but served to make the students more aware of the world around them and within their grasp. Above all, these activities helped to break

the routine of a teacher-dominated classroom and arouse student interest in the program.

Strength 7:

The development of audio-visual aids, many of which centered on Cleveland and highlighted the opportunities that are here rather than far away.

Result

Through this method the students' awareness of what is real and within their reach was reinforced. In addition these aids served in lieu of field trips in which some students could not participate due to are requirements or illness.

Strength 8:

Establishment of a career information center in each of the participating schcols.

Result

The career information center served not only the students participating in the program, but it was available for all the students in the participating schools to use. Further, the career information library can serve as a permanent resource center for student inquiry and its materials can be readily updated.

Weakness 1: Late funding.

Result

Late funding got the program off to a slow start. If funding had been received earlier, manypitfalls could have been avoided.

Weakness 2: Insufficient number of personnel.

Result

The program could have been implemented with greater ease had there been a co-ordinating teacher for the junior high level and another co-ordinating teacher for the senior high level.

The scope of the program was such that a project director should have been employed whose only responsibility was the success of the DVEP.

Weakness 3: Lack of in-depth orientation of staff prior to program implementation.

Result

Lacking a substantial orientation prior to entering the classroom,

the vocational aides found themselves lacking teaching skills, clarity about their role, and certain vocational skills necessary for the various supplementary activities of the program.

Weakness 4: Insufficient orientation of participating teachers.

Result

The teachers often misued or under-utilized the vocational aides. Various sources implied that some teachers may have felt imposed upon in taking part in the program and that their role as "The Teacher" was threatened.

Weakness 5: Insufficient time allotted for junior and senior high operations prior to project termination.

Result

As it developed, the DVEP had only one year's operation at the junior and senior high level. It proved to be an insufficient amount of time. A two-year minimum of time was needed for this phase of the program.

Weakness 6: No provision for the evaluation of participating teachers.

Result

If participating teachers had been evaluated as part of the DVEP and had known that such an evaluation would be made it is probable that several things would have resulted: (1) Better class records would have been kept that would have yeilded valuable data for the complation of this report and (2) The knowledge that they were being evaluated with the DVEP as an integral part of their performance and not as something extra would have changed the less than positive attitudes of some.

Weakness 7: Little or no parent participation.

Result

More parental participation would have enhanced the program. The parents' positive attitudes would have reinforced the program's materials and activities.

In the implementation of the Developmental Vocational Education Program several problems arose. The problems encountered and the manner in which they are dealt with can be decisive factors in a project's success. For this reason the Developmental Vocational Education Program's "problems" of the first year in particular must serve as a backdrop for the accomplishments of the program.

The basic problem of the first year was lack of funding until the Fall of 1970. This, in turn, created difficulties in the recruitment of staff, orientation of staff, procurement of materials, reuctancy of participating teachers to disrupt their semester plans and hesitancy of some teachers to become involved with the child-centered activity the Developmental Vocational Education Program offered.

Of the above mentioned first-year problems, most of the detrimental effects of late funding had been dealt with an erased according to the regional evaluation by July, 1971. As it pointed out, the previous semester (and summer of '71) would allow sufficient time for the procurement of materials and development of teacher guides.

While the procurement of materials and the development of teacher guides could be accomplished with more time, the problems of orienting and fully preparing the vocational aides and the participating teachers proved to be a bit more difficult.

Problems with the participating teachers centered around a lack of communication. To some of these teachers the manner in which the Vocational Aides and program materials were to be used was unclear. Some teachers misued or under-utilized the aides by having them just sit through sessions in their classrooms where the aides should have been involved in some supervisory responsibilities and tutoring capacities that would have bolstered the aide's skill areas. Other teachers under-utilized the aides in that the aides' role was limited to the presentation of Developmental Vocational Education Program materials. Still other teachers who were not particularly enthusiastic about the Developmental Vocational Education Program failed to give the aides the positive reinforcement necessary to build the aide's self-confidence in the early stages. This failure inpart, seemed due to teachers feeling "threatened" by the aides presence.

The other major program problems which the teachers centered around Developmental Vocational Education Program materials. In this case the problem was two-fold. The lesser of the two problems was the teachers' misconception that Developmental Vocational Education Program audio-visual materials should be left with the teachers for use in the absence of the aides. Also, this misconception about audio-visual materials caused a reluctance on the part of some teachers to either present an entire Developmental Vocational Education Program lesson in an aide's absence or to conclude a lesson that an aide had started but time had prevented him from finishing. In short, not all participating teachers had been sufficiently "sold" on the Developmental Vocational Education Program in that completing a lesson was looked upon as "extra work".

The second problem was particularly cited in the local evaluation in regard to program delivery in the elementary schools. This involved

the somewhat tenuous relationship between the Developmental Vocational Education Program materials and the elementary social studies curriculum. In this evaluation the vocational aides voiced a difficult in relating and justifying any single presentation to the current social studies unit. The difficulty was that the program was limited to one class session (40 minutes) a week and the time to complete a given occupational cluster often required several sessions to complete. It became readily apparent that the two sets of materials increasingly diverged from one another and would follow independent courses.

The teachers substantiated the aides view of injecting Developmental Vocational Education Program material into the elementary social studies curriculum. The justification for relating the two sets of materials to one another seemed somewhat artificial.

As stated above the second major enduring problem centered around the vocational aides. Some of the difficulties in this area have been referred to and are comparable to the "teacher" problems.

Initially, the original ten aides hired were not given sufficient orientation. This, in part, was due to the late funding of the program. The aides felt that not only the quantity of traning they had received but the quality of it had hindered program delivery.

In lieu of observing the participating teachers at the beginning of the program, the aides felt they needed more substantive training in regard to their teaching skills. This deficiency of teaching skills had been noted by several teachers and principals. Also, when those aides attempted to learn the necessary skills, those who were working with less enthusiastic teachers found it more difficult to do, possibly due to less positive feedbacks. The aides voiced this discontent as a dependency on the teachers.

During the course of the program several aides for various reasons resigned giving short notice before doing so. This caused several problems. First of all, if the aide left in the middle of the school quarter, because he had to be a college student, his replacement had to wait until the following registration period. Because most of the work in the program, heretofore, had been carried on by the aide, many teachers felt reluctant to carry it on during his absence as they regarded it as "extra work". Some teachers, on the other hand, agreed to carry the program themselves and were reluctant later to accept a new aide who might suddenly leave the program.

The second problem triggered by aide resignations involved their replacement. When a replacement was obtained, circumstances necessitated a limited orientation period. Then the aide faced being accepted

as new personnel in the schools by principals and teachers. Then, too, there was a time lapse between aides and this lapse might have caused some students to lose interest or to have difficulty in getting acquainted with a new aide.

The aides designated one other area as a problem. The problem was of an administrative scheduling nature within the Developmental Vocational Education Program project, the individual schools and between both. A frequent problem, for example, involved scheduling and co-ordinating field trips.

Other problems were encountered by the Developmental Vocational Education Program. One of these was the problem of obtaining first-hand materials from various industries. Many industries refused to issue information regarding the established union agreed-upon wage scale for various positions. Some industries do not have pamphlets or other printed information available, and invariable some companies are slow about filling out and returning questionnaires.

Another problem concerned the number of staff. At the junior and senior high levels, the co-ordinating teacher felt he was spreading himself too thin. He found himself being responsible for a section of the program that involved 3,358 students. Also, the Developmental Vocational Education Program was such that it needed a fulltime director who could devote all of his capabilities and energies to the program's success.

Endeavoring to take elementary-age students on certain field trips caused some difficulties. Many industries refused to admit students of this age because they feel that too much danger is involved. Also, field trips, in some occupational endeavors, are limited by the short operational season.

One of the keys to the success of any educational endeavor is parental participation. For the most part, this project seemed to lack this key ingredient. Certain teacher guides were designed to secure parental participation through the use of TV, radio and newspapers (See figures 26-29). For example, a parent and child might view a TV medical show together trying to identify the various medical occupations that were presented in that show. Although no data was collected regarding parental participation, it is worthy to note its absence.

As for parental involvement at the junior and senior high levels, the co-ordinating teacher did not note any. The Father-Son activities did provide some involvement, and as such, was an exception.

It is against the above background of problems that the accom-

FIGURE 26

TELEVISION PROGRAMS RELATED TO DISCIPLINES

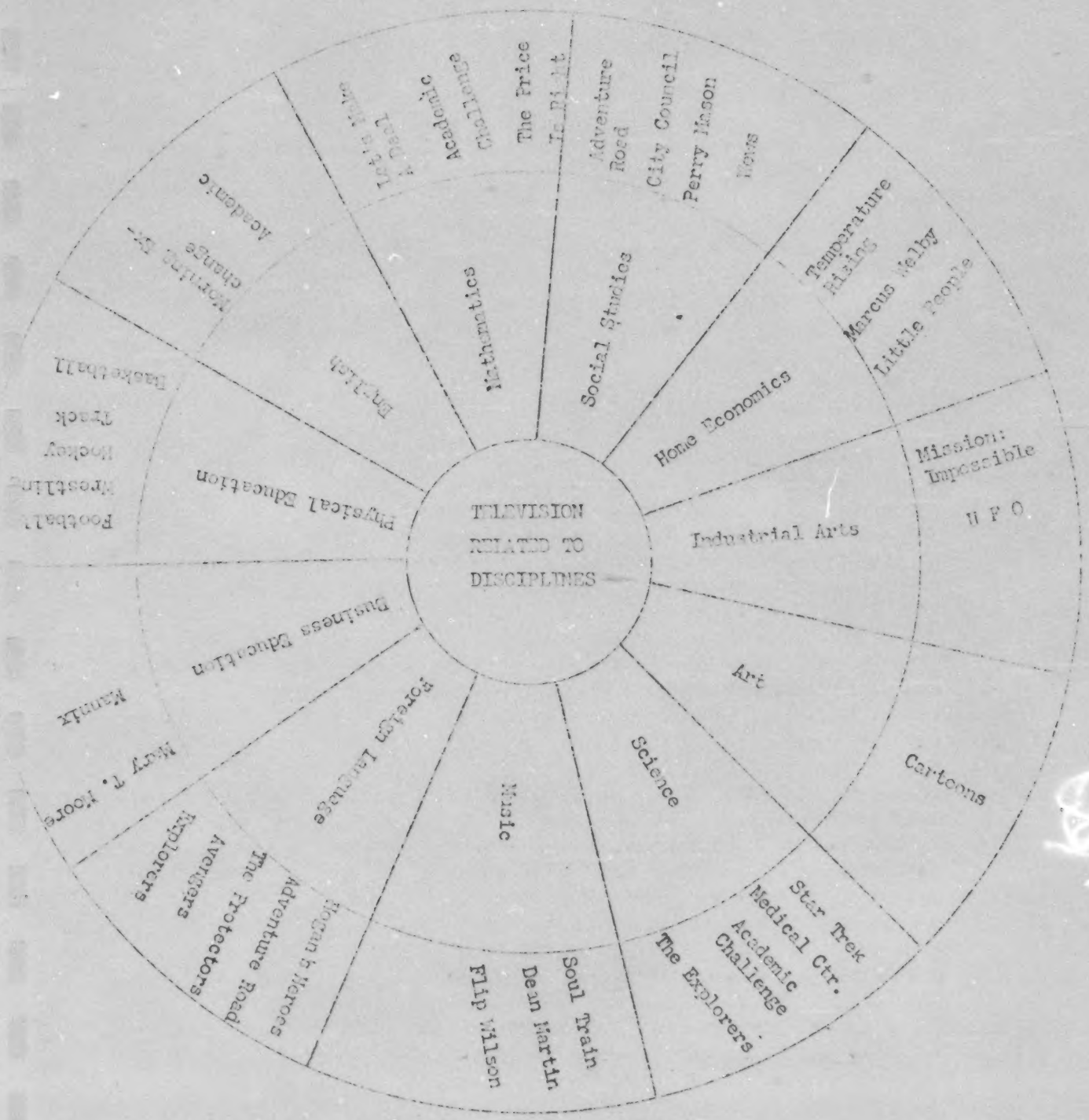


FIGURE 27

TELEVISION PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS

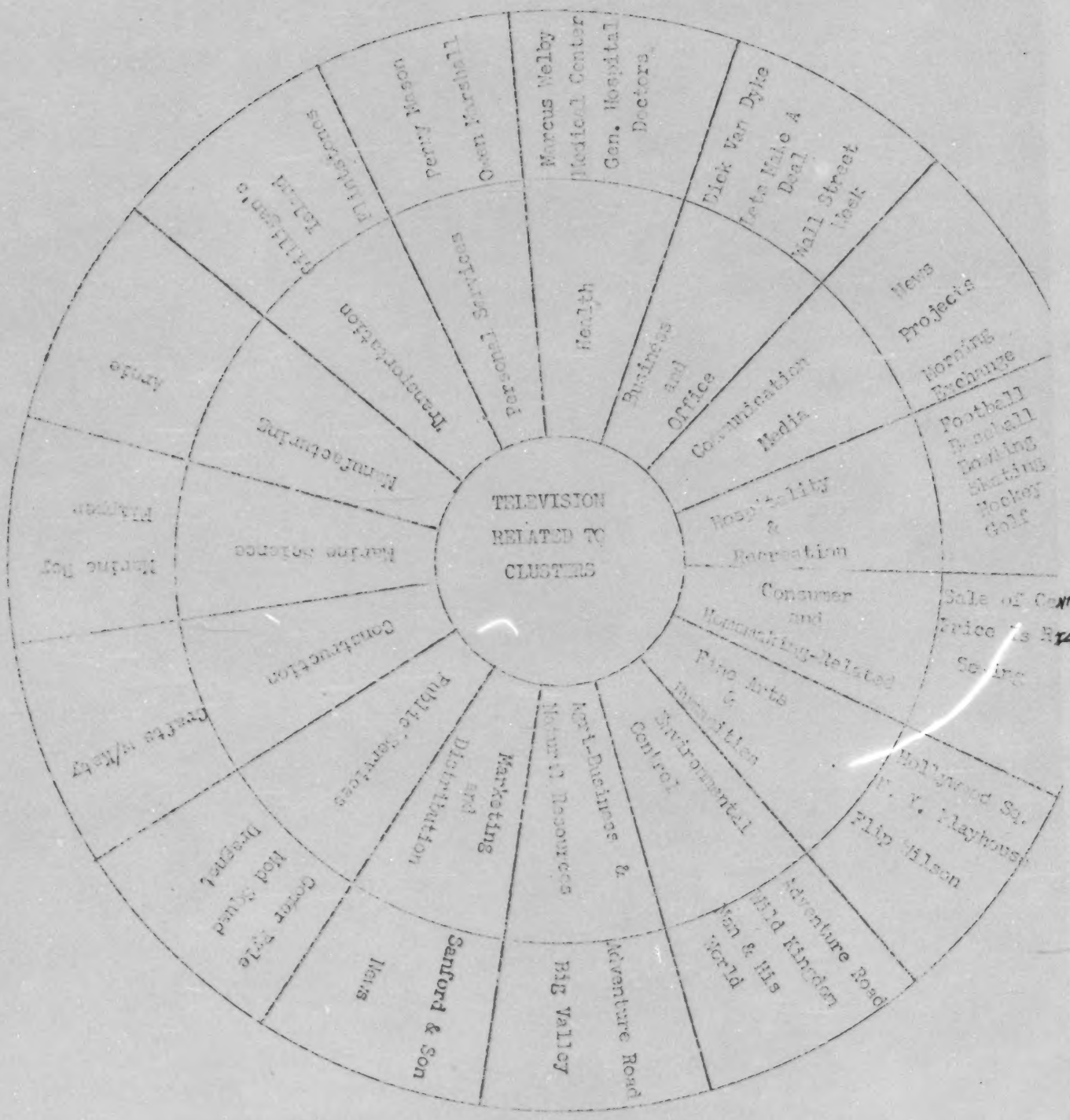


FIGURE 28

RADIO PROGRAMS RELATED TO OCCUPATIONAL CLUSTERS

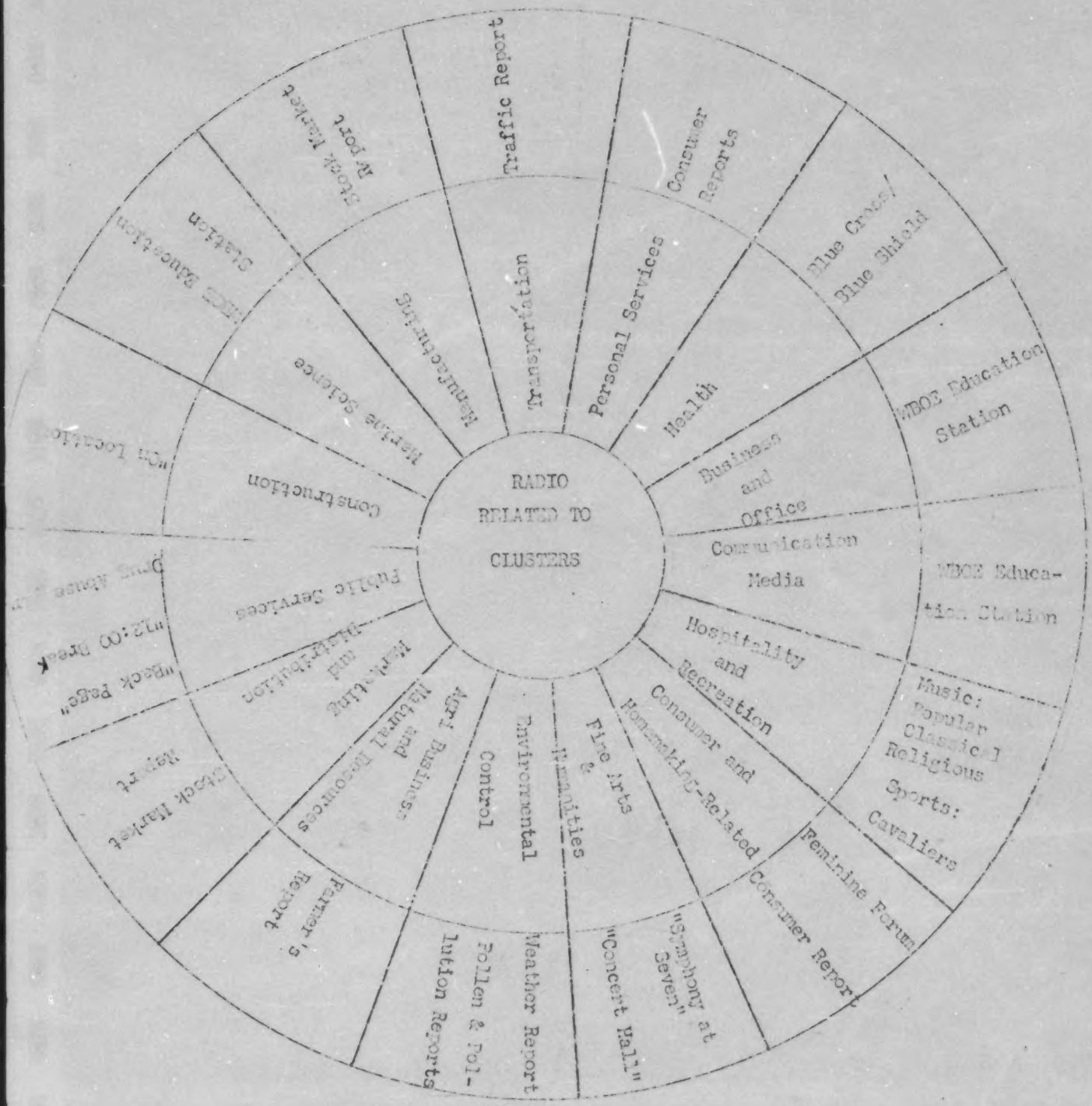
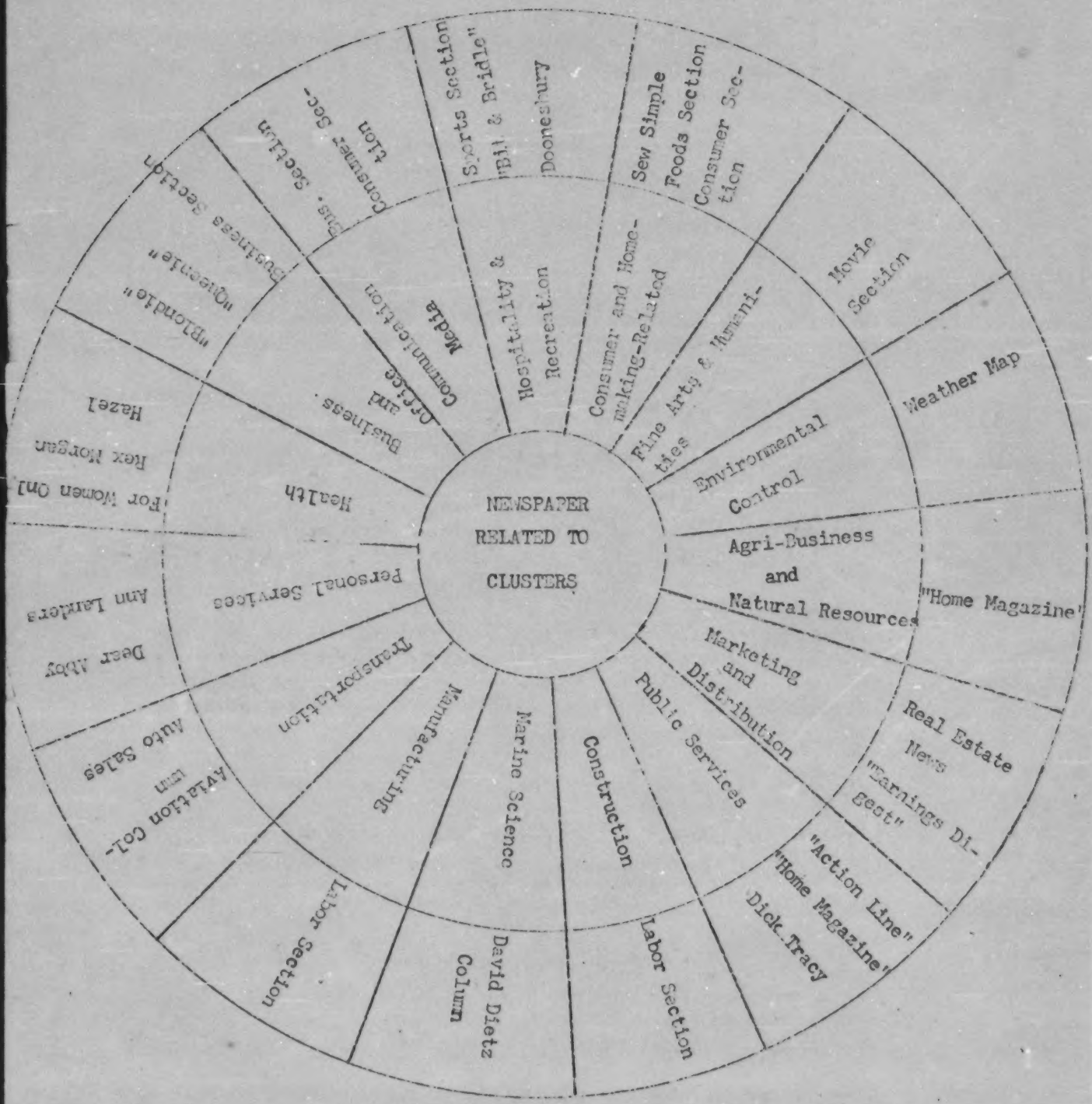


FIGURE 29

NEWSPAPER RELATED TO OCCUPATIONAL CLUSTERS



plishments must be weighed. By the summer of 1971, when the regional evaluation had been compiled it found that those elementary teachers and the school administrator who had been interviewed and who had been involved with the program voiced strong support for the elementary school component and praised highly the past efforts of the DVEP's teachers and vocational assistants.

Father-Son activities and vocational courses, such as automotive mechanics and building maintenance were established at the East High Annex. Activities included the establishment of career clubs and enrollment of the students in vocational courses.

The local evaluation, conducted in 1971-72 using a control group and a multiple-factor analysis various design, obtained significant results in testing the objective that DVEP students would demonstrate greater knowledge of certain occupational clusters (See figures 30 a-f).

Also tested were the attitudes of DVEP students and control students to certain jobs. In the areas of knowledge, DVEP schools obtained significantly higher achievement than any control schools.

Concerning attitudes, it was found that DVEP males and females were more willing to express more positive preferences for lower prestige jobs and less willing to express high positive preferences for higher prestige jobs.

The evaluation also included information on the organizational aspects of the program. Most teachers and principals who were interviewed at this time indicated a favorable reaction to the concept of developmental education and were favorably impressed with program delivery despite and handicaps mentioned earlier.

In summary of this evaluation the following three results were stated:

1. The empirical investigation indicated that the DVEP did result in significantly greater occupational knowledge for students participating in the program.

2. Program participation affects the perceived preferability of certain jobs. Particularly, the DVEP students were more willing to choose lower prestige jobs. Regarding the students' attitudes toward work-related concepts, the data did show more positive attitudes toward certain specific job concepts.

3. In conclusion, the DVEP project successfully impacted on the target population based on the results for the two outcome objectives.

FIGURE 30a

JOB INFORMATION QUESTIONNAIRE

NAME: _____ SEX: _____

SCHOOL: _____ GRADE: _____

1. FATHER'S OCCUPATION _____

2. MOTHER'S OCCUPATION _____

3. WHAT ARE THE NAMES OF THE NEWSPAPERS IN CLEVELAND? _____

_____

4. WHAT ARE THE TELEVISION STATIONS ON WHICH YOU CAN WATCH T.V. SHOWS?

_____

5. NAME THE LARGEST AIRPORT IN CLEVELAND? _____

_____

6. NAME THREE AIRLINES THAT FLY TO AND FROM CLEVELAND? _____

_____

7. WHAT KIND OF CARD WOULD YOU NEED BEFORE YOU CAN GET A JOB?

_____

8. HERE ARE SOME THINGS YOU NEED TO DO IF YOU WANT TO FIND AND GET A JOB. SHOW THE ORDER THAT YOU WOULD DO THESE THINGS BY PUTTING A 1 NEXT TO THE FIRST STEP, A 2 NEXT TO THE SECOND STEP, ETC.

_____ GO TO AN EMPLOYMENT SERVICE

_____ DECIDE WHAT KIND OF JOB YOU ARE ABLE TO GET

_____ READ THE HELP WANTED ADS

_____ GO FOR AN INTERVIEW

_____ TELEPHONE THE EMPLOYER

FIGURE 30b

9. UNDERLINE THE PLACE WHERE EACH OF THESE JOBS WOULD MOST LIKELY BE FOUND.
FOR EXAMPLE: A REPORTER WORKS AT A NEWSPAPER.

REPORTER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SPECIAL DELIVERY MESSENGER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
COPY EDITOR	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
INSTALLER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
LINEMAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
TRAFFIC MANAGER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
NEWS DIRECTOR	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SERVICE REPRESENTATIVE	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
PARCEL POST CARRIER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
ENGRAVER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
PRESSMAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
MAKE-UP ARTIST	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
CHIEF ENGINEER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
BROADCAST TECHNICIAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SALES REPRESENTATIVE	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
DIRECTORY CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
DISTRIBUTION CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
FOREIGN CORRESPONDENT	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
WINDOW CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE

10. WHO TAKES YOUR MONEY WHEN YOU WANT TO FLY ON AN AIRPLANE: ?

_____A. RESERVATION AGENT

_____B. TICKET SALES AGENT

_____C. AIR TRAFFIC CONTROLLER

_____D. AIRLINE DISPATCHER

FIGURE 30c

11. WHO TRIES TO MAKE YOU FEEL COMFORTABLE ON BOARD AN AIRPLANE?

____A. FLIGHT OFFICER
____B. CO-PILOT
____C. STEWARDESS
____D. AIRLINE DISPATCHER

12. WHO LOADS AND UNLOADS THE BAGGAGE ON AN AIRPLANE?

____A. FLIGHT OFFICER
____B. RESERVATION AGENT
____C. AIRLINE DISPATCHER
____D. RAMP SERVICEMAN

13. WHO HELPS THE PILOT AVOID HITTING OTHER FLYING AIRPLANES BY GIVING HIM INFORMATION OVER HIS RADIO?

____A. AIR TRAFFIC CONTROLLER
____B. CO-PILOT
____C. FLIGHT ENGINEER
____D. AIRLINE DISPATCHER

14. WRITE THE NAMES OF DIFFERENT JOBS IN A HOSPITAL. FOR EXAMPLE: A DOCTOR WORKS IN A HOSPITAL.

_____ _____
_____ _____
_____ _____

15. WHICH JOB DOES NOT BELONG WITH THE OTHERS?

____A. TELEPHONE OPERATOR
____B. PROGRAM DIRECTOR
____C. SERVICE REPRESENTATIVE
____D. INSTALLER

____A. FLIGHT ENGINEER
____B. RAMP SERVICEMAN
____C. CHIEF ENGINEER
____D. PILOT

____A. PRODUCER
____B. EDITOR
____C. REPORTER
____D. PUBLISHER

FIGURE 30d

16. THIS IS A LIST OF TWENTY JOBS ON WHICH MEN AND WOMEN WORK FOR A LIVING. READ THROUGH THE LIST TO MAKE SURE YOU KNOW ALL THE JOBS AND THINK ABOUT HOW MUCH YOU WOULD LIKE TO WORK ON EACH OF THESE JOBS. NOW, DECIDE ON ONE JOB THAT YOU WOULD REALLY LIKE TO HAVE MORE THAN ANY OTHER. WRITE THE NAME OF THAT JOB IN THE SPACE NEXT TO "1 - BEST JOB." NOW, DECIDE WHICH JOB YOU WOULD REALLY NOT LIKE TO HAVE. DO NOT WORRY ABOUT THE REASON YOU DON'T WANT THE JOB. WRITE THE NAME OF THIS JOB IN THE SPACE NEXT TO "1 - WORST JOB." CONTINUE TO ALTERNATELY CHOOSE BETWEEN THE "NEXT WORST" JOBS UNTIL YOU YOU HAVE WRITTEN THE NAMES OF ALL THE JOBS IN THE SPACES. AS YOU SELECT EACH JOB, DRAW A LINE THROUGH IT SO YOU DON'T CHOOSE IT TWICE.

DOCTOR
ACTRESS/ACTOR
NURSE
MECHANIC (CAR)
TEACHER
POLICEMAN
EXECUTIVE SECRETARY
WAITER/WAITRESS
MODEL
LAWYER
REPORTER
BEAUTICIAN
GARBAGE COLLECTOR
COOK
DISC JOCKEY
STEWARDESS
ELECTRICIAN
AIRPLANE PILOT

1. "BEST JOB" - _____
2. "NEXT BEST JOB" - _____
3. "NEXT BEST JOB" - _____
4. "NEXT BEST JOB" - _____
5. "NEXT BEST JOB" - _____
6. "NEXT BEST JOB" - _____
7. "NEXT BEST JOB" - _____
8. "NEXT BEST JOB" - _____
9. "NEXT BEST JOB" - _____

9. "NEXT WORST JOB" - _____
8. "NEXT WORST JOB" - _____
7. "NEXT WORST JOB" - _____
6. "NEXT WORST JOB" - _____
5. "NEXT WORST JOB" - _____
4. "NEXT WORST JOB" - _____
3. "NEXT WORST JOB" - _____
2. "NEXT WORST JOB" - _____
1. "WORST JOB" — _____

FIGURE 30e

Getting a Job						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Newspaper Reporter						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Career						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Mail Carrier						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

FIGURE 30f

PLAY						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

UNEMPLOYMENT						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

TELEPHONE INSTALLER						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

EDUCATION						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

Also during the summer of 1972 a liaison worker was hired to assist the Developmental Vocational Education Program staff. He was to be the link between the program and the community by planning meetings with the PTA members who had children in the participating schools. The liaison worker also was instrumental in gathering information and meeting with persons who helped to implement the non-public school phase of the program.

During the fall of 1972, the non-public school phase of the program went into operation. By February, 1973 these schools offered data that indicated increases of the participating students knowledge in certain presented clusters from pre- and - post - test results (See appendex D).

"Operation Shoebox" was implemented in one elementary school. As a hands-on project, the construction of the shoebox enabled the students to utilize many subjects they were studying including math, spelling, English, reading, writing and gave them the opportunity to express their creative abilities.

The project was of an assembly line nature, giving each student the chance to work independently, and to learn skills such as measuring, sanding, glueing, hammering, varnishing and painting. The simple tools involved in these tasks were employed by the student.

The boxes were on display at the school and parents were invited to view them. Occupational clusters related to this project included construction; fine arts and humanities; communication media; marketing and distribution; and business and office.

In the two junior highs and the senior high, field trips, speakers, audio-visual aids and the career information library were made available as they were in the elementary schools. Also, at one junior high a production woodshop achieved some success.

The major accomplishment of the junior and senior high schools involved the injecting of the project into the various disciplines. Thus, the students were able to relate the subjects they were taking to real occupations. Also the co-ordinating teacher and his aides were available to give the students individual and/or group career information and counseling.

In the three upper level schools a total of 3,358 students participated in the program.

Accomplishments of the Developmental Vocational Education Program project must necessarily consider the curricula and materials developed to implement the program. Elementary, junior and senior high curricula were developed for most of the fifteen occupational clusters. The elementary curriculum includes lesson plans and pre-and post tests. The junior and senior high curricula include lesson plans along with some pre-and post-tests.

To facilitate different aspects of the curricula, field trips were taken which not only helped with the presentations but enriched the lives of the Model Cities area students.

In appreciation of these field trips "Certificates of Appreciation" (See figure 31) were sent to the various companies' representatives who assisted in these endeavors.

As an audio-visual aid for general use and substitute for certain field trips, sound-slides were developed for the clusters.

Transparencies were developed to aid in the orientation of staff. Others were developed for class presentations at the various levels.

To supplement the field trips, sound slides, transparencies, and curriculum, posters were developed and appropriate filmstrips made available.

As the Developmental Vocational Education Program was set up, the vocational aides were to be enrolled in Cuyahoga Community College on a part-time basis during the school year and full time during the summer in order to advance their knowledge and skills. The Developmental Vocational Education Program was to pay the aides tuition.

As a requirement for being involved with the program, the aides had to be successfully working on their college program. While most of the aides experienced some difficulty in college, only one found it necessary to withdraw from the Developmental Vocational Education Program due to failing grades.

Some material that was used in the various curricula included information that had been prepared from the use of the advertising section of the telephone book.

Other material reflected information compiled from a survey of a Cleveland newspaper (See figure 32). The results of the newspaper survey supplied supplemental data for curricula development. It was noted that the jobs people are willing to do, do not coincide with the availability of positions and that students would have to be made aware of the

FIGURE 31

Cleveland Public Schools

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

Certificate of Appreciation

Presented To

_____

In recognition of your concern for the students at

_____

School

Your contribution to our program is deeply appreciated.
We hope this certificate will serve as a lasting
memento of this pleasant occasion.

Co-ordinating Teacher	Date	Principal

FIGURE 32

Newspaper Survey of

Help and Position Wanted Ads

Help Wanted -- Males

30% - Marketing and Distribution Occupations
15% - Public Services Occupations
14% - Transportation Occupations
10% - Business and Office Occupations
9% - Hospitality and Recreation Occupations
7% - Manufacturing Occupations
6% - Personal Services Occupations
3% - Communications Occupations
2% - Construction Occupations
2% - Health Occupations
2% - Fine Arts and Humanities
100%

Help Wanted -- Females

27% - Business and Office Occupations
23% - Marketing and Distribution Occupations
15% - Public Services Occupations
12% - Hospitality and Recreation Occupations
7% - Personal Services Occupations
5% - Health Occupations
5% - Communication Occupations
4% - Manufacturing Occupations
2% - Fine Arts and Humanities Occupations
100%

Position Wanted -- Males

31% - Construction Occupations
15% - Transportation Occupations
15% - Marketing and Distribution Occupations
15% - Miscellaneous Occupations
8% - Business and Office Occupations
8% - Health Occupations
8% - Hospitality and Recreation Occupations
100%

Position Wanted -- Females

57% - Personal Services Occupations
43% - Business and Office Occupations
100%

occupational areas in demand in order to train for jobs that offer employment.

Finally, basic to all levels and each of the schools was the establishment of a career information center. These centers served as a reference for pupil inquiry in addition to the aide or in his absence.

6 E.

Evaluation of Project-Prepared by Third Party (See Appendix C).

6 F.

Generally it can be said that in spite of the problems incurred, the Developmental Vocational Education Program had more successes than failures in improving the occupational knowledge and attitudes of participating youth. The program had impact in the elementary schools. As for the junior and senior high levels, while the program achieved some successes at these levels, it needs more than a one year trial. Certainly if the program had been in operation longer, more definite conclusions could be drawn.

In the future, the "people" of the project should be expanded to include all grades, K-12. At the elementary level the project should not be limited to the social studies curriculum as not all students might be enrolled in it. If the program were expanded to a K-12 basis, starting in the elementary grades the children could be involved in simple hands-on projects that would build skills, co-ordination, enhance their self images through production and help form their concepts about work having an inherent dignity. As the child progressed on to graduation and a job, these concepts, skills and information could be added to with the result being a better equipped citizen with more specialized skills and knowledge than one who had not taken part in the total program.

A problem that needs to be resolved and that has implications for future projects is the need for early funding. Earlier funds would allow sufficient time to procure materials, develop teacher guides and start the orientation of staff.

A similar problem to be resolved would be the hiring of personnel. One of the stipulations in the project design was that the vocational aides be hired from residents within the Model Cities Area. With this stipulation in mind, the aides were hired from said area. In the future, more time and funds should be expended in order to secure more experienced and/or better qualified staff members.

The personnel would need more time for orientation and an orienta-

tion more substantive in nature than just observing teachers. The vocational aides need not only teaching skills, but vocational skills that will allow them to initiate more "hands-on" project.

Another problem with personnel needs to be resolved in the future. The work load at the junior and senior high level is too much for just one co-ordinating teacher. Considering the number of students involved and relating work and responsibilities, in the future, it might be best to have two co-ordinating teachers, one for each level.

The Developmental Vocational Education Program involved a sufficient amount of work to have employed a full-time project director. This is not meant as an aspersion on the project's director. It just points out that because of his other duties, he was not able to devote his full time, capacities and energies to the project's success.

Better orientation of the participating teachers and administration is also required. This group really needs a high-powered presentation (s) that will "sell" them on the project and clarify misconceptions concerning the use of the aides. If this group is enthusiastic, it can give the vocational aides the support they need. Also, if "sold", the teachers will enhance and expand aide presentations for the students' betterment and assist in securing parent participation.

As a recapitulation the basic strengths and weaknesses of the program can be stated as follows: Strengths of the Program.

1. The use of a developmental program which started in the upper elementary schools.

2. The use of the cluster and discipline concepts.

3. The opportunity of the students to develop positive attitudes toward the world of work in general and various specific occupations.

4. Senior high students involved in on-the-job training.

5. Program designed as a child-centered activity.

6. Enrichment of Model Cities area students' world through speakers, field trips and other supplemental activities.

7. The development of audio-visual aids, many of which centered on Cleveland and highlighted the opportunities that are here rather than far away.

8. Establishment of a career information center in each of the participating schools.

Weaknesses of the Program:

1. Late funding
2. Insufficient number of personnel
3. Lack of in-depth orientation of staff prior to program implementation
4. Insufficient orientation of participating teachers
5. Insufficient time allotted for junior and senior high operations prior to project termination.
6. No provision for the evaluation of participating teachers
7. Little or no parent participation

The Developmental Vocational Education Program materials that have been developed and the equipment purchased shall continue to be used. The materials will be used for supportive service to an on-going career education program in one attendance center in Cleveland. This center includes one senior high school, all junior high schools and the elementary schools. These supportive services will be extended to all students participating in the education program of that school attendance center.

The equipment as well as the materials (See appendices A & B), will be used in the staff orientation and implementation of a career education program. Additional sound slides and other materials will be provided as the need arises. The career information center in the library of each school will also be maintained to provide an on-going reference for students.

APPENDIX A

BIBLIOGRAPHY

APPENDIX A

BIBLIOGRAPHY

Occupational Outlook Handbook
U.S. Department of Labor
Bureau of Labor Statistics
Washington, D. C.

This handbook is a guide to employment opportunities in a broad range of occupations that covers all the principal areas of work. It brings together information of significant for those who are planning a career. Service as a basic tool in the vocational guidance process. We use this guide to gather comprehensive information on career opportunities.

Career Opportunities
New York Life Insurance Company
Box 51, Madison Square
Station New Yor, N.Y. 10010

Soft back book compared of a series of articles designed to help guide young people to a better future. These books are easy reading materials. They are used as a part of our careers library. We fine it good in that our students can easily relate to it, each article is based on the experience of one who has distinquished himself in his respective field.

English On The Job
Jerome Carlin
Golbe Book Company, Inc.
New York 10, New York

This book capitalizes upon that interest by organizing the English activities around a core of vocational guidance. We use it because it not only improve the students own english expression; they also gain insight into knowledge of some of the problems he will face in choosing his course. The students learning proceeds simultaneously in two directions: Toward a better understanding of his potentialities in the world of work and toward a better command of the communication skills needed in all phases of everyday living.

The Story Steel
United State Steel Corporation
600 Grant Street
Pittsburgh, Pa. 15219

A pamphlet style book which describe how steel was made. We use it to stress the importance of steel, it takes you from smelting of metal in prehistoric through the fascinating development of the iron

making processes.

The Epic of Steel
United State Steel
Public Relations
100 Erieview Plaza
Cleveland, Ohio 44114

This is a resource book used to get more detailed information about the steel industry.

Your Future In Daily Newspapers
American Newspaper Publishers
Association Foundation
750 Third Avenue
New York, New York

This is an easy to read material describing the jobs in the newspapers field. It is used as a part of our career library.

Hospitality Program
(Food Service & Lodging Ed.)
Council on Hotel, Restaurant and
Institutional Education (1970)
1522 K. Street, N. W.
Washington, D. C. 20005

This book is used to gain information in the area of good service and lodging. It explains the requirements one need if he or she is interested in managing a large hotel or motel. It also explain how one might go about getting into the areas of food catering.

Health Careers
The Greater Cleveland Hospital Association
1001 Huron Road
Cleveland, Ohio 44115

This guide provides minimum basic entry information about allied health education programs in Northeast Ohio. We have used this booklet as a reference tool for seeking information about an approved health career program. It explain in details the jobs available, the requirements, the grants available and suggestive places for training.

Aim High Vocational Series
Richards Rosen Press, Inc.,
New York, New York

The Aim High Vocational Guidance series is for the young person who is looking for a job. All of the books are written by experts in the occupations who know what the jobs are about. The series covers all those occupations have opportunities for young people and will help them to make decisions concerning them.

Careers In Depth
Richards Rosen Press

This series covers all the careers in practical terms for the young man or woman who is interested in more than just a job. All books were written by prominent men and women who are successful in their chosen fields.

Handbooks Of Job Facts
Scientific Research Associates

An occupational summary which helps to pin point the basic features and trends of a variety of significant occupations; contains concise summaries of basic data on 300 major occupations.

Industrial and Commerical Wiring
Kennard C. Graham
American Technical Society - Chicago, U.S.A.

This book has been rewritten to reflect the latest developments in the electrical field; covering new techniques and materials, and incorporating the latest additions and changes in the National electrical code. Its especially good that it begins with basic lighting terms and principles. Study guide also accompanies the book.

Electrical Construction Wiring
Walter N. Alerick
American Technical Society, Chicago, Ill 60637

This book includes the latest accepted changes in wiring, also the more traditional wiring precedures that are still recognized by the NEC. The text is very suitable for self-study. Questions are found at the end of each chapter for personal check up, classroom discussion, or assignments. They are designed to reinforce the information given in the chapter and to aid in giving directions for the review of the material in the chapter.

Related Mathematics For Carpenters
L.S. Chamberlain
American Technical Society

This book deals with mathematics as it relates to a practical occupation. The authors teaching experience demonstrated that students found it easy to learn mathematics when the materials consisted of realistic problems such as one might encounter on a job.

Automotive Maintenance and Trouble Shooting
Leslie F. Goings and Edward D. Spicer
American Technical Society
Chicago, 60637

This hard back book is based upon three main objectives (1) To show how to prevent most troubles; (2) to find out how to quickly and acquately locate cause of any trouble; (3) once it is known what is wrong, to show how to restore the car to satisfactory operations.

A Guide To Professional Careers
Walter Duckat
Julian Messner, a division of Simon & Schuster Inc.
New York, New York, 10018

This book is as it said a guide to professional careers. Many careers are mentioned in this book for college-bound students. The requirements, training, duties, salaries and future outlook for each career are clearly detailed, with helpful cross references to other closely related professional careers. The book is unique in that each career description includes questions to determine the reader's interest in and capabilities for the profession.

How To Plan A House
G. Townsend & J. Dalzell

A multi-purpose book written in a practical and authoritative manner. Designed to instruct the layman on house planning intelligently, the books is also written to be of value to builders, developers apprentices and students wishing basic information on planning. The book provides an entire course in design in the residential field presenting plans, how plans are made, and factors involved in shoping plans?

Machine Shop - Operations & Setups
Porter Lascoe, & Nelson

A text written by professionals in the field, with the purpose of providing basic training in conventional machine operations and information regarding the lastest developments and machine book business. The book also includes the student with innovations which will come into use in the buture using illustrations and language basic to the trainee.

Concrete Block Construction: For Home & Farm
J. Dalzell, Townsend

A guide written by professionals working in the field which carries the reader step by step through experience tested methods of erecting a structure designed to eliminate common errors in the use of concrete blocks, this book is filled with instruction valuable to the beginner as well as the mason inexperienced with the concrete blocks.

Steel Square
Townsend

A "how to do it" book with detailed instructions and illustrations for the carpenter or helper on the use of the steel square. This book is compiled in such a way as to explain lines and angles in a simple and practical manner; answering questions from "what is a steel square" to "how to building a roof". A valuable look in any carpenter's handbook.

APPENDIX B

INSTRUMENTS USED

APPENDIX B

INSTRUMENTS USED

S. R. A. Occupational Exploration Kit
Science Research Associates
Chicago, Illinois 60611

The occupational kit provides tudents with a systematic approach to job investigation. One important part of his kit is the scanner. The scanner is a coding device which help the student chose an occupational area that he will most likely qualify for in accordance to interest, ability, and education. This kit also include illustrated occupational briefs describing specific career areas.

S. R. A. Work (widening occupational kit)
Science Research Associates
Chicago, Illinois 60611

The Work Kit is used to help students expand their knowledge of the world of work, to recognize families of related jobs, to develop a deeper understanding of his own abilities and interests, and to learn about the type and extent of education needed to prepare adequately for various occupations. This kit also has five colored filmstrips that we used as an introduction to the world of work and to the many types of people who are a part of it.

Title of filmstrips

(1) Who Are You?
(2) What Do You Like To Do?
(3) What Good Is School?
(4) What Is A Job?
(5) What Are Job Families?

Language Development Kit (S. R. A.)
Chicago, Illinois 60611

This kit is composed of many large charts. Each chart depicts a differenct vocational area. Each set of charts has a space for new words to be added. Pens with erraseable ink are also included. Each set of charts provided pictures that students can easily related to and very readily write themes on.

3M Sound - Slide Machine
Minnesota Mining and Manufacturing Company

The 3M Brand Sound-Slide concept provides a complete automatic presentation which characterizes slide tape or slide talk programs. The

machine is easy to operate and maintain, it combines in one compact unit all the features of a 35MM slide projects and a magnetic disrecord and sound play back. We are using this machine to show slides we took of local agencies. With the machine comes a impact tray which holds up to 36 slide frames. The machine is good in that it stops, repeats and records depending on the person operating it and the material being stressed. The most important facts is that we show our own slides and narriate our own sould discs.

Camera Konica C. 35
Appliance City
Cleveland, Ohio

This camera is pocket size automatic that we've used to photograph local vocational industries. The photographs are developed in the form of a slide. Each slide is mounted on a single strudy frame and its accompanying magnetic sound track. They are later used on our 3M Sound-Slide Machine.

Chronicle's Occupational Library
Chronicle Guidance
Publications, Inc.
Morauia, New York 13118

This library consist of a collection of occupational information field in an unique system based on D.O.T ("Dictionary of Occupational Titles").

Occupational Briefs	The briefs are revised frequently to keep all information current. Our four hundred titles are now available.
Reprints	Reprints are taken from many technical publications. They give word pictures of occupations as seen by people working in them.
Posters	Posters deal either with occupations described in the briefs or with career and educational topics.
Other Materials	Include booklets, pamphlets, and brochures from government and business sources.

Cassette Tape Player & Recorder
Rheem Califone AV 80
Harpster Audio Visual Equipment Inc.
Cleveland, Ohio

This instrument was used to record classroom activities and discussion to be retained for playback. Complete talk shows were recorded during a class seccession. Commericals and all were entitled in this talk show, this done in connection with our communication cluster. This instrument was also use to transer voice into our sound slide system.

Educational Resources Division: The World of Work
Educational Design Inc.
47 West 13th Street
New York, New York 10011

The instrument consists of three kits of materials:

1) On The Job, 2) Getting A Job, and 3) Cross Vocational Skills and information. Each kit contains lesson and discussion cassette tapes along with student work books. The lesson tapes and student work books work equally well on an individual or group basis. The discussion tapes serve as spring boards for class discussion and role-playing. We used these kits in the senior high classes.

Overhead Projector: Buhl 80/14

We used this instrument to show transparencies during staff orientations and classroom presentations.

Thermofax Transparency Maker - 3M
Minnesota Mining & Manufacturing

With this instrument we produced many of the transparencies that were used in staff orientation and classroom presentations.

16MM Projector: Singer Graflex 16

This machine was used to show the various films available to the students.

Dukane Sound Filmstrip Projector: A-V Matic

This automatic sound filmstrip project has a TV style screen and plays the record which accompanies the filmstrip. It was used for individual and small group instruction at all levels.

SRA Knowledge Needed To Obtain Work (KNOW)
Science Research Associates
Chicago, Illinois 60611

This teacher-counselor guide included transparencies to help students obtain their first job. Units included: filling out an application, where to seek work and taking a test.

Career Education Series: Popeye Comic Books
King Features
235 East 45th Street
New York, N. Y. 10017

The comic books cover each of the various fifteen clusters. This materials combines high interest information with elementary school vocabulary. While we have used these primarily in the elementary grades, they can readily be used in the junior and senior highs for the slow or non-reader.

APPENDIX C

EVALUATION

Human Services Design Laboratory

School of Applied Social Sciences
Case Western Reserve University
CLEVELAND, OHIO 44106

83

AN EVALUATION OF THE DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

August, 1973

Lawrence Pitterman

Vashti Adger

Gregory O'Brien

Summary of Final Report

The Human Services Design Laboratory (HSDL) performed an independent evaluation of the impact and effectiveness of the Developmental Vocational Education Program (DVEP) in cooperation with the Division of Research and Development, Cleveland Public Schools.

The overall goal of the DVEP project was to create a bridge between school and earning a living for students in the Model Cities area. This would be done through a career development program beginning in elementary school and continuing through high school. It would provide students with a broad base of vocational information and exploratory experiences on which to base career decisions; with skill training to enable them to secure employment or to undertake future training in the field of their choice; and with actual job placement. Thus, the program was designed to increase options for making occupational decisions; to eliminate real and imagined barriers to attaining job skills; and to enhance learning achievement in all subject areas and at all educational levels for the youth in Model Cities area schools.

The evaluation effort involved three distinct phases:

(1) Specification of the appropriate program outcome objectives to be evaluated and examination of the organizational processes required for program delivery.

(2) Development of meaningful and reliable measurement instruments to assess program outcomes.

(3) Empirical evaluation investigation in which students from the participating DVEP schools were compared with a "matched" sample of students from non-DVEP schools.

Evaluation Objectives

Based on a review of the proposed program objectives and their applicability to the status of program implementation in May, 1972, two evaluation objectives were identified:

Objective 1: Experimental (DVEP) and control students will be compared on their specific and general knowledge relating to certain occupational clusters. Successful program implementation should result in significantly higher scores for the experimental (DVEP) students on achievement measures of this knowledge.

Objective 2: Experimental (DVEP) and control students will be compared on their preferences for certain jobs and on their attitudes toward the world of work. Successful program implementation should result in significantly more positive attitudes for experimental (DVEP) students toward the world of work. Significant differences in the expressed job preferences also should be obtained.

Instrument Development

Since the assessment of the DVEP project involved both achievement and attitudinal evaluation objectives, instrument development was directed toward obtaining meaningful and reliable measures for these objectives.

The primary emphasis of the data analysis for the content measures was on obtaining high internal-consistency reliability. Using two types of item analysis, item-difficulty and item-total correlation, two achievement measures

were developed. The internal-consistency reliability for both measures was approximately .85. This is well above the required level of acceptability.

The data analyses for the attitudinal portions of the evaluation instrument first examined the administrative applicability of the measurement techniques. Although a departure from typical attitude measures, the alternation ranking procedure yielded differential information about job preferences. A more conventional measure, the semantic differential, was employed to obtain attitudes toward worldof work concepts. Revised on the basis of factor analysis data, its final form included eight work related concepts which were rated on eight bipolar adjective scales. The use of a single summed score for these scales also resulted from the factor analyses.

The evaluation instruments both called the Job Information Questionnaire, included content, ranking and semantic differential measures.

Empirical Evaluation

The evaluation instruments were administered to the fifth and sixth grade students who had participated in the first year of the DVEP project (experimental group), and to a comparable group of students who were not in the program (control group) on three separate occasions: June, 1972; February, 1973 and June, 1973. Using this pre- and post-test, "matched" control group research design, the program objectives were evaluated.

Key Results - Objective 1

1. Employing a multiple-factor analysis of variance design, the main factor of program participation was significant, Experimental (DVEP) schools obtained significantly higher achievement than control schools. This was true for the entire evaluation period.
2. The same design also indicated that the main factor of grade level was significant. Sixth graders obtained significantly higher scores than fifth graders. This was also true for the entire evaluation period.
3. Beyond the effect of each of these main factors, the combination of both factors also was found to be significant in the initial project evaluation. The difference in obtained scores between fifth and sixth graders was smaller in the experimental (DVEP) schools than in the control schools for the June, 1972 testing.
4. The level of performance on the achievement measure was not consistent across all the experimental (DVEP) schools. A large variation in mean scores was obtained.

Key Results - Objective 2

Job preference comparisons between experimental (DVEP) and control groups were made using male and female subgroups. Mann-Whitney U tests were performed to identify differences in the distribution of ranks given to each job. Attitudes toward various world of work concepts in a semantic differential were analyzed with a factor analysis of variance design.

1. Experimental (DVEP) males assigned significantly higher ranks to the jobs of Policemen, Executive Secretary, Garbage Collector, Cook, Teacher (second administration) and Waiter (third administration) than did control males.

2. Control males assigned significantly higher ranks to the jobs of Lawyer, Actor (second administration), Electrician (second administration) and Doctor (third administration).

3. Experimental (DVEP) females also assigned significantly higher ranks to the jobs of Garbage Collector (first and second administration) and Cook, Policeman (second administration), and Airplane Pilot (third administration) than did control females.

4. Control females assigned significantly higher ranks to the jobs Doctor, Actress, Electrician, Executive Secretary (second administration) and Model (second administration).

This data pattern may suggest that both experimental (DVEP) males and females were more willing to express more positive preferences for lower glamour jobs, e.g. Cook, and less willing to express high positive preferences for higher glamour jobs. These job preferences were not stable, and this conclusion is quite tentative.

5. Significant effects for the main factor of program participation were obtained for the semantic differential concepts of Reporter Mail Carrier and Telephone Installer (second administration). Experimental (DVEP) students expressed more positive attitudes toward these concepts than did control students. Again these effects were present in no more than one evaluation phase.

Organizational Evaluation

A secondary goal of this project evaluation was to examine the current status of program implementation and the organizational processes required for program delivery. In general, program implementation has adhered to the original program proposal. Certain external constraints placed on the project restricted a more complete implementation of activities in the academic year beginning September, 1972 .

Most teachers and principals with whom interviews were held indicated a favorable reaction to the concept of developmental education and were favorably impressed with program delivery. However, discussions with the DVEP staff and on-site observations, in addition to these interviews, identified two issues in the first year's program delivery. The first involved the skill development of the Vocational Aides and their role in the classrooom beyond the actual DVEP presentations. The second involved the relationship between the DVEP material and the Social Studies curriculum into which it is injected. The increase in the Coordinating Teachers' field activity the following year seemed to address the first issue.

The knowledge of the termination of the DVEP project in October, 1972 reduced the real effectiveness of the project by a substantial period of time. The combination of project "gear-up" and project "phase-down" probably limited the real impact of the DVEP program to the Spring, 1972 and early Fall, 1973. Whether the increasingly negative organizational climate in the second year had an effect on the magnitude of the empirical outcome cannot be judged.

Summary and Conclusions

The primary goal of the DVEP evaluation was to assess the effectiveness of the program in meeting two outcome objectives. The first objective was based on an outcome originally defined for program implementation at the upper elementary school level: Successful program implementation would result in greater knowledge relating to certain occupational clusters. The empirical investigation indicated that the DVEP project does result in significantly greater occupational knowledge for students participating in the program. However, this result was not uniform in each of the participating schools.

The second outcome objective identified for evaluation was that successful program implementation would result in more positive attitudes toward work related concepts and differences in expressed job preferences. While differences in job preferences were obtained between the experimental and control groups, these differences were not stable for the entire evaluation period. This was also true with regards to the student's attitudes toward work-related concepts. While the data did show more positive attitudes toward the specific job concepts of Reporter, Mail Carrier and Telephone Installer for the DVEP students, these results did not occur through the entire period of evaluation. Most of the

significant attitudinal results occurred in the first evaluation period.

In conclusion, the DVEP project successfully impacted on the target population for only knowledge outcome objective.

INTRODUCTION

The Division of Research and Development, Cleveland Public Schools, contracted with the Human Services Design Laboratory (HSDL) to evaluate the impact and effectiveness of the Developmental Vocational Education Programs (DVEP). The evaluation activities occurred over an eighteen month period from late February, 1972 to August, 1973. Three major components of the evaluation can be identified:

(1) Specification of evaluation objectives and organizational overview: The goals of this initial evaluation phase from February, 1972 to April, 1972 were to determine the program outcome objectives appropriate for evaluation and to examine the organization processes required for program delivery. Evaluation tasks included reviewing written DVEP materials, interviewing DVEP staff, participating classroom teachers and school principals, and conducting on-site observations of program delivery. Contact with the DVEP staff during the second full academic year of the project, September, 1972 to June 1973, yielded additional information regarding the effectiveness of program delivery.

(2) Instrument development: In order to assess program outcomes, meaningful and reliable outcome measures were required. The first development of evaluation instruments occurred in May, 1972. Subsequent revision of these instruments occurred in December, 1972.

(3) Empirical evaluation investigation: The evaluation instruments were administered in June, 1972, February, 1973, and June, 1973 to assess the impact and effectiveness of the DVEP project. The data obtained from

students participating in the DVEP project was compared to the data obtained from students not participating in the DVEP project. The comparison groups were similar in age, socio-economic status, and previous educational background. An interim report based on the results from the June, 1972 administration was submitted in September, 1972. (See Appendix A for the summary abstract of the report.)

Evaluation Objectives

Two program outcomes -- which would result from successful program implementation -- were selected for empirical evaluation to assess the impact and effectiveness of the DVEP project. The identification of these evaluation objectives was based on a review of the proposed program objectives and their applicability to the implementation status of the DVEP program.

Objective 1: Experimental (DVEP) and control students will be compared on their knowledge of specific and general information relating to certain occupational clusters. Successful program implementation should result in significantly higher scores for the experimental (DVEP) students on an achievement measure of this knowledge.

Objective 2: Experimental (DVEP) and control students will be compared on their preferences for certain jobs and on their attitudes toward the world of work. Sucessful program implementation should result in significantly more positive attitudes for experimental (DVEP) students toward the world of work. Significant differences in the expressed job preferences also should be obtained.

The following sections present the overall DVEP program description on which these evaluation objectives were based. An overview and evaluation of the organizational processes employed in program delivery is also presented. The commitment of the HSDL team to process observations and their evaluation represent a secondary goal of this evaluation effort.

PROGRAM DESCRIPTION

DVEP Objectives

The overall goal of the DVEP project is to create a bridge between school and earning a living for students in the Model Cities area. This would be done through a career development program beginning in elementary school and continuing through high school. It would provide students with a broad base of vocational information and exploratory experiences on which to base career decisions, with skill training to enable them to secure employment or undertake future training in the field of their choice and with actual job placement. Thus, the program is designed to increase options for making occupational decisions; to eliminate real and imagined barriers to attaining job skills; and to enhance learning achievement in all subject areas and at all levels of education for the youth in high poverty Model Cities area schools.

The program is developmental in nature and pyramidal in design. It begins with a broad informational/organizational approach at the elementary level, which narrows to an exploratory/preparational approach at the senior high level. Such an approach is designed to put the student at each level in a position to make informed decisions as to the next step in his career development and successively narrow his vocational preference.

Beginning at the upper elementary school level, students in grades five and six would acquire reliable and valid information on the broad range of available occupations and their requirements. The emphasis would be on occupational clusters rather than on specific jobs, and would include future occupational areas which are expected to emerge as a result of new technology. The students would become oriented to the world of work through multi-faceted experiences including field

trips, work simulation games and role playing, and would obtain experience in basic job skill operations.

At the junior high school level, the explorational aspect of the program involves learning the functional interrelationships among the production, management and service areas of business and industry. Students would sample the operations and skills required in a number of occupations through work site tours and actual experience.

Finally, at the senior high level the program orientation is toward the preparation for actual job placement beyond school. Students would move from exploratory experiences in a number of occupational areas to intensive training in one skill area of their choice. High school students would get on the job experience in a work study program.

Several specific outcome objectives relative to this program design can be identified. These are:

(1) increased ability to identify and describe a variety of occupations in in a broad array of occupational areas (elementary school level).

(2) increased knowledge of the operation of basic tools and equipment in various occupations and their utility (elementary school level).

(3) increased knowledge of the operations of and functional interrelationships among management, production and service areas of business and industry (junior high school level).

(4) increased knowledge of the operations involved in a wide variety of occupations (junior high level).

(5) increased ability to describe the relationship between specific vocational activities and "real" occupations (junior high school level).

(6) increased positive attitudes toward vocational education (senior high school level).

Two additional objectives specific to the senior high school level were in the original proposal for the program but were subsequently renegotiated and eliminated.

DVEP Personnel and Responsibilities

The following personnel are involved in the service delivery of the DVEP project. The Project Manager directs and supervises the entire project. Four Coordinating Teachers are responsible for developing workable outlines and lesson plans for the occupational clusters which are presented through the Social Studies and Language Arts curricula. This involves obtaining detailed information on the job families for classroom activities, developing appropriate sound slides, purchasing occupational films, arranging for classroom speakers organizing and supervising field trips, and providing other materials as needed by the Vocational Aides and classroom teachers. The Coordinating Teachers also serve as supervisors for the Vocational Aides. This responsibility includes duties relating to both achieving specific DVEP objectives and acting as a resource for Aides' career development. Finally, the Coordinating Teachers are responsible for interpreting the project proposal and relating it to the Aides, school principals and classroom teachers.

It is through the Vocational Aides that the actual contact between the program and the students is made. In conjunction with the classroom teachers, they present the study units on the world of work, direct appropriate classroom activities such as simulation games, show films and sound slides and stimulate classroom discussion. To prepare for their classroom presentations, the Aides team with their respective Coordinating Teachers (three or four Aides per Teacher) in developing the occupational cluster study units and classroom activities and assist in securing outside speakers. Both the Aides and Co-ordinating Teachers also develop and administer pre- and post-tests to evaluate the students after the completion of each occupational cluster.

The use of Vocational Aides represents a unique and critical aspect of the DVEP project. An organizational objective for the project is to provide an opportunity for career upgrading for these individuals. Specifically, the DVEP project would provide a system for training individuals from the Model Cities area to become teachers. The Aides would obtain practical classroom experience from working with the DVEP classes while enrolled at Cuyahoga Community College for night and summer courses leading to a degree in education. Thus, their training would result in educators equipped to work with Inner City children and who will choose to continue their careers in disadvantaged area shcools.

Project Implementation

The DVEP project was implemented at the upper elementary school level, grades 5 and 6, during the academic year of September, 1971, to June, 1972. The Aides were assigned to the ten elementary schools to be served by the DVEP and, in

early October, 1971, began class presentations. Project implementation at the junior high school and senior high school levels was delayed until September, 1972 due to the temporary dissolution of the Model Cities board, whose approval was required for the necessary additional staff.

ORGANIZATIONAL OVERVIEW AND EVALUATION

The initial activities of the HSDL team were directed toward obtaining a general overview of the DVEP project as it had been implemented during the academic year beginning September, 1971. These initial activities also served the important function of introducting the HSDL team in its role as the independent evaluator. Further contact during the second academic year of the evaluation, September,1972 to June, 1973, served to monitor on-going program status from the perspective of the DVEP staff. The follwoing sections describe these organizational evaluation activities and the key issues relating to effective project implementation which were identified. A final section reviews the scope of the empirical evaluation as it was defined by the program status.

DVEP Staff Activities

A preliminary meeting in late February, 1972 with one of the DVEP Coordinating Teachers and the three Vocational Aides assigned to her, proved to be informative to both the HSDL team and the DVEP staff. The HSDL team was able to obtain a clear and representative picture of the activities required for the DVEP project implementation at the fifth and sixth grade levels and an insight into the processes used in program delivery. For the DVEP staff, the meeting did much to clarify the nature and objectives of the evaluation and hopefully allayed some of their concern about being "evaluated".

The perceptions and descriptions of both the Coordinating Teacher and the Vocational Aides of their job duties and responsibilities were highly consistent with the job summaries presented in the original project proposal.

While there was variability in the number of classes for which the Vocational Aides were responsible at their respective schools, each Aide spent a minimum of one school day a week with each class. Beside the actual presentation of the career development information, the Aides participated in a variety of other activities during the school day. The Aides assisted the teacher in supervision of the class during other school activities; they provided tutorial assistance for students in either English and/or Math; and they spent time in the development of future career development presentations. The Aides also met with the Coordinating Teacher every Monday to share classroom experiences, knowledge and to develop future presentations for new job clusters. They discussed alternative methods of presenting the material including role playing exercises, lecture and visits to appropriate facilities, e.g. Hopkins Airport.

The Aides indicated that much of their initial classroom time in the Fall, 1971 was spent in observing the teachers' behavior in order to further develop their own teaching skills. As the school semester progressed, their experience and the assistance of their teachers resulted in an increase in their teaching competencies. They included skills such as generating class discussion about the topics presented; maintaining order during the presentations; and, in general, utilizing the class time more effectively.

This initial contact also yielded information about difficulties encountered in program delivery. The basic issue identified by the Aides was their dependency on both their particular teacher and the Social Studies curriculum. They felt that their effectiveness and maximum utilization could be, and was, in fact, enhanced by greater teacher interest. In those classes in which the teacher expressed interest and support of the concept of career development, the Aides were

able to benefit greatly from the teacher's constructive criticism and active participation in the class presentations. Insofar as the career development program was tied to the Social Studies curriculum, the Aides indicated that this created a need to relate and justify any single presentation to the current Social Studies unit. Since the program was limited to one class session (40 minutes) a week, and the time to complete a given occupational cluster would progress at a slower rate than the Social Studies unit, this relationship became strained at times.

On-Site Observations and Teacher Perceptions

Following the discussion with the Coordinating Teacher and the three Aides, the initial overview of the existing processes and relationships needed to implement the DVEP program was completed with on-site observations of the Aides and interviews with their respective school teachers and principals.

In general, most of the teachers and principals indicated a favorable reaction to the concept of developmental vocational education for elementary school level children and were also favorably impressed with the delivery of the program. There were, however, two criticisms voiced by the teachers and principals.

The most prevalent criticism on the DVEP project, in terms of service delivery was the lack of skill development for the Aides in their role as class instructors. This was particularly true at the beginning of the program in the Fall, 1971. At that time, the Aides were almost completely inexperienced in preparing a lesson for presentation. It was readily apparent to the teachers that more in-service training would have benefitted the Aides. In fact, several of the Aides indicated that their initial enthusiasm for classroom instruction waned for a period of time at the beginning of the year. They became discouraged

by their inexperience and had doubts about their effectiveness. This pattern was reversed as the school semester progressed, yet it most certainly detracted from effective program delivery.

Related to this criticism, both the teachers and principals indicated that they were initially unclear about the role of the Vocational Aide in the classroom beyond the Aides' actual presentation of career development information. The subsequent development of role definitions varied with the particular teacher-Vocational Aide relationship. In some cases , the Vocational Aide evolved into a teacher-assistant. That is, during the day the Aide would assist the teacher in other presentations and in running the classroom. This particular role definition most closely approximates the goal of the DVEP project to develop the Aides' career upgrading. Here the Aides become more familiar and more confident with the role of the teacher. This however, was not the case for all of the teachers. In many cases the Aides were under-utilized and left to themselves to occupy their time during the school day. In general, however, the teachers felt that the Aides gave them some much needed assistance in running the classroom.

The second major criticism by the teachers of the DVEP program involved the relationship between the career development material and the Social Studies units to which this material was to be related. It became readily apparent that the two sets of materials increasingly diverged from one another and would follow independent courses. The justification for relating the two sets of material to one another seemed somewhat artificial to the teachers. This observation reinforced the difficulties expressed by the Aides concerning the direct injection of the DVEP program into the Social Studies curriculum.

DVEP Staff Feedback

A feedback meeting was held with all the Coordinating Teachers and Vocational Aides to present the HSDL team's overview of the program and to obtain their reactions. The key processes and relationships required for effective program implementation were discussed.

While there were differences in the degree and type of in-service training provided to the Aides, most indicated that they would benefit from more substantive training rather than merely observing teachers for a short period of time .

The entire group noted differences in their utilization by the teachers. Most had developed enriched relationships with the teachers, in which the role of the Vocational Aide had evolved into something more. Some had not. These individuals were limited to their DVEP responsibilities, or even worse, mis-utilized by teachers so that they were performing clerical or "clean-up" duties.

Also mentioned as a difficulty in program delivery by Aides (as well as teachers) were administrative scheduling problems. These administrative problems existed within the DVEP project, the individual schools and between both. A frequent problem for example involved scheduling and coordinating field trips.

The overall consensus of the Aides was that the DVEP project had, within the relatively short implementation period from October, 1971 to April, 1972 significantly impacted on the target population.

Organizational Overview - October, 1972 - June, 1973

The commitment to observation of the organizational processes required for program delivery continued through the second academic year of the DVEP evaluation. However, the HSDL team's activities were less structured and less formal than the efforts in the previous academic year. A number of factors contributed to this shift in the team's approach. First, the previous evaluation efforts resulted in acceptance of the team by the DVEP staff. Thus it was possible to elicit staff perceptions, especially those of the Coordinating Teachers, through more casual contact. Second, initial staff comments suggested that the delivery process had developed to the extent that staff roles and program procedures were stabilized. Finally, the primary emphasis of the evaluation effort in the second year was directed toward assessing the empirical outcome objectives for the project activities at the upper elementary school level.

A modification which did occur in the program delivery process should be noted, however. This involved a fuller utilization of the Coordinating Teachers directly in the participating schools. Under this revised process, the Coordinating Teachers conducted three types of field visits:

(1) Visits to individual Vocational Aides to improve classroom instruction techniques;

(2) Visits, of a supportive nature, to schools to conduct workshops and attend faculty meetings and other group sessions;

(3) Visits, of a noninstructional nature, to schools to perform administrative activities, deliver instructional materials, etc.

Clearly, this increase in the Coordinating Teacher's activities responded to the difficulties encountered in program delivery during the previous year. By directly engaging in classroom instruction, the Coordinating Teachers improved the skill development of the Aides. This would both reduce the Aide's dependency on individual classroom teachers for learning experiences and clarify the Aide's classroom roles. That is, there would be less likelihood of misutilization by the classroom teachers in the presence of the Coordinating Teacher. The supportive service activities would also result in greater understanding of the classroom role of the Vocational Aides. Even more important such activities would more effectively communicate the goals and needs of the DVEP project. Finally, any administrative difficulties in program delivery, e.g. scheduling field trips would be more efficiently resolved through direct contact with the participating schools.

This organizational overview would not be complete without indicating that as early as October, 1972, the DVEP staff was aware that the project would not receive Federal re-funding for the next academic year. While the possibility of alternative funding sources existed and in fact were explored, this knowledge resulted in a significant loss of morale among the DVEP staff. Many Aides and several of the Coordinating Teachers began looking for new jobs within several months. Four Aides resigned from the staff in April and May, 1973 prior to the end of the academic year. While it is true that these and other resignations cannot be directly attributable to the "phase out" of the project, there was certainly a real loss in the overall effectiveness of program delivery. No program can achieve optimal effectiveness anticipating its own termination.

Specification of Empirical Evaluation Objectives

DVEP project implementation in May, 1972 required that the outcome objectives for evaluation be those appropriate for the upper elementary school level. While two outcomes for this level were originally proposed, the "hands-on" experiences necesssary for increased knowledge of the operation or basic tools and equipment (the second objective) had not been systematically implemented. Therefore, this objective was not considered for evaluation. Rather, the attitudes of the target population toward specific jobs and the world of work were identified as an outcome of the program to be evaluated. Therefore, the outcome objectives to be empirically evaluated were:

Objective 1: Successful program implementation will result in greater knowledge of a variety of occupations in a broad array of occupational areas.

Objective 2: Successful program implementation will result in more positive work attitudes and differences in job preferences.

In May, 1972, between three and five occupational clusters had been either partially or completely presented by the Vocational Aides. The two completed clusters common to all the Aides were Transportation and Communication. For the first outcome objective, the program evaluation for the first academic year focussed on the content of these clusters. Program evaluation for the second academic year beginning in September, 1972 assessed the impact and effectiveness of the DVEP project using the same empirical outcome objectives. However, the program content for the first objective was expanded to include the Health, Public Service, Aerospace, Apparel, Business and Office, Heavy Industry and Natural Resource occupational clusters.

INSTRUMENT DEVELOPMENT

Pilot Instrument Development - May 1972

In order to ensure the content validity of the first evaluation instrument a preliminary outline of its content was developed. Since this type of validity requires a rational approach to the adequate coverage of important content, the outline was reviewed by both the HSDL team and the DVEP staff. In addition to the content, the outline suggested the types of items to be employed, the approximate number of items, method of administration and scoring.

Several sources were utilized to develop the content for the instrument outline. The primary content source was the Quarterly Report (June 30, 1971) submitted by the DVEP Project Director. From this report, job classifications and descriptions specific to the common occupational clusters covered by the Aides up to May, 1972 were obtained. Further content information for these common clusters, specifically the Transportation and Communications clusters, was obtained from the pre-tests given by Vocational Aides prior to the class presentations of the material. The choice of item format was not only based on the content of the specific questions but also on the on-site visits by the HSDL team. It was felt that the level of presentation in class should dictate, in large measure, the level of presentation of the items.

This preliminary content outline evolved into two pilot instruments to evaluate program effectiveness. The content of the first instrument, the Job Information Questionnaire, reflected the knowledge of specific occupations transmitted through the program. Additional items in the instrument involved "general," or common knowledge information which was presented as part of the DVEP material. However, the knowledge required to complete these items was

also available to students from sources other than the DVEP presentations. "Name of Cleveland's largest airport" is an example of these general information items which relate to the program content.

The second instrument resulting form the preliminary content outline was the Job Attitude Questionnaire which had two parts; an alternation ranking format to obtain information on job preferences and a semantic differential format to measure attitudes toward the world of work.

The use of an alternation ranking technique in this instrument involved a risk since it was not known whether fifth and sixth graders would be able to follow the unusual instructions. Nonetheless, it was decided that the obtained rankings could provide significant insights into the value which the students placed on specific jobs.

The alternation ranking procedure requires the student to examine a list of eighteen jobs and then think about how much he or she would like to work on each of the jobs. The individual is asked to identify the "Best" (most preferred) and then the "Worst" (least preferred) jobs on the list. An alternating choice procedure, "Next Best" and "Next Worst," is repeated until the list is exhausted. This procedure allows the individual to make choices of extreme preferences first. It is easier to distinguish between "Second Best" and "Second Worst" than it is to distinguish between "Second Best" and Third Best." While more administratively complex, the students should experience less difficulty in making their preferences.

The eighteen jobs used in this section were, for the most part, chosen from a list of ninety jobs used in study of occupational prestige in the United States (Hodge, Siegel and Rossi, 1966). The list was modified to eliminate any sex bias in the job titles. It was felt that these eighteen jobs reflected

a complete range of high and low prestige jobs.

The semantic differential component of the Job Attitude Questionnaire is a more conventional approach for assessing the feelings of elementary school age children toward various concepts relating to the world of work. Those concepts included in the questionnaire were: GETTING A JOB, PLAY, CAREER EDUCATION, UNEMPLOYMENT, MAIL CARRIER, NEWSPAPER REPORTER, TELEPHONE OPERATOR and TELEPHONE INSTALLER. The latter four concepts are specific job titles with which both the experimental and control groups should be familiar. Each concept was then rated on nine scales anchored by bipolar adjectives. The nine adjective pairs used in the pilot instrument were taken from a semantic differential employed by the Cleveland Public Schools, Division of Research and Development.

Previous research (Osgood, 1962) has shown that three major factors are invariably defined by different semantic differential scales: evaluation, potency and activity. These factors are constructs which describe an underlying similarity among several scales. However, the factors do not always have the same content (the defining adjective scales) since the meaning of the semantic differential scales often depends on the concept being rated. Therefore, the underlying factor structure of a particular set of scales for a particular concept should be identified, rather than depending on previously defined factors for those scales.

Once the specific factors are defined, the scores on the component scales (in this case, obtained on a 5 pt. rating scale) are summed. These summed scores represent the measure of the individuals attitude toward the concept. From these group comparisons can also be made.

Pilot Instrument Field Testing

Both instruments, the Job Information Questionnaire, and the Job Attitude Questionnaire were field tested at Daniel E. Morgan Elementary School in May 1972. Two sixth grade (N=58) and one fifth grade (N=54) classes were used for the field testing sample. There were thirty-nine (N=39) males in the sample and fifty-three (N=53) females in the sample. The questionnaires were administrated over a two day period in order to determine the maximum possible amount of time needed for the completion of the questionnaires.

Oral instructions were given for each questionnaire. The following points were included in the oral instructions for the Job Information Questionnaire:

(1) This questionnaire will be used to compare fifth and sixth graders in the city of Cleveland with regard to their knowledge about certain jobs.

(2) This is not a test, but should be taken like a test. Therefore, please do not look at your neighbor's paper and try to do the work by yourself. If you do not know the answer, please guess. Try not to leave any answers blank. Do not worry about spelling when you answer fill-in questions.

(3) If you do not understand something as I am reading the questions, please raise your hand and I will try to answer your question.

(4) When I read a question and you know the answer, do not yell the answer out loud. Write or underline the right answer.

(5) Your answers will be confidential and will not be used for your grades in this class. We are not interested in your individual score. Remem-

ber we want to compare fifth and sixth graders throughout the City of Cleveland.

The questionnaire was then distributed. The test administrator, a member of the HSDL team, then read each item in the questionnaire to the class. The next item was read when all the students indicated they had completed the previous item.

The oral instructions for the Job Attitude Questionnaire were quite similar. However, they were modified to indicate that this was a measure of the students feelings toward certain jobs rather than their knowledge about certain jobs. For the alternation ranking procedure, the students also were told that all the jobs could be performed by either men or women, i.e., were no "male jobs" or "female jobs."

Again, in administering the questionnaire, all efforts were made to allow each student to complete the entire questionnaire. For both the alternation ranking and semantic differential sections, the test administrator demonstrated the proper procedure for completing the items with step-by-step instructions.

Data Analysis for Job Information Questionnaire

The Job Information Questionnaire data was analyzed with the objective of obtaining a reliable measure of both general and specific knowledge relating to particular occupational clusters. Since the content and purpose of this pilot instrument defined it as an achievement test, two types of item analyses were performed: item difficulty and item-total correlation. (See Appendix B for an explanation of the item analyses used)

The item difficulty and item-total correlation data were examined for each item in the pilot instrument. Those items with the highest item-total correlations and with item difficulties between 40% and 60% were retained. Additional items with acceptable item-total correlations but with "p" values somewhat below 40%, e.g., 30% were also retained. The rationale for including these additional items was that the field test subjects, like the control subjects in the actual comparison study, should be less likely to pass the test items. Thay had not been exposed to the DVEP material and the items should be expected to be more difficult for them.

The score distributions for some of the "fill-in" items indicated an artifically high weighting of these items in the total scores. A revised scoring key for these items was also developed.

The revised achievement measure (see Appendix C, pages 1-3 of Job Information Questionnaire) consisted of thirty-eight (38) items with a maximum score value of fifty (50). Table 1 shows the obtained item difficulties and item-total correlations for each item after the revised instrument was administered to the experimental students (those in the DVEP project) and a control students (comparable students not in the project). With respect to the three conditions which maximize internal-consistency reliability, the following can be observed:

(1) The obtained item-total correlations, in place of item intercorrelations, were all positive and with two exceptions (item 9p and 9q) were above .20 for the total group. In fact, twenty-six (26) of the thirty-eight (38) correlation coefficients (index of the relationship between passing an item and obtaining a high score) were above .30. Given the total number of items, these relationships between item

Table 1

Comparison of Item Difficulties (p) and Item-Total Correlations (r) for Questionnaire Items

Questionnaire Items	Experimental Group (N=492*)		Control Group (N=314)		Total Group (N=806*)	
	Item p	Cor. Coef. (r)	Item p	Cor. Coef. (r)	Item p	Cor. Coef. (r)
1 (Fa. Occ.)	39%	.26	32%	.30	37%	.29
2 (Mo. Occ.)	68%	.21	52%	.34	62%	.32
3 (# Newspapers)	56%	.31	37%	.40	48%	.37
4 (# T.V. Stat.)	87%	.28	84%	.19	86%	.24
5 (Airport)	60%	.49	39%	.46	52%	.51
6 (# Airlines)	42%	.60	9%	.50	29%	.62
7 (Soc. Sec. Card)	62%	.45	21%	.16	46%	.44
8a	37%	.22	21%	.15	31%	.24
8b	64%	.40	43%	.16	56%	.36
8c (Job Order)	56%	.47	36%	.19	48%	.41
8d	55%	.42	36%	.10	48%	.35
8e	35%	.22	17%	.09	28%	.23
9a (S. D. Mess.)	80%	.46	81%	.35	81%	.39
9b (Copy Ed.)	82%	.46	78%	.32	81%	.40
9c (Installer)	64%	.47	48%	.33	58%	.44
9d (Lineman)	58%	.36	51%	.17	56%	.30
9e (Traf. Mang.)	44%	.23	34%	.17	40%	.23
9f (News. Dir.)	46%	.35	33%	.19	41%	.32
9g (Serv. Rep.)	33%	.27	24%	.13	29%	.24

* For Items 1 and 2, N=438 in Experimental Group and N=752 in Total Group.

Table 1 (continued)

Comparison of Item Difficulties (p) and Item-Total Correlations (r) for Questionnaire Items

Questionnaire Items	Experimental Group (N=492*)		Control Group (N=314)		Total Group (N=806*)	
	Item p	Cor. Coef. (r)	Item p	Cor. Coef. (r)	Item p	Cor. Coef. (r)
9h (Par. Post Carr.)	77%	.43	74%	.41	76%	.40
9i (Engraver)	51%	.37	43%	.38	48%	.37
9j (Pressman)	82%	.48	84%	.29	83%	.39
9k (Make-up Artist)	54%	.31	55%	.27	55%	.27
9l (Chief Eng.)	44%	.32	29%	.09	38%	.28
9m (Broad. Tech.)	77%	.49	71%	.37	74%	.44
9n (Sales Rep)	28%	.28	19%	.02	25%	.22
9o (Dir. Clerk)	37%	.41	28%	.15	34%	.33
9p (Dist. Clerk)	28%	.07	35%	.13	31%	.06
9q (For. Corr.)	25%	.05	28%	.20	26%	.08
9r (Wind. Cler.)	61%	.37	50%	.28	57%	.35
10	70%	.34	46%	.11	60%	.31
11 (Airline Jobs)	89%	.39	91%	.31	90%	.33
12	79%	.23	72%	.17	76%	.22
13	67%	.42	55%	.30	62%	.3[illegible]
14 (Hos. Jobs)	-	.50	-	.36	-	.4[illegible]
15a	53%	.36	31%	.23	45%	.36
15b ("Odd" Job)	55%	.37	41%	.29	50%	.3[illegible]
15c	56%	.42	43%	.25	51%	.3[illegible]

scores and total test scores can be considered statistically significant.

(2) The average item difficulties for the experimental, control and total groups were 56.9%, 44.2% and 52.4%, respectively. These values, particularly the average item difficulty for the total group, closely approximate the requirement of 50% average item difficulty.

(3) The condition of equal item difficulty for all items was only partially fulfilled. Seventeen (17) of the thirty-seven (37) items had "p" values between 40% and 60% for the total group. Here, the primary concern was to minimize excessively difficult items. While some easy items are desirable from the point of view of reducing test anxiety, too many such items reduce the score distribution. There were only five (5) whose difficulty level was above 80%.

Beyond these observations, the key index to assess the results of the item analyses was the actual internal-consistency reliability for the revised instrument. By obtaining split-half scores for each individual (half the items were randomly selected, their item scores summed and then compared to the summed item scores for the other items) estimates of reliability can be obtained. However, the split-half approach only represents an estimate of the reliability for half of the test. While the full-length test is not twice as reliable as the half test, its reliability is greater and can be obtained using the Spearman-Brown correction. The reliabilities of the total test using the Spearman-Brown correction of the split half reliability were .86, .77, and .84,

for the experimental (DEVP), control and total groups, respectively. These corrected split half reliabilities equal or exceed the acceptable level of reliability in test construction (Nunnally, 1967).

Data Analysis for Job Attitude Questionnaire (Alternation Ranking)

The first section of the Job Attitude Questionnaire consisted of the alternation ranking of eighteen jobs to obtain information on the relative prestige or value of these jobs. As previously discussed, this procedure represents a departure from conventional attitudinal measures. Not only the data from the pilot instrument, but the actual process of administering this technique were examined to determine whether the alternation ranking should be included in the revised instrument. No specific objectives were identified in assessing the data; the analysis simply was exploratory.

The field testing of this section required a more structured test administration by the DVEP team. Step-by-step instructions were provided for the first six rankings; by then, almost all the field test subjects understood the ranking procedure and the nature of the information desired, i.e., which jobs they preferred more. The percentage of missing data for this section was comparable to the Job Information Questionnaire and the semantic differential section. Thus, the alternation ranking procedure was considered to be administratively acceptable.

In order to examine the field test data, the median rank for each of the eighteen jobs was determined. Consecutive values from 1 to 18 were assigned to the rankings of "Best Job" to "Worst Job." Then, a frequency distribution of these values for each job was obtained. The median rank was then defined as the

value above which were exactly half the field testing rankings and below which were the other half. For example, the median rank for the job of Doctor was 6.33. This indicates that half the students rank this job either 1,2,3,4,5 or 6 while the other half ranked the job between 6 and 18.

Table 2 presents the median rank data for the total sample and for males and females. The numbers in the parentheses are the ranks of the median rank data, e.g. for Teacher the median rank for the total group was 4.60 and this was the highest value obtained for all the jobs. As is clearly evident, certain jobs were preferred by males and others by females. This obtained sex bias in the preferences of certain jobs was obtained in spite of the instructions which specified that all the jobs were equally available to males or females.

Since no administrative difficulties were encountered and there was potential for meaningful data, the alternation ranking section was included in the revised instrument (See Appendix C, page 3 of Job Information Questionnaire). However the obtained sex bias suggested that differences in the median ranks for experimental (DVEP) boys as compared to control boys and experimental girls as compared to control girls should be examined. The underlying hypotheses would be that the DVEP project would effect the perceived preferability of certain jobs.

Data Analysis for Job Attitude Questionnaire (Semantic Differential)

The second section of the Job Attitude Questionnaire consisted of a semantic differential format (a group of nine bipolar adjective rating scales) for nine concepts relating to the world of work. Again, this approach represented a standard method of obtaining measures of attitudes and sentiments. The primary objective of this data analysis was to identify a common factor(s) among

Table 2

Median Rank Data for Males, Females and Total Field Testing Sample

Job	Male		Female		Total	
Doctor	4.30	(4)	9.10	(10)	6.33	(4)
Actor/Actress	5.90	(7)	4.20	(3.5)	4.80	(2)
Nurse	13.20	(16)	4.20	(3.5)	7.00	(6)
Car Mechanic	2.90	(1)	14.10	(17)	10.50	(12.5)
Teacher	7.85	(10)	3.30	(2)	4.60	(1)
Policeman	3.90	(2.5)	12.50	(14.5)	11.60	(16)
Executive Secretary	10.40	(11)	4.90	(5)	6.50	(5)
Waiter/Waitress	11.20	(12)	8.33	(9)	9.90	(10)
Model	11.65	(13)	1.66	(1)	6.00	(3)
Lawyer	3.90	(2.5)	11.00	(12)	8.66	(9)
Reporter	7.00	(8)	12.20	(13)	10.80	(14.5)
Beautician	12.40	(14.5)	5.10	(6)	7.90	(7)
Garbage Collector	17.10	(18)	17.85	(18)	17.66	(18)
Cook	13.85	(17)	6.70	(7)	8.40	(8)
Disk Jockey	7.50	(9)	10.60	(11)	10.20	(11)
Stewardess	12.50	(14.5)	7.60	(8)	10.90	(14.5)
Electrician	5.40	(5.5)	12.50	(14.5)	10.50	(12.5)
Airplane Pilot	5.50	(5.5)	13.90	(16)	12.60	(17)

the nine scales within each of the world of work concepts. With the identification of the common factor(s), it would be possible to meaningfully sum the appropriate scale scores to measure the meaning each concept evokes for an individual.

In order to identify the common factor(s) within each concept, a factor analysis was performed. For each adjective scale, a numerical score was assigned to the subject's rating. Since 5-point scales were employed; a value of 5 was assigned to the positive pole of each scale and a value of 1 to the negative pole. For example, on the Good-Bad scale a rating next to Good received a score value of 5 and a rating next to Bad received a score value of 1. The meanings of each step on the scale were carefully defined and illustrated for the field testing sample. Each scale score was then correlated with each of the other eight scale scores for all the concepts. Positive correlations would indicate high ratings on one scale, e.g. scores of 4 and 5, were associated with high ratings on the other scales.

Based on the correlations among the semantic differential scales, a "principle components method" factor analysis was performed for each concept. This factor analytic method is simply a mathematical procedure which takes the correlations among the scales and attempts to account for the various relationships in terms of fewer underlying hypothetical variables. These hypothetical variables are called factors. In other words, factors are redefinitions of the interrelationships among the scales in terms of fewer variables. The interpretation of a given factor depends on which scales relate to it most strongly, i.e. scales correlating with factors.

For all the nine concepts, the respective factor analyses resulted in one factor, Factor I, which clearly accounted for a majority of the correlations among the scales. In fact, with one exception, all the adjective scales related to Factor I more than any other factor obtained. Only one scale consistently related more strongly with other underlying factors. Since eight of the semantic differential scales define the content of Factor I, it was considered to be an "evaluation" factor. In the revised instrument (see Appendix C, pages 4-6), the semantic differential section employed these eight scales defining Factor I. The ninth scale was not included since it would yield only one scale score for the comparison between the experimental and control schools and this would be insufficient. The sum of the eight remainint scales provided a measure of attitudes with regard to each of the work concepts.

In the data analysis for the semantic differential, an additional series of factor analyses were obtained to compare the work concepts on additional series of factor analyses were obtained to compare the work concepts on individual adjective scales. That is, the ratings on one scale were correlated across all nine concepts. This was done for each adjective scale, separately. The factor analyses of the scales yielded several factors that were consistently defined by the same concepts. Factor I was defined by the concepts REPORTER, TELEPHONE OPERATOR, MAIL CARRIER and TELEPHONE INSTALLER. A second factor was consistently defined by the concept of PLAY. The remaining concepts, GETTING A JOB, CAREER, EDUCATION and UNEMPLOYMENT, served to define two other factors. However, the combination of these concepts was not uniform

in all the factor analyses of the scales.

These data indicated that the concepts relating to specific jobs elicit attitudes, as measured by scale scores, different than the attitudes toward the other concepts. Since the concepts were highly related, the concept of TELEPHONE OPERATOR was not included in the revised instrument due to questionnaire design considerations, particularly test length. It was felt that there would be a minimal loss of attitudinal information.

Instrument Development - November, 1973

The program evaluation for the academic year beginning in September, 1972 used the same empirical outcome objectives as the first evaluation. However, the program content to be evaluated under the knowledge achievement objective was expanded for the second year evaluation. It was therefore necessary to develop new items for the content portion of the Job Information Questionnaire. The instrument development procedure was again performed to obtain a meaningful and reliable achievement measure for the expanded content.

A preliminary content outline was developed and reviewed by the HSDL team and DVEP staff. The sources utliized to develop this content were the same as those used previously: the Quarterly Report (June, 1970) and pre-tests administered by the Aides prior to class presentations. In addition to concent on the Transportation and Communication clusters, information concerning the Health, Public Service, Aerospace, Manufacturing (Apparel), Business and Office, Heavy Industry and Natural Resource clusters were represented in the content of the questionnaire.

The expanded content portion of the Job Information was field tested at Alfred A. Benesch Elementary School in December, 1972. Two fifth grade (N = 42) and two sixth grade (N = 56) classes comprised the field testing sample. There were forty-four (N = 44) males and thirty-four (N = 34) females in the sample. The oral instructions employed in this field testing were the same as those given in the first field test administration (see p20)

Job Information Questionnaire Data Analysis - December, 1972

The data obtained from the field testing was item analysed using both item difficulty and item - total correlation statistics. This procedure resulted in a forty-one (41) item achievement measure which had a maximum score value of 49 (see Appendix D, pages 1 - 4 of Job Information Questionnaire II) Table 3 shows the obtained item difficulties and item - total correlations for each item after the evaluation instrument had been administered in February, 1973. This was the second administration of an evaluation instrument to assess the empirical program objectives. The following conditions regarding internal - consistency reliability were observed:

(1) The obtained item-total correlations were all positive. Thiry-four (34) of the correlation co-efficients were above .20 for the total group. Twenty-six (26) of these in fact, were above .30. All the relationships between item score and total test score above .20 can be considered statistically significant.

(2) The average item difficulties for the experimental control and total groups were 49.2%, 45.8% and 48.2% respectively. These average item

TABLE 3

Comparison of Item Difficulties (ρ) and Item-Total Correlations (r) for Questionnaire Items

(Second Administration)

Questionnaire Items		Experimental Group (N=744) Item	Experimental Group (N=744) Cor. Coef.( )	Control Group (N=292) Item	Control Group (N=292) Cor. Coef.( )	Total Group (N=1036) Item	Total Group (N=1036) Cor. Coef.( )
1 (# Newspapers)		57%	.40	34%	.23	50%	.38
2 (Airport)		59%	.49	44%	.48	55%	.49
3 (# Airlines)		30%	.64	5%	.48	23%	.61
4 (Soc. Sec. Card)		51%	.49	18%	.20	41%	.44
5 (Apparel Industry Correct Job Order)	0 right	16%	.47	17%	.34	17%	.46
	1 right	15%		26%		18%	
	2 right	13%		17%		14%	
	3 right	19%		21%		20%	
	5 right	36%		19%		31%	
6a (Fireman)		54%	.20	42%	.04	51%	.18
6b (Policeman)		69%	.39	68%	.18	69%	.34
6c (Policeman)		30%	.32	22%	.14	28%	.29
6d (Fireman)		67%	.18	55%	-.02	64%	.14
6e (Policeman)		81%	.31	85%	.17	83%	.27
6f (Fireman)		45%	.23	44%	.06	45%	.19
7a (Hosp. Jobs)		45%	.41	37%	.07	42%	.34
7b (Hosp. Jobs)		34%	.42	33%	.11	34%	.35
7c (Hosp. Jobs)		43%	.49	40%	.40	42%	.47

TABLE 3

Comparison of Item Difficulties (ρ) and Item-Total Correlations (r) for Questionnaire Items (continued)

(Second Administration)

Questionnaire Items	Experimental Group (N=744)		Control Group (N=292)		Total Group (N=1036)	
	Item	Cor. Coef.( )	Item	Cor. Coef.( )	Item	Cor. Coef.( )
7d (Hosp. Jobs)	44%	.46	44%	.34	44%	.43
7e (Hosp. Jobs)	46%	.49	47%	.28	46%	.24
8a ("Odd" Job)	43%	.25	11%	.04	34%	.43
8b ("Odd" Job)	55%	.45	41%	.31	51%	.40
8c ("Odd" Job)	49%	.40	36%	.36	45%	.40
9A.a (Installer)	74%	.43	79%	.38	75%	.45
9A.b (Broad. Tech.)	76%	.48	85%	.43	79%	.44
9A.c (Wind. Clerk)	65%	.48	58%	.30	63%	.45
9A.d (Photo Engraver)	64%	.48	66%	.38	64%	.43
9A.e (Make-up Artist)	63%	.48	68%	.32	64%	.37
9A.f (Direct. Clerk)	41%	.41	39%	.23	40%	.32
9B.a (Hi and Lo Lineman)	53%	.36	55%	.21	54%	.38
9B.b (Dog Warden)	76%	.45	88%	.20	79%	.40
9B.c (Sew. Plt. Att.)	61%	.47	74%	.27	65%	.19
9B.d (Chemist)	33%	.17	25%	.22	30%	.16
9B.e (Geologist)	28%	.16	28%	.18	28%	.16
9C.a (Nuc. Eng.)	31%	.33	46%	.32	35%	.29
9C.b (Barker Mach. Op.)	37%	.22	39%	.08	38%	.19

TABLE 3 (continued)

Comparison of Item Difficulties (p) and Item-Total Correlations (r) for Questionnaire Items (continued)

(Second Administration)

	Experimental Group (N=744)		Control Group (N=292)		Total Group (N=1036)	
Questionnaire Items	Item	Cor. Coef.( )	Item	Cor. Coef.( )	Item	Cor. Coef.( )
9C.c (Blast Furn. Op)	37%	.27	46%	.35	40%	.27
9C.d (Supercalender Op.)	43%	.30	51%	.12	46%	.25
9C.e (Eng. Mech.)	31%	.21	45%	.32	35%	.21
9C.f (Pulpmaker Worker)	40%	.22	49%	.23	43%	.21
10 (Teller)	60%	.35	56%	.17	59%	.31
11 (Receptionist)	25%	.34	13%	.12	21%	.31
12 (Bookkeeper)	36%	.44	22%	.33	32%	.43
13 (Ship. and Rec. Clerk)	57%	.41	66%	.27	59%	.36
14 (Truck Driver)	36%	.39	27%	.07	33%	.33

difficulty values closely approximate the desired 50% average item difficulty.

(3) Again, the condition of equal item difficulty was only partially fulfilled. Eighteen (18) of forty (40) items had "p" values between 40% and 60% for the total group. Only one item could be considered too easy (6 e) and no items could be considered excessively difficult. ("p" values below 20%).

The Spearman - Brown correction of the split-half reliability yielded internal consistency reliability co-efficients .88, .75 and .86 for the experimental (DVEP) control and total groups, respectively. Clearly, the expanded content portion of the Job Information Questionnaire II, was statistically comparable to the version employed in the first empirical evaluation.

While not specifically instrument development, the Job Information Questionnaire , was modified in one additional respect. Based on the data from the empirical evaluation performed in June, 1972, four of the semantic differential concepts were not included in the Job Information Questionnaire II, used for the second and third test administrations. The concepts of Career, Play, Unemployment and Education did not yield significant score differences between the experimental (DVEP) and control groups in the June, 1972 administration. To pursue the lack of attitudinal differences in the second and third evaluations did not seem appropriate.

Summary

The assessment of the DVEP project involved both achievement and attitu-

dinal evaluation objectives. Instrument development was, therefore, directed toward obtaining meaningful and reliable measures in both these areas. The primary emphasis of the data analysis for the content questions was on internal-consistency reliability. Using two types of item analysis, item difficulty and item-total score correlation, a two achievement measures were developed. The second content measure was required to meet the increased level of project implementation. The internal-consistency reliability for both measures was approximately .85 which is well above the required level of acceptability.

The data analyses for the attitudinal portions of the evaluation instrument also, examined the test administration constraints of the measurement techniques. Although a departure from typical attitude measures, the alternation ranking procedure yielded differential information about job preferences. The more conventional measure, the semantic differential, was slightly revised based on factor analysis data. The use of a single summed score for the semantic differential scales also resulted from the factor analyses.

The first evaluation instrument, the Job Information Questionaire, included the content, ranking and semantic differential measure. A second instrument, the Job Information Questionnaire II, included a revised content, a ranking and a shortened semantic differential measure.

EMPIRICAL EVALUATION

The impact of the DVEP project as defined by the evaluation objectives was assessed by comparing the data obtained from achievement and attitudinal measures for students who has participated in the program (experimental group) with the same data for students who had not (control group). The comparisons were performed in June,1972, using the Job Information Questionnaire, and in February, 1973 and June, 1973 using a revised form of this questionnaire.

Sample

The Division of Research and Development, Cleveland Public Schools identified three (3) elementary schools whose student populations were comparable to those of the experimental (DVEP) schools in terms of socio-economic background and learning potential. Differences between the experimental and control schools with respect to teacher skills, classroom conditions, etc. also were not considered to be significant. These schools thus provided a "matched" group of fifth and sixth grade students for testing. The specific sample sizes, both experimental and control, for the three administrations of the evaluation instruments were:

(1) First Administration (June, 1972) - One fifth and one sixth grade class from each of the ten elementary schools in the DVEP program. The total number of students in the experimental group was 492. There were 259 fifth graders and 233 sixth graders.

The test sample in the control schools included all the fifth and sixth grade students present in class on the days the questionnaire was administered (N=314). There were 140 fifth and 174 sixth graders.

(2) Second Administration - February, 1973 - All the available fifth and sixth grade students participating in the program in the experimental schools were

tested. The total number of students in the experimental group was 740. There were 338 fifth grade and 402 sixth grade students tested.

The control school sample also represented all the fifth and sixth grade students available for testing at the time the questionnaire was administered. The total sample was 292 students; there were 140 fifth graders and 152 sixth graders.

(3) Third Administration June, 1973 - Due to staff turnover among the Vocational Aides and program discontinuation the students in only six (6) DVEP schools were tested (N=236). There were 141 fifth graders and 95 sixth graders in the sample.

Only one control school was tested for this administration. All the fifth graders (N=48) and sixth graders (N=52) available were tested.The total sample was 102. It was felt that the small test score variability obtained among the control schools in the previous administrations assured the representativeness of the smaller sample in this administration.

Questionnaire Administration Procedure

Since it was not logistically feasible for one or two administratérs to test all students, the DVEP Vocational Aides administered the questionnaires in their respective schools. The HSDI team administered the questionnaires in the control schools. The Vocational Aides were given a training session on both versions of the evaluation instrument to standardize the test procedures. While the issue of bias can be raised with regard to the use of the Aides, it should be noted that they had previously tested their students on DVEP material. Since the program was being evaluated, the obtained scores should have reflected more typical classroom conditions. Therefore, the use of the Aides was considered appropriate and acceptable.

The oral instructions for both questionnaires were quiet similar to those given

for the pilot instruments. However, the questionnaires were introduced as both a measure of job information and a measure of their feelings about certain jobs. Again, each item was read to the students and time allowed for completion by all the students. For both the alternation ranking and semantic differential sections, the test administrators illustrated the proper procedure for completing the items and also provided step-by-step instructions. The questionnaire administrations typically required one class periods. However, extra time was allocated and if neccessary, used to insure that the students would be able to fully complete the questionnaire.

A problem was encountered in the first administration when one DVEP school principal felt that the first two questionnaire items (Father's and Mother's Occupation) were not appropriate as a measure of job knowledge and requested these items not be completed. The students in this school were not scored on these items, although the mean score for this group was weighted so they would not be compared unfairly. These items were not included in the revised evaluation instrument. All the teachers and school principals, in both experimental and control schools, were extremely cooperative and facilitated the three administrations of the questionnaires.

Results (Objective I)

A multiple-factor analysis of variance model was used to determine whether experimental (DVEP) students had more general and specific knowledge relating to particular occupational clusters than did control students. Total score on the content portions of the evaluation instruments represented the measure of general and specific knowledge. While the key variable for this evaluation was participation in the DVEP project, other factors could effect the test data. Of particular concern, were the effects of grade level (5th vs. 6th) and of sex (male vs. female). That is, would fifth graders perform differently than sixth graders?; would boys do better than girls?; would there be score differences between fifth graders in the experimental schools and those in the control schools?; etc.

Thus, three variables were incorporated onto the statistical model: sex, grade level and, most important, program participation. For each of these variables or factors, there were two conditions: male vs. female, fifth vs. sixth grade and experimental vs. control school. The appropriate analysis of variance model was a 2 x 2 x 2 design (read as "two by two by two") which incorporates three factors each having two levels or conditions. In this design, the factors and their respective conditions define the different subgroups which were tested, e.g.girl. 5th graders.

Tables 4, 5 and 6 present the mean or average scores obtained by students in each of the different subgroups examined for each test administration.

Given these mean score values, the analysis of variance model tested whether the score differences for each factor and combination of factors were sufficiently large to indicate significant effects due to these variables. For the analysis of variance of the first administration data, the computational program employed required proportional or equal cell frequencies. It was therefore necessary to randomly sample an equal number test subjects in each of the different subgroups examined. The analyses performed for the remaining administrations substituted a comparable computional program which did not require the random sampling procedure. Tables 7, 8 and 9 present the summary data for these analyses. In the tables, the F-ratio represents the statistic from which probability estimates are obtained. The larger the value of F, the less likely that the distribution of score differences occurred by chance. F-ratio's were obtained for each of the three main factors, Sex, Grade and School, and for the various combinations of the factors.

For the first administration, three of the obtained F-ratio's were sufficiently large to indicate that they were not due to chance. Using levels of significance of .01 and .05 (one chance in a hundred and five chances in a hundred), the factors of GRADE, SCHOOL and a combination of both can be considered to have meaningfully affected the obtained scores. Examining Table 4, it can be seen that the students in the

TABLE 4

Mean Achievement Scores on Job Information Questionnaire
(First Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	28.15	30.66	21.32	24.66
Female	31.13	30.18	20.03	24.99

Mean scores are based on randomly selected samples from each sub-group population. In each sample N = 68.

TABLE 5

Mean Achievement Scores on Job Information Questionnaire II
(Second Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	23.92 (N = 165)	26.22 (N = 194)	22.83 (N = 57)	23.80 (N = 71)
Female	24.94 (N = 173)	27.15 (N = 208)	20.71 (N = 82)	24.30 (N = 81)

TABLE 6

Mean Achievement Scores on Job Information Questionnaire
(Third Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	24.73 (N = 71)	30.00 (N = 46)	20.45 (N = 20)	25.96 (N = 26)
Female	23.31 (N = 68)	31.53 (N = 47)	22.04 (N = 28)	25.69 (N = 26)

Table 7

Analysis of Variance of Job Information Questionnaire I Scores

for Sex, Grade and School Variables

(First Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	19.88	19.88	.32
Grade (B)	1	825.18	825.18	13.40*
School (C)	1	7206.62	7206.62	117.00*
Sex x Grade (AxB)	1	29.19	29.19	.47
Sex x School (AxC)	1	102.38	102.38	1.66
Grade x School (BxC)	1	385.60	385.60	6.26**
Interaction (AxBxC)	1	220.06	220.06	3.57
Within Error	536	33,016.48	61.60	
Total	543	41,805.38		

* F-Ratio is significant beyond the .001 level.

** F-Ratio is significant beyond the .01 level.

TABLE 8

Analysis of Variance of Job Information Questionnaire II Scores

for Sex, Grade and School Variables

(Second Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.01	.01	.02
Grade (B)	1	10.31	10.31	13.26 *
School (C)	1	14.07	14.07	18.09 *
Sex x Grade (AxB)	1	.80	.80	1.02
Sex x School (AxC)	1	1.60	1.60	2.06
Grade x School (BxC)	1	.00	.00	.00
Interaction (AxBxC)	1	.91	.91	1.17
Within Error	1023	795.30	.78	
Total	1030	823.00		

* F-Ratio is significant beyond the .01 level.

TABLE 9

Analysis of Variance of Job Information Questionnaire II Scores

for Sex, Grade and School Variables

(Third Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.25	.25	.12
Grade (B)	1	64.18	64.18	30.23 *
School (C)	1	29.77	29.77	14.02 *
Sex x Grade (AxB)	1	.15	.15	.07
Sex x School (AxC)	1	.18	.18	.09
Grade x School (BxC)	1	2.34	2.34	1.10
Interaction (AxBxC)	1	2.89	2.89	1.36
Within Error	324	687.96	2.12	
Total	331	787.73		

* F-Ratio is significant beyond the .01 level.

sixth grade classes obtained significantly higher scores than fifth grade students, regardless of sex or program participation. Further, and most important, those students in experimental (DVEP) schools obtained significantly higher scores than students in control schools, regardless of sex or grade level. Finally, when both factors were combined e.g. fifth grade-control, there was an additional affect on the obtained scores. Specifically, the difference between the mean scores of fifth and sixth grade students in control schools was greater than the score difference between grade levels in experimental (DVEP) schools. This suggests that the experimental students equally retained the information presented in the classroom regardless of grade level. This was not true of the control students where effects of grade level were more pronounced.

Analyses of the data from both the second and third test administrations yielded significant F-ratio's for the factors of GRADE and SCHOOL. The sixth grade students continued to have significantly greater knowledge of DVEP information than fifth grade students. More relevant to the evaluation objectives was the continued significant difference between the obtained scores of DVEP students and those of the control students. Thus, program participation resulted in significantly greater knowledge, both general and specific, of a broad array of occupational clusters.

This conclusion, however, does not uniformly apply to all the schools which participated in the DVEP project. Table 10 presents the mean scores obtained from the first administration of the Job Information Questionnaire for each of the experimental control schools. The mean scores for the three control schools were highly consistent. This indicated that the evaluation instrument was validly measuring knowledge about particular occupational clusters since students in these schools should be equally naive about this material. On the other hand, the mean scores for the experimental schools showed a high degree of variability. The range of these mean scores extended from a low of 20.48 to a high of 37.06. The magnitude of this difference cannot be accounted for by chance testing factors or slight differences in the number of fifth and sixth grade students in the school samples, i.e. sixth graders score higher than fifth graders.

Table 10

Mean Job Information Questionnaire Scores and Mean Pupil Learning Rates by School (PLR)
(First Administration)

Experimental		Mean PLR's	Mean	Standard Deviation
School 1	(N=47)	89.39	28.77 (6)	5.71
School 2	(N=46)	N.A.	34.87 (8)	6.57
School 3	(N=49)	93.60	22.12 (2)	7.[illegible]1
School 4	(N=44)	88.22	20.48 (1)	8.20
School 5	(N=47)	90.00	35.83 (9)	4.47
School 6	(N=45)	102.06	24.69 (4)	8.82
School 7	(N=52)	92.51	23.[illegible]2 (3)	7.17
School 8	(N=46)	93.12	25.50 (5)	6.76
School 9	(N=61)	93.10	32.67 (7)	7.23
School 10	(N=55)	N.A.	37.06 (10)	8.24
Total	(N=492)		28.83	[illegible].25
Control				
School 11	(N-85)	N.A.	23.72	7.35
School 12	(N=177)	N.A	22.71	6.82
School 13	(N-52)	N.A.	24.31	5.42
Total	(N=314)		23.25	6.79

N.A. - Not Available

Several alternative explanations were considered. The first, and most obvious, is that real differences in learning potential of the students in the various schools existed. While superficially convenient, such an explanation was not supported when the mean Pupil Learning Rate (PLR) for each school is examined (see Table 10). While differences certainly occur, they do not correspond to the differences obtained on the achievement measure. The second possible explanation involved the idea of differential impact in the delivery of the DVEP material. Within this idea such factors as the relative competence and enthusiasm of the Vocational Aides, time spent with students beyond classroom presentations and degree of cooperation with classroom teachers might affect the responsiveness of student to DVEP presentations.

Assuming such a "differential impact" explanation to be accurate, achievement score differences among the experimental schools would be maintained over a period of time. Table 11 indicates that the magnitude of mean score differences continued through the academic year beginning September, 1972. The range of mean scores obtained from the second test administration extended from a low of 18.51 to a high of 40.00. While the absolute levels of performance between the two administrations should not be compared due to differences in the measurement instruments, the relative performances among the schools can be examined. An examination of the ranks ("1" is lowest) of the schools for the first and second administration indicates a relatively stable ordering in the performance of the schools. The shift in the ranking of schools 3 and 10 account for most of the differences observed. The existence of an on-going difference in program delivery process among the schools gains credence with the stability of these inter-school performance differences. It should be noted that these differences occurred in spite of the increase field activity of the Coordinating Teachers.

Results (Objective 2)

The alternation ranking section of the evaluation instruments provided data to compare the attitudes of the experimental and control groups toward specific occupations. In particular, the data analysis sought to obtain information regarding differ-

TABLE 11

Mean Job Information Questionnaire Scores for Experimental and Control Schools
(Second and Third Administration)

	Second Administration			Third Administration		
	Sample Size	Mean	Standard Deviation	Sample Size	Mean	Standard Deviation
Experimental						
School 1	147	24.04 (5)	6.36	---	---	---
School 2	69	33.96 (9)	8.62	---	---	---
School 3	30	22.97 (4)	9.42	---	---	---
School 4	101	18.51 (1)	7.60	23	18.09	6.90
School 5	51	40.00 (10)	6.82	40	32.50	9.44
School 6	45	21.91 (3)	7.08	24	23.25	7.97
School 7	77	18.77 (2)	8.05	---	---	---
School 8	76	26.40 (6)	8.78	44	25.39	10.54
School 9	88	29.38 (8)	7.32	57	26.63	7.99
School 10	56	26.79 (7)	8.03	48	29.31	8.34
Total	740	25.67	9.69	236	26.74	9.52
Control						
School 11	61	22.31	6.33	---	---	---
School 12	131	21.51	6.54	102	23.61	7.40
School 13	100	24.94	7.35	---	---	---
Total	292	22.85	6.94	102	23.61	7.40

ences in the students preferences for certain jobs. However, the pilot instrument data indicated a direct experimental-control group comparison would be heavily biased by the identification of certain jobs as "male" jobs and/or "female" jobs. In order to control for this bias, comparisons were made using male and female subgroups. Thus, the preferences of experimental-males were compared to control-males and likewise, experimental-females were compared to control-females.

No effort was made to control for grade level since the pilot instrument data resulted in no real differences in the rankings of fifth and sixth graders.

For each of the jobs which were ranked, comparisons were made between the distributions of ranks given that job by the various subgroups. A simple summary statistic such as "median rank" can provide a rough description of the distribution of ranks. However, similar median ranks do not necessarily reflect similar patterns of rankings. For example, two groups of 10 subjects rank a job; for one group the ranks given are 1,2,3,4,5,6,7,8,9, and 10 and for the other, the ranks 1,1,1,1,5,6,6,6,6 and 6. Obviously, the job is being percieved differently, yet the median rank for both groups is 5.5.

The Mann-Whitney U Test was performed for each of the eighteen jobs comparing the rank distributions for experimental and control males and for experimental and control females, for each a test administration.

Table 12 presents the median job ranks and the Mann-Whitney U Test results comparing the rank distributions for the male groups. While a number of jobs were percieved differently by the experimental and control groups, no single job was so percieved for any more than one test administration. Boys in the DVEP program (experimental male group) expressed greater preference for the jobs of POLICEMAN, EXECUTIVE SECRETARY, GARBAGE COLLECTOR, COOK, TEACHER (Second Administration) and WAITER (Third Administration), than did the control school boys. For the control school boys, the jobs of LAWYER, ACTOR (Second Administration), ELECTRICIAN (Second

TABLE 12

Median Job Ranks and Mann-Whitney U Test Results for Experimental and Control Male Groups
(All Test Administrations)

	First Administration		Second Administration		Third Administration	
	Experimental	Control	Experimental	Control	Experimental	Control
Doctor	4.70	3.77	4.06	4.77	4.86	2.30*
Actress/Actor	6.50	4.90	6.60	4.69**	6.95	7.17
Nurse	11.70	12.18	11.59	12.69	12.30	12.20
Mechanic (Car)	3.42	4.58	3.77	3.42	5.17	3.37
Teacher	6.23	6.58	4.98	8.07*	6.28	7.33
Policeman	4.83	6.55*	3.71	4.90	5.36	5.80
Executive Secretary	10.58	12.54**	10.72	10.70	11.30	10.80
Waiter/Waitress	11.42	11.89	11.46	11.95	10.60	12.86**
Model	12.29	12.18	12.11	12.00	11.40	11.00
Lawyer	5.80	4.46**	4.61	4.18	3.86	5.00
Reporter	6.48	6.81	6.90	7.25	7.20	8.25
Beautician	12.80	12.17	12.45	12.53	12.75	12.58
Garbage Collector	15.21	17.10**	16.02	17.09	16.05	14.88
Cook	8.68	10.88**	11.03	10.00	8.25	11.17

* Mann-Whitney U is significant beyond .01

** Mann-Whitney U is significant beyond .05

TABLE 12 (continued)

Median Job Ranks and Mann-Whitney U Test Results for Experimental and Control Male Groups
(All Test Administrations)

	First Administration		Second Administration		Third Administration	
	Experimental	Control	Experimental	Control	Experimental	Control
Disc Jockey	7.70	8.55	7.81	7.12	5.50	4.93
Stewardess	13.34	12.50	12.37	13.05	13.21	12.50
Electrician	7.53	6.70	8.56	6.89*	9.30	8.17
Airplane Pilot	6.48	6.55	6.85	6.45	6.20	6.42

* Mann-Whitney U is significant beyond .01

** Mann-Whitney U is significant beyond .05

Administration), and DOCTOR (Third Administration) were perceived more favorably.

Table 13 presents the job ranking data and analysis for the experimental and control female groups. One job, Garbage Collector, was percieved more favorably by the DVEP girls in both the first and second test administrations. The jobs of Cook, Policeman (Second Administration), and Airplane Pilot (Third Administration) were also given significantly higher ranks by the DVEP girls than the control girls. On the other hand, the control girls expressed more positive preferences for the jobs of Doctor, Actress, Electrician, Executive Secretary, (Second Administration) and Model (Second Administration).

In general, the median ranks for all the jobs were remarkably stable over the evaluation period. Almost all the jobs retained the same relative preferability within each comparison group for all test administrations. For example, the median rank of Beautician remained approximately 13.5 for males and 6.5 for females regardless of whether they were in the DVEP project or not. This suggests that job preferences are developed early and are not easily susceptible to change.

With respect to those jobs where differences in preference were obtained, these data seem to suggest that both males and females in the experimental groups found some less glamorous jobs, for example, Garbage Collector and Cook, more acceptable than males and females in the control groups. While these jobs were still perceived as having less desirability than the other jobs, more individuals did express a greater willingness to rank these jobs higher. The control groups, on the other hand, showed higher preferences for high glamour jobs such as Lawyer, Doctor, Actress and Model. It may well be that the DVEP presentations resulted in more realistic decisions in job preferences. That is, DVEP students showed a greater willingness to prefer jobs with negative stereotypes and to prefer to a lesser degree jobs with positive images. Realistically, Garbage Collectors earn excellent money. On the other hand,

TABLE 13

Median Job Ranks and Mann-Whitney U Test Results for Experimental and Control Female Groups (All Test Administrations)

	First Administration		Second Administration		Third Administration	
	Experimental	Control	Experimental	Control	Experimental	Control
Doctor	9.07	7.64**	6.79	6.36	7.78	6.87
Actress/Actor	4.45	3.05**	4.27	4.89	3.79	4.25
Nurse	2.63	3.00	2.62	2.47	2.79	2.69
Mechanic (Car)	13.16	13.50	13.42	14.17	13.05	12.10
Teacher	2.99	3.23	3.08	2.98	3.46	3.83
Policeman	11.49	11.85	10.78	11.60**	10.88	11.25
Executive Secretary	7.23	6.48	7.67	6.11**	8.00	6.87
Waiter/Waitress	9.33	9.20	8.66	7.93	9.08	9.90
Model	3.98	3.58	4.08	2.83*	3.46	3.08
Lawyer	11.34	10.66	10.08	10.72	9.50	11.07
Reporter	10.69	10.69	10.76	10.75	11.95	12.42
Beautician	6.00	6.72	6.51	6.24	6.45	6.70
Garbage Collector	15.91	17.40*	17.02	17.24*	17.05	16.62
Cook	5.88	7.57*	6.48	7.15	6.83	7.17

* Mann-Whitney U is significant beyond .01

** Mann-Whitney U is significant beyond .05

TABLE 13 (continued)

Median Job Ranks and Mann-Whitney U Test Results for Experimental and Control Female Groups
(All Test Administrations)

	First Administration		Second Administration		Third Administration	
	Experimental	Control	Experimental	Control	Experimental	Control
Disc Jockey	13.17	12.55	12.32	13.00	10.96	12.25
Stewardess	6.19	6.47	8.83	8.39	6.88	7.58
Electrician	14.04	12.91*	13.48	13.15	14.31	14.12
Airplane Pilot	13.81	13.58	14.26	14.03	12.20	14.90**

* Mann-Whitney U is significant beyond .01

** Mann-Whitney U is significant beyond .05

these data can also be interpreted from the view that the DVEP project lowered the aspiration levels of the participating students. However, neither interpretation can be fully substantiated by these data since the differences were not stable over time.

The second attitude measure in the evaluation instruments was the semantic differential. This format was designed to examine the feelings work-related concepts elicit for the experimental and control groups. A sum score for eight bipolar adjective pairs represents the evaluative connotation for each concept. Again, a 2 x 2 x 2 analysis of variance design was employed to compare score differences (the rationale for this design has been previously discussed; also refer to Table 7) for each concept. The results obtained for each concept were:(See also Appendices E - P)

(1) GETTING A JOB - For the first administration, no significant score differences were found for the main factors of Sex, Grade and School. A significant F-ratio (probability level beyond .01) was obtained for the interaction of grade level and program participation. That is, sixth grade students in the experimental schools had more positive attitudes toward the concept than fifth grade students, while fifth grade students in the control schools showed more positive attitude than sixth grade students.

For the second administration, significant F-ratios (probability level beyond .05) were obtained for the factors of Sex and Grade: Girls reported a more positive attitude toward the concept than did boys; sixth graders showed more positive attitudes than fifth graders. No significant score differences were obtained for the third test administration.

(2) NEWSPAPER REPORTER _ Significant score differences (F-ratio significant beyond .01 level) were initially found for the factor of School. Students participating in the DVEP project viewed this concept more favorably than control school students.

While no significant score differences were found in the data from the second test administration both the factor of Sex and a Sex x School interaction were significant (F-ratio significant beyond .05) in the third administration. Boys, regardless of grade or program participation showed more positive attitudes to this job than did girls. Experimental (DVEP) girls, however, showed more positive attitudes than did girls in the control schools.

(3) CAREER - No significant score differences were obtained in the first test administration and the concept was not used in subsequent administrations.

(4) MAIL CARRIER - Significant score difference (F-ratio significant beyond .01 level) were found for the variable of program participation. Students in the experimental schools viewed this concept more favorably than control school students when initially tested in June, 1972. Subsequently only the factor of Grade was found to be significant(at the .05 level in the third administration). Sixth graders had more positive attitude toward this concept than did fifth graders.

(5) PLAY AND UNEMPLOYMENT - No significant score differences were initially obtained and both concepts subsequently were not used.

(6) TELEPHONE INSTALLER - While no significant score differences were obtained in the first test administration this concept was included for the remaining evaluation since the other two job title concepts did have significant results. The data from the second testing yielded significant score differences (at .05 level) due to program participation. DVEP students showed more favorable attitudes to this job than did students in the control schools.

(7) EDUCATION - Significant score differences (F-ratio significant beyond .05 level) were initially found for the factor of Sex. Girls showed more positive attitudes toward this concept than boys. This concept however, was not included in subsequent testing due to design considerations.

These data indicate that positive attitudes toward two world of work concepts were significantly increased by initial participation in the DVEP project. Both these concepts, REPORTER and MAIL CARRIER, are jobs which were identified, described and discussed in the first year of DVEP presentations for all the participating schools. Attitudes toward a third concept, TELEPHONE INSTALLER, were also effected by program participation in the later testing. It therefore, is possible to assume that the students' increased knowledge and awareness of these jobs resulted in significantly more positive attitudes toward these jobs. However, these more favorable attitudes were not maintained for the period of time between administration of the evaluation instruments.

It becomes tenuous to conclude that the DVEP project resulted in more favorable work related attitudes when the factor of time is considered.

Summary

Using a multiple-factor analysis of variance design, the main factors of grade level and program participation, were found to have a significant effect on achievement scores over the total evaluation period. A combination of these factors also had an effect on the obtained scores beyond the effect of either main factor in the initial evaluation of June, 1972. With respect to the first evaluation objective, the main effect of program participation indicated that the experimental (DVEP) schools obtained significantly higher scores than did the control schools on the achievement measures. Thus, the expectancy that the DVEP students would show greater knowledge of specific and general information relating to the occupational clusters presented in the classroom for a two-year period was realized.

In retrospect, the additional main effect of grade level should have been expected. It seems quite reasonable to expect that sixth grade students would perform better than fifth grade students as a result of greater maturation. It is, noteworthy, that for the first evaluation period the combined effect of grade level and program participation reduced the impact of grade level alone. That is, the difference in scores between fifth and sixth graders was smaller in the experimental schools than the control schools.

One note of caution must be introduced. The mean scores on the achievement measures were not uniform for all the experimental (DVEP) schools. Although several explanations for the large variation in mean scores were possible, the stability of the relative ordering of these differences from June, 1972 to February, 1973 reflected an on-going difference in the program delivery process among the DVEP schools.

With respect to the second evaluation objective, significant differences in the distribution of preference rankings for certain jobs were obtained. In order to control for sex bias in preferences, comparisons were made between experimental and control males and between experimental and control females. The significant Mann-Whitney U tests indicated that both the experimental males and females were more willing to express more positive preferences for less glamourous jobs, e.g. Cook, and less willing to accord consistently high ranks to higher glamour jobs, e.g. Lawyer, Actress. This pattern primarily occurred in the initial evaluation phase and was not maintained over time.

The semantic differential portion of the attitude measure also yielded significant data regarding the impact of the DVEP project. Again using a multiple-factor analysis design, the factor of program participation had significant although temporary effect on the attitude scores for the concepts of Reporter, Mail Carrier and Telephone Installer. The data indicated that the DVEP students had more positive evaluative feelings for these concepts than did control school students but only for one evaluation period. While these concepts represent specific jobs described in the class presentations, the results cannot wholly support the second outcome objective of the program. The inability of these favorable attitudes to be maintained over a long period of time does not reflect a true attitude change process.

OVERALL PROGRAM EVALUATION

The primary goal of the DVEP evaluation was to assess the effectiveness of the program in meeting two project objectives. The first objective was based on the outcome objective originally defined for the upper elementary school level: the program would result in greater knowledge of occupations within an array of occupational clusters. Since the second originally defined objective could not be meaningfully evaluated due to external constraints placed on the DVEP project, an alternative outcome objective was identified. This revised objective was that the program would result in more positive attitudes toward specific jobs and the world of work.

Using a multiple test, "matched" control group research design, the empirical evaluation was performed. The results indicate that the DVEP project does yield significantly more occupational knowledge and, less conclusively, does affect attitudes positively. The program, therefore, can be considered to be fulfilling this objective.

There are, however, several qualifications to the above conclusion. First, impact of the DVEP presentations was not uniform for all the participating schools. There was a substantial difference in the achievement measure performances across the project shcools. The identification and elimination of the cause(s) of these discrepancies would further maximize future program effectiveness. Second, significant differences were not continously obtained in the job preferences or attitudes toward world of work concepts for the entire evaluation period. While differences in the attitudes toward specific job concepts were obtained for at least one testing, the program cannot be considered fulfilling the second outcome objective.

A secondary goal of the DVEP evaluaton was to examine the organizational processes required for program delivery. Based on discussions with the DVEP staff, on-site observations and interviews with participating school principals and teachers, several initial problem areas in program delivery were identified. During the early period of program implementation, both the Vocational Aides and the classroom teachers were unclear about the role of the Aides in the classroom beyond their actual presentations. Given the program goal of career upgrading for the Aides, it seemed that the Aides should be seen in the role of "teacher assistants" or "student teachers." The acceptance of such a role definition on the part of the classroom teachers would depend, in large measure, on the skill development of the Aides. This related directly to another criticism of the program delivery raised in the initial discussions - that of insufficient in-service training. While the Aides are required to take education courses as part of the program, they were also required to make classroom presentations almost immediately at the onset of the program. This placed an undue strain on both the Aides and the classroom teachers. The increased responsibilities of Coordinating Teacher in the following year seemed to be directed at meeting these issues.

Although its impact on program delivery is difficult to assess, the knowledge that the DVEP project would not be refunded did have an effect. This information was known by the DVEP staff as early as October, 1972. The decreasing morale of the staff could be felt by the HSDL during the second evaluation phase in February, 1973. While it cannot be documented, the large turnover among the Aides in the Spring, 1973 could be attributable to the program termination. In general, the organization climate which resulted from knowing the project would terminate (although alternative funding sources could be and were explored), reduced the real effectiveness of the program by a substantial period of time. In fact, the

combination of "gear up - adjustment" time and project "phase down" time probably limited the impact of DVEP project to the Spring 1972 and early Fall, 1973.

In summary, the implementation of the DVEP project was shown to have successfully impacted on students based on the achievement outcome objective. Students participating in the program were shown to have significantly greater knowledge of specific and general information relating to occupational clusters presented in classrooms. Students in the program also temporarily showed more positive attitudes toward specific job concepts which also were part of the program presentation. Similarly, these students temporarily showed a difference in their preferences for jobs with varying levels of occupational glamour. In the initial evaluation period, they were more willing to express preferences for jobs having less glamour but which may be more realistic and viable occupational choices.

In general, the program implementation has adhered to the original program proposal. The organizational processes required for program implementation can be considered effective using the criteria of increased knowledge and that the DVEP staff and classroom teachers felt the program meaningfully impacted on the student. The degree to which an increasingly negative organization climate in the second year of the evaluation effected the magnitude of the empirical outcomes of the program evaluation cannot be judged.

Human Services Design Laboratory

School of Applied Social Sciences
Case Western Reserve University
CLEVELAND, OHIO 44106

157

AN EVALUATION OF THE DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

APPENDICES

August, 1973

Lawrence Pitterman

Vashti Adger

Gregory O'Brien

Appendix A

AN EVALUATION OF THE DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

Lawrence Pitterman, Vashti Adger and

Gregory O'Brien, Project Director

SUMMARY ABSTRACT

The Human Services Design Laboratory (HSDL) performed an independent evaluation of the impact and effectiveness of the Developmental Vocational Education Program (DVEP) in cooperation with Division of Research and Development, Cleveland Public Schools.

The overall goal of the DVEP project is to create a bridge between school and earning a living for students in the Model Cities area. This will be done through a career development program beginning in elementary school and continuing through high school. It will provide students with a broad base of vocation-

al information and exploratory experiences on which to base career decisions; with skill training to enable them to secure employment or to undertake future training in the field of their choice; and with actual job placement. Thus, the program is designed to increase options for making occupational decisions; to eliminate real and imagined barriers to attaining job skills; and to enhance learning achievement in all subject areas and at all education levels for the youth in Model Cities area schools.

The evaluation effort involved three distinct phases:

(1) Obtaining an overview of the DVEP project to determine the appropriate program outcome objectives to be evaluated and to examine the organizational process required for program delivery.

(2) Developing meaningful and reliable measurement instruments to assess program outcomes.

(3) Performing and reporting the empirical evaluation investigation by comparing a sample of students from the participating DVEP schools with a "matched" sample of students from non-DVEP schools.

EVALUATION OBJECTIVES

Based on a review of the proposed program objectives and their applicability to the current status of program implementation, two evaluation objectives were identified:

Objective 1: Experimental (DVEP) and control students will be compared on their specific and general knowledge relating to certain occupational clusters. Successful program implementation should result in significantly higher scores for the experimental (DVEP) students on an achievement measure of this

knowledge.

Objective 2: Experimental (DVEP) and control students will be compared on their preferences for certain jobs and on their attitudes toward the world of work. Successful program implementation should result in significantly more positive attitudes for experimental (DVEP) students toward the world of work. Significant differences in the expressed job preferences also should be obtained.

INSTRUMENT DEVELOPMENT

Since the assessment of the DVEP project involved both achievement and attitudinal evaluation objectives, instrument development was directed toward obtaining meaningful and reliable measures for these objectives.

The primary emphasis of the data analysis for the content measure was on obtaining high internal-consistency reliability. Using two types of item analysis, item-diffulty and item-total correlation, a revised achievement measure was developed. The internal-consistency reliability for this measure was approximately .85. This is well above the required level of acceptability.

The data analyses for the attitudinal portions of the evaluation instrument examined the applicability of the measurement techniques. As a departure from typical attitude measures, the alternation ranking procedure yielded differential information about job preferences. A more conventional measure, the semantic differential, was employed to obtain attitudes toward world of work concepts. Revised on the basis of factor analysis data, the final form included eight work related concepts which were rated on eight bipolar adjective scales.

The use of a single summed score for these scales also resulted from the factor analyses.

A revised instrument, the Job Information Questionnaire included the content, ranking and semantic differential measures.

EMPIRICAL EVALUATION

The Job Information Questionnaire was administered to fifth and sixth grade students, who had participated in the first year of the DVEP project (experimental group),and to a comparable group of students who were not in the program (control group). Using this post-test, "matched" control group research design, the program objectives were evaluated.

KEY RESULTS - OBJECTIVE 1

1. Employing a multiple-factor analysis of variance design, the main factor of program participation was significant, Experimental (DVEP) schools obtained significantly higher achievement than control schools.
2. The same design also indicated that the main factor of grade level was significant. Sixt graders obtained significantly higher scores than fifth graders.
3. Beyond the effects of each of these main factors, the combination of both factors also was significant. The difference in obtained scores between fifth and sixth graders was smaller in the experimental (DVEP) schools than in the control schools.
4. The level of performance on the achievement measure was not consistent across all the experimental (DVEP) schools. A large variation in mean scores was obtained.

KEY RESULTS - OBJECTIVE 2

Job preference comparisons between experimental (DVEP) and control groups were made using male and female subgroups. Mann-Whitney U tests were performed to identify differences in the distribution of ranks given to each job. Attitudestoward various world of work concepts in a semantic differential were analyzed with a factor analysis of variance design.

1. Experimental (DVEP_ males assigned significantly higher ranks to the jobs of Policeman, Executive Secretary, Garbage Collector and Cook than did control males.
2. Control males assigned significantly higher ranks to the job of Lawyer than did experimental males.
3. Experimental (DVEP) females also assigned significantly higher ranks to the jobs of Garbage Collector and Cook than did control females
4. Control females assigned significantly higher ranks to the jobs Doctor, Actress,and Electrician.

This data pattern suggests that both experimental (DVEP) males and females were more willing to express more positive preferences for lower prestige jobs, e.g. Cook, and less willing to express high positive preferences for higher prestige jobs.

5. Significant effects for the main factor of program participation were obtained for the semantic differential concepts of Reporter and Mail Carrier. Experimental (DVEP) students expressed more positive attitudes toward these concepts than did control students.

ORGANIZATIONAL EVALUATION

A secondary goal of this project evaluation was to examine the current status of program evaluation and the organizational processes required for program delivery. In general, program implementation has adhered to the original program proposal. Certain external constraints placed on the project restricted a more complete implementation of activities.

Most teachers and principals with whom interviews were held indicated a favorable reaction to the concept of developmental education and were favorably impressed with program delivery. However, discussions with the DVEP staff and on-site observations, in addition to these interviews, identified two problem areas in program delivery. The first involved the skill development of the Vocational Aides and their role in the classroom beyond the actual DVEP presentations. The second involved the relationship between the DVEP material and the Social Studies curriculum into which it is injected. Both these problem areas seem to be transitory and should not be major sources of difficulty as the program achieves greater stability.

SUMMARY AND CONCLUSIONS

The primary goal of the DVEP evaluation was to assess the effectiveness of the program in meeting two outcome objectives. The first objective was based on an outcome originally defined for program implementation at the upper elementary school level; successful program implementation would result in greater knowledge relating to certain occupational cluster. The empirical investigation indicated that the DVEP project <u>does</u> result in significantly greater occupational knowledge for students participating in the program. However, this result was not uniform in each of the participating schools.

The second outcome objective identified for evaluation was that successful program implementation would result in more positive attitudes toward work related concepts and differences in expressed job preferences. Differences in job preferences were obtained between the experimental and control groups. These suggested that program participation affect the perceived preferability of certain jobs. Regarding the students' attitudes toward work-related concepts, the data did show more positive attitudes toward the specific job concepts of REPORTER and MAIL CARRIER, for the DVEP students. Since both concepts represent jobs described in the program presentations, the obtained differences support the desired outcome. A longer period of implementation may be necessary for differences in attitudes toward more global concepts to become manifest.

In conclusion, the DVEP project successfully impacted on the target population based on the results for the two outcome objectives.

APPENDIX B

ITEM ANALYSES

In performing the item analyses, the first type of item statistic examined was the difficulty level of each item. The basic index of difficulty level the percentage of individuals passing an item (anwering in the correct direction). In test construction, item difficulty ("p" values) is important for several interrelated reasons. First, the "p" values influence the shape and dispersion (spread) of the test scores. If the average "p" value is far removed from 50% correct responses in either direction, the distribution of test scores will tend to be biased with either very high or very low scores and the variability among these scores will tend to be very small (Nunnally, 1967). Since it is desirable to have an approximately symmetrical distribution of scores, an average "p" value of about 50% for the test items should be obtained.

The second reason for using the "p" values in the data analysis is that they relate directly to internal-consistency reliability. Internal-consistency reliability is most appropriately applied to homogeneous tests, i.e., tests composed of items which all measure the same quality to about the same degree. This type of reliability indicates how closely an obtained score comes to the score the person would have attained if the measuring instrument was perfect. Internal-consitency reliability is greatest when:

(1) The item intercorrelations are greatest.

(2) The dispersion of item scores (variance) is greatest. This occurs when the average item difficulty is approximately 50% (as discussed above).

(3) The items are of equal difficulty (Guilford, 1965)

In an effort to achieve the desirable statistical conditions of normal score distribution and high test reliability, an effort was made to select pilot instrument items whose item difficulty was between 40% and 60%.

However, the use of the item difficulty approach as the only means for selecting test items is insufficient. More important than the matter of item difficulty is the issue of whether a test item discriminates individuals in the same manner as the other test items. When items correlate positively (discriminate individuals in a similar direction; "passing" one item means "passing" other items) with one another, those items with the highest average correlations are the best items. Since such item intercorrelations are highly related to the correlations of item score with total test score, those items with the highest item-total correlations (the degree to which those individuals who "pass" the item get higher test scores) similarly can be considered the best items. More specifically, when compared to items with relatively lower correlations with total score, those items with high item-total correlations account for a greater percentage of score differences in terms of a common content factor. Thus, choosing items with the higher item-total correlations has the effect of increasing the homogeneity (internal consistency) of the test. The legitimate substitution of high item-total correlations for item intercorrelations has the additional benefit of insuring that the psychological variable measured (knowledge of occupational clusters) is uniform for all items.

APPENDIX C

JOB INFORMATION QUESTIONNAIRE

NAME: _____ SEX: _____

SCHOOL: _____ GRADE: _____

1. FATHER'S OCCUPATION _____

2. MOTHER'S OCCUPATION _____

3. WHAT ARE THE NAMES OF THE NEWSPAPERS IN CLEVELAND? _____

_____

4. WHAT ARE THE TELEVISION STATIONS ON WHICH YOU CAN WATCH T.V. SHOWS?

_____

5. NAME THE LARGEST AIRPORT IN CLEVELAND? _____

_____

6. NAME THREE AIRLINES THAT FLY TO AND FROM CLEVELAND? _____

_____

7. WHAT KIND OF CARD WOULD YOU NEED BEFORE YOU CAN GET A JOB?

_____

8. HERE ARE SOME THINGS YOU NEED TO DO IF YOU WANT TO FIND AND GET A JOB. SHOW THE ORDER THAT YOU WOULD DO THESE THINGS BY PUTTING A 1 NEXT TO THE FIRST STEP, A 2 NEXT TO THE SECOND STEP, ETC.

_____ GO TO AN EMPLOYMENT SERVICE

_____ DECIDE WHAT KIND OF JOB YOU ARE ABLE TO GET

_____ READ THE HELP WANTED ADS

_____ GO FOR AN INTERVIEW

_____ TELEPHONE THE EMPLOYER

9. UNDERLINE THE PLACE WHERE EACH OF THESE JOBS WOULD MOST LIKELY BE FOUND.
FOR EXAMPLE: A REPORTER WORKS AT A NEWSPAPER.

REPORTER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SPECIAL DELIVERY MESSENGER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
COPY EDITOR	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
INSTALLER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
LINEMAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
TRAFFIC MANAGER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
NEWS DIRECTOR	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SERVICE REPRESENTATIVE	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
PARCEL POST CARRIER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
ENGRAVER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
PRESSMAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
MAKE-UP ARTIST	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
CHIEF ENGINEER	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
BROADCAST TECHNICIAN	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
SALES REPRESENTATIVE	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
DIRECTORY CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
DISTRIBUTION CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
FOREIGN CORRESPONDENT	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE
WINDOW CLERK	NEWSPAPER	POST OFFICE	TV & RADIO	TELEPHONE

10. WHO TAKES YOUR MONEY WHEN YOU WANT TO FLY ON AN AIRPLANE: ?

_____A. RESERVATION AGENT

_____ B. TICKET SALES AGENT

_____C. AIR TRAFFIC CONTROLLER

_____D. AIRLINE DISPATCHER

11. WHO TRIES TO MAKE YOU FEEL COMFORTABLE ON BOARD AN AIRPLANE?

____A. FLIGHT OFFICER
____B. CO-PILOT
____C. STEWARDESS
____D. AIRLINE DISPATCHER

12. WHO LOADS AND UNLOADS THE BAGGAGE ON AN AIRPLANE?

____A. FLIGHT OFFICER
____B. RESERVATION AGENT
____C. AIRLINE DISPATCHER
____D. RAMP SERVICEMAN

13. WHO HELPS THE PILOT AVOID HITTING OTHER FLYING AIRPLANES BY GIVING HIM INFORMATION OVER HIS RADIO?

____A. AIR TRAFFIC CONTROLLER
____B. CO-PILOT
____C. FLIGHT ENGINEER
____D. AIRLINE DISPATCHER

14. WRITE THE NAMES OF DIFFERENT JOBS IN A HOSPITAL. FOR EXAMPLE: A DOCTOR WORKS IN A HOSPITAL.

_____ _____
_____ _____
_____ _____

15. WHICH JOB DOES NOT BELONG WITH THE OTHERS?

____A. TELEPHONE OPERATOR
____B. PROGRAM DIRECTOR
____C. SERVICE REPRESENTATIVE
____D. INSTALLER

____A. FLIGHT ENGINEER
____B. RAMP SERVICEMAN
____C. CHIEF ENGINEER
____D. PILOT

____A. PRODUCER
____B. EDITOR
____C. REPORTER
____D. PUBLISHER

16. THIS IS A LIST OF TWENTY JOBS ON WHICH MEN AND WOMEN WORK FOR A LIVING. READ THROUGH THE LIST TO MAKE SURE YOU KNOW ALL THE JOBS AND THINK ABOUT HOW MUCH YOU WOULD LIKE TO WORK ON EACH OF THESE JOBS. NOW, DECIDE ON ONE JOB THAT YOU WOULD REALLY LIKE TO HAVE MORE THAN ANY OTHER. WRITE THE NAME OF THAT JOB IN THE SPACE NEXT TO "1 - BEST JOB." NOW, DECIDE WHICH JOB YOU WOULD REALLY NOT LIKE TO HAVE. DO NOT WORY ABOUT THE REASON YOU DON'T WANT THE JOB. WRITE THE NAME OF THIS JOB IN THE SPACE NEXT TO "1 - WORST JOB." CONTINUE TO ALTERNATELY CHOOSE BETWEEN THE "NEXT WORST" JOBS UNTIL YOU YOU HAVE WRITTEN THE NAMES OF ALL THE JOBS IN THE SPACES. AS YOU SELECT EACH JOB, DRAW A LINE THROUGH IT SO YOU DON'T CHOOSE IT TWICE.

DOCTOR
ACTRESS/ACTOR
NURSE
MECHANIC (CAR)
TEACHER
POLICEMAN
EXECUTIVE SECRETARY
WAITER/WAITRESS
MODEL
LAWYER
REPORTER
BEAUTICIAN
GARBAGE COLLECTOR
COOK
DISC JOCKEY
STEWARDESS
ELECTRICIAN
AIRPLANE PILOT

1. "BEST JOB" - _____

2. "NEXT BEST JOB" - _____
3. "NEXT BEST JOB" - _____
4. "NEXT BEST JOB" - _____
5. "NEXT BEST JOB" - _____
6. "NEXT BEST JOB" - _____
7. "NEXT BEST JOB" - _____
8. "NEXT BEST JOB" - _____
9. "NEXT BEST JOB" - _____

9. "NEXT WORST JOB" - _____
8. "NEXT WORST JOB" - _____
7. "NEXT WORST JOB" - _____
6. "NEXT WORST JOB" - _____
5. "NEXT WORST JOB" - _____
4. "NEXT WORST JOB" - _____
3. "NEXT WORST JOB" - _____
2. "NEXT WORST JOB" - _____
1. "WORST JOB" — _____

Getting a Job						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Newspaper Reporter						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Career						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

Mail Carrier						
Good	___;	___;	___;	___;	___;	Bad
Weak	___;	___;	___;	___;	___;	Strong
Sad	___;	___;	___;	___;	___;	Happy
Wise	___;	___;	___;	___;	___;	Foolish
Brave	___;	___;	___;	___;	___;	Cowardly
Dirty	___;	___;	___;	___;	___;	Clean
Kind	___;	___;	___;	___;	___;	Cruel
Important	___;	___;	___;	___;	___;	Unimportant

PLAY						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

UNEMPLOYMENT						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

TELEPHONE INSTALLER						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

EDUCATION						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

APPENDIX D

JOB INFORMATION QUESTIONNAIRE II

NAME: _____ SEX: _____

SCHOOL: _____ GRADE: _____

1. WHAT ARE THE NAMES OF THE NEWSPAPERS IN CLEVELAND? _____

_____

2. NAME THE LARGEST AIRPORT IN CLEVELAND. _____

3. NAME THREE AIRLINES THAT FLY TO AND FROM CLEVELAND. _____

_____

4. WHAT KIND OF CARD WOULD YOU NEED BEFORE YOU COULD GET A JOB? _____

_____

5. THESE ARE SOME JOBS IN THE APPAREL INDUSTRY. SHOW HOW A DRESS OR SUIT CAN BE MADE BY PUTTING THESE JOBS IN THE ORDER THEY WOULD BE NEEDED TO MAKE THE PIECE OF CLOTHING. PUT A 1 NEXT TO THE JOB WHICH MUST BE DONE FIRST, A 2 NEXT TO THE JOB WHICH SHOULD BE DONE SECOND, ETC.

_____ SEWING MACHINE OPERATOR

_____ DESIGNER

_____ CUTTER

_____ PATTERN MAKER

_____ PRESSER

6. CIRCLE TRUE FOR THE STATEMENTS WHICH ARE CORRECT AND CIRCLE FALSE FOR THE STATEMENTS WHICH ARE NOT CORRECT.

TRUE FALSE FIREMEN GIVE FIRST AID TO PEOPLE IN THEIR HOMES.
TRUE FALSE POLICEMEN DECIDE IF PEOPLE ARE GUILTY WHEN THEY ARREST THEM.
TRUE FALSE POLICEMEN HAVE TO GO TO LAW SCHOOL IN ORDER TO BE HIRED.
TRUE FALSE FIREMEN HAVE TO INSPECT BUILDINGS TO FIND OUT IF THEY ARE SAFE.
TRUE FALSE POLICEMEN HAVE TO PASS A PHYSICAL EXAMINATION WHEN THEY ARE HIRED.
TRUE FALSE FIREMEN GET THEIR BASIC TRAINING ON THE JOB.

7. MATCH EACH JOB WITH THE CORRECT DESCRIPTION OF ITS MAJOR DUTIES. WRITE THE LETTER NEXT TO THE JOB THE DUTIES DESCRIBED. THERE IS ONLY ONE DESCRIPTION THAT IS CORRECT FOR EACH JOB.

_____ PRACTICAL NURSE

_____ NURSING AIDE

_____ MEDICAL TECHNOLOGIST

_____ PHYSICAL THERAPIST

_____ NUTRITIONIST

A. CONCERNED WITH THE BEDSIDE CARE OF PATIENTS. FOR EXAMPLE, TAKES THEIR PULSE, TEMPERATURE, AND BLOOD PRESSURE.

B. PERFORMS LABORATORY TESTS AND PROCEDURES. FOR EXAMPLE, EXAMINES BLOOD SAMPLES.

C. GIVES MEDICINE TO PATIENTS. REPORTS AND RECORDS THE PATIENTS' DAILY CONDITION.

D. WORKS WITH PATIENTS WHO HAVE BONE OR MUSCLE INJURIES.

E. APPLIES KNOWLEDGE OF "GOOD" FOOD TO IMPROVE PATIENTS' HEALTH.

F. PERFORMS DAILY TASKS NEEDED TO MAKE PATIENTS COMFORTABLE. FOR EXAMPLE, MAKES BEDS AND KEEPS ROOM NEAT.

8. WHICH JOB DOES NOT BELONG WITH THE OTHER?

1.

____ A. FLIGHT ENGINEER
____ B. RAMP SERVICEMAN
____ C. CHIEF ENGINEER
____ D. PILOT

2.

____ A. PRODUCER
____ B. EDITOR
____ C. REPORTER
____ D. PUBLISHER

3.

____ A. TELEPHONE OPERATOR
____ B. PROGRAM DIRECTOR
____ C. SERVICE REPRESENTATIVE
____ D. INSTALLER

9. UNDERLINE THE PLACE WHERE EACH JOB WOULD MOST LIKELY BE FOUND.

EXAMPLE: POSTMAN

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

A.

INSTALLER

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

BROADCAST TECHNICIAN

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

WINDOW CLERK

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

PHOTO ENGRAVER

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

MAKE-UP ARTIST

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

DIRECTORY CLERK

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

B.

HIGH AND LOW LINEMAN

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

DOG WARDEN

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

SEWAGE PLANT ATTENDANT

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

CHEMIST

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

GEOLOGIST

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

D.

NUCLEAR ENGINEER

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

BARKER MACHINE OPERATOR

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

BLAST FURNACE WORKER

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

SUPERCALENDAR OPERATOR

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

ENGINE MECHANIC

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

PULPMAKER WORKER

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

10. WHICH ONE OF THE FOLLOWING BANK SERVICES DOES THE TELLER HANDLE MOST?

____ A. MORTGAGE LOANS

____ B. CREDIT CARD ACCOUNTS

____ C. SAVINGS AND CHECKING ACCOUNTS

____ D. CHARGE ACCOUNTS

11. WHO GIVES INFORMATION TO PEOPLE WHO COME INTO OR CALL A BUSINESS OFFICE?

_____ A. STENOGRAPHER

_____ B. RECEPTIONIST

_____ C. EXECUTIVE SECRETARY

_____ D. PUBLIC RELATIONS WORKER

12. WHO KEEPS A COMPLETE AND UP-TO-DATE RECORD OF MONEY USED IN BUSINESS ACTIVITIES?

_____ A. BOOKKEEPER

_____ B. CASHIER

_____ C. COMPANY VICE-PRESIDENT

_____ D. LAWYER

13. WHO KEEPS TRACK OF MERCHANDISE TRANSFERRED FROM ONE PLACE TO ANOTHER BY BUSINESS FIRMS?

_____ A. DISTRIBUTION WORKER

_____ B. SHIPPING AND RECEIVING CLERK

_____ C. WHOLESALER

_____ D. MARKET RESEARCHER

14. WHO HAS THE MOST FREEDOM TO CHANGE THE ROUTE OF A TRIP?

_____ A. PILOT

_____ B. TRAIN ENGINEER

_____ C. TRUCK DRIVER

_____ D. BUS DRIVER

THIS IS A LIST OF EIGHTEEN JOBS. READ THROUGH THE LIST TO MAKE SURE YOU KNOW ALL THE JOBS. THINK ABOUT HOW MUCH YOU WOULD LIKE TO WORK ON EACH OF THESE JOBS. NOW, DECIDE ON THE ONE JOB THAT YOU WOULD REALLY LIKE TO HAVE MORE THAN ANY OTHER. WRITE THE NAME OF THAT JOB IN THE SPACE NEXT TO "1 - BEST JOB." NOW, DECIDE WHICH JOB YOU WOULD REALLY NOT LIKE TO HAVE. DO NOT WORRY ABOUT THE REASON YOU DON'T WANT THE JOB. WRITE THE NAME OF THIS JOB IN THE SPACE NEXT TO "1 - WORST JOB." AT THE BOTTOM OF THE PAGE. CONTINUE TO ALTERNATELY CHOOSE BETWEEN THE "NEXT BEST JOB" AND THE "NEXT WORST JOB" UNTIL YOU HAVE WRITTEN THE NAMES OF ALL THE JOBS IN THE SPACES. AS YOU SELECT EACH JOB, DRAW A LINE THROUGH IT SO YOU DON'T CHOOSE IT TWICE. REMEMBER ALL THESE JOBS ARE FOR BOTH MEN AND WOMEN.

DOCTOR	1. BEST JOB _____
ACTRESS/ACTOR	2. NEXT BEST JOB - _____
NURSE	3. NEXT BEST JOB - _____
CAR MECHANIC	4. NEXT BEST JOB - _____
TEACHER	5. NEXT BEST JOB - _____
POLICEMAN	6. NEXT BEST JOB - _____
EXECUTIVE SECRETARY	7. NEXT BEST JOB - _____
WAITER/WAITRESS	8. NEXT BEST JOB - _____
MODEL	9. NEXT BEST JOB - _____
LAWYER	
REPORTER	9. NEXT WORST JOB - _____
BEAUTICIAN	8. NEXT WORST JOB - _____
GARBAGE COLLECTOR	7. NEXT WORST JOB - _____
COOK	6. NEXT WORST JOB - _____
DISC JOCKEY	5. NEXT WORST JOB - _____
STEWARD/STEWARDESS	4. NEXT WORST JOB - _____
ELECTRICIAN	3. NEXT WORST JOB - _____
AIRPLANE PILOT	2. NEXT WORST JOB - _____
	1. WORST JOB _____

GETTING A JOB						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

NEWSPAPER REPORTER						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

TELEPHONE INSTALLER						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

MAIL CARRIER						
GOOD	___;	___;	___;	___;	___;	BAD
WEAK	___;	___;	___;	___;	___;	STRONG
SAD	___;	___;	___;	___;	___;	HAPPY
WISE	___;	___;	___;	___;	___;	FOOLISH
BRAVE	___;	___;	___;	___;	___;	COWARDLY
DIRTY	___;	___;	___;	___;	___;	CLEAN
KIND	___;	___;	___;	___;	___;	CRUEL
IMPORTANT	___;	___;	___;	___;	___;	UNIMPORTANT

Appendix E

Mean Semantic Differential Scores for Concept of Getting a Job
(Second Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	35.50 (N = 129)	35.35 (N = 164)	33.14 (N = 57)	35.17 (N = 70)
Female	35.72 (N = 136)	36.09 (N = 184)	34.84 (N = 81)	36.83 (N = 81)

Mean Semantic Differential Scores for Concept of Getting a Job
(Third Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	34.72 (N = 67)	35.81 (N = 43)	36.70 (N = 20)	37.72 (N = 25)
Female	36.46 (N = 59)	36.80 (N = 46)	36.28 (N = 28)	37.65 (N = 26)

Appendix F

Analysis of Variance of Getting a Job Scores

for Sex, Grade and School Variables

(Second Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	2.33	2.33	4.23 **
Grade (B)	1	2.25	2.25	4.09 **
School (C)	1	.90	.90	1.63
Sex x Grade (AxB)	1	.03	.03	.05
Sex x School (AxC)	1	.72	.72	1.31
Grade x School (BxC)	1	1.80	1.80	3.27
Interaction (AxBxC)	1	.04	.04	.07
Within Error	894	491.27	.55	
Total	901	499.33		

** F-Ratio is significant beyond the .05 level.

Appendix G

Analysis of Variance of Getting a Job Scores

for Sex, Grade and School Variables

(Third Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.63	.63	.53
Grade (B)	1	1.84	1.84	1.52
School (C)	1	2.61	2.61	2.16
Sex x Grade (AxB)	1	.02	.02	.02
Sex x School (AxC)	1	1.29	1.29	1.07
Grade x School (BxC)	1	.11	.11	.09
Interaction (AxBxC)	1	.15	.15	.13
Within Error	306	369.18	1.21	
Total	313	375.83		

Appendix H

Mean Semantic Differential Scores for Concept of Newspaper Reporter
(Second Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	31.63 (N = 127)	32.29 (N = 139)	30.02 (N = 57)	30.73 (N = 70)
Female	30.96 (N = 135)	31.38 (N = 184)	31.84 (N = 80)	28.94 (N = 81)

Mean Semantic Differential Scores for Concept of Newspaper Reporter
(Third Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	32.34 (N = 65)	30.36 (N = 42)	32.05 (N = 20)	33.12 (N = 25)
Female	30.10 (N = 58)	32.85 (N = 46)	27.28 (N = 27)	27.65 (N = 26)

Appendix I

Analysis of Variance of Newspaper Reporter Scores

for Sex, Grade and School Variables

(Second Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.30	.30	.32
Grade (B)	1	.15	.15	.16
School (C)	1	2.83	2.83	3.06
Sex x Grade (AxB)	1	1.84	1.84	1.99
Sex x School (AxC)	1	.31	.31	.34
Grade x School (BxC)	1	1.35	1.35	1.46
Interaction (AxBxC)	1	1.43	1.43	1.55
Within Error	885	816.83	.92	
Total	892	825.02		

Appendix J

Analysis of Variance of Newspaper Reporter Scores

for Sex, Grade and School Variables

(Third Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	12.50	12.50	4.58 **
Grade (B)	1	.62	.62	.23
School (C)	1	3.87	3.87	1.42
Sex x Grade (AxB)	1	2.05	2.05	.75
Sex x School (AxC)	1	13.82	13.82	5.06 **
Grade x School (BxC)	1	.06	.06	.02
Interaction (AxBxC)	1	3.65	3.65	1.33
Within Error	301	822.36	2.73	
Total	308	858.93		

** F-Ratio is significant beyond the .05 level.

Appendix K

Mean Semantic Differential Scores for Concept of Mail Carrier
(Second Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	33.06 (N = 128)	32.78 (N = 156)	32.34 (N = 56)	32.49 (N = 79)
Female	31.79 (N = 135)	31.68 (N = 182)	31.64 (N = 70)	32.78 (N = 81)

Mean Semantic Differential Scores for Concept of Mail Carrier
(Third Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	32.52 (N = 65)	31.84 (N = 43)	31.00 (N = 17)	34.52 (N = 25)
Female	32.54 (N = 59)	35.26 (N = 46)	28.07 (N = 27)	33.58 (N = 26)

Appendix L

Analysis of Variance of Mail Carrier Scores

for Sex, Grade and School Variables

(Second Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.15	.15	.18
Grade (B)	1	.07	.07	.08
School (C)	1	.00	.00	.00
Sex x Grade (AxB)	1	.17	.17	.20
Sex x School (AxC)	1	1.66	1.66	1.90
Grade x School (BxC)	1	.00	.00	.00
Interaction (AxBxC)	1	.09	.09	.10
Within Error	879	766.24	.87	
Total	886	768.39		

Appendix M

Analysis of Variance of Mail Carrier Scores

for Sex, Grade and School Variables

(Third Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.02	.02	.01
Grade (B)	1	15.28	15.28	5.88 **
School (C)	1	3.12	3.12	1.20
Sex x Grade (AxB)	1	3.63	3.63	1.40
Sex x School (AxC)	1	6.68	6.68	2.57
Grade x School (BxC)	1	6.11	6.11	2.35
Interaction (AxBxC)	1	.25	.25	.10
Within Error	300	778.94	2.60	
Total	307	814.03		

** F-Ratio is significant beyond the .05 level.

Appendix O

Mean Semantic Differential Scores for Concept of Telephone Installer
(Second Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	32.95 (N = 128)	33.43 (N = 158)	31.02 (N = 56)	32.00 (N = 70)
Female	33.12 (N = 135)	32.47 (N = 182)	31.80 (N = 80)	31.44 (N = 81)

Mean Semantic Differential Scores for Concept of Telephone Installer
(Third Administration)

	Experimental Schools		Control Schools	
	5th Grade	6th Grade	5th Grade	6th Grade
Sex				
Male	32.32 (N = 65)	31.86 (N = 43)	31.47 (N = 19)	34.00 (N = 25)
Female	32.31 (N = 58)	32.41 (N = 46)	31.93 (N = 27)	34.19 (N = 26)

Appendix P

Analysis of Variance of Telephone Installer Scores

for Sex, Grade and School Variables

(Second Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.04	.04	.05
Grade (B)	1	.03	.03	.85
School (C)	1	4.06	4.06	5.15 **
Sex x Grade (AxB)	1	.77	.77	.97
Sex x School (AxC)	1	.13	.13	.16
Grade x School (BxC)	1	.08	.08	.10
Interaction (AxBxC)	1	.01	.01	.01
Within Error	882	694.85	.79	
Total	889	699.95		

** F-Ratio is significant beyond the .05 level.

Appendix Q

Analysis of Variance of Telephone Installer Scores

for Sex, Grade and School Variables

(Third Administration)

Source of Variation	Degrees of Freedom (Df)	Sum of Squares	Mean Square	F-Ratio
Sex (A)	1	.18	.18	.07
Grade (B)	1	2.46	2.46	1.04
School (C)	1	.90	.90	.38
Sex x Grade (AxB)	1	.01	.01	.00
Sex x School (AxC)	1	.00	.00	.00
Grade x School (BxC)	1	3.32	3.32	1.41
Interaction (AxBxC)	1	.09	.09	.04
Within Error	301	709.43	2.36	
Total	308	716.39		

REFERENCES

Guilford, J. P. Fundamental statistics in psychology and education. New York: McGraw-Hill, 1965.

Hodge, R. W., Siegel, P. M., and Rossi, P. H. Occupational prestige in the United States, 1925 - 1963. American Journal of Sociology, 1966, 72, 286 - 295.

Nunnally, J.C. Psychometric theory. New York: McGraw-Hill, 1967.

Osgood, C. E. Studies on the generality of affective meaning systems. American Psychologist, 1962, 17, 10 - 28.

APPENDIX D

CATHOLIC COMPONENT

DEVELOPMENTAL VOCATIONAL

EDUCATION PROGRAM

for the intermediate
grades

A Model Cities Project
Diocesan Education Office

1973

195

Diocesan Education Office

2103 SUPERIOR AVENUE • CLEVELAND, OHIO 44103 • (216) 361-7100

MSGR. WILLIAM N. NOVICKY
SUPERINTENDENT OF EDUCATION

REGIONAL OFFICES: 1041 WEST MARKET ST. • AKRON, OHIO 44313 • (216) 867-5070
2500 ELYRIA AVENUE • LORAIN, OHIO 44055 • (216) 244-1612

TO: Mr. William Sims, Director
Developmental Vocational Education Program

FROM: Sister Mary Owen, S.N.D., Diocesan Curriculum Director
Local Co-ordinator of the Program

RE: The One-Year Participation by the Catholic Schools

This report on the Developmental Vocational Education Program was done under my direction. Hopefully, we had envisioned a continuation of the program of sufficient duration to make it an integral part of our curriculum. The June 15th termination date lost us the opportunity of further development during the summer months. We feel, however, that what has been accomplished in so short a time by two most capable aides, Jane Ozello and Jean Dzurilla, can be used as excellent resource material as we continue to work toward a total education program.

To this end we have edited and duplicated the accompanying materials. In addition to the copies sent to you, we placed a copy in the curriculum library here at the Central Office as well as in the curriculum libraries of our regional offices.

At least the beginnings of a total career education program have been briefly outlined in the rationale and 1-8 objectives on pp. 18-20 of the accompanying materials.

Although the lesson plans on pp. 21-86 were used in grades 4-6 by the two aides, they can be adapted to use in other grades as has been indicated in the upper right hand corner.

TABLE OF CONTENTS

	Page
Aides' General Report, November-June	1
Aides' Specific Report, Oct. 23, 1972 to Feb. 9, 1973	6
Pre- and Post-Test Results	7
Rationale for a Correlated Instructional Program in Career Education 1-8	18
Lessons 1-27	21
D.V.E. - Test - Communication	87
Job Information Questionnaire	88
Reference Materials	94
Forms	97
Communication Wheels	103
Bulletin Board Ideas	106

Developmental Vocational Education Program
School Year 1972-1973 November - June
Catholic Schools: St. Francis, Immaculate Conception, St. Vitus
Vocational Aides: Jane Ozello, Jean Dzurilla

Goals Met:

1. Student should find school more meaningful through focusing on career choices.
2. Student should develop positive attitudes toward work and become sensitive to the dignity of work.
3. Student should develop respect for an individual's capabilities
4. Student should develop a concern for responsibility

Objectives Met:

1. Student should identify and describe a greater number of occupations
2. Student should compare and contrast occupations before deciding a field of interest
3. Student should distinguish job opportunities that are available for each individual.
4. Student should demonstrate his knowledge of the mechanics for applying for a job
5. Student should recognize the importance of each job

Clusters Covered:

Transportation
Public Services
Health
Construction
Apparel
Communication
Business and Office

Lesson plans, Materials used, and Bulletin Board outlines are attached.

Total number of students involved -- 241
St. Vitus -- 131
St. Francis -- 55
Immaculate Conception -- 55

LESSONS

A. Transportation (11 total)

1. Slides - Orientation D.V.E.P.
   Bulletin Board - pictures

2. Shipping
   a) Play-acting - occupations
   b) Film: "Seaport" -- Visual Aide Center

3. Shipping
   a) Reports by the students
   b) Slides -- Cleveland Port -- Cleveland World Port Booklets

4. Trains
   a) Song on trains: Silver Burdett, Record #6, "This Train"
   b) Booklet of Railroads -- Assn. of American Railroads
      Penn Central Railroad
      Penn Central Station
      Pittsburgh, Pa. 15222
      --Approaching 1970; A progress report on Penn Central Trans.
      --A Sharp Deal for Uncle Sam
      --The Human Side of R.R.
      --Railroads Unlimited
   c) Crossword Puzzles
   d) Built train: use of flashcards and construction paper cut-outs

5. Review lesson - trucks
   a) Riddle Bulletin Board
   b) Pamphlets on trucks
      White Motors Corp.
      79th and St. Clair
   c) Table Presentation - construction paper models and model cars, trains and environment

6. Trucks
   a) Game: Tell what's inside the bag (4 trucks representing different jobs)
   b) Film: "Lifeline on Wheels"
      White Motors Corp.
      431-2000
      Mr. G. Garret
   c) Flash Cards

7. Trucks
   a) Mimeograph Sheets -- fill out freight form (White Motor Corp.)

8. Airplanes
   a) Sheet on airplane and airport occupations
   b) Slides -- 3M Machine
      United Airlines
         --flight career qualifications
         --pamphlet "Join the Friendly Skies of United Airlines"
   c) Matching Game

9. Transportation
   a) Field trip: Auto Aviation Museum
      Western Reserve Historical Society
      10825 East Blvd.
      721-5622

10. Transportation
   a) Panel discussion
      Maps, magazine pictures

11. Review — Riddle Board
   "Educational Opportunities", Women's Army Corps

B. Cluster of Public Services

1. Police and Fire, Postal Services
   a) Scramble Cards at board
   b) Problem-solving situation
   c) Slides - 3M Machine
   d) How to address a letter
   e) Secret message code sheets

2. Telephone
   a) Teletrainer: Ohio Bell
      --a communications telephone program
      --pamphlet "Especially For YOU"
      --Charts
   b) "Wonderful World of Cleveland"
      Ohio Bureau of Unemployment Compensation, 1965

3. Telephone
   a) Speakers: Lt. Morgan of Fire Dept.
      (Call Main Fire Station)
      Officer Kaitsburg of Police Dept.
      (Call Main Station)

4. Gas and Water
   a) Maps, meter reading
   b) Game: Tic-Tac-Toe
   c) Bulletin Board -- T.V. Tube

C. Cluster of Health

1. Health
   a) Problem-solving situations
   b) Film - "Health Careers"
      Visual Aide Center
   c) X-rays -- various hospitals
   d) Word scramble
   e) Bulletin Board
   f) Crossword Puzzle

D. Cluster of Construction

1. Construction
   --viewed pictures
   --blue prints
   --Bulletin Board -- built house in relationship to jobs
   --Construction slides - D.V.E.P.

E. Apparel Industry (1 lesson)
   --used materials (fabrics)
      crocheting needles
      patterns
   --apparel slides -- Richman Brothers
   --handout on jobs (construction and apparel)

F. Communication (6 lessons)
   --newspaper - wrote an article about school
      viewed newspaper
      field trip -- Cleveland Plain Dealer (2 schools)
      -- Emerson Press (1 school)
   --television - T.V. guide
      Slides - D.V.E.P.
      Game
   --radio - tape recording of students as disc jockey
      handout -- Job/Description/Skills

G. Getting A Job (1 lesson)
   --Social Security Card
   --Job Application form -- White Motors Corp. - handout

H. Fine Arts and Humanities (1 lesson)
   --related jobs to T.V. programs
      ex. Partridge Family - Singers, Musicians
      Bewitched - Commercial Artist
   --role play game
      students acted out job and class guessed

I. Consumer Homemaker (1 lesson)
   --students defined job and illustrated them as a cartoon
   --dictionaries

J. Manufacturing -- preparation for NASA -- field trip
--films: "Airplanes Work For Us"
"Airplanes And How They Fly"
--NASA - 2 schools

K. Review lessons
--Popeye comic book series on jobs -- excellent -- D.V.E.P.
--Games - riddle boards
bulletin boards
bag full of riddles
--Panel discussions
--Trip: Goodtime Cruise Lines (3 schools)
(final trip)
U.S.S. Cod (1 school)

L. Business and Office (Banking) (1 lesson)
--Film: "Money In the Bank", D.V.E.P.

STUDENTS COMMENTS

At the beginning of the year we took a survey of the students career choices at this time in their life. Many chose public service: health, teacher, sports, construction, and transportation jobs. The students tended to follow their parents careers. In June, we asked the same question and very little change was made on their choices but their awareness level of jobs was increased.

The students comments on career education's likes and dislikes were voiced. Most were pleased with the information received and lessons as they were presented. They commented on the diversity of material and the range of interests it covered. Activity was the key to holding their interest.

Student's quotes:

"It helped us learn things we did not know"
"We can decide better what we want to be in the future"
"It was interesting finding out about other persons' jobs"

DEVELOPMENTAL VOCATIONAL EDUCATION

Period from Oct. 23, 1972 - Feb. 9, 1973

Major Activities and Accomplishments

a) Orientated to D.V.E.P.

b) Orientated to Catholic Curriculum with Sr. Owen - 10-10-72
Incorporated D.V.E.P. into Catholic Curriculum that week.

c) Orientated D.V.E.P. to classroom teachers and principals of schools involved. Described and explained the goals, objectives, and procedures. Week of 10-16-72.

d) Orientated students to D.V.E.P. with presentation of the meaning of the program and the clusters. 10-23-72.

e) Covered clusters of Transportation: air, train, ship, and truck
Public Services: police, fire, postal services, and telephone services
Health

f) 2 field trips with the schools of Immaculate Conception (5th and 6th) and St. Vitus (one 5th grade and one 6th grade) to Auto-Aviation Museum to culminate cluster of Transportation.

g) Speakers brought into 2 schools
Police - Immaculate Conception
Fire - St. Francis

h) Mrs. Mosley from telephone company observed a class at St. Vitus (grade 6)

i) Places contacted for more information, pamphlets or books
1. Cleveland Port - handbooks
2. White Motor - pamphlets, film, and trucking forms
3. Police Dept. - Lt. Kreitsburg
4. Fire Dept.
5. Telephone Co. - Mrs. Mosley - use of the teletrainer
6. Received x-rays from hospital
7. Interviewed by Catholic Universe Bulletin. Pictures taken at the schools with the children. This was supposed to be in Feb. 2 edition. It was not, but will be placed in one of the future editions.

j) Lessons have consisted of a variety of techniques: discussions, plays, films, slides, table representations and projects, bulletin boards were made and placed in rooms, actual participation in doing some aspect of the job, reports, filling out business forms, role-playing, cross-word puzzles, codes, problem solving.

RESULTS:

Clusters of Public Service and Health Occupations

5th Grade - Sr. Gertrude
St. Vitus - Jean Dzurilla, Vocational Aide
Public Services and Health

Pre-Test		Post-Test	
A's	0	A's	8
B's	0	B's	16
C's	2	C's	6
D's	7	D's	7
F's	28	F's	0
	37		37

5th Grade - Mr. Pengov
St. Vitus - Jean Dzurilla, Vocational Aide
Public Services and Health

Pre-Test		Post-Test	
A's	0	A's	6
B's	1	B's	12
C's	7	C's	1
D's	8	D's	9
F's	14	F's	2
	30		30

6th Grade - Mrs. Mollie
St. Vitus - Jean Dzurilla, Vocational Aide
Public Services and Health

Pre-Test		Post-Test	
A's	0	A's	11
B's	1	B's	16
C's	4	C's	2
D's	10	D's	1
F's	16	F's	1
	31		31

6th Grade - Sr. Ceciliamarie
St. Vitus - Jean Dzurilla, Vocational Aide
Public Services and Health

Pre-Test		Post-Test	
A's	2	A's	22
B's	4	B's	7
C's	11	C's	2
D's	2	D's	0
F's	12	F's	0
	31		31

RESULTS:

Clusters of Public Services and Health

5th Grade - Miss Nemeth
Immaculate Conception - Jean Dzurilla, Vocational Aide
Public Service and Health

Pre-Test		Post-Test	
A's	0	A's	5
B's	0	B's	9
C's	1	C's	4
D's	1	D's	3
F's	21	F's	2
	23		23

6th Grade - Sr. Jean
Immaculate Conception - Jean Dzurilla, Vocational Aide
Public Service and Health

Pre-Test		Post-Test	
A's	2	A's	8
B's	5	B's	12
C's	2	C's	4
D's	7	D's	2
F's	10	F's	0
	26		26

Immaculate Conception
Pre-Post testing on materials dealing with Public Services and Health
Number of students N= 49

Pre-Test			Post-Test		
Grade	Frequency	Percent of Total	Grade	Frequency	Percent of Total
A	2	4	A	13	26
B	5	10	B	21	42
C	3	7	C	8	17
D	8	17	D	5	11
F	31	62	F	2	4
	N=49	100		N=49	100

Grade of C or Above - Pre-Test - 21%
Grade of C or Above - Post-Test - 85%

Increase -- 64%

St. Vitus
Pre-Post testing on materials dealing with Public Services and Health
Number of students N=129

Pre-Test

Grade	Frequency	Percent of Total
A	0	0
B	6	5
C	24	24
D	27	25
F	70	46
	N=129	100

Post-Test

Grade	Frequency	Percent of Total
A	47	37
B	51	40
C	11	10
D	17	13
F	3	0
	N=129	100

Grade of C or Above - Pre-Test - 29%
Grade of C or Above - Post-Test - 87%

Increase - 58%

St. Vitus
Pre-Post testing on materials dealing with Transportation
Number of students N=131

Pre-Test			Post-Test		
Grade	Frequency	Percent of Total	Grade	Frequency	Percent of Total
A	5	4	A	56	40
B	32	24	B	45	31
C	33	25	C	20	14
D	19	13	D	15	11
F	42	34	F	5	4
	N=131	100		N=131	100

Grade of C or Above - Pre-Test - 53%
Grade of C or Above - Post-Test - 85%

Increase 32%

6th Grade - Sr. Jean
Immaculate Conception - Jean Dzurilla, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	7	A's	15
B's	5	B's	9
C's	8	C's	4
D's	5	D's	0
F's	3	F's	0
	28		28

5th Grade - Miss Nemeth
Immaculate Conception - Jean Dzurilla, Vocacional Aide
Transportation

Pre-Test		Post-Test	
A's	0	A's	5
B's	1	B's	11
C's	7	C's	3
D's	6	D's	4
F's	11	F's	2
	25		25

Immaculate Conception
Pre-Post testing on materials dealing with Transportation
Number of students N=53

Pre-Test			Post-Test		
Grade	Frequency	Percent of Total	Grade	Frequency	Percent of Totaly
A	7	12	A	20	38
B	6	11	B	20	38
C	15	32	C	7	12
D	11	21	D	4	8
F	14	24	F	2	4
	N=53	100		N=53	100

Grade of C or Above - Pre-Test - 55%
Grade of C. or Above - Post-Test - 88%

Increase -- 33%

Intermediate - Miss Garbo
St. Francis - Jane Ozello, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	0	A's	7
B's	1	B's	6
C's	4	C's	3
D's	5	D's	3
F's	14	F's	5
	24		24

Intermediate - Miss Schade
St. Francis - Jane Ozello, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	0	A's	2
B's	0	B's	10
C's	6	C's	4
D's	3	D's	2
F's	15	F's	6
	24		24

St. Francis
Pre-Post testing on materials dealing with Transportation
Number of students N=48

Pre-Test			Post-Test		
Grade	Frequency	Percent of Total	Grade	Frequency	Percent of Total
A	0	0	A	9	19
B	1	2	B	16	34
C	10	22	C	7	14
D	8	16	D	5	10
F	29	60	F	11	23
	N=48	100		N=48	100

Grade of C or Above - Pre-Test - 24%
Grade of C or Above - Post-Test - 67%

Increase -- 43%

Intermediate - Miss Garbo
St. Francis - Jane Ozello, Vocational Aide
Health and Public Service

Pre-Test		Post-Test	
A's	0	A's	6
B's	4	B's	10
C's	5	C's	6
D's	3	D's	3
F's	14	F's	2
	26		28

Intermediate - Miss Schade
St. Francis - Jane Ozello, Vocational Aide
Health and Public Service

Pre-Test		Post-Test	
A's	0	A's	4
B's	0	B's	11
C's	2	C's	2
D's	8	D's	4
F's	15	F's	4
	25		25

St. Francis
Pre-Post testing on materials dealing with health and public service.
Number of students in total -- Approximately 51

Post-Test

Grade	Frequency	Percent of Total
A	10	19
B	21	40
C	8	15
D	7	13
F	6	11

N = 51

Pre-Test

Grade	Frequency	Percent of Total
A	0	0
B	4	8
C	7	14
D	11	22
F	29	57

N = 51

Since we were going into the classroom only once per week, we felt that a lot of time would be stolen from our lesson if we gave a pre-test and post-test before each area in the cluster of transportation. Therefore we combined the pre-tests of the four areas omitting questions and then administered the pre-test. After we completed the cluster, the post test was given. We also did the same with the clusters of Public Services and Health. We combined the occupations involved with the areas of police, fire, postal services, telephone and health. The post-test concerning Public Services and Health has not been given yet so the results are not listed.

6th Grade - Sr. Ceciliamarie
St. Vitus - Jean Dzurilla, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	2	A's	13
B's	12	B's	12
C's	5	C's	5
D's	8	D's	1
F's	4	F's	0
	31		31

6th Grade - Mrs. Mollie
St. Vitus - Jean Dzurilla, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	0	A's	10
B's	5	B's	9
C's	11	C's	4
D's	4	D's	7
F's	11	F's	1
	31		31

5th Grade - Mr. Pengov
St. Vitus - Jean Dzurilla, Vocational Aide
Transportation

Pre-Test		Post-Test	
A's	1	A's	10
B's	4	B's	11
C's	8	C's	8
D's	3	D's	1
F's	16	F's	1
	34		32

5th Grade - Sr. Gertrude
St. Vitus - Jean Dzurilla, Vocational Aide
Transportation

Pre-Test				Post-Test			
A's	2	C's	9	A's	13	C's	3
B's	11	D's	4	B's	13	D's	5
		F's	11			F's	3

PROBLEMS IN ADMINISTERING:

There were no major problems in administering the tests. The questions were read aloud and time was allotted for answering. We have studied 3 clusters so some of the questions on the test could be answered with the knowledge they received from the study. Some of the questions were confusing because those points were not stressed in our lessons. Also the titles given to certain occupations were different. We used the title DIETICIAN instead of NUTRITIONIST. Although the material was presented in class, I feel a drill would be necessary to really answer some of the questions. For instance, the Health Occupations. They were familiar with most of the jobs on page 6. Page 7 was hard for us. Maybe more explanation was needed. I think only 3 lines were needed and would have been better for us. Good ___; ___; ___; Bad, etc.

EVALUATION:

We entered the classroom during the last week of October, 1972. We gave a presentation of the program to the students then, and the week after, started in to the cluster of Transportation. We covered the four areas: shipping, trains, truck, and plane. We took in a field trip relating to this cluster. The cluster that followed was Public Services. We discussed police, fire, postal services and the telephone company and its services. We had speakers come from the police and fire to explain and demonstrate in better detail their job and equipment they use.*

We have been well-accepted at all 3 schools. The students have commented that they now know more about Cleveland and can relate better to the material in the news. It has increased their vocabulary knowing the correct terminology for the occupations. They have said they like career education better than their social studies class. The teachers like our approaches in discussing occupations. They themselves have found our lessons to be interesting, knowledgeable, and enjoyable. I feel that most of the teachers do follow-up and review the material covered in our classes (career ed.) during their own class time. When we first started, it took us a long time to cover a cluster. We were going in to a lot of detail with the jobs in our one-day-a-week-45-minute period and it would take 2 to 3 weeks to cover one aspect of the cluster. I feel it necessary that the regular classroom teacher keep in mind the material covered and include it with their lesson. The student will benefit more and more clusters can be introduced and covered.

*The cluster of Health Occupations has also been discussed.

DEVELOPMENTAL VOCATIONAL EDUCATION - JOB INFORMATION QUESTIONNAIRE

DESCRIPTION:

1) SCHOOL: Immaculate Conception
GRADE: 5
DATE: Feb. 7, 1973
TIME: 50 minutes
NO. OF STUDENTS: 25
TEST NOS.: 0060-0084

2) SCHOOL: Immaculate Conception
GRADE: 6
DATE: Feb. 7, 1973
TIME: 35 minutes
NO. OF STUDENTS: 27
TEST NOS.: 0085-0111

3) SCHOOL: St. Vitus
GRADE: 6 - Sr. Ceciliamarie
DATE: Feb. 8, 1973
TIME: 35 minutes
NO. OF STUDENTS: 33
TEST NOS.: 0112-0144

4) SCHOOL: St. Vitus
GRADE: 6 - Mrs. Mollie
DATE: Feb. 8, 1973
TIME: 40 minutes
NO. OF STUDENTS: 31
TEST NOS.: 0145-0175

5) SCHOOL: St. Vitus
GRADE: 5 - Mr. Pengov
DATE: Feb. 8, 1973
TIME: 55 minutes
NO. OF STUDENTS: 33
TEST NOS: 0176-0208

6) SCHOOL: St. Vitus
GRADE: 5 - Sr. Gertrude
DATE: Feb. 8, 1973
TIME: 40 minutes
NO. OF STUDENTS: 34
TEST NOS.: 0209-0242

NO. OF CLASSES: 6

NO. OF 5TH GRADES: 3	- - - - - - - - - -	25
NO. OF 6TH GRADES: 3	- - 27	33
	33	34
	31	92
	91	

N. TOTAL - 183

CAREER EDUCATION

A Correlated Instructional Program for Grades 1-8

R A T I O N A L E

This career education program has been adapted from a pilot government project. The Developmental Education Program has been taught in our schools, 1972-73 school year.

Although it has been set up to correlate with the social studies curriculum, it can easily be incorporated into other subject areas.

This program is intended to meet the needs of the students in our schools with their present organizational framework. The program is flexible enough to allow emphasis to be placed on specific career choices in a particular area.

Career education has not been an integral part of our academic instruction. Incorporating this into our curriculum will enable students to choose a career not by chance but by design. It will play a part in almost every facet of the students' educational experience, beginning in the earliest grades continuing throughout his future. Rather than being limited to job skill training, it seeks to engage the student across a broad spectrum, including his attitude toward work, his awareness, his own talents, potential, interests, and his ability to make an informed and intelligent decision.

The development of the program was influenced by the following considerations:

--an unbiased positive view toward all occupations is essential to the selection of an appropriate occupation.
--an attitude of appreciation for God's gift of individuality and distinctive qualities given to all is essential.
--the objectives and activities are selected to coincide with the developmental stages of intellectual growth.

At the primary level the student will become aware of the community, systems and services available. The emphasis at the intermediate level will be on providing the student with a broad base of occupational information and orientating them toward the world of work. The program at the junior high level will move into an orientational exploratory phase, where the students will continue to learn about the wide range of occupational choices available but will begin to sample different occupational areas more deeply, and participate in actual experiences. The activities are designed to enable the student to begin a better position to make the next step in their career development.

INSTRUCTIONAL GOALS

To assist the children in understanding and profiting from their living experiences as they become aware, explore in, and prepare for their career choices, this program has the following instructional goals:

Through the experiencing of an organized developmental program of career education, the students should:

--develop positive attitudes toward work and become sensitive to the dignity of work.

--accept responsibility for developing good work habits.

--use effectively their understanding of reciprocal relationships involving women, men, work, and the environment.

--find school more meaningful through focusing on career choices.

--analyze occupations to relationship to their specific career.

--develop a respect for each individual's capabilities.

INSTRUCTIONAL OBJECTIVES

In order to reach these goals, the student should:

Grade 1

1) state some services provided in her community.
2) recognize the services as occupations.

Grade 2

1) recall present (past) knowledge of occupations and group into occupational families.
2) recognize differences in occupational families.

Grade 3

1) be aware of occupational families.
2) be conscious of the differences in abilities pertaining to each occupation.
3) discuss the effects of developing potential to its fullest.

Grade 4

1) identify and describe a greater number of occupations.
2) recognize the importance of each job.
3) distinguish job opportunities that are available for each individual.

Grade 5

1) Indicate the kinds of education needed for a specific career.
2) investigate more thoroughly 7 of the 15 clusters.
3) identify some tools and equipment needed for these occupations.

Grade 6

1) expand present knowledge to include remaining 8 clusters.
2) develop greater knowledge of the operation and uses of basic tools and equipment.
3) compare and contrast these occupations before deciding a field of interest.
4) demonstrate knowledge of the mechanics for applying for a job.

Grade 7

1) expand knowledge of the requirements of occupations.
2) increase knowledge of the operations involved in a wider variety of occupations.

Grade 8

1) acquaint self with the materials used in a range of occupations.
2) experience actual occupations through manipulation of these materials.
3) accept the responsibility of selecting fields of interest.

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Orientation to D.V.E.P.

Goal: Students should develop an interest in D.V.E. Program

Objectives: Students should derive general information about D.V.E.P.

(a) students should be acquainted with program
(b) student should define occupation and cluster
(c) student should recognize 15 clusters

Obj.	Learning Experience	Materials	Evaluation
a	1. Introduction of program.	Developmental Vocational Education is written on board.	
b,c	1. Pass out pictures, child will view and discuss 2. Oral description by student. Place on bulletin board relating to specific cluster. 3. Define occupation. (What are these people doing). Meaning of D.V.E.P.	Pictures Bulletin Board	
a,b,c	1. Survey Adult - occupation place cluster Interest - occupation cluster	Mimeograph sheets	Were the student able to relate to the cluster?

(1) An adult in my family _____
(occupation, place of employment, and cluster if possible)

(2) I would like to be _____
(occupation, and cluster if possible)

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Shipping

Goal: Student should develop an interest in shipping occupations.

Objectives: Student should identify and describe a greater number of occupations in shipping.

(a) student should define the term, transportation
(b) student should describe the following occupations from the film; pilot, engineer, mater, deck hand, shipping clerk, and longshoreman.
(c) student should describe management of harbor traffic, maintenance of a ship, and handling/distribution of cargo.

Obj.	Learning Experience	Materials	Evaluation
a	1. Review past lesson	Cluster and Occupation written on board.	Can student recall?
a	2. Define transportation		Can student define?
a	3. Intro. into shipping Who traveled and settled here? How? Type of Trans.?		
	4. Pre-test	Mimeograph sheet	
	5. Role Play - Captain Breakfast, sir? - cook, galley Refuel? - deck hands, engineer Travel N or S? - navigator Cargo movement? - longshoreman		
b,c	6. Film; Seaport 7. Discussion	Film Written on board management of harbor traffic, maintenance of ship, handling/distribution of cargo - bulk, general, other jobs.	Were the students able to answer the questions about the film and describe other jobs?
b	8. Assign reports on shipping occupations		

DEVELOPMENTAL VOCATIONAL EDUCATION

Film: Seaport

Introduction: President Cleveland, name of ship, arrives and the captain of this ship explains many of the seaports operations. Other ship employees and seaport workers explain how their own jobs contribute to the life of the seaport - management of harbor traffic, maintenance of ships and the handling and distribution of cargo.

Discussion: Management of harbor traffic - calm waters and tugboat

Maintenance of ships - dry dock; for repairs

Handling and distribution of cargo - longshoreman; two kinds of cargo; bulk and general

Other jobs - truckdriver, longshoreman, ship captain, ship engineer, navigator, custom officer, etc.

NAME _____ DATE _____

Part I. True or False

_____ 1. Shipping employees work only on the ships.

_____ 2. Engineers pilot ships.

_____ 3. Ship officers work their way up from the bottom.

_____ 4. Deck hands perform manual tasks.

_____ 5. The mate assists the pilot.

Part II. Multiple Choice

1. The shipping industry is __(A)__ a) growing b) closing down c) only for men.
2. Transportation or cargo by ship costs __(C)__ a) more than it does by truck b) just as much as it does by truck, train, or plane c) less than it does by truck, train, or plane.
3. Engineer's are responsible for the ship's __(A)__ a) power b) food c) navigation
4. A ship's kitchen is called the __(C)__ a) deck b) crew c) galley
5. Most ships on inland waterways are inspected by the __(A)__ a) Navy b) Army c) Coast Guard

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Shipping

Goal: Same as lesson #2

Objectives: Same as lesson #2

Obj.	Learning Experience	Materials	Evaluation
c	1. Student reports 2. Cleveland port 3. Chart facts	Slides Mimeograph sheet (copy attached)	Was child able to use resource

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Shipping

Goal: Same as lesson #2

Objectives: Same as lesson #2

Obj.	Learning Experience	Materials	Evaluation
c	1. Student reports		Was student able to use resources
	2. Cleveland Port	Slides	
	3. Chart facts and jobs	Mimeographed sheet	
	4. Sing song on shipping	Record	

Transportation -- Shipping

Facts

Employees work on land and ship

Industry is growing

Cost less than it does by train, truck, plane

Ships are inspected by the Navy

Ship's kitchen is called a galley

International port

Tugboat tows ships

Jobs

Pilot -- navigates ships

Engineer -- responsible for operating and maintenance of ship

Mate -- assists pilot in operation of ship

Deck hand -- performs manual tasks of involved in running of ship

Shipping clerk -- keeps records of goods

Stevedore -- hires people, a company

Longshoreman -- transfers cargo from ship to dock, loads the ship.

Merchant seaman -- maintain decks and other areas of the ship

* officers are promoted as experience and knowledge increase.

DEVELOPMENTAL VOCATIONAL EDUCATION

NAME _____ DATE _____

*TRANSPORTATION -- SHIPPING

Facts	Jobs

NAME _____ DATE _____

Part I. True or False

__F__ 1. Shipping employees work only on the ships.

__T__ 2. Engineers pilot ships.

__T__ 3. Ship officers work their way up from the bottom.

__T__ 4. Deck hands perform manual tasks.

__T__ 5. The mate assists the pilot.

Part II. Multiple Choice

1. The shipping industry is __A__. a) growing b) closing down c) only for men

2. Transportation of cargo by ship costs __C__. a) more than it does by truck b) just as much as it does by truck, train, or plane c) less than it does by truck, train, or plane.

3. Engineer's are responsible for the ship's __A__. a) power b) food c) navigation

4. A ship's kitchen is called the __C__. a) deck b) crew c) galley

5. Most ships on inland waterways are inspected by the __A__. a) Navy b) Army c) Coast Guard

NAME _____ DATE _____

Part I. True or False

_____1. Shipping employees work only on the ships.

_____2. Engineers pilot ships.

_____3. Ship officers work their way up from the bottom.

_____4. Deck hands perform manual tasks.

_____5. The mate assists the pilot.

Part II. Multiple Choice

1. The shipping industry is _____. a) growing b) closing down c) only for men

2. Transportation of cargo by ship costs _____. a) more than it does by truck b) just as much as it does by truck, train, or plane c) less than it does by truck, train, or plane.

3. Engineers are responsible for the ship's _____. a) power b) food c) navigation

4. A ship's kitchen is called the _____. a) deck b) crew c) galley

5. Most ships on inland waterways are inspected by the _____. a) Navy b) Army c) Coast Guard

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Trains/Railroads

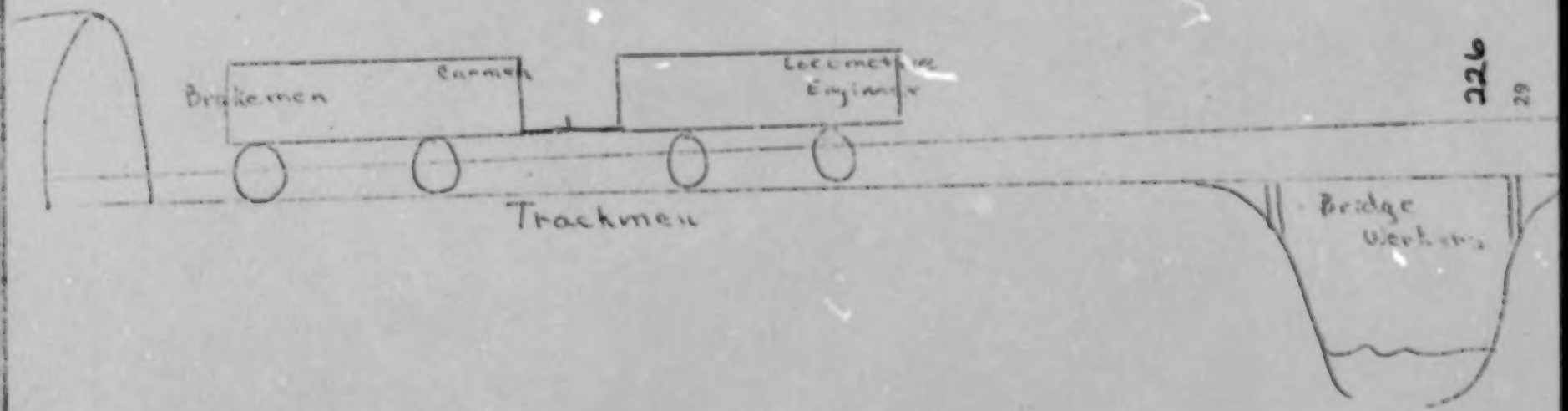
Goal: Student should develop an interest in railroad occupations

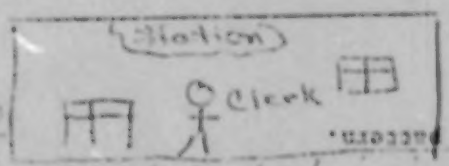
Objectives: Student should identify and describe a greater number of occupations in the railroad system.

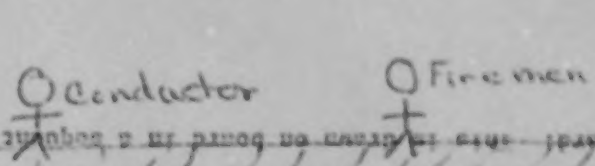
(a) student should recognize the importance railroad past and present
(b) student should describe the following occupations; trackman, locomotive engineer, brakeman, conductor, station agent, clerk, carman, firemen, and bridge workers.

Obj.	Learning Experience	Materials	Evaluation
	1. Song about R.R.	Silver Burdett Record #6 "This Train"	
a.	2. Introduction relating to the history of the R.R. -importance of R.R. and growth of U.S. -first R.R.	Booklet - R.R. of America	Can student describe importance of R.R. to America
a,b	3. Describe individual jobs -pass out card and describe job (ask questions) in sequence by building a train 1. trackman 2. bridge workers 3. carman 4. locomotive engineer 5. fireman 6. conductor 7. brakeman 8. station agent 9. clerk	Flash cards Chalkboard	Was student able to relate to each job?
b	4. Definitions 5. Supplementary - for students individual research if so desires	Crossword puzzle Booklet-R.R. of America	Could student define each job?

Build a Train







PURPOSE: Students should build trains bearing that each job is interdependent on another. Flash cards with Nationalities

Given to students to put on board. Also introduce on board in a humanistic pattern.

DEVELOPMENTAL VOCATIONAL EDUCATION PROGRAM

LOCOMOTIVE ENGINEER -- works the throttles, air brakes, other controls, and checks the condition of the locomotive. He must observe track signals and comply with speed restrictions at all hours and in all conditions. He must be alert constantly, especially for obstructions on the track or other emergencies.

FIREMEN -- works with locomotive engineer. Checks to see if the locomotive is supplied with the fuel, sand and water needed for the run, that the engine is in proper working order. He checks the flagging equipment. He acts as lookout for obstructions on tracks and road crossings, inspects the train on curves for sparks, smoke or fire and any other defects.

CONDUCTORS -- safety of the passengers and cargos. Supervise work of the train and engine crews, takes care of any emergency that may occur on the run.

BRAKEMEN -- work with conductor, tools and equipment are in their proper place, at stops -- they make walking inspections of the cars in the train, regulate heat, light and air-conditioning on a train.

STATION AGENT -- calculate freight and express packages, deliver train order.

CLERKS -- paper work; collect bills, investigate complaints, adjust claims, tracing shipments, selling tickets and bookkeeping.

TRACKMEN -- look for cracked rails, weak ties, other track and road defects. Heavy maintenance work.

BRIDGE WORKERS -- skilled craftsmen, carpenters, bricklayers, plasterers, ironworkers.

CARMEN -- car inspectors that check cars that might lead to accidents and/or delay.

DEVELOPMENTAL VOCATIONAL EDUCATION

Brief History of the Railroad

Benefits of the R.R.
- --settled west
- --growth of cities near R.R.
- --brought farm machinery west
- --brought raw materials
- --R.R. usually build near shores
- --helped with the exchange of products (How would we get wheat from the West)
- --tied countries together making them a united nation
- --provided fast dependable, low cost, high volume transportation
- --delivered troops
- --expanded our nation
- --R.R. employed in every state except Hawaii

First R.R. in 1830 -- opened "railroad era"
- --13 million people lived east of Mississippi
- --new towns
- --increase in productivity
- --opened regions of farming, mining, lumber, and manufacturing
- --Congress aided construction of R.R. 1850 -- 1st land grant
- --Page 11-12; "Railroads in America" -- pictures showing the expansion of R.R.
- --type of power changed over the years from steam to diesel

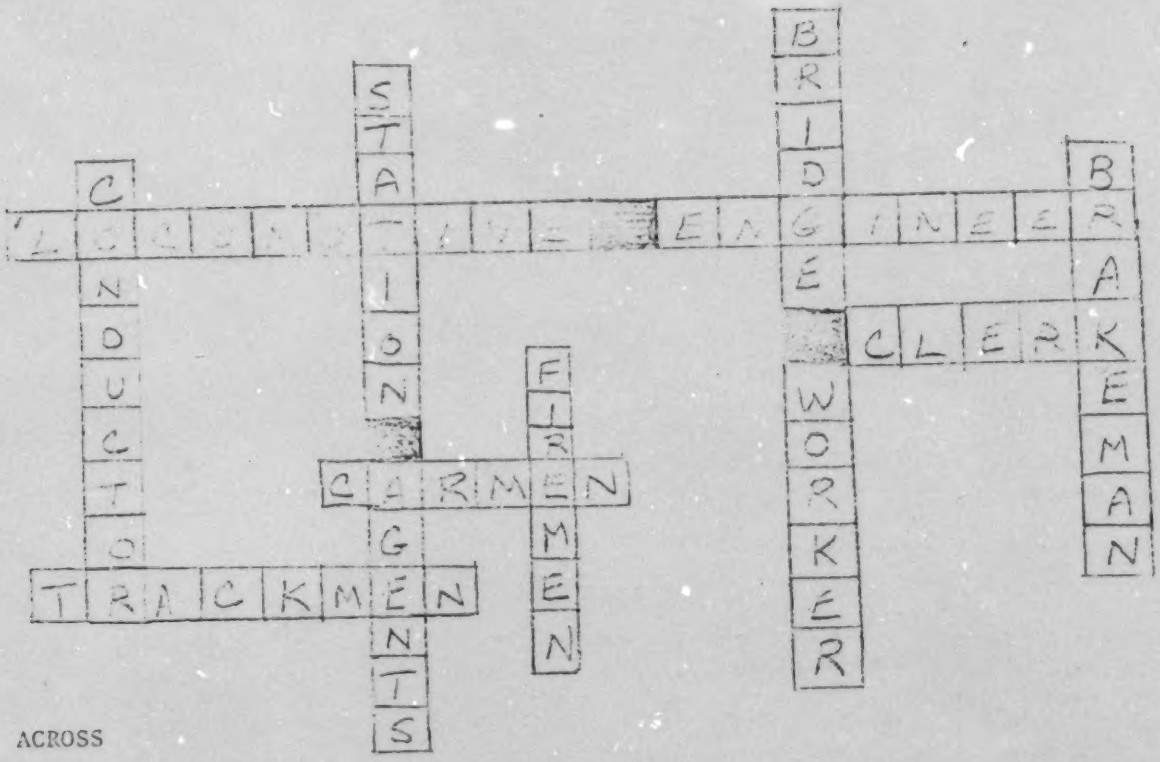
Quote -- Late President J.F.K.

--"As our frontier moved westward, it was the railroads that bore the great tide of Americans to areas of new opportunities and new hope. It was the railroads that linked together the diverse segments of this vast land so that together they might create the greatest economy the world has known."

First locomotive to run on a standard railroad in the U.S. was the British built - Stourbridge Lion. On August 8, 1829, the Lion, operated by Horatio Allen, was tried out on a short wooden railroad in Pennsylvania. September, 1829, the Tom Thumb, an experimental locomotive built by Peter Cooper of N.Y. - was American built and run!
First steam passenger railroad run in Charleston, S.C. in December, 1830.

Network of more than 20,000 miles of rail line reaches into all parts of the country. Nations largest employer. Worker starts at the bottom and works his way up.

NAME _____



ACROSS

1. Responsible for running locomotive safely and efficiently
2. Handles paper work and accounts for each piece of merchandise
3. Builds and repairs railroad freight and passenger cars
4. Construct, maintain, and repair tracks

DOWN

5. Responsible for seeing that railroad trains are moved according to train orders
6. Official representative in dealing with public at railroad stations Sells tickets, checks baggage, and loads and unloads freight
7. Checks fuel, electrical equipment and tools before each run in order to insure safety
8. Construct and repair tunnels, bridges, railroad stations owned by the railroad
9. Sees that proper flags, warning lights, and other signals are displayed while train is in motion or stopped. Checks air brakes.

DEVELOPMENTAL VOCATIONAL EDUCATION

Due to the fact that the week is shortened because of the Thanksgiving Holidays, we have planned this lesson as a review -- a fun review. We have not written up specific objectives but have listed the activities. One of the activities might be an introduction to the following lesson on trucks.

Activities	Purpose
1. Riddle Bulletin Board	1. To review shipping and train occupations.
2. Place cards on the backs of the students (volunteers) which would have the name of an occupation. Then have the other members of the class give hints to this student who would then have to guess what job they represented.	2. A review in the area of the train.
3. Pass train booklets out. Let students page through these booklets.	3. A review and an enforcement of the train lesson.
4. Pass out pamphlets on the trucks which were received from White Motors. Allow the children to page these thoroughly giving them an idea and motivation to learn more about trucks.	4. Introduction to truck lesson.
5. Devote extra time to the development of the transportation table presentation. State different names that may be familiar to the children. (Names which correlate to the area/cluster of transportation) -- Cleveland Port, Burke Airport, Hopkins Airport, B & O Railroad, Penn Central, Pacific Central, White Motors, Leese-Neville	5. Learn more about city.

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Trucking

Goal: Student should develop an interest in trucking occupations.

Objectives: Student should identify and describe a greater number of occupations in trucking system.

(a) student should identify with areas trucking companies, White Motors
(b) student should describe the following jobs: over the road truck driver, local truck driver, and routeman, bus driver
(c) student should relate to school work and its importance in the working world.

Obj.	Learning Experience	Materials	Evaluation
b	1. Introduction - game Student describe and expresses what the truck is used for.	Paper bag with 4 trucks representing the different jobs.	
a,b,c	2. Film - further explanation of jobs.	"Lifeline on Wheels" White Motors Corp. 431-2000 East 79 St. Mr. G. Garret	
b,c	3. Discuss film - try to relate jobs to truck (toys) -over the road truckdriver -local truckdriver -routeman -bus driver -straight truck - local truckdriver -piggy back truck on trains -weight station - so much weight on an axle aloud to prevent wear on roads -drivers taught safety	Toy trucks Job flash cards	Was student able to relate to film?

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Trucking

Goal: Same as lesson #6

Objectives: Same as lesson #6 .

Obj.	Learning Experience	Materials	Evaluation
b,c	1. Define jobs - students draw trucks and name and define jobs.	Mimeographed sheets	Can students jobs by relat to film and d cussion from lesson #6?
c	2. Freight form - students will fill it out along with the teacher.	Mimeographed sheets	Is it importa to go to scho

B & O RAILROAD
Shipping Division
P.O. Box 5842
Cleveland, Ohio 44119

MEMORANDUM FOR FACTORY SHIPMENTS

Date Shipped _____ Dept. No. _____ Date Entered _____

Order No. _____ Car No. _____

Billed to: _____

Street _____

City _____

Shipped to: _____

Order No.	Quantity to Ship	Rejection Tag No.	Quantity Shipped	Description	Received

DRIVING OCCUPATIONS

Over the Road Truckdriver -- across the nation
large semi

Local Truckdriver -- state and vicinity

Routemen -- milkman, specific route

Bus driver -- associated with bus lines

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Airplanes

Goal: Student should develop an interest in airplane occupations.

Objectives: Student should identify and describe a greater number of occupations in airplanes system.

(a) student should identify with Cleveland Hopkins and Burke Lakefront Airports.
(b) student should describe the following jobs: aircraft mechanic, airplane dispatcher, air traffic controller, teletypist, pilot, copilot, flight engineer, and stewardess
(c) students should recognize the importance of education in obtaining a job.

Obj.	Learning Experience	Materials	Evaluation
a	1. Introduce Cleve. Hopkins Airport (largest in Cleve.). Can you name another airport in Cleve.? Burke Lakefront.	Picture of Cleve. Hopkins	
b,c	2. Airplane skit which was given out at previous lesson so student would have time to practice it.	Slides on airport shown - correlated with skit	Were students able to carry out task?
b,c	3. Discussion - ask actors to tell about their job	Flash cards	Were students able to defin jobs?
b	4. Culminating activity - game matching	Mimeographed sheets	Did students match jobs correctly?

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Airplanes

Goal: Student should develop an interest in airplane occupations

Objectives: Student should identify and describe a greater number of occupations in airplanes system.

(a) student should identify with Cleveland Hopkins and Burke Lakefront Airports
(b) student should describe the following jobs: aircraft mechanic, airline dispatcher, air traffic controller, teletypist, pilot, copilot, flight engineer, and stewardess
(c) students should recognize the importance of education in obtaining a job.

Obj.	Learning Experience	Materials	Evaluation
	1. Before class students in skits prepare and put on articles which represent their jobs 2. All students grouped together on floor as an audience. -Has anyone been to a play? -Did you play a part at the play even though you were not in the play? *Audience -Is an audience important? -What must they do? 3. Introduction to skit-set the scenes (1) classroom (2) airplane - United Airlines -Has anyone flown on a plane? -What airport did you fly from? *Cleveland Hopkins -Is it the biggest in Cleveland? -Does anyone know a smaller airport that is real close to us? *Burke Lakefront	Badge Stripes	
	4. Skit - Students did not have much time to practice so they will work on expression instead of body movement. Job titles on chalk tray. Students name jobs on chalk tray.	Airplane slides shown correlated to skit. Flash cards	Were students able to carry out task? Could students do the work sheet?
	5. Each student receives a skit in order to recall jobs for matching game. (skimming techniques used)	Mimeographed sheets	

Obj.	Learning Experience	Materials	Evaluation
	6. Students correct sheet with teacher in an overhead presentation. 7. Discuss what materials are available for them to look at 8. Next week we shall have a test so be sure to study.	Transparency "Wonderful World of Cleveland"	How well did students do?

PLAY The Pilot and His Plane

AUTHOR Jeanann Dzurilla

CHARACTERS Captain, Co-Pilot, Friend from F.A.A., Flight Engineer, Stewardess, Passengers (two), Little Old Lady and Her Friend, Teletypist, Clerk, Air Traffic Controller, Aircraft Mechanic, Airline Dispatcher, Teacher, Narrator.

PROPS Modify to own liking

NARRATOR: Here is Captain _____. He is the pilot of a big plane. He is brave. He is careful. Captain _____ wears a blue suit. He has gold stripes on his sleeves. There are wings on his coat. He wears a cap with a badge on it. It took a long time for _____ to become the captain of a big plane. First he had to go to a flying school.

AT SCHOOL
TEACHER: We have learned the importance of the radio and how to use it properly when in flight. (Radio Signal) Yesterday, we talked about weather and the need for the daily forecast. _____, can you recall any of the traffic rules of the sky?

CAPTAIN: Yes, teacher, we must fly at a certain altitude and a certain speed. Keep on course at all times to avoid collision with another plane.

TEACHER: Very good, _____. We will take our first lesson in the air today. Now we turn the wheel right and the plane goes to the right and then turn the wheel left and the plane goes to the left. Pull the wheel towards you and the nose of the plane goes up, push the wheel away from you and the nose goes down.

CAPTAIN: How about when you want to turn around and what's this pedal for?

TEACHER: To turn the plane around, move the wheel to the left and step on the left pedal or move the wheel right and step on the right pedal. Now one wing tilts up and the other wing tilts down. The plane will turn around.

CAPTAIN: I love to fly the plane. I will learn to control the plane properly and efficiently because I want to be an airplane pilot.

NARRATOR: Then _____ went to see a friend. He was a member of the F.A.A. _____ explained to his friend what he wanted to be.

CAPTAIN: _____, I am interested in becoming an airplane pilot for a national airline. What needs to be done and what should my qualifications be.

FRIEND: Well, old buddy. The F.A.A. which stands for Federal Aviation Administration has some very strict rules. We develop the safety regulations, inspect and test aircraft facilities, provide ground electronics guidance and we give the test for licensing pilots. But since your my buddy, I'll give you some inside info.
You seem to fit the qualifications. You must be 20-35 yrs. of age. 5 ft. 6 inches to 6 ft. 4 inches, and weigh between 140-210 pounds. You have graduated from high school and you need two years of college. If you have bad vision, you need

1st LITTLE OLD LADY: Hey, sonny, we need two tickets to Miami, Florida. This cold weather in Cleveland is doing nothing for my back aches.

2nd LITTLE OLD LADY: We want to fly the friendly skies. Gertrude, I can hardly wait to relax on the sunny warm beach in Miami. Get a move on there, young man.

CLERK: Reservations, ladies. Fare to Miami - $136.00 plus tax $6.30 which comes to $142.30. Thank you ladies, right down the ramp to Flight 216 for Miami, Florida. We'll take care of your baggage after we weigh it. Here are your tickets, and baggage tags. We are called the traffic agent or clerk. We sell tickets, make reservations, schedules, fare information, check and weigh baggage. We also keep record of passengers and cargo. Flight 216 leaving for Miami, Florida at Gate 23, in 15 minutes. Start boarding the plane.

LITTLE OLD LADIES: He was such a nice man. He was cute, too. Now, Gertrude, stick to your own age. Well, we're on our way.

STEWARDESS: I am a flight attendant and I am aboard almost all passenger planes operated by the commercial airlines. We greet the passengers as they board the plane and check their tickets, assist them to their seats, hang their coats, and generally make them comfortable. Since we come in contact with the public, we must be poised, tactful and resourceful in case of emergencies. There are age limits. We must be 19-27 years old. Our height must be at least 5 ft. 2 inches and at the most 5 ft. 9 inches. We must be in excellent health. We can serve meals and give safety instructions. We are responsible to the captain. Good afternoon, ladies. May I see your tickets? Seats 16 and 17. Right this way, please. May I have your coats? Would you like a pillow?

LITTLE OLD LADY: Where do I sit? How are the weather conditions down in Florida?

STEWARDESS: I will get that information for you immediately. Captain, how is the weather in Miami?

NARRATOR: For this information, the Captain contacts the Radio Room.

CAPTAIN: Radio Room, come in, Radio Room. Flight 216 needs weather report.

TELETYPIST: Flight 216 for Florida. Weather conditions are fair. Thunderstorm in the southern part of Ohio and northern part of Tennessee. Land in Atlanta, Georgia at 1100 to pick up shipment and continue on to Florida. Weather is good in Florida. Sunny skies at 84 degrees.

CAPTAIN: Get me the Control Tower.

TELETYPIST: Right away, Captain. The Control Tower is directly above us. I am called a teletypist and I work in the Radio Room. I report the weather conditions and other flight information between ground personnel and flight personnel. I use a radio-telephone. I also operate a teletype machine which has a keyboard similar to that of a typewriter.

it to be corrected to 20/20 vision. You cannot have any outstanding physical handicaps and we will give you a test to see if you have quick reflexes. You also need much experience in the air. I recommend you get a job at a small airport and work your way up.

CAPTAIN: Thanks, alot. I'll take your advice.

NARRATOR: _____ studied and practiced every day until he was ready to get a job as a pilot. There are many kinds of pilots. First _____ got a job as a flying forest ranger. If he saw smoke he called the ranger station on his radio. Next he flew a freight plane. He flew a giraffe from New York to a zoo in Cleveland. He flew fresh fish from Maine to Cleveland.

CAPTAIN: I want to fly a plane with people on it. I will get a job flying a small passenger plane.

NARRATOR: _____ flew a small plane for a long time. He studied more and more and again he had to pass tests to reach his goal of becoming a pilot for a airline.

CAPTAIN: I have studied hard and long and have become a co-pilot at the United Airlines. I sit next to the captain or pilot of the plane. I watch to see how the plane is flying. I am second in command. I assist the pilot in air-to-ground communications, monitoring flight and engine instruments and in operating the controls of the plane. Together, the pilot and I, the co-pilot, plot the course to be flown and compute the flying time between various points. We must also contact the airline dispatcher to check with his figures.

NARRATOR: Then one day _____ got good news.

CAPTAIN: I have finally made pilot. I am now a Captain and am in complete charge of the plane. I now have a co-pilot to help me.

CO-PILOT: I have taken over the duties that _____ once had. We sit in the cockpit. There is also another person up front with us. He is a man directly under me who does some very important jobs. He is called the flight engineer. Please, report the condition of the plane.

FLIGHT ENGINEER: I check the fuel tanks, and inspected the tires. Everything seems to be A-OK. Once the airplane is airborne or in flight, I watch and operate many instruments and devices to check the performance of the engines. I had much schooling also. 3 long years of work experience in the maintenance, repair and over haul of aircraft and engines including a minimum of 6 months training or a year of experience on 4-engine pistons and jet planes. But it all paid off because I love what I am doing. I also check the air-conditioning, pressure and electrical systems.
Condition of plane is tip-top. Ready for take-off.

CAPTAIN: Stewardess, will you please welcome the passengers.

NARRATOR: Back at the airline terminal, the passengers are buying their tickets.

AIR TRAFFIC CONTROLLER: Control tower, come in, Flight 216. Take course as planned. You may have a slight delay when you hit the thunderstorm but it shouldn't give you too much trouble. Fly at an altitude of 3200 ft. This will carry you above major air currents that may give disturbance. Your speed should be the regulation air speed. Over and Out.
I am called the air traffic controller. I am the guardian of the airways and give instructions, advice, and information to pilots by radio and radar to avoid collisions and minimize delays as aircraft fly between airports. We must consider many factors, including weather, geography, amount of traffic, and size, speed and operating characteristics of aircraft. I am stationed in the airport control tower.

CO-PILOT: Co-pilot to airline mechanic. How are the mechanical operations.

AIRCRAFT MECHANIC: Co-pilot, I have checked the propeller conditions which are in fine shape. The damage that was done in the flight yesterday is fixed and in good conditions. I keep the airplanes operating safely and efficiently. I specialize in a specific part of the plane, that is the propellers. They called me here today because of the propeller trouble they had yesterday. Other Aircraft mechanics may specialize on the landing gear, hydraulic equipment, airborne electronic communications. These are then inspected by the F.A.A. men.
Everything is up to standards and take-off can be on time.

CO-PILOT: Captain, did you check with the dispatcher in the pre-flight planning. Is everything going to go as planned.

CAPTAIN: Yes, but I would like to speak with him once again before take-off. Please contact him for me.

CO-PILOT: Radio Room, Flight 216 to Radio Room.

TELETYPIST: Radio Room

CO-PILOT: Contact me with _____ the airline dispatcher for our flight.

TELETYPIST: Will do.

AIRLINE DISPATCHER: Airline dispatcher here reporting to Flight 216.

CO-PILOT: Contact has been made, Captain

CAPTAIN: Give report on our pre-flight plan once again.

AIRLINE DISPATCHER: You will fly on route 106AB at the altitude of 3200 ft. The total flying time should be 3 hrs. and 43 mins. Your arrival at Atlanta, Georgia, will be at 0245 hrs. You will need no refueling and departure from Atlanta at 0300 hrs. Landing at Atlanta on the Far Northwest Air strip. Landing at Miami, Florida at 0335 hrs. on Southern Runway.
I am called the airline dispatcher. I coordinate flight schedules and operations within an assigned area. All F.A.A. rules and regulations are observed. I assist the pilot in pre-flight planning about the quantity of fuel, the best route and altitude, the total flying time and alternate fields for landing if the one planned is hazardous.

STEWARDESS: Weather conditions at Miami, Florida are good, sunny, warm at 84 degrees. Please fasten seatbelts and no smoking till we have leveled off. Arrival in Miami at 3:35. We hope you enjoy your flight.

NARRATOR: They finally arrive in Florida.

TWO LITTLE OLD LADIES: Well, Gertrude, let's get a move on.

CAPTAIN: We hope you have had an enjoyable trip on our flight. Be careful as you leave. Be sure to fly United again --- the friendly skies airline.

DEVELOPMENTAL VOCATIONAL EDUCATION

NAME _____(Teacher's Copy)_____

AIRPLANE OCCUPATIONS

COPILOT

TELETYPISTS

AIRCRAFT MECHANIC

FLIGHT ENGINEERS

AIRLINE DISPATCHER

PILOT

AIR TRAFFIC CONTROLLERS

STEWARDESSES

1. keep airplanes operating safely and efficiently
2. plan the flight schedules and operations, quantity of fuel, the best route, the total flying time
3. are the guardians of the airways, giving instructions, advice to avoid collisions
4. are stationed in the radio room and report the weather conditions between the ground personnel and flight personnel
5. is called the captain
6. is second in command and assists the captain
7. check the fuel tanks, inspects the tires, checks performance of engines while in flight
8. is the flight attendant aboard most passenger planes and makes the passengers as comfortable as possible

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Review

Goal: Student should express interest in transportation occupations and enjoy field trip.

Objectives: Students should review transportation occupations by relating to objects viewed.

Obj.	Learning Experiences	Materials	Evaluation
	1. Introduction to field trip given in previous lesson. General information on how to act.		
	2. Field trip - Auto-Aviation Museum - Western Reserve Historical Society 10825 East Blvd. 721-5622	Bus approved Christmas songs to sing on bus	
	3. Preparation for panel discussion or Post Test.		Could students relate what they saw to their panel discussion?
	4. Discuss field trip during return trip on the bus.		

DEVELOPMENTAL VOCATIONAL EDUCATIONAL PROGRAM

Title: Panel discussion - Review: Correlation of Career education and social studies.

Goal: Student should develop an interest in the occupations of transportation

Objectives: Student should identify and describe a greater number of occupations in the cluster of transportation.

(a) student should identify the occupations in shipping, railroads, road travel, and air travel in early times.
(b) student should identify the occupations in the transportation cluster with modern times and compare to early times.
(c) student should identify types of cargo carried on different types of transportation, early and modern.

Obj.	Learning Experience	Materials	Evaluation
a,c a,c	1. Groups discuss travel made in early times and the type of transportation used. 2. Groups discuss jobs that were needed on these types of transportation.	Map Pictures Textbook	Were the students able to identify their study of occupations in the areas of transportation with early times?
b	1. Identify modern transportation 2. Compare times	Pictures from handouts in career ed. classes Magazine pictures	Were the students able to identify more jobs in modern times?
a.b,c	1. Children at desks write down important facts, in comparing early times to modern.	Mimeographed sheet (sample below)	Were the students able to compare the early times to modern?

Outline -- Early Times Versus Modern

Early Times	Modern
1. Types of transportation	Types of transportation
2 Occupations	Occupations
3. Types of cargo	Types of Cargo

Lesson #10
Grade 6

DEVELOPMENTAL VOCATIONAL EDUCATIONAL PROGRAM

Title: Panel discussion - Review: Correlation of career education and social studies.

Goal: Student should develop an interest in the occupations of transportation.

Objectives: Student should identify and describe a greater number of occupations in the cluster of transportation.

(a) student should identify the occupations in shipping, railroads, road, air travel in the countries they are studying.
(b) student should identify types of cargo transported in the different countries.

Obj.	Learning Experience	Materials	Evaluation
a a a b. a,b	1. Children form groups and choose the countries they are interested in. 2. Children discuss the types of transportation used in that country. 3. Children discuss the types of occupations in the country. 4. Children discuss types of cargo from the countries. 5. Children at desk, take notes on the discussion held by panel.	Maps Pictures Pictures from handouts given in career ed. class Textbook Mimeographed sheet (below)	1. Were the students able to identify their study of occupations with the occupations in transportation used by other countries? 2. Were the students able to identify the types of cargo needed from different countries.

OUTLINE -- Occupations in transportation used by other countries

Country	Types of Transportation	Occupations	Cargo

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Transportation -- Post-Test

Goal: Student should develop a greater interest in transportation occupations.

Objectives: Student should express the knowledge obtained from the previous lessons.

Obj.	Learning Experience	Materials	Evaluation
	1. Quick review	Riddle board	
	2. Post-Test	Mimeographed sheets	Has the student's knowledge increased in the area of transportation occupations?

DEVELOPMENTAL VOCATIONAL EDUCATION NAME _____

POST TEST ON TRANSPORTATION DATE _____

PART I - ESSAY

1. What is transportation? _____

_____

2. What are the four areas of transportation we discussed?

_____ _____ _____ _____

PART II - MATCHING

____Longshoreman

____Shipping Clerk

____Cleveland Port

____Engineer

____Pilot

A. keeps records of goods unloaded and loaded on the ships
B. responsible for operation and maintenance of the ship
C. loads and unloads cargo
D. Ships from all over the world dock at this port
E. navigates the ship

PART III - FILL-IN

(Brakeman, Conductor, Trackman, Station Agent)

1. The _____ makes sure the trains move on time.

2. Selling tickets and checking baggage is the job of the _____.

3. The _____ checks air brakes and gives signals.

4. Maintenance, repairs, and construction of tracks, ties, switches, and fences is the job of the _____.

PART IV - TRUE OR FALSE

1. _____ The local truck driver works from a warehouse and receives daily assignments.
2. _____ The over-the-road driver stops at his daily route in the same city.
3. _____ The local driver delivers people from place to place.

PART V - MATCHING

_____ Flight Engineer	A. plans flight schedules and operations, quantity of fuel, and best flying route.
_____ Air Traffic Controller	B. Makes passengers comfortable
_____ Airline Dispatcher	C. checks fuel tanks, inspects the tires, and checks performance of engines while in flight
_____ Stewardess	D. guardians of airways, gives advice to avoid collisions.

EXTRA***

The largest airport in Cleveland is the _____.

MERRY CHRISTMAS!!!!

DEVELOPMENTAL VOCATIONAL EDUCATION

Title: Public Services

Goal: Students should develop an interest in Public Service Occupations

Objectives: Students should identify and describe a greater number of Public Services.

(a) students should recognize the need and importance of public servants.
(b) student should exhibit present knowledge of occupations and safety procedures correlating to public service, police and fire.
(c) student should identify the following occupations in public services of police and fire: detective, car patrol, motorcyclist, communicator, dispatcher, first aid, firefighter.
(d) student should become acquainted with postal jobs in the cluster of public services.

Obj.	Learning Experience	Materials	Evaluation
b	1. Pre-test (Public Service & Health)	Mimeographed sheet	Were the students able to answer some of the questions?
a,b	2. Problem-Solving Situation given to students orally. Discuss safety procedures to take and who to contact. Students given cards at board to place in proper order.	(Attached sheet) Cards scrambled at board	Were the students able to exhibit knowledge of safety procedures and recognize need of public servant?
a,b,c	3. Show slides and discuss. Police: What other types of policemen are we familiar with? mounted police, dog wardens. Compare police dispatcher with airline dispatcher. Both coordinate schedules to be taken that day. Fire - stress importance of teamwork. Stress equipment used in slides. Have a student place the correct name of the occupation on board from scrambled cards.	Slides on Public Services and 3M machine	Were the students able to identify the occupations before hearing the sound recorded about the job?
a,b,c	4. Have students write their own experience involving either the police or fire. Ask them to use the proper name for the occupation, what equipment they may have seen them use, and what they saw happen.	Paper and pencil	Were the students able to identify the occupation correctly?

Obj.	Learning Experience	Materials	Evaluation
	5. Ask students how they would address a letter. Ask the importance of the zip code. Show the slides about postal jobs and discuss.		Through discussion were the students able to identify some postal jobs?

Library Book -- <u>What Policemen Do</u>

<u>PROBLEM:</u>

Johnny is (the same age as the class; ex. 12 yrs. old.) He is home from school for X-mas vacation. He has a baby sister about 2 yrs. old. Johnny's mother is baking X-mas cookies but she has to go to the grocery store to buy more ingredients to finish baking. She leaves Johnny alone to watch his baby sister since she would only be gone a short while. Johnny takes his little sister into the living room to watch television with him. Johnny's favorite program was on (here mention a favorite of the children). Johnny became so involved in the television program that he did not see his baby sister crawling away toward the kitchen where she smelled the cookies. She crawled over to the stove and started playing with the knobs. Somehow the high flames from the burners caught a dish towel which was lying on the stove. The fire grew and the cupboards started to burn. The baby became frightened and began to cry. Johnny came running into the kitchen and saw that the fire was too high for him to put it out himself. What should Johnny do?

Detective -- college 2 yrs. and 4 yrs. of law school training.

Guards -- high school graduates

Policemen -- personal characteristics; honest, good judgement, and sense of responsibility

Firefighters -- strength, medical examination

DEVELOPMENTAL VOCATIONAL EDUCATION

PRE-TEST: PUBLIC SERVICES AND HEALTH

NAME _____ DATE _____

A. Public Services - Fill-in

1. Name 3 different jobs in the Police Department plainclothesmen, patrolmen, motorcycle, dispatcher

2. Where is the main police station located? E. 21st and Paine Ave.

3. What telephone number would you call to contact the police? 621-1234

4. Why is it important to use the zip code number? faster and more efficient

B. Yes or No

1. Yes When a policeman is off duty, is he expected to exercise his authority?

2. Yes Firemen sometimes give first aid.

3. No The number to call in case of fire is 621-1266

4. Yes Firefighting requires teamwork.

C. Health - Fill-in

1. Name a hospital in Cleveland St. Vincent Charity; Mount Sinai

2. Is it important to get a yearly check-up? Yes, prevents illness

D. Choose one to fill in the bottom

X-Ray Technician Physical Therapist

Pharmacist Medical Secretary

Dietician

1. Dietician plans the diets and foods each person eats in the hospital.

2. Pharmacist works at a drug store and fills prescriptions.

3. Filing and keeping records in order is the job of the Medical Secretary.

4. X-Ray Technician takes pictures of the inside of the body

5. Physical Therapist helps people to move their muscles, bones and nerves properly again.

E. True and False

1. Electricity operates your telephone. True

2. The cable splicer completes the connection after the lineman places the cable on the poles. True

3. The telephone operator installs, tests, and maintains meters. False

Title: Public Services -- Telephone

Goal: Students should develop interest in telephone occupations

Objectives: Student should identify and describe a greater number of occupations in the telephone industry.

(a) students should recognize the need and importance of the telephone
(b) students should identify the types of communication used in the past.
(c) students should identify the following jobs in the telephone industry: telephone operator, linemen, cable splicer, installer and repairman.
(d) students should demonstrate proper use of telephone and telephone directory.

Obj.	Learning Experience	Materials	Evaluation
a,b	1. Students discuss types of communications used in the past. Indians - smoke Africans - drum Pilgrims - horse, walking, pigeons, mirrors What types do we have today? Telegraph, T.V., radio, Telephone		Were the students able to recall from their history study?
a	2. Who invented the telephone - Bell - 1875 Who uses the telephone? Everyone What are its uses? Business, Emergency How would it be if there were no telephones? Slower Communication, less jobs. How does the telephone work? Electricity Direct student attention to one of the charts	Display 3 charts	Were the students able to recognize need and importance of the telephone?
c	3. Have students discuss the building of the telephone company. What is needed? lines, linemen, connections, cable splicer, phones, installer, repairmen, operator, telephone operator Fact: More than 1/2 of telephone workers are women	Yellow cards on board	Were the students able to identify telephone jobs?

Obj.	Learning Experience	Materials	Evaluation
d	4. Have a student describe the telephone Letters and numbers a. where to find number - directory-alpha. order b. listen for dial tone c. how to dial-finger to the stop d. describe busy signal e. what to say in case of wrong number f. 10 rings for someone to answer g. how to hold receiver h. what to say in case of emergency	Teletrainer used 2 students demonstrate telephone directory	Were the students able to demonstrate proper use of telephones?
e	5. Homework sheets handed out. Decode sentences.	Chart 2 used Mimeographed sheets	

Lineman -- sets up cables on poles, places wires and cables leading from the central office to customer's house
-- high school grad.; knowledge of basic principles of electricity and electronics; good physical condition.

Cable splicer -- splices and maintains telephone wires and cables, completes the line connections.
-- high school grad.; basic principles of electricity.

Installer and Repairmen -- maintain telephones, places telephones in homes, and buildings, also repairs them.

Telephone Operator -- assists customers in specialized services such as long discance, emergencies, information.

Attention Detectives: Decode these secret messages. These sentences follow a certain code. Figure out the code and decode the sentences to find out about public service occupations.

1. 20-17-8-21-20-17-19-18-6-21-8-7 must have some knowledge of 20-17-8-21-7 and 20-17-8-7-6-25-17-22 (Firefighters -- fires -- first aid)

2. There are many types of policemen: 23-25-8/10-25-6-8-11-14, 13-11-5-12-6-21-22/10-11-14-11-23-21, 7-21-23-15-8-17-6-1/19-5-25-8-22-7, 23-11-25-7-6/19-5-25-8-22-7, 13-11-7-11-8-23-1-23-14-21, and 18-21-14-17-23-11-10-6-21-8/10-25-6-8-11-14-7. (Car patrol -- mounted police -- security guards -- coast guards -- motorcycle -- helicopter patrols.)

3. 22-21-6-21-23-16-17-4-21-7 are also called 10-14-25-17-12-23-14-11-6-18-21-7-13-21-12. (Detectives -- plainclothesmen)

4. 22-21-6-21-23-6-17-4-21-7/13-5-7-6/19-11/6-11/7-23-18-11-11-14/20-11-8/6-3-11/1-8-7/25-12-22/6-18-21-12/6-11/14-25-3/7-23-18-11-11-14/20-11-8/20-11-5-8/1-8-7/. (Detectives must go to school for two years and then to law school for four yrs.)

5. 20-17-8-21-20-17-19-18-6-21-8-7/8-21-9-5-17-8-21-7/6-21-25-13-3-11-8-15/ (Firefighters requires teamwork.)

TRY THESE:

1. 1a/3b-2b-12a-9a-3a-5a/2b-6a-6a-9a-3a-5a-5b/13a-8b-6b-7b/2a-5a/3a-2b-8b-5b-1a-7a-5a-2b-8b-6b/3b-1a-7b-9a-5a-1b-7b/1a-1b-4a/8a-2b-1b-5a-6b-7b. (A police officer must be courageous,patient, and honest.)

2. The 12a-9a-1b-5a-13a-5a-1b places the 10b-9a-5b-5a-6b and 3a-1a-2a-12a-5a-6b/12a-5a-1a-4a-9a-1b-7a/6a-5b-2b-13a/7b-8a-5a/3a-5a-1b-7b-5b-1a-12a/2b-6a-6a-9a-3a-5a/7b-2b/7b-8a-5a/3a-8b-6b-7b-2b-13a-5a-5b-6b/8a-2b-8b-6b-5a/. (Linemen -- wires -- cables leading from the central office to the customers house).

3. The 7b-5a-12a-5a-3b-8a-2b-1b-5a/2b-3b-5a-5b-1a-7b-2b-5b/1a-6b-6b-9a-6b-7b-6b/the 3a-8b-6b-7b-2b-13a-5a-5b-6b. (Telephone operator assists customers).

4. The 3a-1a-2a-12a-5a/6b-12a-9a-3a-5a-5b/ completes the 3a-2b-1b-1b-5a-3a-7b-9a-2b-1b of the 12a-9a-1b-5a. (Cable splicer -- connection -- line).

5. The 9a-1b-6b-7b-1a-12a-12a-5a-5b places the 7b-5a-12a-5a-3b-8a-2b-1b-5a/9a-1b/8a-2b-13a-5a-6b/1a-1b-4a/2a-8b-9a-12a-4a-9a-1b-7a-6b. (Installer -- telephone in homes and buildings).

HINTS: (1) There are 26 letters in the alphabet.

(2) The alphabet divides into two equally

CODES

Part I

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

Part II

	1	2	3	4	5	6	7	8	9	10	11	12	13
a)	A	B	C	D	E	F	G	H	I	J	K	L	M
b)	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

COPY

St. Francis School
7305 Myron Avenue
Cleveland, Ohio 44103
Jan. 15, 1973

Cleveland Fire Department
Headquarters Office
330 St. Clair, N.W.
Cleveland, Ohio
(621-1223)
Public Relations

Dear Lieutenant Morgan,

This is a letter confirming our agreement for you to speak at St. Francis School. The date scheduled is January 29 at 1:00 P.M.

The class of 5th and 6th graders will consist of 55 students. They are eagerly awaiting your visit.

The contact person is Jane Ozello. If there is any change in plans please contact her at 361-4858.

We will see you then.

Sincerely,

_____
Principal of St. Francis School

_____
Developmental Vocational Education Program

Speakers to come to St. Francis and Immaculate Conception

St. Francis: Lt. Morgan of the Fire Dept.
Explanation of his job and some of his equipment -- oxygen tanks

Immaculate Conception: Officer Kaitsburg of the Police Dept.
2 day seminar with grades 5 and 6 discussing several aspects of the police departments -- juvenile codes, police occupations, description of equipment, procedures and regulations to follow.

Title: Public Services -- Gas and Water

Goal: Student should develop interest in occupations of the gas and water companies.

Objectives: Student should identify and describe a greater number of occupations in the areas of gas and water.

(a) student should recognize the need and importance of the gas and water companies.
(b) student should identify the process of transporting water and gas from its natural place to our homes
(c) student should identify the following jobs: chemist, stationary engineer, meter reader, mining engineer, construction laborer, geologist.

Obj.	Learning Experience	Materials	Evaluation
a,b	1. Students describe water sources. Why is it important to have water - its uses? How do we get it to our homes?	Map of U.S.	Were the students able to recognize the need of water companies?
a,c	2. Demonstrate an experiment. Ex. Compare two glasses of water dirty and clean. Discuss with the students. Which would you rather drink? Who might purify it? Chemist.	2 glasses of water	
c	3. Students describe a picture of a water plant, equipment? Who operates the equipment? Stationary engineer. How does the water co. know how much water we use? meter reader	Picture Representation of a meter	Were the students able to describe transport of water and identify the jobs?
a,b,c	4. Water is a resource. What other natural resource do we need and use? How do we use it? How does it get to our houses? Have students look at map to see if they can find any gas centers as they did with the water. Describe jobs. Need for construction laborer, mining engineer, geologist. How do we know the amt. we use? meterman.	Map Representation of a gas meter	Were the students able to recognize need of gas company and identify gas jobs?
c	Students divided into two - review through a game of tic-tac-toe.		Were the students able to identify the occupations?

PUBLIC SERVICE -- GAS AND WATER

Chemist -- study composition and chemical properties of substances and processes of chemical change. Test, purifies, water. College; degree of BS or Ph.D.

Stationary Engineer -- operates, maintains, and repairs stationary engines, furnaces, generators, turbines and other equipment; regulates power and controls. Water given to homes.

Water man -- house to house meter reading

Geologist -- examines rocks, search for natural resources.

Mining engineer -- find and extract minerals from the earth. Design the layouts of mines, supervise the construction of mine shafts and tunnels in underground operations. Also makes sure of efficient operation of the tunnels - ventilation, water supply, power, communication.

Construction Laborer -- loading and unloading of construction materials at the worksite and the shoveling and grading of earth. Stack and carries equipment. Good physical condition.

Gas man -- house to house meter reading

Tic-Tac-Toe:

Direct questions to the students concerning gas and water companies and occupations. Have them spell the occupations. If correct answer and correct spelling, get to place X or O in proper place.

DEVELOPMENTAL VOCATIONAL EDUCATION

VOCABULARY

transportation

pilot or captain
deck hand
engineer
shipping clerk
mate
longshoreman
gailey
bulk cargo
tug boat
custom officer

trackmen
locomotive engineer
brakeman
conductor
station agent
carmen
fireman
bridge workers

Over-the-Road truckdriver
Local
Routeman
Bus Driver

aircraft mechanic
airline dispatcher
air traffic controller
teletypist
pilot
co-pilot
flight engineer
stewardess

detective
car patrol
motorcyclist
communicator
disptacher
first aid
firefighter
mounted police
Coast Guard
Helicopter Patrol

electricity

telephone operator
linemen
cable splicer
installer and repairman

doctor
nurse
X-ray technician
dietician
medical records secretary
medical librarian
physical therapist
pharmacist
dentist

Title: Health

Goal: Students should develop an interest in Health Occupations

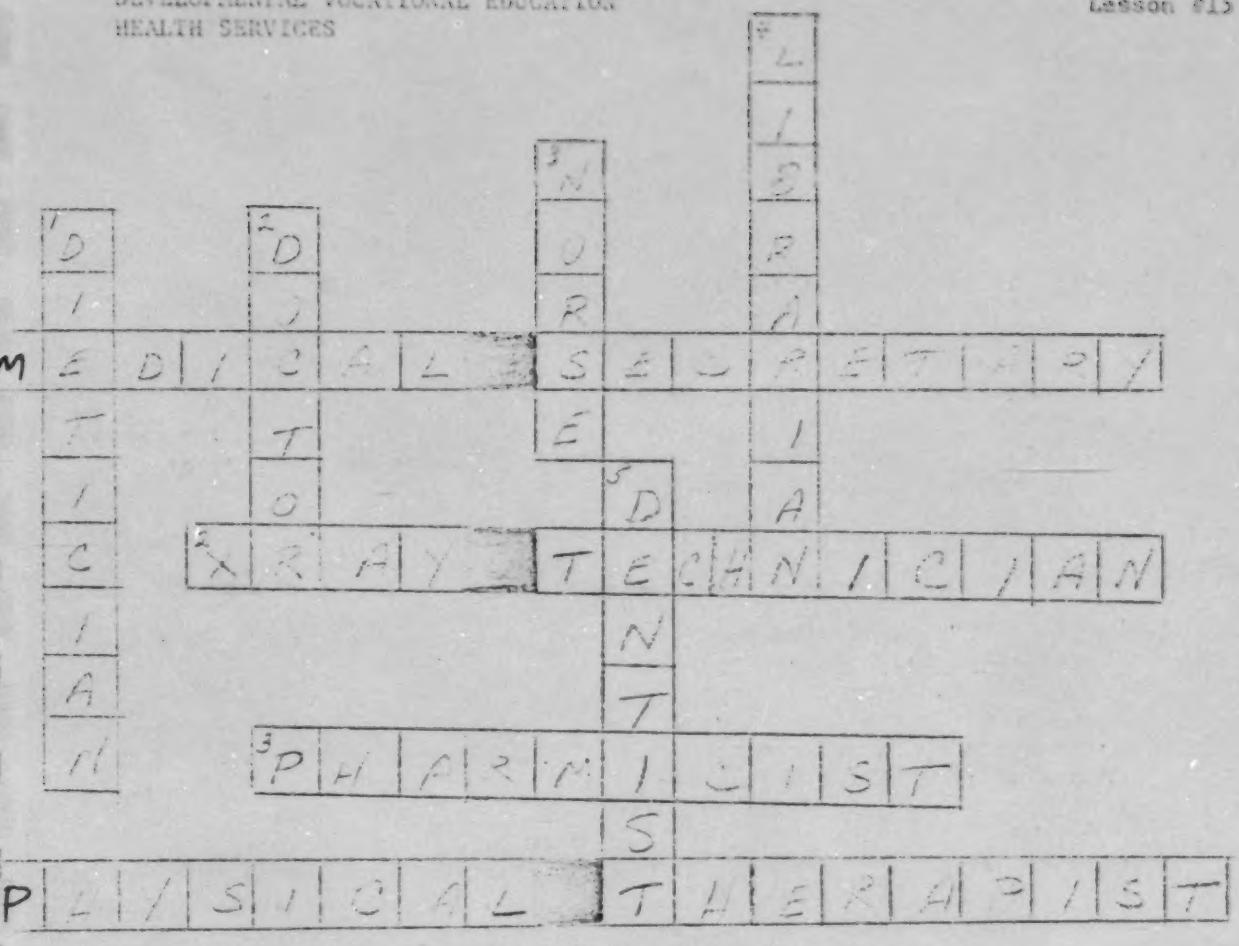
Objectives: Students should identify and describe a greater number of Health occupations.

(a) student should exhibit present knowledge of health occupations
(b) student should recognize the importance of health careers.
(c) student should identify the following jobs: doctor, nurse, X-ray technician, dietician, medical records secretary, librarian, physical therapist, pharmacist, dentist.

Obj.	Learning Experience	Materials	Evaluation
a.b	1. Recall situation of Johnny and baby sister, Mary. What would student do in situation where Mary was burned? Discuss nearest hospital, and others in area. What kind of people might we see there?		Were the students able to identify some health occupations? Were the students able to recognize their need?
c	2. Film "Health Careers"	Film	
c	3. Discuss new occupations met in the film. Display objects and have students relate them to the occupations	X-ray, Medical book, stethoscope	Were the students able to relate objects or pictures to the occupation?
c	4. Word scramble on board. This could be incorporated with above #3.		

Health:

Different educational backgrounds
One depends upon the other
There is a need for more people in the health field
Dedication is needed
Health occupations require certain abilities in people.



ACROSS:

1. greets patients, makes appointments, types, and files reports.
2. takes pictures of the inside of the body.
3. has a license which allows him to fill prescriptions.
4. helps people to move their muscles and bones properly again.

DOWN:

1. plans and prepares the diets of each patient in the hospital.
2. examines patients when ill and performs operations.
3. provides patients with nursing care.
4. files patient records so the doctors can examine them.
5. checks our teeth and gums.

NAME _____

DEVELOPMENTAL VOCATIONAL EDUCATION

PRE-TEST
PUBLIC SERVICES AND HEALTH

NAME _____ DATE _____

A. Public Services - Fill-In

1. Name 3 different jobs in the Police Department? dispatcher, motorcyclist, security guard, car patrol, communicator

2. Where is the main police station located? E. 21st and Payne

3. What telephone number would you call to contact the police? 621-1234

4. Why is it important to use the zip code number? faster and more efficient

B. Yes or No

1. Yes When a policeman is off duty, is he expected to exercise his authority?

2. Yes Firemen sometimes give first aid.

3. No The number to call in case of fire is 621-1266.

4. Yes Firefighting requires teamwork.

C. Health - Fill-In

1. Name a hospital in Cleveland. St. Vincent Charity, Mount Sinai

2. Is it important to get a yearly check-up? yes

D. Choose one to fill in the bottom

X-Ray Technician Physical Therapist

Pharmacist Medical Secretary

Dietician

1. Dietician plans the diets and foods each person eats in the hospital.

2. Pharmacist works at a drug store and fills prescriptions.

3. Filing and keeping records in order is the job of the Medical Secretary

4. X-ray Technician takes pictures of the inside of the body.

5. Physical Therapist helps people to move their muscles, bones and nerves properly again.

E. True and False

1. Electricity operates your telephone. True

2. The cable splicer completes the connection after the lineman places the cable on the poles. True

3. The telephone operator installs, tests and maintains meters. False

Title: Construction

Goal: Students should develop an interest in construction occupations

Objectives: Students should identify and describe a greater number of construction occupations.

(a) student should exhibit present knowledge of construction occupations
(b) student should recognize importance of construction workers
(c) student should identify the following jobs and their equipment: bricklayer, carpenter, electrician, painter, plasterer, plumber, cement mason, foreman.

Obj.	Learning Experience	Materials	Evaluation
a	1. Students view pictures of construction workers and discuss the pictures. When a certain job is described, that card is placed on the board.	Pictures Cards	Were the student able to relate w picture and identif occupation?
b,c	2. View blue-print. Have students describe the blue-print. What does each page describe? Job of the foreman. 1st page - foundation - brick-layer 2nd page - walls - carpenter, plumber, electrician 3rd page - 2nd floor - plasterer, painter, cement mason	Blue-print	Were the student able to describe how to build a hous and what occupation would be needed?
b,c	3. View slides, discuss tools used by workers	Slides	Were the students able to identify the tools of eac worker?
b,c	4. Have students look at house made out of construction paper on the board. Have volunteer describe how it was made.	Construction paper house	Were the students able to identify the occupations?
c	5. Have 2 volunteers put the cards that were on the board in order Game, Foreman, Bricklayer, Carpenter, Electrician, Plumber, Plasterer, Painter, Cement Mason		

3 Types of Construction

(1) electrical and plumbing
(2) residential, commercial, and industrial
(3) dams, bridges, roads

Occupations:

Bricklayer -- constructs and repairs structures such as walls, fireplaces, and partitions using brick tiles or terra cotta (red-brown clay).
Tools -- trowel, brick hammer, and jointer.

Carpenter -- erects wooden framework, installs doors, floors, and wooden trim.
High school and 4 year apprenticeship.

Cement Mason -- concrete fixing, buildings, sidewalks.

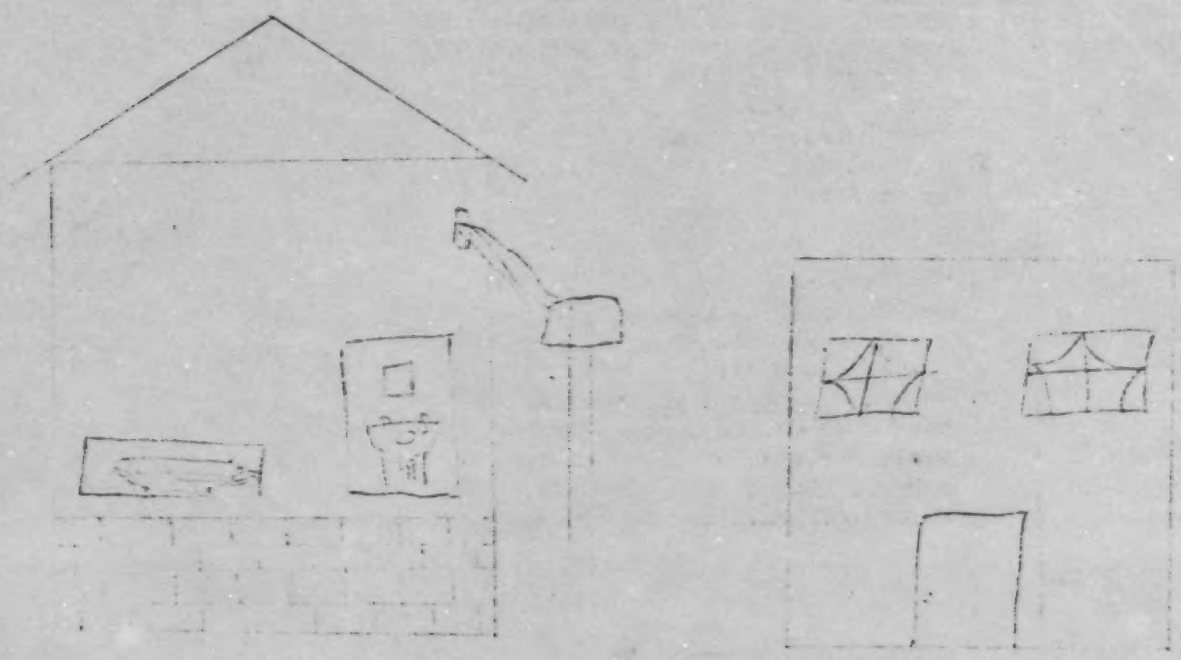
Electrician -- installs wiring, fixtures, and electrical equipment.
Basic math, high school and 4 year apprenticeship.

Foreman -- directs other workers, looks at blueprints.

Painters -- use spray gun or brush to apply paint.
no schooling, good eyesight, must stand paint fumes.

Plumber and Pipefitter -- installs, alters and repairs pipe systems that carry water, gas, waste matter.
Tools -- wrenches, hand tools

Plasterer -- several coats of plaster to unfinished walls and ceilings with trowel.
High school and 4 years.



Title: Apparel Industry

Goal: Students should develop an interest in Apparel Occupations

Objectives: Students should identify and describe a greater number of Apparel Occupations

(a) students should exhibit present knowledge of Apparel Occupations
(b) student should recognize importance of Apparel Industry
(c) student should identify the following jobs: designers, pattern makers, markers, cutters, sewing machine operators, hand sewers, alteration, pressers, tailors, inspectors.
(d) student should identify some types of materials

Obj.	Learning Experience	Materials	Evaluation
a	1. Discuss with the students any type of sewing done in their own homes. Let them describe the way it was done, how, and what was needed. (knitting, crochet)	Bring in types of needles	Were the students able to identify any types of sewing?
d	2. Have volunteers feel and describe materials to class.	Bag full of different materials	Were the students able to describe, identify different types of materials?
c	3. Show pattern. Place pattern on board and have volunteer draw the piece. Do several pieces and show how they fit together. Discuss importance of industry. (faster, cheaper) Have students name industries in the area.	Pattern	Were the students able to recognize the need and importance of Apparel Industry?
c	4. Have students decide which was needed first - design, pattern, marker, cutter, sewing machine, hand sewer, alterations, presser, tailor, inspector. Pass out cards and have them place them in order on the board	Cards	Were the students able to identify the jobs?
b,c	5. Show slides and discuss what is being done in each.	Slides	Were the students able to identify occupations and importance of them in the industry?
c	6. Matching exercise.	Mimeographed sheets	Were the students able to identify jobs?

NAME Teacher's Copy

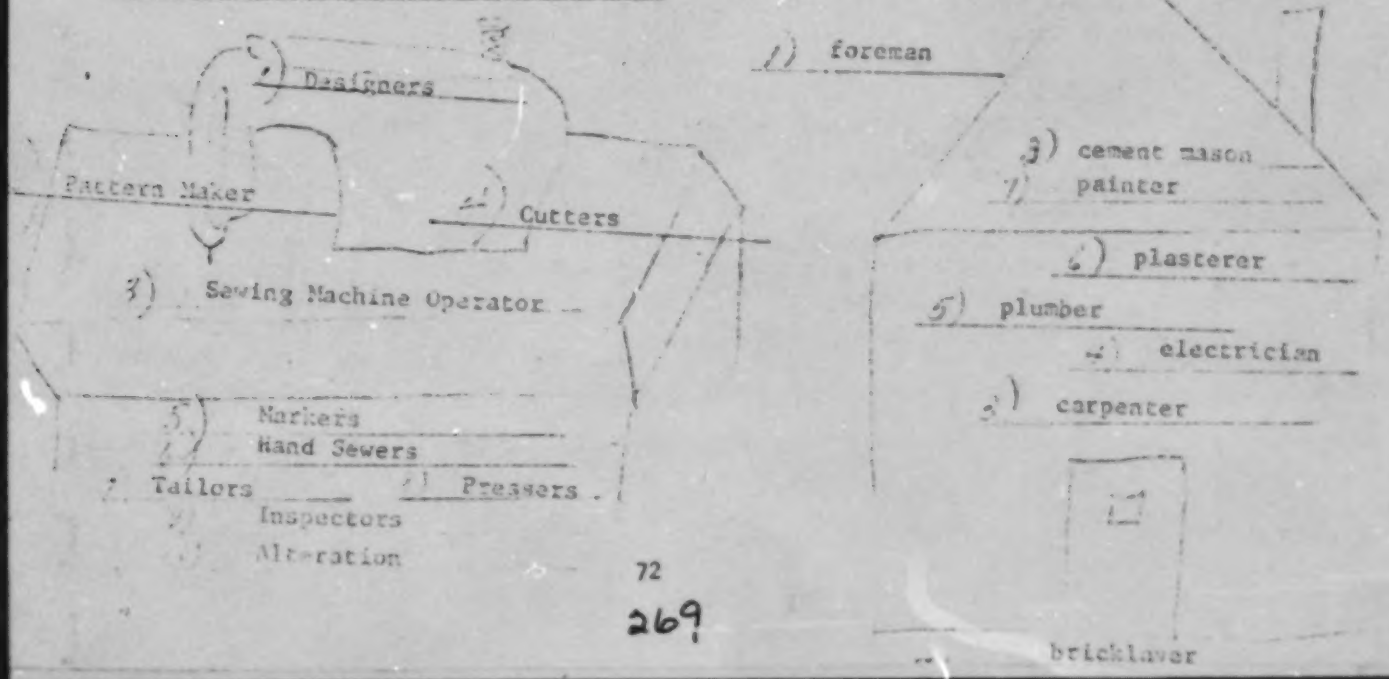
CONSTRUCTION AND APPAREL INDUSTRY — STUDY SHEET

1. Designers
2. Pattern Makers
3. Markers
4. Electrician
5. Plumber
6. Plasterer
7. Foreman
8. Cutters
9. Sewing Machine Operators
10. Hand Sewers
11. Cement Mason
12. Painter
13. Carpenter
14. Bricklayer
15. Alteration (Bushelman)
16. Pressers
17. Tailors
18. Inspectors

MATCH THE WORD WITH ITS DEFINITION

a. 1 creates original designs for new clothes.
b. 3 trace the pattern pieces on large sheets of paper.
c. 2 constructs a full-size master pattern.
d. 10 use needle and thread to do simple sewing or stitching.
e. 12 a man who paints your house.
f. 13 a person who makes things of wood.
g. 7 a person who directs all workers on the construction area.
h. 8 cuts out various garment pieces from layers of cloth.
i. 14 a person who lays bricks.
j. 5 a man who fixes sinks and faucets.
k. 4 a man who installs wires so we may have lights in our homes
l. 6 a man who fixes the holes in a wall or puts finishing touches on them
m. 18 examines garments for proper workmanship
n. 9 specialize in one area like sewing shoulder seams
o. 16 a person who presses garments.
p. 17 make personalized clothes and fit them perfectly to one individual.
q. 15 alter clothes to fit perfectly.
r. 11 may assist the bricklayer, uses the tool called a trowel.

PLACE THE WORD IN THE CORRECT SETTING



CLUSTER OF COMMUNICATION

camera man	prop man
printing pressman	photoengraver
control room	disc jockey
reporter	make-up editor
music director	broadcast technician

FILL - IN

1. A soundproof room from which the director manages the show.
   (control room)

2. To become a successful (disc jockey), one must have a pleasant and well-controlled voice, a good sense of timing and excellent pronunciation.

3. Sets up and maintains the electronic equipment used to record radio programs.
   (broadcast technician).

4. The (make-up editor) arranges things exactly as they will go on the pages of the paper.

5. The (reporter) is to gather information of current events and write stories on many subjects for publication in daily newspaper.

6. The (photoengraver) makes metal plates of illustrations and other copy work which cannot be set up in type.

7. (Music director) is responsible for music co-ordination for over-all policy in connection with record distributors and promotion.

8. (Prop man) takes care of all props, clothing, tools, for the actors and makes sure they are in the right place at the right time.

9. (Camera man) holds the cards that tell the actors what to do.

10. (Printing pressman) makes ready forms and press plates, set up, operates, clean and maintains presses, including feeding, loading and unloading of paper. Controls ink flow and matching colors.

Title: Newspaper

Goal: Students should develop an interest in newspaper occupations

Objectives: Students should identify and describe a greater number of newspaper occupations

(a) student should exhibit present knowledge of newspaper
(b) student should identify the following jobs: reporter, managing editor, cartoonist, artist, photoengraver, printing pressman, copy editor, make-up editor, salesman.
(c) student should identify types of communication

Obj.	Learning Experience	Materials	Evaluation
c	1. Place // // on board. Ask students what this means to them. (two elevens, two's, unfinished crosswords). Place a plus in between. Now what is the meaning? // plus // equals ////. Discuss what is communication. (Exchange of information). Discuss types of communication. Why is it important?	Chalk Board	Were the students able to identify types of comm. in past and present?
a	2. Discuss newspaper. What does it say? Types of articles.	Newspaper	Were the students able to exhibit their knowledge of the newspaper?
a,b	3. Discuss an article. Relate types of articles to jobs. Reporters, cartoonist, artist (stress types of schooling for each).	Cards	Were the students able to identify these jobs?
b,	4. Explain that these articles, comics, and illustrations have to be proofread by a copy editor and arranged by the make-up editor, sent to photoengraver and printing pressman, finally to salesman. Managing editor is in charge of the total paper. Students choose a main issue in school and write a report on it.		Were the students able to identify these occupations?

Title: T.V.

Goal: Students should develop an interest in T.V. Occupations

Objectives: Students should identify and describe a greater number of T.V. Occupations

(a) students should exhibit present knowledge about T.V.
(b) students should identify the following jobs: prop man, cameraman, carpenter, make-up artist, video technician, news writer, news director, producer, traffic manager, director, program director.

Obj.	Learning Experience	Materials	Evaluation
a	1. T.V. Guide - discuss what types of information is in guide. What types of T.V. programs? What types of people are programs geared for? Were any students on T.V.? At a T.V. Station?	T.V. Guide	Were the students able to relate to the T.V. guide and exhibit knowledge of T.V. Industry?
b	2. Identify a few jobs through discussion. Who puts the programs in order? Program director. Who takes care of all the advertising? Traffic manager	Cards on board	
b	3. Show slides - discuss if possible	Slides	
b	4. Game: Cards are placed on the board. Student must unscramble one of the cards and tell what it is. He must also give a short description of the job. Class divided into two. If students give right answer, his side gets the point.		Were the students able to identify the occupations?

Title: Getting A Job

Goal: Student should develop a concern for responsibility in applying for a job.

Objectives: Student should demonstrate his knowledge of the mechanics needed in applying for a job.

(a) student should exhibit present knowledge of the mechanics needed for applying for a job: social security, neatness in dress. filling out application.
(b) student should identify social security card and how it works.
(c) student should distinguish job opportunities that are available at the White Motor Corp. and decide field of interest according to abilities: truck driver, mechanic, engineer, machinist, secretary, stenographer, receptionist, office machine operator, shipping clerk.

Obj.	Learning Experience	Materials	Evaluation
a	1. Show students a picture of untidy boy. Describe the boy. Ask students what they feel he could improve on. Would this be an appropriate way to dress for work or when looking for work? What other actions should he keep in mind? Gum chewing, hands in pocket, stand straight, pen on hand.	Picture	Were the students able to exhibit knowledge about responsibility in taking care of yourself?
c	2. Pose problem to class. This boy needs a job badly. He goes to a nearby factory, White Motor Corp. to look for work because he has heard they are hiring. What types of jobs might he find there? (listed above). Other jobs may be mentioned. They should be described and cards placed on board.	Cards	Were the students able to distinguish jobs?
a,b	3. Continue story: John is walking in and is greeted by receptionist who hands him an application. Discuss with students (1) Social Security - describe use where to get it (S.S. Adm. Bldg. E. 9 & St. Clair) (2) Position desired. Salary. When can you report for work. Felony charge, health, employement before, education, family, oath, signature	White Motor Application	Were the students able to identify social security card? Were the students able to exhibit knowledge of mechanics.

Obj.	Learning Experience	Materials	Evaluation
a	4. Students should describe how it should be filled out: pen, print, neat, clear, cannot erase, correct spelling, correct information.	Written on board	Were the students able to exhibit knowledge of responsibility
a,b,c	5. Have students fill out application	Mimeographed sheets	Were the students able to exhibit knowledge of mechanics and decide field of interest according to ability.

The students may fill out hobbies at the bottom of application.

WHITE TRUCK DIVISION

Application For Factory Employment

NAME _____ _____
Last First Middle Soc. Sec. No.

PRESENT ADDRESS _____ _____
Street City State Zip Phone

Position Desired _____ Salary Desired _____

When can you report for work? _____

Age _____ Date of Birth _____ Sex: F___ M___ Wt. _____ Ht. _____

Married _____ Single _____

Name of person in case of emergency _____
Relationship to you: _____
Address _____
Phone Number _____

Ever convicted of a felony? _____ Charge _____

HEALTH

List disease or injuries you may have had _____

Family Physician: Name _____ Address _____

RECORD OF EMPLOYMENT

Employer	Address	Kind of Work
1.		
2.		
3.		

EDUCATION

	Name	Location	No. of years attended
Kindergarten:			
Grade School:			
Other:			

FAMILY

Father's Name _____ Occupation _____
Mother's Name _____ Occupation _____
No. of brothers and sisters _____ Names _____

In consideration of my employement by White Motor Corporation, I do hereby, represent all of the information on this application to be true, full and complete, and agree that any misrepresentation or concealment of a materials fact will constitute sufficient cause for dismissal.

Signed _____ Date _____

Title: Communication -- Radio

Goal: Students should develop an interest in radio jobs.

Objectives: Students should identify and describe a greater number of radio jobs.

(a) students should exhibit present knowledge about radio stations and jobs affiliated with radio.
(b) students should identify the following jobs: station manager, program manager, music director, disc jockey, public relations consultant, braodcast technician, chief engineer.

Obj.	Learning Experience	Materials	Evaluation
a	1. Call letters scrambled Placed on board XIYW = WIXY WCLK = CKLW KWH = WHK CWAR - WGAR Students unscramble at seat		Were students able to unscramble the call letters?
a	2. Discuss the purpose of the call letters. Reason: Name Individual wave lengths		Could students relate to the discussion?
b	3. Class discussion of jobs Job/Description/Skill	Paper, pencil Chalk and board	
a,b	4. Students volunteer to role play and be a "disc jockey". Tape and play back Give example and directions.	Tape recorder	
a,b	5. Culminating activity. Students choose card and define it.		Were students able to define jobs?

DEFINITIONS

Station Manager -- in charge of whole operation.

Program Manager -- in charge of individual program.

Music Director -- responsible for music coordination for over-all policy in connection with record distribution and promotion.

Disc Jockey -- to succeed as a disc jockey one must have a pleasant and well-controlled voice, a good sense of timing and excellent pronunciation. He is responsible to the program director, is responsible for presenting a good station image while on the air and excellent pronunciation. He must also be a convincing salesman when presenting commercials.

Public Relation Consultant -- his job is to initiate contests and eye catching gimmicks to attract people to his radio station.

Broadcast Technician -- he sets up and maintains the electronic equipment used to record the radio programs.

Chief Engineer -- in charge of all electronic equipment.

Title: Fine Arts and Humanities

Goal: Student should develop an interest in the fine arts occupations

Objectives: Student should identify and describe a greater number of fine arts jobs.

(a) student should exhibit an awareness of the arts.
(b) student should identify the following jobs: actor, actress, singer, singing teacher, interior designer, commercial artist, industrial artist, musician, dancer, director.
(c) student should relate knowledge to present experiences.

Obj.	Learning Experience	Materials	Evaluation
a,b	1. Pre-test -- oral	Sheet	
b	2. Role play -give example: act out playing the role of a waitress in a play. -class decides which role you were acting out by choosing from the list of cards on the board. -pass out role sheets -answer question students may have about theirs.	Role Sheets Cards	Were students able to role play the jobs effectively?
b	3. Discuss jobs presented and skills needed and tools used. -80% dancers are woman - dancing teachers -they begin at age 12 -commercial artist-advertisement -industrial artist-design product -interior decorator-woman -musicians bands, night clubs, orchestras, T.V., motion pictures		
b,c	4. Try to relate jobs to T.V. program -musician - Partridge Family -actress - That Girl -commercial artist - Bewitched		Could students relate jobs to T.V. programs?
a,b,c	5. Define the "arts" -creativeness 6. Ask students to bring in pictures		

PRE-TEST

FINE ARTS AND HUMANITIES

1. I'll make a character come to life for you on T.V. or in motion pictures.

2. I'll entertain you with my voice.

3. I'll teach you how to entertain with your voice.

4. I'll use my artistic talent to improve the appearance and functional design of machine-made products.

5. I create the artwork you see on billboard posters, commercials, and magazine advertisements.

6. I'll use my artistic talent to make your home more attractive.

7. I'll play my instruments and entertain you.

8. I'll entertain you in the ballet, musicals, and sometimes you use my talent.

9. I'll take charge of the set and tell the actor and actress what to do.

10. I'll make the role of a girl come to life for you on T.V. and motion pictures.

A. Interior Designer
B. Commercial Artist
C. Industrial Artist
D. Musician
E. Director
F. Dancer
G. Actor
H. Actress
I. Singer
J. Singing Teacher

Title: Review of Jobs

Objectives: Student should review jobs discussed in class.
Student should exhibit knowledge of jobs discussed thus far.

Obj.	Learning Experience	Materials	Evaluation
	1. Students choose comic book which they would like to read (reading for enjoyment).	Comic Books	
	2. Students create their own comic book series relating to any job discussed in class.	Job written on board	Were students able to carry out the assignment?

Title: Consumer Homemaker

Goal: Student should develop an awareness of the consumer homemaker jobs

Objectives: Students should identify and describe a greater number of occupations in consumer homemaker.

(a) student should demonstrate an appreciation for these jobs.
(b) student should define the following jobs: home economist, nursemaid, housekeeper, caretaker, chauffeur, and butler, consumer, homemaker.

Obj.	Learning Experience	Materials	Evaluation
b	1. Introduction - talk about work a mother does. Students define jobs at top of page.	Paper Jobs stated on the board Dictionaries	How well did students define jobs?
b	2. Students choose at least 4 jobs to illustrate. Should do as many as possible. (divide paper in four and label the job under it). Student may write a caption if he likes.		Were students able to illustrate the jobs?
a,b	3. Papers collected and jobs discussed.		

Title: Airplanes (Review and Manufacturing of Airplanes)

Objectives: Student should be able to describe jobs related to airplanes.

(a) student should demonstrate present knowledge concerning jobs related to airplanes.
(b) students should identify and describe the following jobs: machinist, welder, missle assembly mechanic, sheet metal worker, mathematician, engineer, draftsman, electrical engineer, astronaut.
(c) students should become acquainted with NASA

Obj.	Learning Experience	Materials	Evaluation
a	1. Discuss jobs related to airplanes and air Examples: Stewardess, Carries Mail, Business, Astronaut		Were students able to discuss previous learned jobs?
a	2. How does a plane work? Air pressure		
b	3. Manufacturing - big business People needed to work Engineer Mathematicians Machine operator Welders		
a,b	4. Let's view film and see if some of our answers were right.	Films - Cleve. Board of Ed. "Airplanes Work For Us" "Airplanes and How They Fly"	
a,b	5. Discuss points of interest on film which pertains to your class.		
c	6. Discuss NASA - National Aeronautics and Space Administration Cleveland & Florida - builds space vehicles NASA field trip - 8th graders		Could students rel NASA to space flights

Lesson #27

Gr. 4

Title: Banking

Goal: Student should develop an interest in the occupations of Banking

Objectives: Student should identify the occupations in Banking

(a) student should recognize the importance of school for banking occupations
(b) student should identify the types of money we use as exchange
(c) student should describe the way money travels and the importance of a Bank
(d) student should identify the specific jobs in banking

Obj.	Learning Experience	Materials	Evaluation
a,b	1. Put signs on board. $ -- ¢. What does it mean? What types of money do we use for exchange?		Were the students able to identify types of money exchange?
c	2. Discuss what they do with their money? Spend or save. Why place it in a bank?		Were the students able to recognize importance of a bank?
a,d	3. What jobs do you see being done in your bank? What are some of its procedures? Why is it important to know math and skills of language?		Were the students able to name some occupations in banking?
b,c,d	4. Film How to Use Your Bank. Discuss.	Film - Visual Aide Center	Were the students able to relate to film and identify more occupations in banking?
a,d	5. Show money bag, bookkeeper's book, deposit slips, etc. How do we use each?	From nearby bank	Were the students able to identify purpose of bank papers?
d	6. Game - card is held over pupil's head as other students give him hints and the pupils guess. Point is scored for team if correct answer is given.	Cards with occupations written	Were the students able to identify the occupations?

NAME _____ DATE _____

DEVELOPMENTAL VOCATIONAL EDUCATION -- TEST -- COMMUNICATION

PART I -- FILL-IN

Camera man	Reporter	Photoengraver	Broadcast Technician
Printing Pressmen	Music Director	Disc Jockey	
Control Room	Prop Man	Make-up Editor	

1. To become a successful disc jockey, one must have a pleasant and well-controlled voice, a good sense of timing and excellent pronunciation.

2. A soundproof room from which the director manages the show. Control Room

3. Sets up and maintains the electronic equipment used to record the radio program. Broadcast Technician

4. The Make-Up Editor arranges things exactly as they will go on the pages of the newspaper.

5. The Reporter is to gather information of current events and write stories on many subjects for publication in the daily paper.

6. The Photoengraver makes metal plates of illustrations and other copy work which cannot be set up in type.

7. Music Director is responsible for music co-ordination for all connection with the record distributors and promotions.

8. Prop Man takes care of all props, clothing, tools, and equipment for the actors and makes sure they are in the right place at the right time.

9. Camera Man holds the cards that tell the actor what to do.

10. Printing pressman makes ready forms and press plates, sets up, operates, cleans and maintains presses, including feeding, loading and unloading of paper. He controls the flow of ink and colors.

PART II -- TRUE OR FALSE

1. True In order to get a job you must have a Social Security Card.

2. False The chief engineer at a radio station is in charge of programs about ships.

3. True The person who works with tape recorders is the video technician.

4. True Organization of the paper, putting each article where it belongs is the job of the make-up editor.

5. True The public relations man for the radio station tries to get people to listen to his radio station by initiating contest.

What is Communication? _____

Name areas of communication covered in class _____

JOB INFORMATION QUESTIONNAIRE

NAME _____ SEX _____

SCHOOL _____ GRADE _____

FATHER'S OCCUPATION _____

1. WHAT ARE THE NAMES OF THE NEWSPAPERS IN CLEVELAND? _____

_____

2. NAME THE LARGEST AIRPORT IN CLEVELAND. _____

3. NAME THREE AIRLINES THAT FLY TO AND FROM CLEVELAND _____

_____

4. WHAT KIND OF CARD WOULD YOU NEED BEFORE YOU COULD GET A JOB? _____

_____

5. THESE ARE SOME JOBS IN THE APPAREL INDUSTRY. SHOW HOW A DRESS OR SUIT CAN BE MADE BY PUTTING THESE JOBS IN THE ORDER THEY WOULD BE NEEDED TO MAKE THE PIECE OF CLOTHING. PUT A 1 NEXT TO THE JOB WHICH MUST BE DONE FIRST, A 2 NEXT TO THE JOB WHICH SHOULD BE DONE SECOND, ETC.

_____ SEWING MACHINE OPERATOR

_____ DESIGNER

_____ CUTTER

_____ PATTERN MAKER

_____ PRESSER

6. CIRCLE TRUE FOR THE STATEMENTS WHICH ARE CORRECT AND CIRCLE FALSE FOR THE STATEMENTS WHICH ARE NOT CORRECT.

TRUE FALSE FIREMEN GIVE FIRST AID TO PEOPLE IN THEIR HOMES.
TRUE FALSE POLICEMEN DECIDE IF PEOPLE ARE GUILTY WHEN THEY ARREST THEM.
TRUE FALSE POLICEMEN HAVE TO GO TO LAW SCHOOL IN ORDER TO BE HIRED.
TRUE FALSE FIREMEN HAVE TO INSPECT BUILDINGS TO FIND OUT IF THEY ARE SAFE.
TRUE FALSE POLICEMEN HAVE TO PASS A PHYSICAL EXAMINATION WHEN THEY ARE HIRED.
TRUE FALSE FIREMEN GET THEIR BASIC TRAINING ON THE JOB.

7. MATCH EACH JOB WITH THE CORRECT DESCRIPTION OF ITS MAJOR DUTIES. WRITE THE LETTER NEXT TO THE JOB THE DUTIES DESCRIBED. THERE IS ONLY ONE DESCRIPTION THAT IS CORRECT FOR EACH JOB.

_____ PRACTICAL NURSE

_____ NURSING AIDE

_____ MEDICAL TECHNOLOGIST

_____ PHYSICAL THERAPIST

_____ NUTRITIONIST

A. CONCERNED WITH THE BEDSIDE CARE OF PATIENTS. FOR EXAMPLE, TAKES THEIR PULSE, TEMPERATURE, AND BLOOD PRESSURE.

B. PERFORMS LABORATORY TESTS AND PROCEDURES, FOR EXAMPLE, EXAMINES BLOOD SAMPLES.

C. GIVES MEDICINE TO PATIENTS. REPORTS AND RECORDS THE PATIENTS' DAILY CONDITION.

D. WORKS WITH PATIENTS WHO HAVE BONE OR MUSCLE INJURIES.

E. APPLIES KNOWLEDGE OF "GOOD" FOOD TO IMPROVE PATIENTS' HEALTH.

F. PERFORMS DAILY TASKS NEEDED TO MAKE PATIENTS COMFORTABLE. FOR EXAMPLE, MAKES BEDS AND KEEPS ROOM NEAT.

8. WHICH JOB DOES NOT BELONG WITH THE OTHERS?

_____A. FLIGHT ENGINEER
_____B. RAMP SERVICEMAN
_____C. CHIEF ENGINEER
_____D. PILOT

_____A. PRODUCER
_____B. EDITOR
_____C. REPORTER
_____D. PUBLISHER

_____A. TELEPHONE OPERATOR
_____B. PROGRAM DIRECTOR
_____C. SERVICE REPRESENTATIVE
_____D. INSTALLER

9. UNDERLINE THE PLACE WHERE EACH JOB WOULD MOST LIKELY BE FOUND.

EXAMPLE: POSTMAN

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

INSTALLER

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

BROADCAST TECHNICIAN

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

WINDOW CLERK

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

PHOTO ENGRAVER

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

MAKE-UP ARTIST

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

DIRECTORY CLERK

NEWSPAPER
POST OFFICE
T.V. STATION
TELEPHONE COMPANY

HIGH AND LOW LINEMAN

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

DOG WARDEN

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

SEWAGE PLANT ATTENDANT

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

CHEMIST

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

GEOLOGIST

POLICE DEPARTMENT
ILLUMINATING COMPANY
WATER DEPARTMENT
EAST OHIO GAS COMPANY

NUCLEAR ENGINEER

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

BARKER MACHINE OPERATOR

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

BLAST FURNACE WORKER

AEROSPACE INDUSTRY
ALUMINUM INDUSTRY
IRON AND STEEL
PAPER INDUSTRY

SUPERCALENDAR OPERATOR	ENGINE MECHANIC	PULPMAKER WORKER
AEROSPACE INDUSTRY	AEROSPACE INDUSTRY	AEROSPACE INDUSTRY
ALUMINUM INDUSTRY	ALUMINUM INDUSTRY	ALUMINUM INDUSTRY
IRON AND STEEL	IRON AND STEEL	IRON AND STEEL
PAPER INDUSTRY	PAPER INDUSTRY	PAPER INDUSTRY

10. WHICH ONE OF THE FOLLOWING BANK SERVICES DOES THE TELLER HANDLE MOST?

_____ A. MORTGAGE LOANS

_____ B. CREDIT CARD ACCOUNTS

_____ C. SAVINGS AND CHECKING ACCOUNTS

_____ D. CHARGE ACCOUNTS

11. WHO GIVES INFORMATION TO PEOPLE WHO COME INTO OR CALL A BUSINESS OFFICE?

_____ A. STENOGRAPHER

_____ B. RECEPTIONIST

_____ C. EXECUTIVE SECRETARY

_____ D. PUBLIC RELATIONS WORKER

12. WHO KEEPS A COMPLETE AND UP-TO-DATE RECORD OF MONEY USED IN BUSINESS ACTIVITIES?

_____ A. BOOKKEEPER

_____ B. CASHIER

_____ C. COMPANY VICE-PRESIDENT

_____ D. LAWYER

13. WHO KEEPS TRACK OF MERCHANDISE TRANSFERRED FROM ONE PLACE TO ANOTHER BY BUSINESS FIRMS?

_____ A. DISTRIBUTION WORKER

_____ B. SHIPPING AND RECEIVING CLERK

_____ C. WHOLESALER

_____ D. MARKET RESEARCHER

14. WHO HAS THE MOST FREEDOM TO CHANGE THE ROUTE OF A TRIP?

_____ A. PILOT

_____ B. TRAIN ENGINEER

_____ C. TRUCK DRIVER

_____ D. BUS DRIVER

THIS IS A LIST OF EIGHTEEN JOBS. READ THROUGH THE LIST TO MAKE SURE YOU KNOW ALL THE JOBS. THINK ABOUT HOW MUCH YOU WOULD LIKE TO WORK ON EACH OF THESE JOBS. NOW, DECIDE ON THE ONE JOB THAT YOU WOULD REALLY LIKE TO HAVE MORE THAN ANY OTHER. WRITE THE NAME OF THAT JOB IN THE SPACE NEXT TO "1 - BEST JOB". NOW, DECIDE WHICH JOB YOU WOULD REALLY NOT LIKE TO HAVE. DO NOT WORRY ABOUT THE REASON YOU DON'T WANT THE JOB. WRITE THE NAME OF THIS JOB IN THE SPACE NEXT TO "1 - WORST JOB". AT THE BOTTOM OF THE PAGE. CONTINUE TO ALTERNATELY CHOOSE BETWEEN THE "NEXT BEST JOB" AND THE "NEXT WORST JOB" UNTIL YOU HAVE WRITTEN THE NAMES OF ALL THE JOBS IN THE SPACES. AS YOU SELECT EACH JOB, DRAW A LINE THROUGH IT SO YOU DON'T CHOOSE IT TWICE. REMEMBER ALL THESE JOBS ARE FOR BOTH MEN AND WOMEN.

DOCTOR

ACTRESS/ACTOR

NURSE

CAR MECHANIC

TEACHER

POLICEMAN

EXECUTIVE SECRETARY

WAITER/WAITRESS

MODEL

LAWYER

REPORTER

BEAUTICIAN

GARBAGE COLLECTOR

COOK

DISC JOCKEY

STEWARD/STEWARDESS

ELECTRICIAN

AIRPLANE PILOT

1. BEST JOB _____
2. NEXT BEST JOB _____
3. NEXT BEST JOB _____
4. NEXT BEST JOB _____
5. NEXT BEST JOB _____
6. NEXT BEST JOB _____
7. NEXT BEST JOB _____
8. NEXT BEST JOB _____
9. NEXT BEST JOB _____

9. NEXT WORST JOB _____
8. NEXT WORST JOB _____
7. NEXT WORST JOB _____
6. NEXT WORST JOB _____
5. NEXT WORST JOB _____
4. NEXT WORST JOB _____
3. NEXT WORST JOB _____
2. NEXT WORST JOB _____

1. WORST JOB _____

GETTING A JOB							NEWSPAPER REPORTER						
GOOD	__	__	__	__	__	BAD	GOOD	__	__	__	__	__	BAD
WEAK	__	__	__	__	__	STRONG	WEAK	__	__	__	__	__	STRONG
SAD	__	__	__	__	__	HAPPY	SAD	__	__	__	__	__	HAPPY
WISE	__	__	__	__	__	FOOLISH	WISE	__	__	__	__	__	FOOLIS
BRAVE	__	__	__	__	__	COWARDLY	BRAVE	__	__	__	__	__	COWARDLY
DIRTY	__	__	__	__	__	CLEAN	DIRTY	__	__	__	__	__	CLEAN
KIND	__	__	__	__	__	CRUEL	KIND	__	__	__	__	__	CRUEL
IMPORTANT	__	__	__	__	__	UNIMPORTANT	IMPORTANT	__	__	__	__	__	UNIMPORTA

TELEPHONE INSTALLER							MAIL CARRIER						
GOOD	__	__	__	__	__	BAD	GOOD	__	__	__	__	__	BAD
WEAK	__	__	__	__	__	STRONG	WEAK	__	__	__	__	__	STRONG
SAD	__	__	__	__	__	HAPPY	SAD	__	__	__	__	__	HAPPY
WISE	__	__	__	__	__	FOOLISH	WISE	__	__	__	__	__	FOOLISH
BRAVE	__	__	__	__	__	COWARDLY	BRAVE	__	__	__	__	__	COWARDL
DIRTY	__	__	__	__	__	CLEAN	DIRTY	__	__	__	__	__	CLEAN
KIND	__	__	__	__	__	CRUEL	KIND	__	__	__	__	__	CRUEL
IMPORTANT	__	__	__	__	__	UNIMPORTANT	IMPORTANT	__	__	__	__	__	UNIMPO

Directions: State your feelings about specific jobs!

REFERENCE MATERIALS

Dictionary of Occupational Titles
Career Ed. Resource Guide
Gen. Learning Corp. of Morristown
Curriculum Innovation Inc., N.Y.
501 Lake Forest Ave.
Highland, Ill. 60040
Career World
SRA - Handbook of Job Facts
Yellow Pages of Learning Resource
Group for Governmental Education, Inc., 1972.
Career Information Kit - SRA
Ohio Career Continuum Program
Career Orientation - Ohio State Board of Education, 1972.
Youth Service Directory of Greater Cleveland
Occupational Information in Elementary Schools, Willa Norris
Pleasant Valley Junior High School Career Orientation Program

Quarterly Report -- Jane Ozello and Jean Dzurilla

*Developmental Vocational Education Program - Cleveland Board of Education, William Sims. (Speakers, Films, Ideas)

SUPPLEMENTARY MATERIALS -- not used

SRA
Key - Career Exploration
Junior Guidance Series Booklet
Job Exploration Kit
Job Family Series Booklets
Occupational Exploration
Westinghouse Learning Press
100 Park Ave., N.Y., N.Y. 10017
Career Awareness -- cassettes and films
ERC Report, Vol. 9, number 4
Educational Research Council of America
March 1973 - pp. 10-11
Occupational education series of careers for grade 4
Ecology Game Kit - Coca Cola Co.
World of Work -- Economic Ed. (record, filmstrips, cassettes)
San Diego Board of Education - transparencies on how to decide and get a job
Tommy Looks At Farming, B.F. Goodrich Co., Akron, Ohio (comic book)
U.S. Postal Service
Postmaster General
Washington, D.C. - (filmstrip -- "90 billion raindrops" -- varied jobs in postal work with teacher's guide)

Senior Weekly Reader by Xerox - Columbus, Ohio (career choices)
Annual Report, Cleveland, Ohio
Cleveland City Council, 1972
Visual Aide Center - Cleveland Public Schools

Films

Policeman
A Day with Fireman Bill
Simple Demonstration With Water
Conserving Our Natural Resources
Communication and Our Town
Seaport
Transportation by Inland Waterways
Trucks and Trains
Railroad Builders
Transportation by Freight Trains
Fiber to Fabric
Mass Production (How clothing is made)
Clothes Around the World
Industry
Careers in Industry
How to Use Your Bank
Building Trades - The House Builders
Your Career as a Secretary

Steel in America
How Trees Help Us
Our Natural Resources
Conserving Our Natural Resources
Exploring the Farmland
Garden Plants and How They Grow
Desert Farming
Silver - mining
Copper - mining
Airplanes and How They Fly
Airplanes Work For Us
Beauty For a Career
Careers in Personal Services
Health Careers - I,II, III,IV
Scientists at Work
Careers in Building Trades
Designs for Growing
Careers - Clerical

Films - DVEP

Careers in Public Services
Career In Sales
Careers in Personal Services
What's Under the Ocean
Cleveland World Port

Money In the Bank
The Newspaper - The Joys of Selling
Filmstrip on Conservation
Building a House

Career pamphlets - collection of pamphlets acquired

DATE _____

WHITE TRUCK DIVISION

APPLICATION FOR FACTORY EMPLOYMENT

All information given on this form will be treated strictly confidential. It is to the applicant's advantage to answer each question fully and accurately. The use of this blank does not indicate there are any openings open and in no way obligates the company. Misrepresentation or concealment of a material fact will constitute cause for dismissal if hired. Before being employed each applicant is photographed and fingerprinted, and must pass a physical examination satisfactory to the company.

LAST NAME (Print) | FIRST | MIDDLE

PRESENT ADDRESS (Print) | CITY | STATE | ZIP | FORMER ADDRESS (ST.) | CITY | STATE | ZIP

HOW LONG AT ABOVE ADDRESS? | PHONE | OWN ☐ NEIGHBORS ☐ | PHONE IN NAME OF | FORMER ADDRESS (ST.) | CITY | STATE | ZIP

PERMANENT HOME ADDRESS | CITY | STATE | ZIP | FORMER ADDRESS (ST.) | CITY | STATE | ZIP

POSITION DESIRED | SALARY DESIRED? | HAVE YOU APPLIED HERE PREVIOUSLY? IF SO, WHEN? | WHEN CAN YOU REPORT FOR WORK?

OTHER POSITIONS YOU WILL CONSIDER | WERE YOU EVER EMPLOYED BY THIS COMPANY? IF SO, WHEN & WHERE? | WHAT IS YOUR SOCIAL SECURITY NUMBER?

PERSONAL

Please Hold With Balance of Application

AGE | DATE OF BIRTH: MONTH, DAY, YEAR | INDICATE (✓) WHETHER: MALE, FEMALE | WEIGHT | HEIGHT | PHYSICAL DEFECTS | HAVE YOU EVER BEEN THROUGH BANKRUPTCY?

INDICATE (✓) WHETHER: SINGLE, MARRIED, WIDOWED, DIVORCED | INDICATE (✓) WHETHER LIVING WITH: PARENTS, WIFE, HUSBAND, SELF | HOW MANY CHILDREN? | HOW MANY DEPENDENTS? (INCLUDE SELF) | IF DIVORCED, WHAT AMOUNT OF ALIMONY DO YOU PAY?

DO YOU OWN OR RENT YOUR HOME, OR BOARD? | NAME OF PERSON TO BE CALLED IN AN EMERGENCY? NAME | RELATIONSHIP IF ANY? | ADDRESS? | PHONE NUMBER?

DO YOU OWN AN AUTOMOBILE? MAKE | YEAR | INDICATE APPROXIMATE AMOUNT OF YOUR: ASSETS, INDEBTEDNESS | HOW MUCH LIFE INSURANCE DO YOU CARRY?

INDICATE (✓) WHETHER YOU HAVE EVER BEEN CONVICTED OF A FELONY.

NO | YES | DATE? | PLACE? | CHARGE? | DISPOSITION? | NAME OF COURT OF RECORD?

HAVE YOU EVER BEEN OR ARE YOU NOW A MEMBER OF ANY ORGANIZATION ADVOCATING OVERTHROW OF THE U.S. GOVERNMENT? YES ☐ NO ☐ | UNITED STATES CITIZEN YES ☐ NO ☐

IF WHAT UNITED STATES MILITARY ORGANIZATION ARE YOU A MEMBER? | SELECTIVE SERVICE CLASSIFICATION | SELECTIVE SERVICE ORDER NUMBER | LOCAL DRAFT BOARD NUMBER | LOCATION OF DRAFT BOARD: CITY, STATE

HEALTH

CHECK ANY OF THE FOLLOWING WHICH YOU HAVE HAD:

RUPTURE ☐ ARTHRITIS ☐ RHEUMATISM ☐ HEADACHES ☐ DIZZY OR FAINTING SPELLS ☐ COUGHING ☐

BACKACHE ☐ HEART TROUBLE ☐ STOMACH TROUBLE ☐ SKIN DISEASE ☐ OIL DERMATITIS ☐ KIDNEY TROUBLE ☐

LIST ANY OTHER DISEASE OR INJURIES WHICH YOU MAY HAVE HAD: _____

WHEN WAS YOUR LAST SERIOUS ILLNESS AND WHAT WAS ITS NATURE? _____

LIST ANY PHYSICAL DEFECTS YOU MAY HAVE: _____

FAMILY PHYSICIAN: NAME _____ ADDRESS _____

INDICATE (✓) WHETHER YOU HAVE EVER DRAWN WORKMEN'S COMPENSATION

NO | YES | IF SO, WHAT WAS NATURE OF DISABILITY? | NAME OF EMPLOYER PAYING COMPENSATION? | DURATION OF COMPENSATION?

PERSONS IN THIS COMPANY WITH WHOM YOU ARE ACQUAINTED

NAME	DEPARTMENT	RELATIONSHIP TO YOU, IF ANY

This record should include all position
ARMY, NAVY, MARINE, and all other MILITA

EMPLOYER Give full name of company or firm	Street Address	City	State	Kind of Bu

EDUCATION

Education	Name of School	Location	No. of yrs. Attended	Year Graduated	Course Taken	Diploma or Certificate
Grade School						
Jr. High School						
High School						
Trade School or Other						

FAMILY

Father's name	Street address of Father	Father's occupation
Wife (or Husband's name)	Street address of Wife (or Husband)	Wife (or husband's) occupation

No. of brothers | No. of sisters

Names, ages and relationship of persons dependent on you for support

1. 4.

2. 5.

3. 6.

[illegible]

[illegible] during school and should include [illegible] as nearly as possible dates & times. List last position first.

Dates Employed		Work you did	Rate of Pay	Reason for leaving	Supervisor, Badge No., Dept.
[illegible]	[illegible]				

INDICATE NUMBER MONTHS OF ACTUAL EXPERIENCE IN ANY OF THE FOLLOWING:

Machine	Operate	Set-up	Machine	Operate	Set-up	Machines	Operate	Set-up	Machines	Operate	Set-up	Machines	Operate	Set-up
[illegible]			DRILL—RADIAL			GRINDER—SURFACE			LATHE—SEMI-AUTO.			NIBBLER		
[illegible]			GLAY CUTTER			HAMMER—HAMMER			LATHE—TURRET			PUNCH PRESS		
[illegible]			GRINDER—CENTERLESS			HOBBER			MILLER—PLAIN			SCREW MACH—AUTO		
[illegible]			GRINDER—EXTERNAL			HONE			MILLER—HAND			SHAPER		
[illegible]			GRINDER—INTERNAL			LAPPER			MILLER—PROFILE			SHEAR—SQUARE		
[illegible]			GRINDER—GEAR			LATHE—RUBBING			MILLER—SPLINE			SHEAR—ROTARY		

Operations Performed	No's.	Names of Metal Worked On (fill in)	Operations Performed	No's.	Names of Metal Worked On (fill in)
[illegible]			SPOT WELDING		
[illegible]			BRAZING		
[illegible]			TORCH SOLDERING		
[illegible]			METAL FINISHING		

What work do you consider yourself best qualified?

[illegible] Machine? Instruments? Operate Tools?

[illegible] Are you willing to work nights? Who referred you to us?

I understand that my physical classification as "Accepted or " Observation" does not guarantee to me that I am free from disease, congenital defects or weaknesses and does not necessarily mean that any existing defect, disease or weakness will not adversely affect my fitness for employment under these conditions. I understand that an annual physical examination at company request is a condition of employment.

In consideration of my employment by White Motor Corporation, I do hereby, on behalf of myself and any and all persons whatsoever, for the benefit of [illegible] hereinafter have in respect of any and all communications made by me to any physician, other person or hospital and in respect of any facts, knowledge or information (including any reports, charts and array pictures and copies thereof) received or acquired by him or them in connection with any examination, attendance, treatment or care of me by him or them, and all provisions of law forbidding any physician, other person or hospital who or which as heretofore attended, examined, treated or cared for me or who or which may hereafter attend, examine, treat or care for me, from disclosing or testifying to any facts, knowledge or information (including any reports, charts and array pictures and copies thereof) so received or acquired by him or them, and I hereby authorize any physician, other person or hospital who or which has attended, examined, treated or cared for me or who or which may hereafter attend, examine, treat or care for me, upon request of White Motor Corporation, or its agents, to furnish to it or them any facts, knowledge or information (including any reports, charts and array pictures and copies thereof) so received or acquired concerning me, by such physician, other person or hospital.

I represent all of the information on this application to be true, full and complete, and agree that any misrepresentation or concealment of a material fact will constitute sufficient cause for dismissal.

I certify that I have never been convicted of a felony, except as noted in Part 9. I hereby agree to be photographed and fingerprinted at Company request.

I understand and agree that my employment by White Motor Corporation is [illegible] I will only be entitled to and will accept in full of all claims, compensation in and including the date of such layoff or termination of the rate then in effect.

I certify I am not and have not been a member of the Communist Party or affiliated with such party. I am not and have not been a member of and I do not believe in or support and have not believed in or supported any organization that believes in or teaches or has believed in or taught the overthrow of the United States Government by force or by any illegal or unconstitutional means.

I acknowledge that you have advised me that, in connection with this application an INVESTIGATIVE CONSUMER REPORT may be requested by you, and that this investigation will include information on my character, general reputation, personal characteristics and mode of living. I hereby authorize your obtaining such an INVESTIGATIVE CONSUMER REPORT.

I understand that I have a right to make a request to you to learn the complete nature and scope of the report and that you have established a procedure to provide the same.

SIGNED _____

NOTIFY US OF CHANGES IN YOUR ADDRESS OR PHONE NUMBER

WE USUALLY DO NOT HOLD APPLICATIONS LONGER THAN SIX MONTHS

THIS SPACE NOT TO BE FILLED IN BY APPLICANT

PHYSICAL E G F P	EYES E G F P	REMARKS 1. ENTER ON HIRE SLIP
DENTAL E G F P	EARS E G F P	
HEIGHT FEET INCHES	WEIGHT POUNDS	2. OTHER COMMENTS
ACCEPTED (✓) REJECTED (✓)	RECALL-OSBER. (✓) LIMIT SERVICE (✓)	

EXAMINING PHYSICIAN

REMARKS

TEST RESULTS

PERSONNEL OFFICER

	INTERVIEWED BY	REFERRED TO	DISPOSITION	REMARKS OR RESULT

St. Francis [illegible]
[illegible]
Cleveland, Ohio [illegible]
March [illegible] 197[illegible]

[illegible]

[illegible] Rehabilitation Program, for which I am responsible, is a special [illegible] St. Francis which acquaints the students with career rehabilitation. Miss [illegible] and Miss Bonacci's classes have been participating in this program.

[illegible] have been invited for these students to visit the Cleveland Plant Center [illegible] which there will be [illegible] at 1:00 p.m. and return at 10:30 p.m. Please give [illegible] permission to attend.

Sincerely

Sister Mary St. Jude, S.N.D.
Miss Rita Carlin

[illegible]

[illegible] permission to attend the field trip [illegible] the Cleveland Plant Center on Tuesday, March [illegible], leaving school [illegible] and return [illegible] p.m.

Signature

Transportation Department

TRIP PERMIT AND DRIVER'S TRIP REPORT - BOARD OF EDUCATION BUS

Date of Trip March 27, 1973

Mileage Ending

Vehicle No. 210

Mileage Start

Driver

TOTAL MILES

Time Left Garage (or other location)

Teacher in Charge Mrs Jane Grello

SCHOOL OR PICKUP POINT St. Francis Elementary

ADDRESS - SCHOOL OR PICKUP POINT 7107 Myron Avenue

TIME OF BUS ARRIVAL
at School or Pickup Point

Requested 10:50 a.m.

Actual

No. of Pupils 52

No. of Adults 3

FIELD TRIP DESTINATION Cleveland Plain Dealer

ADDRESS - FIELD TRIP 1801 Superior N. E.

DEPARTURE TIME from Place Visited:

Contemplated 12:15 a.m.

Actual

Time Returned to School or Pickup Point

Time Returned to Garage (or other location)

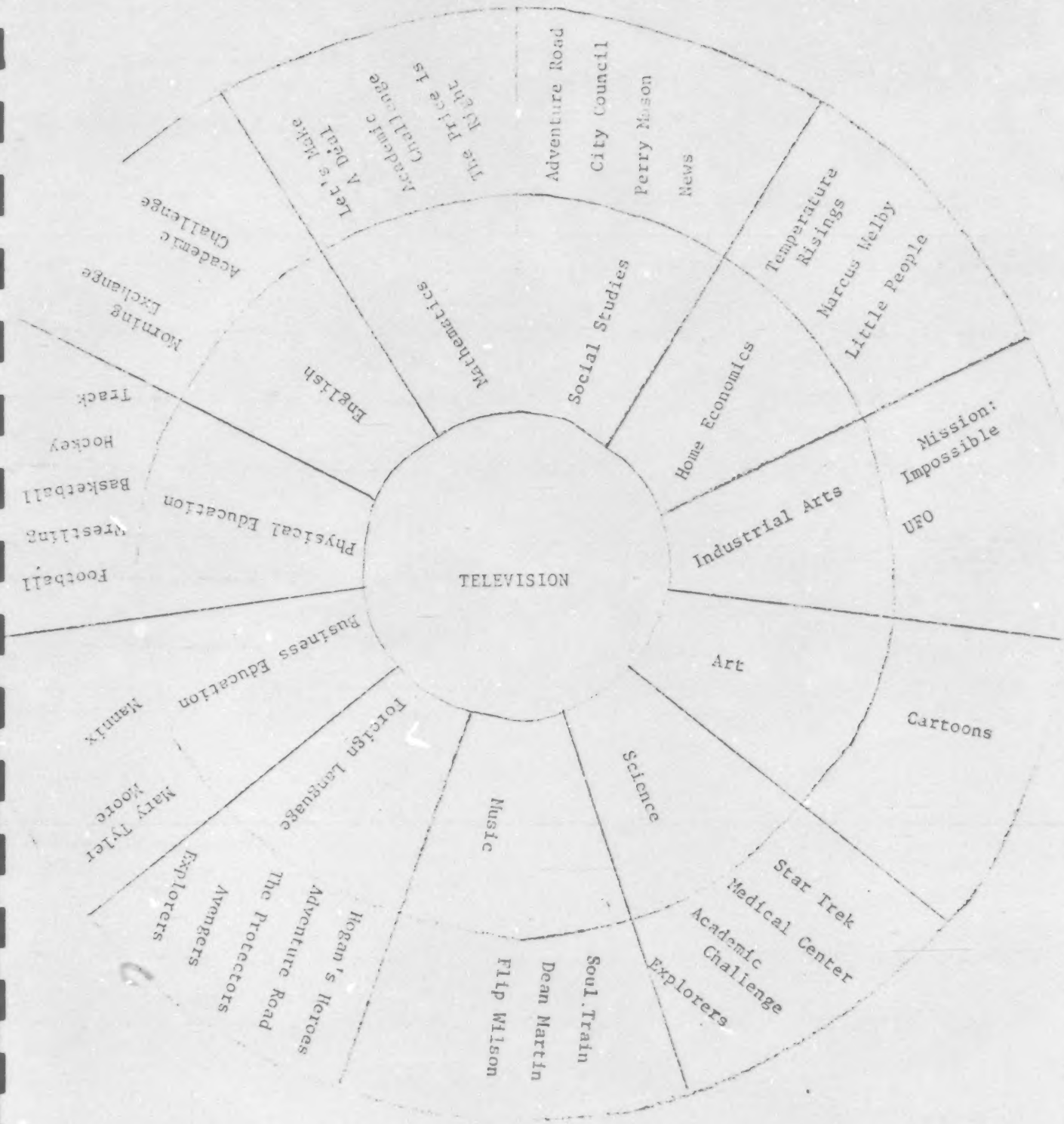
Attention: Principal/Teacher

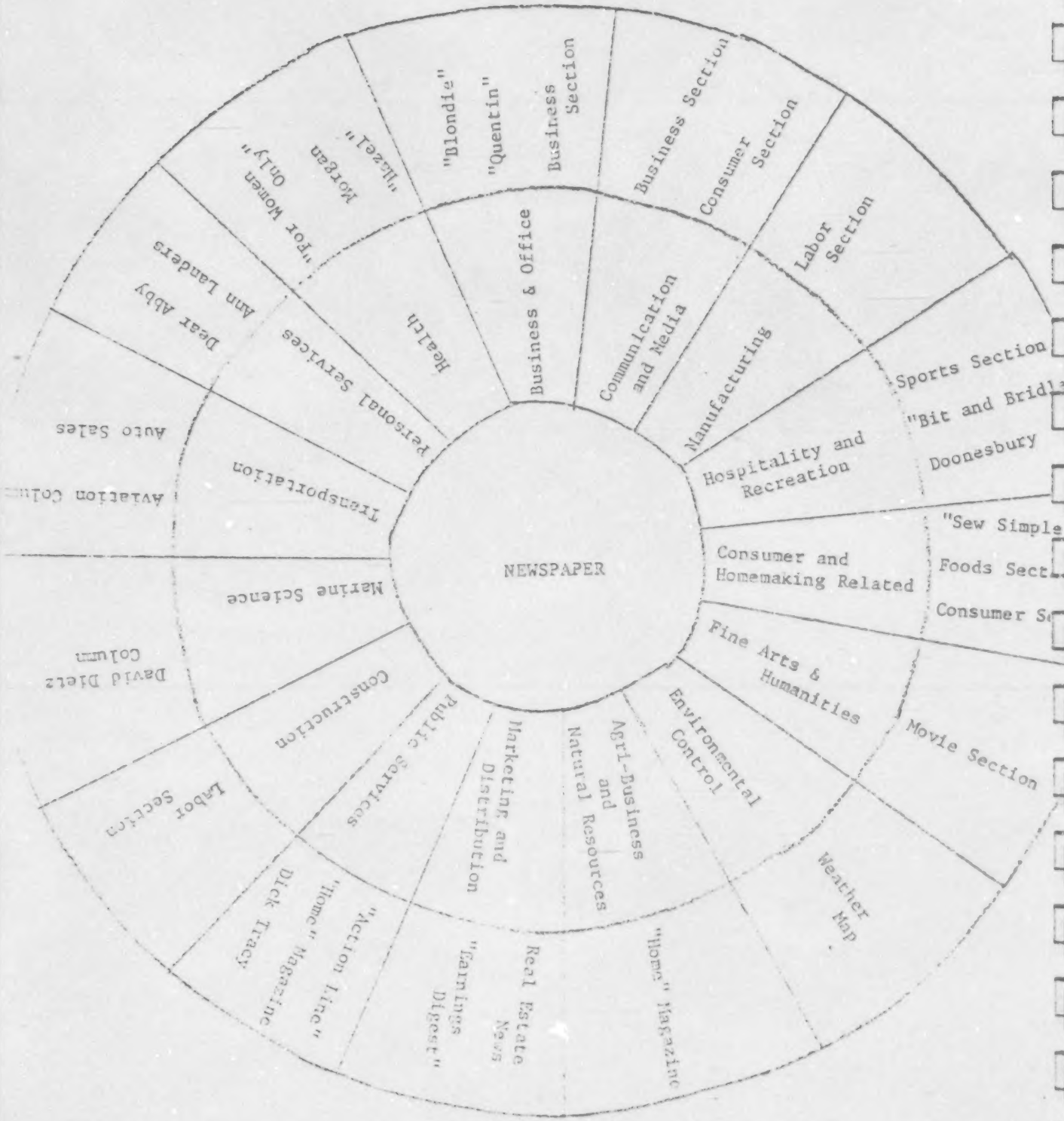
Please take a moment to double-check this copy of the Trip Permit. If there is anything incorrect, phone us at 696-2929, extension 456.

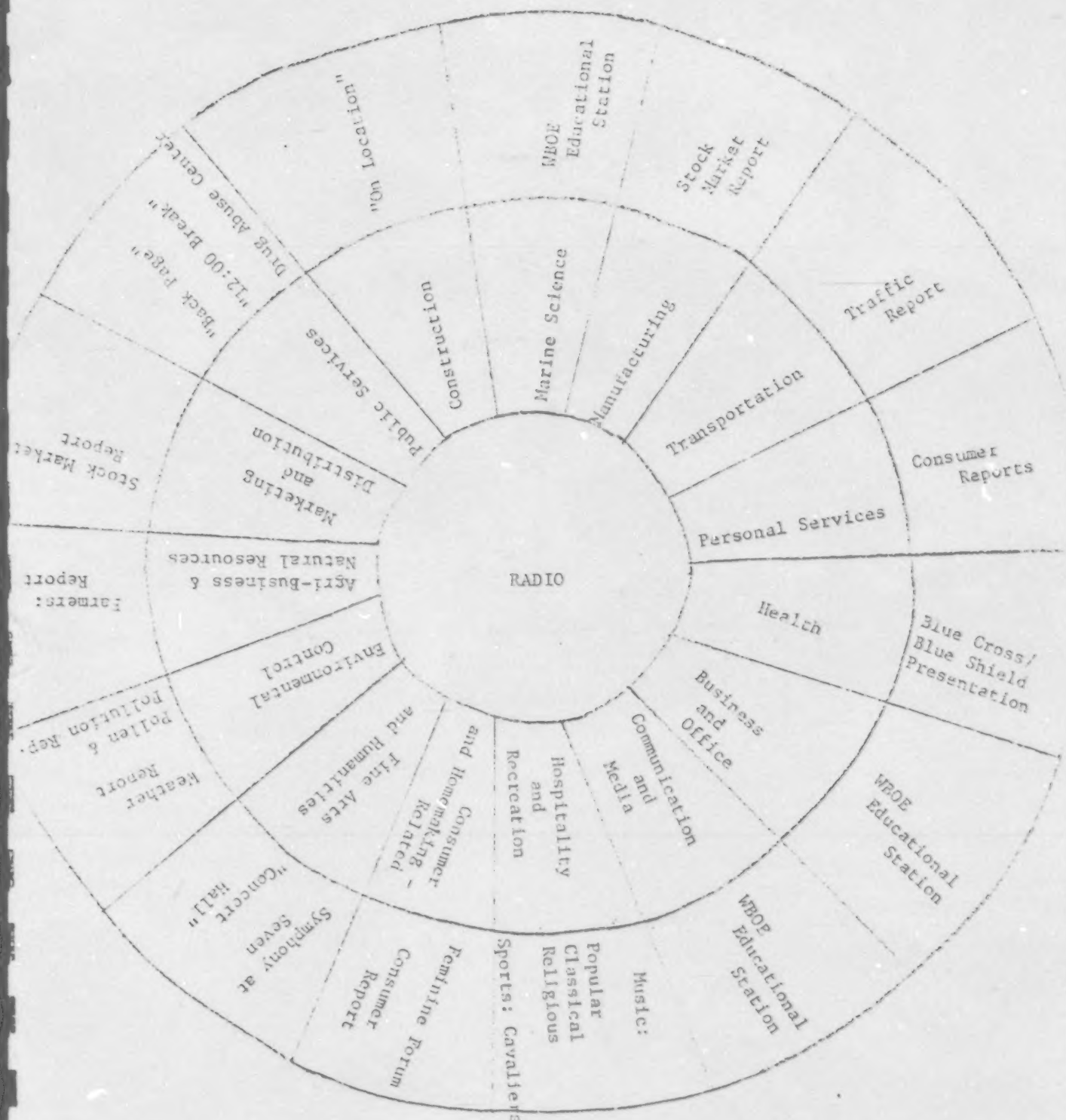
PERMIT ISSUED:

Supervisor of Transportation

Date Issued 3-19-73


TELEVISION
Social Studies
Adventure Road
City Council
Perry Mason
News
Home Economics
Temperature Rising
Marcus Welby
Little People
Industrial Arts
Mission: Impossible
UFO
Art
Cartoons
Science
Star Trek
Medical Center
Academic Challenge
Explorers
Music
Soul Train
Dean Martin
Flip Wilson
Foreign Language
Hogan's Heroes
Adventure Road
The Protectors
Avengers
Explorers
Business Education
Mary Tyler Moore
Nanny
Physical Education
Football
Wrestling
Basketball
Hockey
Track
English
Morning Exclamage
Academic Challenge
Mathematics
Let's Make A Deal
Academic Challenge
The Price Is Right

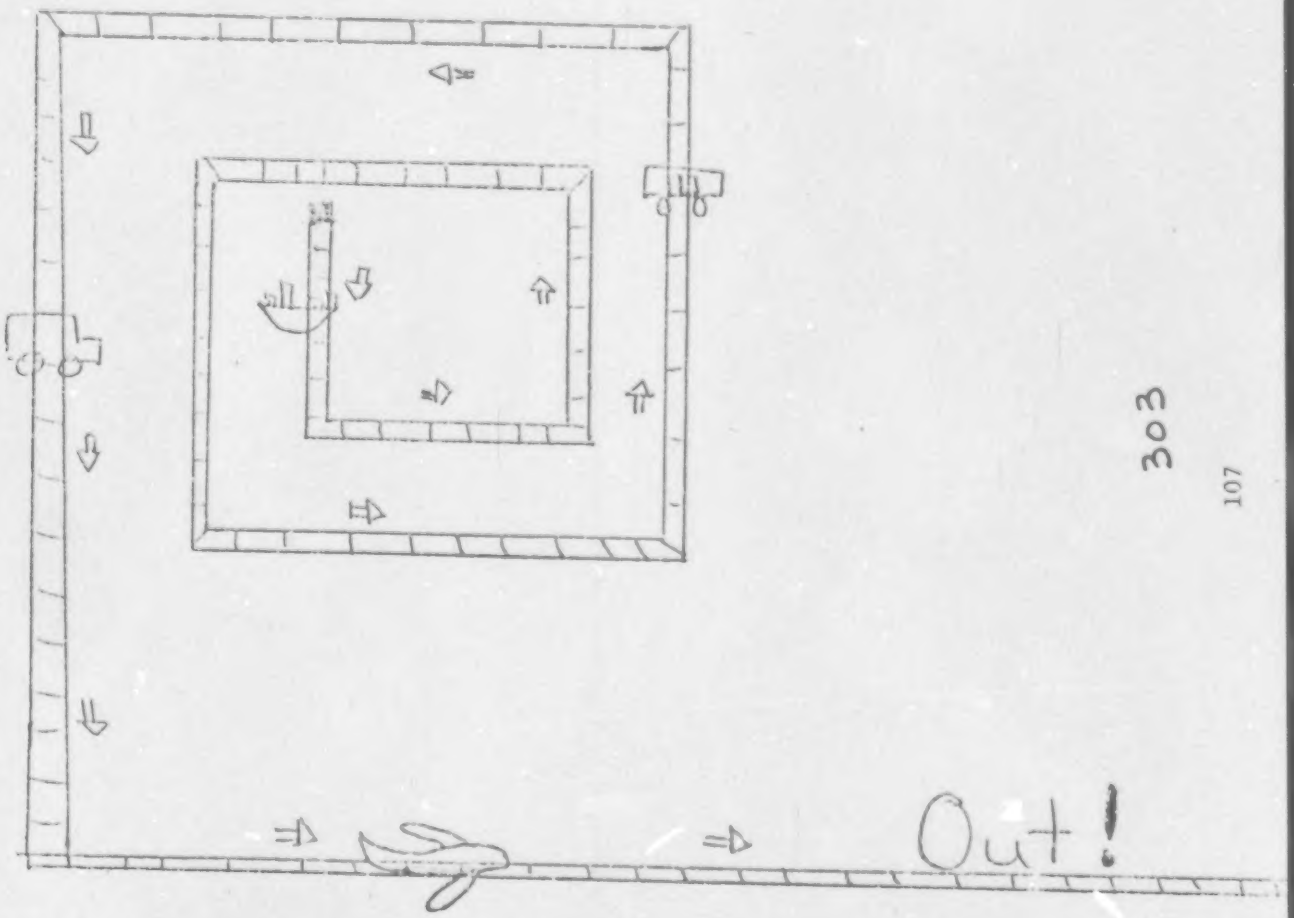

NEWSPAPER
Business Section
Consumer Section
Labor Section
Sports Section
"Bit and Bridl
Doonesbury
"Sew Simple
Foods Sect
Consumer S
Movie Section
Weather Map
"Home" Magazine
Real Estate News
"Earnings Digest"
"Action Line"
"Home" Magazine
Dick Tracy
Labor Section
Construction
Public Services
Marketing and Distribution
Agri-Business and Natural Resources
Environmental Control
Fine Arts & Humanities
Consumer and Homemaking Related
Hospitality and Recreation
Manufacturing
Communication and Media
Business & Office
Business Section
"Quentin"
"Blondie"
Business Section
"Hazel"
Morgan
"For Women Only"
Health
Personal Services
Transportation
Marine Science
Ann Landers
Dear Abby
Auto Sales
Aviation Colu
David Dietz Column


RADIO
Stock Market Report
Traffic Report
Consumer Reports
Blue Cross/ Blue Shield Presentation
WBOE Educational Station
WBOE Educational Station
Music: Popular Classical Religious
Sports: Cavaliers
Feminine Forum Consumer Report
Symphony at Seven "Concert Hall"
Weather Report
Pollen & Pollution Rep.
Farmers: Report
Stock Market Report
"12:00 Break"
"Back Page"
Drug Abuse Center
"On Location"
WBOE Educational Station
Marine Science
Construction
Public Services
Marketing and Distribution
Agri-Business & Natural Resources
Environmental Control
Fine Arts and Humanities
Consumer Homemaking Related
Hospitality and Recreation
Communication and Media
Business and Office
Health
Personal Services
Transportation
Manufacturing

Bulletin Boards

302

Riddle Your Way



Answer Key

Developmental Vocational Education

303

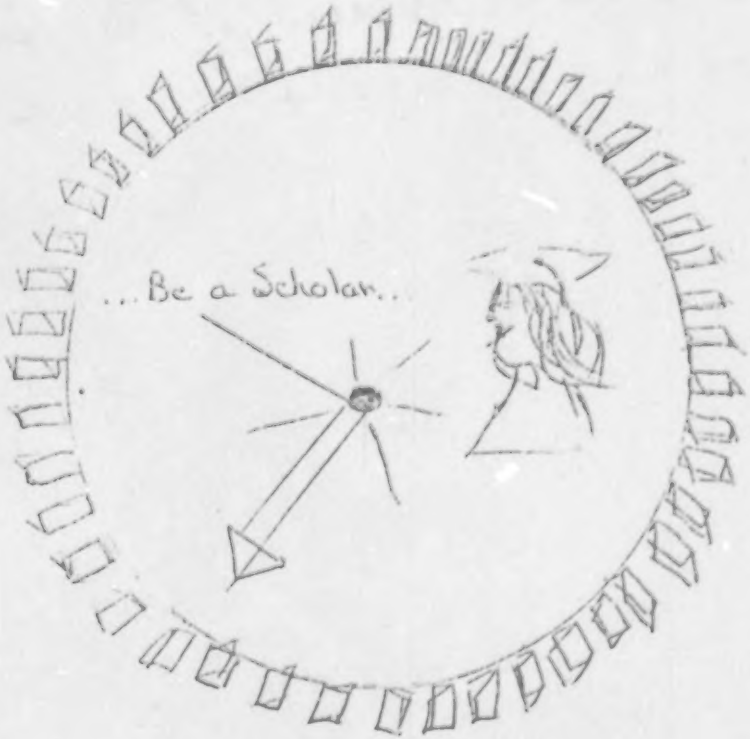
Questions and answers were included in the pockets of road, rail, truck, + plane. The answers were placed under the opening-door.

This serves as a good review of the important facts of each area in transportation and their jobs.

Spin A Job

Truck picture

Plane picture

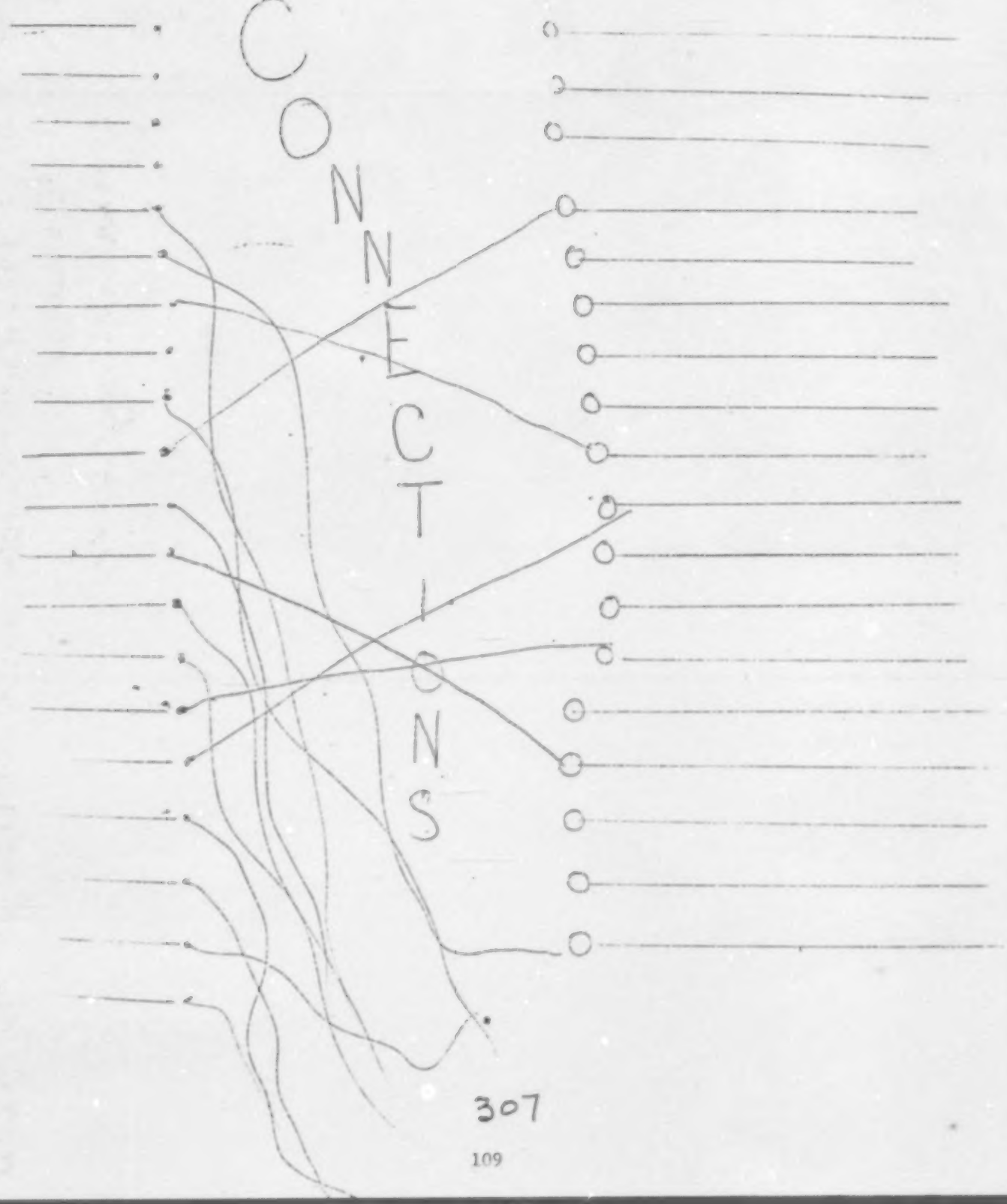


Ship picture

train picture

Travel

CONNECTIONS



307

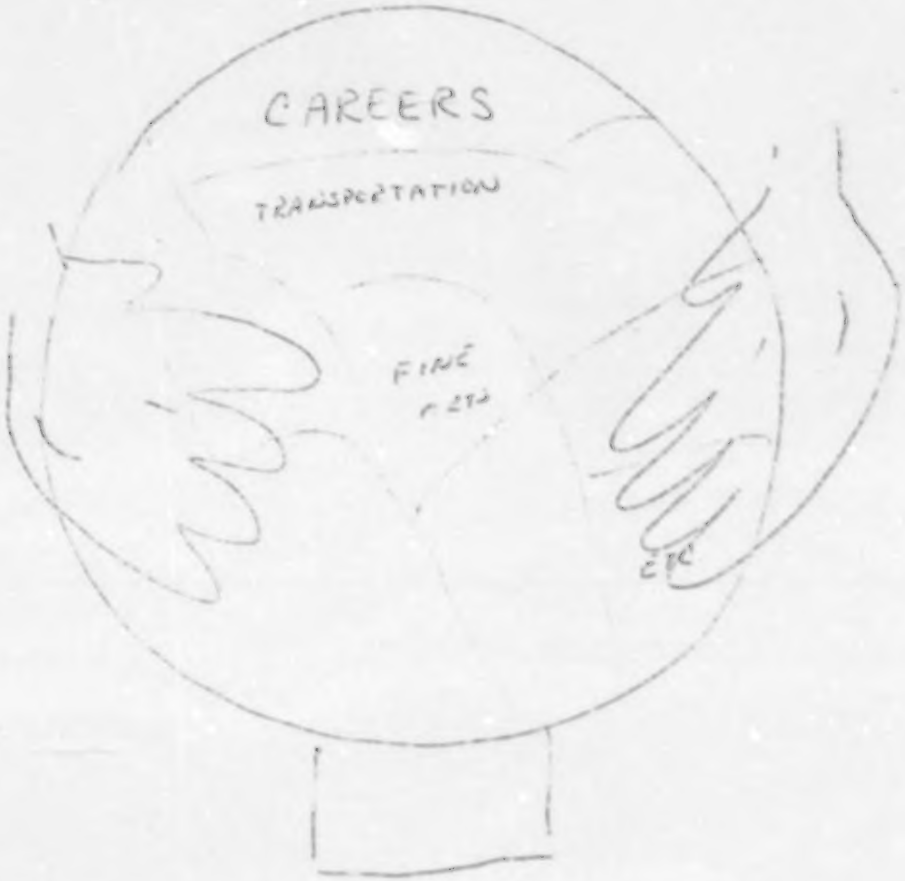
Purpose.

Student is to make proper connection. Yarn (different colors) is attached to first column (job titles) to (definitions) 2nd column. Color Code is listed on side of first column.

J.O.

LOOK! INTO

THE



FUTURE

Main Bulletin Board.
Attention getter!

CHANNEL

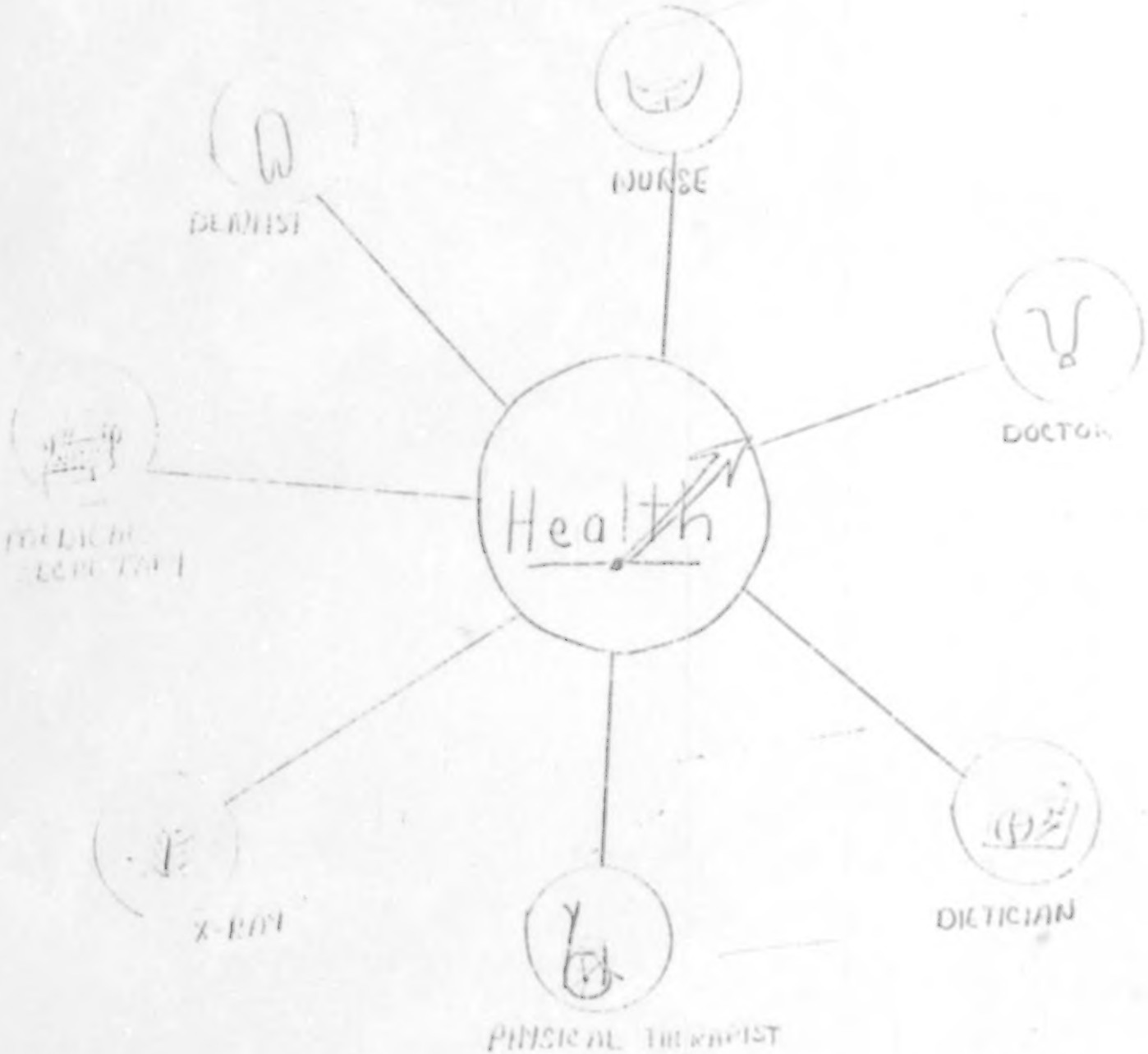
VOLUME

COLOR

TUNING

111
310

STAY - TUNED


Health
DENTIST
NURSE
DOCTOR
MEDICAL SECRETARY
X-RAY
PHYSICAL THERAPIST
DIETICIAN

Exploring the ARTS

Career Opportunities

ACCESSION NUMBER: VT102196

PUBLICATION DATE: 75

TITLE: WOMEN IN THE WORK FORCE. FOLLOW-UP STUDY OF CURRICULUM MATERIALS.

PERSONAL AUTHOR: VETTER, LOUISE, AND OTHERS

DESCRIPTOR: *FOLLOWUP STUDIES; *SUMMATIVE EVALUATION; WORK ATTITUDES; CAREER PLANNING; OCCUPATIONAL INFORMATION; SECONDARY SCHOOL STUDENTS; *FEMALES

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 63P.

ABSTRACT: CAREER PLANNING FOR YOUNG WOMEN HAS GAINED MORE IMPORTANCE BECAUSE OF THE INCREASING NUMBERS OF WOMEN ENTERING THE WORK FORCE. A FOLLOW-UP OF THE ORIGINAL RESULTS OF A CURRICULUM UNIT, "PLANNING AHEAD FOR THE WORLD OF WORK" FOR HIGH SCHOOL WOMEN WAS CONDUCTED ONE YEAR AFTER THE UNIT WAS TESTED. THE FOLLOW-UP INCLUDED 247 OF THE ORIGINAL 326 HOME ECONOMICS STUDENTS WHO PARTICIPATED IN THE STUDY. AT THE TIME OF RETEST, STUDENTS WERE IN THE EIGHTH, TENTH, AND TWELFTH GRADES. THE INSTRUMENT USED FOR FOLLOW-UP INCLUDED SECTIONS RELATING TO KNOWLEDGE OF WORK, ATTITUDES TOWARD WORK, AND CAREER PLANS. THE CONCLUSIONS CONCERNING THE RETAINED EFFECT OF THE UNIT WERE: (1) SOME OF THE GAIN IN THE EXPERIMENTAL GROUP STUDENTS' OBJECTIVE KNOWLEDGE OF THE WORLD OF WORK WAS RETAINED, BUT EXPERIMENTAL AND CONTROL GROUP RESPONSES WERE NOT SIGNIFICANTLY DIFFERENT. (2) STUDENTS IN THE EXPERIMENTAL GROUP STILL HAD HIGHER SCORES ON THE CHALLENGE ATTITUDE SCALE. (3) THE CONTROL GROUP GAINED A DESIRE FOR ECONOMIC MOBILITY AND EXTRINSIC REWARDS IN GRADE 12 EQUAL TO THAT HELD BY THE EXPERIMENTAL GROUP. (4) THE STATUS LEVEL OF STUDENTS' STATED FIRST OCCUPATIONAL CHOICES TENDED TO REMAIN THE SAME, WHILE MORE STUDENTS IN THE EXPERIMENTAL GROUP FELT THEY WOULD CONTINUE TO WORK AFTER THEIR CHILDREN WERE BORN AND ALSO AFTER THEIR CHILDREN WERE IN HIGH SCHOOL. (AUTHOR/VA)

REPORT NUMBER: RES-DEV-SER-102

INSTITUTION NAME: OHIO STATE UNIV., COLUMBUS. CENTER FOR VOCATIONAL EDUCATION.

SPONSORING AGENCY NAME: NATIONAL INST. OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 196

Research and Development Series No. 102

Women in the Work Force: Follow-Up Study of Curriculum Materials

THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210

VT 102 196

THE CENTER MISSION STATEMENT

The Center for Vocational Education intends to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning and preparation. The Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

Research and Development Series No. 102

WOMEN IN THE WORK FORCE:
FOLLOW-UP STUDY OF CURRICULUM MATERIALS

Louise Vetter

Alice J. Brown

Barbara J. Sethney

The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

1975

The material in this publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official National Institute of Education position or policy.

Foreword

Exploring career alternatives, making career choices, and developing essential competencies is a difficult, complex, lifelong process with which many people have only limited success. Yet, many people could avoid or reduce such difficulties by timely development of identifiable knowledge, skills, attitudes, and plans. The Center has undertaken, therefore, to develop methods, procedures, and tools for school personnel to use in developing programs to assist young people in effectively acquiring and applying the capabilities they need to evolve satisfying careers.

This report on one project in the larger effort describes the follow-up study of a curriculum unit, "Planning Ahead for the World of Work," designed to aid secondary school girls in making career plan consistent with their interests and capabilities and with the realities of the world of work. The findings of this follow-up study, the findings of the original development and testing of the unit, and the unit itself should be of interest to teachers and counselors of girls as well as to researchers and to educational planners developing curricula and guidance experiences for these students.

We should like to acknowledge the cooperation and assistance of the students, faculty, and staff from the five school systems that participated in the field testing and follow-up study of the unit and that of Dr. Mary B. Kievit, Rutgers University, and Dr. Mary Faith Tanney, University of Maryland, for their review of the manuscript. Special recognition is due Louise Vetter, Alice J. Brown, and Barbara J. Sethney who conducted the project and prepared the report.

Robert E. Taylor
Director
The Center for Vocational Education

Table of Contents

	Page
FOREWORD	iii
LIST OF TABLES	vii
SUMMARY	ix
INTRODUCTION	1
The Problem	1
Objectives of the Follow-up Study	1
METHODS AND PROCEDURES	5
Evaluation Instrument	5
Field Tests - Original and Follow-up	6
RESULTS	9
CONCLUSIONS AND RECOMMENDATIONS	17
Conclusions	17
Recommendations	18
APPENDICES	21
REFERENCES	53

7

List of Tables

Table		Page
1.	Number of Students in Participating Classes	7
2.	Means and Standard Deviations for Pretest, Post-test, and Retest Scores	10
3.	Summary of Significant Pretest, Post-test, and Retest Analysis of Variance Results	12

Summary

Increasing numbers of women are entering and reentering the work force. Their reasons for working and the extent of their preparation for it are under serious study. Few studies however, relate to identified student needs and understandings. Career planning for young women must now be stressed. Recent federal legislation intensifies the need for increased career planning for young women.

A follow-up of the original results of a curriculum unit, "Planning Ahead for the World of Work," for high school women was conducted one year after the unit was tested. The follow-up included 247 of the original 326 home economics students who participated in the study. At the time of the retest, students were in the eighth, tenth, and twelfth grades. The conclusions concerning the retained effect of the unit were:

1. Some of the gain in the experimental group students' objective knowledge of the world of work was retained, but experimental and control group responses were not significantly different.

2. a. Students in the experimental group still had significantly higher scores on the Challenge attitude scale than the students in the control group.
   b. Other student attitude response choices changed in that the control group gained a desire for economic mobility and extrinsic rewards in the twelfth grade equal to that held by the experimental group. Age and maturity may have been responsible for these changes.

3. The status level of students' stated first occupational choices tended to remain the same, while more students in the experimental group than in the control group felt they would continue to work after their children were born and also after their children were in high school.

Recommendations for use of the unit are:

1. Optimal use of the unit appears to be at the ninth grade level. If used at all three grade levels,

seventh graders would need supplementary occupational information, and eleventh graders would need more information on women's work roles.

2. Teachers and guidance personnel can help extend the impact of the unit by updating the materials when needed and by providing additional career exploration and development activities for the students.

3. School counselors may wish to use the unit in group guidance classes.

4. Revision of the unit would allow for inclusion of boys in the learning experience.

5. It would be well to include parents, showing respect for past, present, and future attitudes.

6. This unit could be assimilated into an ongoing career education program.

7. More counseling information for career orientation of girls is now available and should be utilized.

At the time of retest, 20 percent of the original group were not available for testing; therefore, as further loss would seriously endanger test validity, no additional follow-up is planned.

Introduction

The Problem

Both boys and girls can expect to be employed at some time during their lives. True. Both boys and girls are equally prepared for their future occupations. False. Perhaps in the near future, the latter statement will also be true. Presently, however, many changes need to be made to balance the scales.

Girls need encouragement and assistance to properly prepare for the myriad of jobs becoming available to them. The federal government is helping. Executive Order 11246, as amended, requires most federal contractors to have an affirmative action program to encourage the hiring and promotion of women in jobs where they are presently under-represented. Public law 92-318 will help girls and young women as they prepare for jobs. The law specifies:

> no persons shall on the basis of sex be excluded from participation in, denied benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance...(U.S. Congress, 1972:138).

Publicity surrounding states' ratification of the proposed Twenty-seventh Amendment to the Constitution (the Equal Rights Amendment) is also bringing attention to the need for opening new employment opportunities to women.

Schools, particularly high schools, have the major responsibility for career guidance of girls. New materials for students must be made available to counselors and teachers. The curriculum unit, "Planning Ahead for the World of Work," and the related study and follow-up were designed to help meet the need for such materials.

Objectives of the Follow-up Study

The study of career development is a priority area of The Center for Vocational Education (CVE). In 1968, materials were prepared for a curriculum unit, "Planning Ahead for the World of Work," directed toward female secondary school students. The goal of the unit was to bring about changes

in secondary school girls' knowledge of, attitudes toward, and plans for, the world of work.

The objectives of the unit, stated in terms of changes sought in students' behavior, were as follows:

1. Students will have more knowledge about women in the work force as exhibited by more correct answers to objective information items on a posttest than on a pretest.

2. Students will show, by responses to attitude items, more acceptance of the working role in their lives.

3. Students will list different alternatives for choices of their occupations.

4. More students will indicate plans for the future which show work force participation at some time in their lives.

5. More students will indicate that they have considered work life expectancy projections for the total life span.

The unit was designed to provide factual resource material on occupational opportunities past, present, and future. Unit activities called for informational, attitudinal, and career planning responses.

A research study conducted in 1969 sought to determine whether the objectives of the curriculum unit had been met. The results of this study were published in Women in the Work Force: Development and Field Testing of Curriculum Materials (Vetter and Sethney, 1972).

A follow-up study one year later was deemed necessary in order to determine the retention level of content, attitude responses, and career plan responses covered in the original study.

The one-year follow-up was conducted during 1970 with the same girls then in grades eight, ten, and twelve to evaluate the longer-term effects of the curriculum unit and to determine the feasibility of studying the career development of this group of students over a period of years.

Specific objectives of the follow-up study were to:

1. Determine whether students' objective knowledge

of the world of work had been retained over a period of one year.

2. Determine whether students' attitude responses had remained constant over the period of a year (and, if changed, in which direction).

3. Determine whether students' stated future plans had remained constant over the period of a year (and, if changed, in what ways).

Methods and Procedures

This section includes a discussion of the evaluation instrument and a description of the original testing and the follow-up testing of the curriculum unit.

Evaluation Instrument

The instrument used for follow-up was identical to that used in the original study. It included sections relating to knowledge of work, attitudes toward work, and career plans. Refer to Appendix A for a copy of the instrument.

Knowledge of Work

The knowledge of work section included 40 multiple choice item (Appendix A, Part Two). Of the items, 25 offered four choices, 15 offered two. Only one response per item was considered to be the correct choice. Items were scored pass (1) or fail (0), allowing a possible score range from zero to 40.

Attitudes Toward Work

The 40 attitude items included the instrument (Appendix A, Part One) were developed in an earlier study (Vetter, 1969). For each of the 40 items, the respondent was to indicate the extent of her agreement on a Likert-type scale (strongly diagree, disagree, indifferent or don't know, agree, strongly agree). Within the 40 attitude items, there were five scales (Economic Mobility, Role Security, Intrinsic Reward, Challenge, Extrinsic Reward) of eight items each. Scores for each subject were summed over the appropriate eight items to obtain each scale score. Thus, a subject's score on any of the five scales could range from eight (strongly disagree with all items) to 40 (strongly agree with all items).

The Economic Mobility scale referred to those circumstances under which girls felt they would work after marriage. It included items relating to basic necessities (items 6, 11, 16, 26) and those relating to upward mobility (items 1, 21, 31, 36). High scores on this scale indicate a contemporary approach to employment with strong approval of work after marriage.

The Role Security scale included items relating to role identification (items 2, 7, 12, 37), relationship to family (item 32), men (items 22, 27), and work (item 17). Strong agreement, high scores, indicate the traditional position -- woman's place is in the home.

Items included on the Intrinsic Reward scale pertained to working with others (items 3, 23, 33), helping others (items 8, 13, 18), and being of use to society (items 28, 38). High scores on this scale indicate strong agreement with those statements related to helping people.

The Challenge scale contained items about opportunities (items 4, 9, 14, 39), running one's own life (item 34), and making one's decisions (items 19, 24, 29). Strong agreement with these items suggests a positive response to statements about independence and creativity.

The items on the Extrinsic Reward scale related to attitudes toward salary (items 30, 40), promotion (items 5, 15), and benefits (items 10, 20, 25, 35). High scores on this scale reflect positive responses toward salary, promotion, and benefits.

Future Plans

Items in this section (see Appendix A, Part Three) covered the areas of education, employment, and marriage and family plans. Fourteen of the items were in the yes-no response category. There were 15 additional pretest varied response items and nine additional post-test and retest items.

Field Tests - Original and Follow-up

Sample

The sample was selected from public secondary schools in Ohio and Tennessee. Students from both metropolitan and nonmetropolitan locations were included. Also, it was felt necessary that the total range of ability levels be inlcuded in the sample from each location. The original field test was planned within these limits and a number of other constraining factors (e.g., the willingness of school administrators to allow participation of their schools, the willingness of teachers to participate, and the kinds of student groups available).

Three school districts were selected to particpate in the field testing, one metropolitan and two nonmetropolitan. The metropolitan community had a population of 260,000. One of the nonmetropolitan communities had a population of 19,000, the other was a rural community.

In the metropolitan community, the city supervisor of home economics aided in the selection of four racially integrated urban schools (as opposed to inner-city or suburban) with the entire range of socioeconomic status represented. One of the nonmetropolitan communities was served by one racially integrated high school, with four feeder junior high schools. One of the junior high schools, which was integrated and represented the entire range of socioeconomic status, was selected. The other community has an all-Caucasian student population served by a rural, consolidated school. Thus, seven schools were represented in the field testing.

In each of the participating schools, administrative considerations necessitated the use of regularly consituted home economics classes, although it is felt that the unit is appropriate for all secondary girls. As the follow-up study was one year later, the original sample of seventh, ninth, and eleventh grade students were then in grades eight, ten, and twelve.

After testing the community-size variable for effects on pretest scores, it was concluded that no distinction in this area was necessary. The data from the original field test and the follow-up were, therefore, analyzed for the numbers of students shown in Table 1.

Table 1

Number of Students in Participating Classes

	Original Study		Follow-up	
Grade Level	Experimental	Control	Experimental	Control
Seventh	87	35	71	29
Ninth	93	60	72	49
Eleventh	31	20	19	7
Total	211	115	162	85

Procedures

Project staff collected data for the follow-up re-rest in March and April 1970, using a standard administration procedure. The retest occurred one year after administration of the pretest. For the experimental groups, the pretest had immediately preceded the curriculum unit with the post-test following completion approximately two weeks later. For control groups, the pre-and post-test administrations were at two-week intervals.

Analysis

Knowledge of Work Attitude, Scales, Planning Items. The effects of grade level and of experimental versus control group membership were analyzed for pretest, post-test and retest scores using a two-way analysis of variance which allows for unequal frequencies (Winer, 1971). An analysis of variance of the preptest scores of students participating in the pretest, post-test and retest revealed no significant difference.

Reliability Estimation. Two reliability estimates were obtained. Reliability was estimated for knowledge of work and for each attitude scale by the test-retest correlations of the control groups over an interval of two weeks. Internal consistency reliability estimates (Kuder-Richardson Formula 8) were made by reanalyzing the scales developed by Lee, Ray, Vetter, Murphy, and Sethney (1971), using the shortened forms developed for this study.

Reliability estimates for the knowledge of work test and the five attitude scales revealed a reliability range from .49 to .71. The internal consistency estimates for the attitude scales were higher than that of the knowledge of work test, most porbably because several dimensions were present in the latter test while each of the attitude scales were developed as a single factor. The pretest - post-test correlations, based on the responses of the control group, may have been lowered by effects of the pretest if it stimulated some girls to consider plans for adult life, even though these students' did not participate in the unit.

Results

Results of the follow-up study are presented in this section. Discussion will focus on follow-up results and how they relate to the original study.

The means and standard deviations for each of the scales are presented in Table 2. Table 3 presents a summary of pretest and post-test analysis of variance results for the original group of 326 students, and a summary of the retest group results for the remaining 241 students. The analyses of variance tables for the two groups are available in Appendix B. The results will be discussed with reference to the unit objectives in order to parallel the original report (Vetter & Sethney, 1972).

Objective 1. Determine whether students' objective knowledge of the world of work had been retained over a period of one year.

In the original study, substantial gains in knowledge of work post-test scores were noted in the experimental group for each grade level. The control group remained at its original level. The significant difference between scores gained in the post-test was lost in the retest; however, there was some difference and it is positive. This result was to be expected as learning curves tend to level out over time. Eighth graders in the experimental group retained a gain of three points from the pretest through retest; tenth graders, two points; and twelfth graders maintained a three-point gain.

The significant difference by grade level maintained through the pre- and post-test were also lost. During the year following the pretest, those originally in the seventh grade had gained enough information about the world of work to eliminate any significant difference between grade levels. It is possible that prior to the eighth grade, students are not ready to assimilate such information or that such information is not provided.

Objective 2. Determine whether students' attitude response choices had remained constant over the period of a year (or if changed, in what directions).

Table 2

Means and Standard Deviations for Pretest, Post-test, and Retest Scores

Scale		7th (8th) *Grade				9th (10th) *Grade				11th (12th) *Grade			
		Experimental (N = 71)		Control (N = 29)		Experimental (N = 72)		Control (N = 49)		Experimental (N = 19)		Control (N = 7)	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Knowledge of World of Work	PR**	20.66	4.13	21.21	2.94	22.03	3.57	21.73	2.89	22.32	2.73	21.57	3.51
	PT	27.34	6.11	21.00	2.70	29.60	7.08	23.02	3.35	27.53	2.70	23.14	2.67
	RE	23.80	4.90	22.66	3.13	24.04	4.23	23.29	3.14	25.89	3.97	23.86	4.30
Economic Mobility	PR	30.90	4.97	29.10	5.41	29.89	4.89	31.33	3.79	32.53	3.37	29.71	6.40
	PT	31.61	4.41	29.65	5.14	31.06	5.23	30.83	4.72	32.79	3.19	26.86	5.93
	RE	31.14	5.16	30.03	5.25	31.65	5.69	31.27	4.62	32.84	3.93	30.29	4.54
Role Security	PR	19.44	5.00	20.21	4.19	19.43	4.43	21.41	4.13	18.26	3.72	20.00	4.58
	PT	18.76	4.54	19.69	4.56	19.46	5.34	21.20	4.68	20.68	5.26	21.57	2.88
	RE	18.34	4.67	18.66	3.92	19.58	5.53	19.71	4.83	17.79	5.24	20.71	4.61
Intrinsic Reward	PR	31.96	3.49	31.86	4.96	32.15	3.26	32.88	3.09	34.53	2.95	32.71	4.42
	PT	31.73	3.64	32.03	4.11	32.53	3.67	32.37	3.47	35.11	3.25	31.57	3.26
	RE	32.90	4.36	33.21	4.18	32.06	4.86	32.78	3.95	34.95	3.22	31.14	3.24
Challenge	PR	27.49	3.76	26.55	4.24	26.82	3.45	27.33	4.34	28.53	4.99	27.14	3.39
	PT	27.70	4.55	26.97	2.90	28.49	4.14	27.20	4.26	28.58	5.82	26.29	3.68
	RE	27.85	4.06	27.21	4.14	27.07	4.42	26.86	4.32	27.68	4.98	23.86	4.34
Extrinsic Reward	PR	27.38	4.07	25.93	3.83	27.36	3.49	27.29	4.25	26.68	5.53	26.43	3.10
	PT	27.89	4.35	26.93	3.78	29.00	3.85	27.59	4.52	27.47	5.66	28.86	3.18
	RE	27.34	3.85	25.17	4.89	28.04	4.63	27.39	4.93	27.42	4.13	30.00	2.16
First Occupational Choice (98)***	PR	3.28	1.61	3.00	1.58	3.58	1.63	3.22	1.53	3.05	1.72	3.57	1.99
	PT	3.23	1.49	2.52	1.35	3.74	1.49	3.55	1.49	2.68	1.38	4.29	1.25
	RE	3.17	1.53	3.07	1.31	3.33	1.77	3.71	1.44	4.16	1.17	4.86	0.90
Never Plan to Work (83)	PR	0.07	0.26	0.03	0.19	0.14	0.35	0.02	0.14	0.00	0.00	0.00	0.00
	PT	0.13	0.34	0.03	0.19	1.10	0.30	0.04	0.20	0.00	0.00	0.00	0.00
	RE	0.06	0.23	0.00	0.00	0.06	0.23	0.04	0.20	0.00	0.00	0.00	0.00

* At time of retest, students were in grades 8, 10, and 12 respectively.

** PR = Pretest PT = Post-test RE = Retest

*** Item numbers (Appendix A) given in parentheses.

Table 2 (cont.)

Scale		7th (8th) *Grade				9th (10th) *Grade				11th (12th) *Grade			
		Experimental (N = 71)		Control (N = 29)		Experimental (N = 72)		Control (N = 49)		Experimental (N = 19)		Control (N = 7)	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Work After High School (82)	PR	0.62	0.49	0.62	0.49	0.65	0.48	0.76	0.43	0.63	0.50	0.71	0.49
	PT	0.59	0.50	0.66	0.48	0.72	0.45	0.76	0.43	0.58	0.51	0.71	0.49
	RE	0.54	0.50	0.62	0.49	0.79	0.41	0.80	0.41	0.89	0.32	0.86	0.38
Work After College (86)	PR	0.68	0.47	0.72	0.45	0.62	0.49	0.69	0.47	0.47	0.51	0.43	0.53
	PT	0.69	0.47	0.76	0.44	0.64	0.48	0.63	0.49	0.63	0.50	0.14	0.38
	RE	0.72	0.45	0.76	0.43	0.81	0.46	0.65	0.48	0.58	0.51	0.57	0.53
Quit Work When Marrying (87)	PR	0.18	0.39	0.24	0.44	0.18	0.39	0.12	0.33	0.00	0.00	0.29	0.49
	PT	0.14	0.35	0.21	0.41	0.17	0.38	0.24	0.43	0.11	0.32	0.43	0.53
	RE	0.11	0.32	0.07	0.26	0.12	0.33	0.10	0.31	0.05	0.23	0.00	0.00
Work After Marriage Until Child (88)	PR	0.54	0.50	0.59	0.50	0.60	0.49	0.74	0.45	0.79	0.42	0.86	0.38
	PT	0.76	0.43	0.66	0.48	0.71	0.46	0.59	0.50	0.89	0.32	0.57	0.53
	RE	0.65	0.48	0.79	0.41	0.60	0.49	0.67	0.47	1.00	0.00	0.36	0.38
Return to Work Right After Child (89)	PR	0.25	0.44	0.10	0.31	0.12	0.33	0.14	0.35	0.21	0.42	0.00	0.00
	PT	0.21	0.41	0.10	0.31	0.21	0.41	0.22	0.42	0.11	0.32	0.00	0.00
	RE	0.24	0.43	0.10	0.31	0.17	0.38	0.16	0.37	0.26	0.45	0.00	0.00
Work After Children Are in School (90)	PR	0.37	0.49	0.28	0.45	0.32	0.47	0.47	0.50	0.37	0.50	0.29	0.49
	PT	0.63	0.49	0.28	0.45	0.44	0.50	0.49	0.51	0.63	0.50	0.29	0.49
	RE	0.55	0.50	0.34	0.48	0.42	0.50	0.49	0.51	0.84	0.37	0.14	0.38
Work After Children Are in High School (91)	PR	0.31	0.47	0.45	0.51	0.33	0.47	0.47	0.50	0.53	0.51	0.43	0.53
	PT	0.59	0.50	0.62	0.49	0.58	0.50	0.61	0.49	0.79	0.42	0.43	0.53
	RE	0.59	0.50	0.62	0.49	0.53	0.50	0.63	0.49	0.95	0.23	0.14	0.38
Work After Children Are "Grown" (92)	PR	0.35	0.48	0.45	0.51	0.44	0.50	0.53	0.50	0.63	0.50	0.43	0.53
	PT	0.59	0.50	0.41	0.50	0.64	0.48	0.57	0.50	0.89	0.32	0.43	0.53
	RE	0.58	0.50	0.48	0.51	0.54	0.50	0.55	0.54	0.89	0.32	0.43	0.53
Work Continuously (94)	PR	0.29	0.45	0.38	0.49	0.35	0.48	0.41	0.50	0.42	0.51	0.29	0.49
	PT	0.34	0.48	0.38	0.49	0.29	0.46	0.35	0.48	0.47	0.51	0.29	0.49
	RE	0.24	0.43	0.28	0.45	0.33	0.47	0.31	0.47	0.48	0.51	0.14	0.38

Table 3

Summary of Significant Pretest, Post-test, and Retest Analysis of Variance Results

Scale	Experimental vs. Control			Grade Level			Interaction		
	Pre N=326	Post N=326	Re N=247	Pre N=326	Post N=326	Re N=247	Pre N=326	Post N=326	Re N=247
Knowledge of Work		**		**	**				
Attitude Scales									
Economic Mobility		**							
Role Security				**	*				
Intrinsic Reward							*	*	
Challenge		**	*						
Extrinsic Reward						*			
Planning Items									
Choice of First Occupation (98)+					**	*		**	*
Never Work (83)									
Work After High School (82)						**			
Work After College (86)					*	**			
Stop Working At Marriage (87)									
Work After Marriage Until First Baby (88)					*	*			
Return to Work After Children Are Born (89)			*						
Work After Children Begin School (90)		**	**					*	
Work After Children Are in High School (91)			**						**
Work After Children Are Grown (92)		**	*						
Work Continuously (94)									

*p < .05 **p < .01 +Item numbers (Appendix A) given in parentheses.

In the retest, only one of the five attitude scales revealed a significant difference between the experimental and control groups. This occurred in the Challenge scale where a significant difference had also appeared in the post-test with the original complete group of students. The experimental group was more open to job opportunities and challenges. This suggests that the potential was there, but before participation in the unit, these students never realized that they, as girls, could feel that way. In the course of their study, these students were exposed to possible careers they could follow, and those that women actually do follow. Learning this in school served to add a stamp of approval to such careers. This experience was not available to the control group.

By grade-level comparison concerning the challenges of work, the mean scores of twelfth graders in the experiment held up, whereas, those of the control group fell considerably.

Douvan and Kay (Cook & Stone, 1973, p.42) studied girls between the ages of 11 and 18. Their nationwide study was concerned, in part, with adolescents' values and aspirations. Results indicated that the younger girls were more concerned with personal achievement and self-development, whereas, the older girls increased their interest in marriage and motherhood.

In a study of 1,237 girls and young women, Matthews and Tiedeman (1964) also noted that attitudes concerning career and marriage affect a girl's life style in various ways at varying developmental stages. They found a

> ...drop in career commitment from junior to senior high school (from 13 to 3 per cent) ... the high school group differed from the junior high group specifically in a greater acceptance of marriage... (p.383)

The twelfth grade control group retest appears to support both these studies. By exposing the experimental group to actual job possibilities, the usual loss of interest during this period was avoided.

The significant difference between experimental and control groups realized in the post-test for Economic Mobility was lost in the retest. The experimental group maintained only a slightly higher interest in economic mobility. At the twelfth-grade level, the control group considerably increased their interest in work after mar-

riage while the experimental group maintained their same degree of interest. This increase off-set the overall difference between groups. As twelfth graders are approaching the average age to marry (20.2 years), it is possible that all students were developing a concern for conditions under which they would work if married.

Retest scores for the twelfth grade showed that students in the control group had considerably increased their interest in extrinsic rewards while the experimental student group remained at the same level. This may indicate that interest in money increases with age independent of classroom instruction.

The significant difference revealed on the pre- and post-test between grade levels concerning Role Security was lost in the retest. It appears that for this one category, the loss of subjects did affect the results. The variation in responses was greatest at the twelfth grade level where there was also the largest subject loss.

In all other aspects, these findings a year later tend to support those found in the original study: Students participating in the curriculum unit

> ...showed more acceptance of the working role where it related to circumstances under which the respondent would work after marriage, such as working after marriage to have money to buy a home, and where it relates to the challenge of the working role, especially in relation to independence and creativity. Students did not change significantly their responses to items about the traditional role of women, nor their responses to the intrinsic ...reward of working (Vetter & Sethney, 1972, p.19).

Objective 3. Determine whether students' stated future plans had remained constant over the period of a year (or if changed, in what ways).

Students' first occupational choices (item 99) were categorized into seven status levels (one for professional to seven for unskilled labor) (Warner, 1960). Throughout the testing, no significant difference between experimental and control groups was reached. For the post-test a .01 significance level was noted by grade level. At the time of retest the difference was still significant at the .05 level. The major choice change appeared at the twelfth-grade level. This suggests a decline in expectations as students approach the actual

work situation. It may well be reality-based in terms of clerical opportunities being more abundant than others.

The interaction between the experimental and control groups remained significant in the retest. It is possible that the experimental group continued to maintain higher expectations than the control group. The curriculum unit could have interfered with the decrease of career expectation for tenth and twelfth graders.

Both experimental and control groups continued to feel the same way about whether they would work at all, work after high school, and work after college or other education (items 83, 82, 86). There were significant changes in students' outlook between grade levels. Both groups had much higher expectations to work after high school, from 58 percent to 88 percent at the twelfth grade level. This increase was probably a result of twelfth-grade students from both groups deciding not to further their education, either by college or other post-high school studies (retest item 96). These students did reveal an inconsistency in their answers regarding further education, as 58 percent had indicated that they would work after completing further education (item 86). Thus, the twelfth graders were still ambivalent about plans for additional education, or they may have theorized "if I were to further my education, I probably would/would not work."

Grade level continued to reflect changes in attitude of students to work after marriage until arrival of their first child (item 88). In the eighth and tenth grades respectively, 72 percent and 68 percent of the students felt they would continue to work until then, whereas 93 percent of the twelfth graders felt this way. The older students seemed to assume that this would be a natural progression of events.

Interestingly enough, there were considerable changes in the attitudes of participating students in the timing of work after children arrived (items 89, 90, 91, 92). Posttest responses indicated that the experimental group had earlier favored work after children had begun school and after children were grown. These times continued to be favored in the retest. In addition, twelfth graders in the experimental group increased their willingness to work after their children were born (item 89) enough to create a significant difference between the experimental and control groups (see Table 2). A significant difference

was also noted in item 91, interest in work after children had reached high school. It appears that the intervention of the unit helped the experimental group to gain interest as would be expected by the results of the control sample. Three-fourths of the twelfth-grade experimental group thought they would work when their children were in high school, whereas only 14 percent in the control group thought they would do so.

The difference between groups are more visible concerning work after children than the overall idea of work itself. This may result from the fact that almost all students, control and experimental, planned to work at some time in their lives. And, after exposure to the unit, more students decided they would work during various stages of child rearing than did those without such exposure.

The number of changes on the part of the experimental group in the post-test and retest concerning work after children arrive strongly suggests that the unit presented the possibility of work under these conditions. In most instances, this interest was most evident at the twelfth-grade level. This further suggests that at the eleventh- and twelfth-grade levels, students having exposure to such information are more open to the idea of a career or at least long-term work.

In the post-test, experimental students were asked if they had changed their occupational plans since participating in the curriculum unit (item 102). In responding, 43 percent of the students in the seventh grade, 30 percent in the ninth, and 48 percent in the eleventh grade said "yes."

One year leater, both experimental and control groups were asked about those changes (item 110). Overall, approximately 50 percent of both groups said they had changed occupational plans (experimental: 58 percent, eighth grade; 44 percent, tenth grade; 54 percent twelfth grade; control: 43 percent eighth grade; 57 percent tenth grade; and 55 percent twelfth grade). Students in these age groups tend to vary their occupational plans. For this particular sample, the unit did make an appreciable difference.

As for who may have influenced any changes in occupational planning (item 111), most students -- experimental and control -- indicated that friends (experimental, 14 percent; control, 13 percent) and other (experimental, 20 percent; control, 32 percent), mostly boyfriends, were most influential. Perhaps it is worth noting that students identified "boyfriends" separately from "friends."

Conclusions and Recommendations

Conclusions reached after comparing retest data with pre- and post-test data are discussed in terms of the objectives of the follow-up study. Recommendations for continued use of the curriculum unit and continuing research are also discussed.

Conclusions

Concerning changes students have made since the post-test in terms of meeting follow-up objectives:

1. Some of the gain in the experimental group students' objective knowledge of the world of work was retained, but experimental and control group responses were not significantly different.

2. a. Students in the experimental group still had significantly higher scores on the Challenge attitude scale than the students in the control group.

   b. Other student attitude response choices changed in that the control group gained a desire for economic mobility and extrinsic rewards in the twelfth grade equal to that held by the experimental group. Age and maturity may have been responsible for these changes.

3. The status level of students' stated first occupational choices tended to remain the same, while more students in the experimental group than in the control group felt they would continue to work after their children were born and also after their children were in high school.

There appears to be little material comparable to the "Planning Ahead for the World of Work" unit available to students and teachers. Yet, a need and desire for such material does exist. More than 4,000 requests for copies of the curriculum unit were filled by CVE. Also, some state supervisors reprinted the unit and distributed it to schools throughout

their states. An updated version of the unit, containing more recent information about the world of work, is available through CVE on a cost-recovery basis.

Recommendations

For the most part, the following recommendations support those offered at the conclusion of the original presentation of the curriculum unit.

1. The ninth-grade level appears to be the best time to offer this unit. These students are in the process of making educational decisions that seriously affect career decisions. Information such as that offered in the curriculum unit can assist students in their planning. As seventh graders are not quite to that decision stage, guidance material for them should emphasize occupational information. Introduction of such a unit at the tenth and eleventh grades would need to expand its focus to include concerns about the variety of roles of adult women.

2. Teachers and guidance personnel are encouraged to strengthen the impact of this brief unit by disseminating career information by way of bulletin boards, newspaper clippings, and class discussions with outside resource persons.

3. School counselors could help provide learning materials, maintain current career literature files, and participate in teaching the unit where appropriate. Schools having group guidance classes could utilize this unit to their advantage.

4. As boys must understand their future working roles with women co-workers and family roles with working wives, they could benefit from participation in the unit with slight revisions.

5. Parental involvement could help both parents and students to respect each other's outlook while gaining an understanding of how things were and how they are changing.

6. In accord with the widespread concern with career education, this unit could prove to be a useful addition to an existing career program.

7. Counseling materials are now available to assist both counselors and teachers better understand career orientation for girls. Such publications include: *Counseling Women* (Cook & Stone, 1973), *Girls and Women over the Life Span* (Matthews, Feingold, Weary, Berry, & Tyler, 1972), "We are Furious (Female) but We Can Shape Our Own Development" (Hansen, 1972), "A Framework for Counseling Women" (Schlossberg, 1972), and *Expanding Opportunities for Girls: Their Special Counseling Needs* (US Department of Labor, 1970).

Appendix A

PLANNING AHEAD

FOR

THE WORLD OF WORK

How do you feel about work? What do you know about working? What are your plans for employment? We are asking you to answer a number of questions which will be helpful to you and to the people who help students make decisions about work.

The questionnaire is divided into three sections. You will be marking your answers on the separate answer sheet. Use the special pencils provided. Notice that the answer spaces are in groups of five. After answering the first five questions, go to the top of the second column to find the space to mark your answer to question six. Be sure you mark the answer for each question in the spaces provided for it.

PART ONE

DIRECTIONS:

For the following statements, decide on the degree to which you agree or disagree with each statement and then mark that answer on the separate answer sheet. This should be how you personally feel about the statement, not how you think other people feel.

Example:

Statement: Work is a lot of fun.

Possible answers:
A. Strongly disagree
B. Disagree
C. Indifferent or don't know
D. Agree
E. Strongly agree

Choose the answer that comes the closest to the way you feel about the statement and mark it on the separate answer sheet. If you "strongly disagree" that work is a lot of fun, you would mark A as the answer by filling in the space under A with the special pencil.

Example:

A	B	C	D	E
■	||	||	||	||

If you "agree" that work is a lot of fun, you would mark D as the answer by filling in the space under D with the special pencil.

Example:

A	B	C	D	E
||	||	||	■	||

Answer every statement. Work quickly. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" that we want. Read each statement carefully, then answer it quickly and go on to the next item immediately. If you have any questions, raise your hand.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

PART ONE

A. Strongly disagree
B. Disagree
C. Indifferent or don't know
D. Agree
E. Strongly agree

1. I would work after marriage to have the money to live in a better community.

2. Women who have jobs are not really happy.

3. Working with others would be an important part of a job for me.

4. A chance to work with ideas is the ideal kind of job.

5. A job should have good opportunities for promotion.

6. I would work after marriage to have money to buy basic things.

7. Woman's place is in the home.

8. Opportunities to be helpful to others in my work are important.

9. A job that gives you a chance to create something new is the best kind of job.

10. Good fringe benefits would be one thing to look for in a job.

11. I would work after marriage to have money to buy essentials.

12. Women are too independent today.

13. Being of help to people would interest me.

14. A chance to show inventiveness in meeting new problems is important.

15. A job should have opportunities for early promotion.

16. I would work after marriage to meet financial responsibilities.

17. Most women are not interested in chances to help others through a job.

18. Helping people who are less fortunate is important to me.

19. Women should make their own decisions.

20. Retirement benefits would have to be satisfactory in order for me to consider taking a job.

21. I would work after marriage to have money to buy a home.

22. Most men are not interested in chances to help women advance in a job.

23. Working closely with people would interest me.

24. The chance to supervise activities is an important part of a job.

25. Work seems important to the people who are doing it.

26. I would work after marriage to have money for daily expenses.

27. Women are trying to imitate men.

28. Opportunities to be useful to society through my work are important.

29. Having influence on groups is important to me.

30. Making money is the best thing about having a job.

31. Women may hold jobs after they are married to buy more things for home and family.

32. Parents should encourage the idea of marriage and home-making (rather than working) from childhood.

33. Working with people is preferable to working with things.

34. Married women should hold jobs so they can have a life of their own.

35. Status symbols (such as a personal office) make a job more attractive.

36. I would work in order to help put my children through college.

37. Most women dislike smart women.

38. A job gives you a good opportunity to meet people.

39. A chance for self-expression is a good reason for taking a job.

40. Opportunity for increasing salary is an important feature of a job.

PART TWO

DIRECTIONS:

There is one right answer for each question in Part Two. Choose one answer for each question and mark it on the answer sheet. Make sure that the number of the answer sheet is the same as the letter of the answer you choose. Answer every question.

Questions 41 to 65 have only four possible answers rather than the usual five. Use only the first four spaces on our answer sheet to answer these questions.

A B C D ~~E~~

41. When one is thinking about the occupation she might enter as an adult, if her interests, abilities, and preferences did not limit her, approximately how many different jobs could she choose among?

    A. 300
    B. 3,000
    C. 30,000
    D. 300,000

42. The median salary income (half earned more, half earned less) of full-time male workers was $6,195 in 1964. What would you expect was the median income for female workers in that same year?

    A. $3,859
    B. $4,285
    C. $6,497
    D. $7,138

43. Approximately what percentage of all women are employed full time in the United States?

    A. 20%
    B. 35%
    C. 50%
    D. 65%

44. About how many women would you estimate are in the labor force?

A. 260,000
B. 2,600,000
C. 26,000,000
D. 260,000,000

45. Of the four groups below, indicate which educational group has the largest percentage of the women in that group employed full time.

A. less than high school education
B. high school graduate
C. college graduate
D. education beyond college

46. Look at the four age groups below and indicate which group has the largest percentage of women employed full time (both now and in projections for the 1970's).

A. 25-34 years old
B. 35-44 years old
C. 45-54 years old
D. 55-64 years old

47. What percentage of girls in your age bracket will probably be married by the time they are 19 years old?

A. 25%
B. 45%
C. 65%
D. 85%

48. Of those girls in the 18-19 year age bracket who are married, what percentage would you expect are also working?

A. 18%
B. 28%
C. 38%
D. 48%

49. What is the average number of years that a woman can expect to spend in the labor market?

A. 4-6 years
B. 8-10 years
C. 14-17 years
D. 20-25 years

50. Considering all the women who are working which of the following categories of educational achievement would account for over 40 percent of the total?

A. 8 years of school completed
B. 9-11 years of school completed
C. 12 years of school completed
D. 16 years of school completed

51. Among married women in the labor force, the age group represented in greatest number is:

A. 18-19
B. 20-24
C. 45-54
D. 55-64

52. Over 65 percent of the women employed in clerical positions have completed how many years of school?

A. 9-11 years of school
B. 12 years of school
C. 13-15 years of school
D. 16 years of school

53. Which of the following occupational areas has the greatest employment growth projection for the 1970's?

A. farm workers
B. sales workers
C. non-farm laborers
D. clerical workers

54. How many girls of today will work for money at some time during their lives?

A. about 1 of 3
B. about half
C. about 3 of 4
D. about 9 of 10

55. In 1964, the median yearly income of girls who dropped out of high school was $1,650. What would you expect to be the median yearly income for high school graduates?

A. $2,060
B. $2,400
C. $3,050
D. $4,500

56. In 1964, the median yearly income of girls who graduated from high school was $2,400. What would you expect to be the median yearly income for college graduates?

A. $3,000
B. $3,900
C. $4,400
D. $5,500

57. The average woman worker today is

A. single and 28 years old
B. single and 41 years old
C. married and 28 years old
D. married and 41 years old

58. More women are working today than ever before. Which of the following is (are) the reason(s)?

A. less time is needed for housekeeping
B. higher family costs for education, health, etc.
C. women are seeking the right to choose what they will do
D. all of the above

59. When do women make occupational decisions?

A. only in high school or college
B. when they take a job
C. when they have children
D. all of the above

60. Projected employment growth is more than average for which occupational groups?

A. professional and technical workers, service workers, and clerical workers
B. professional and technical workers, managers, and operatives
C. service workers, sales workers, skilled workers
D. clerical workers, sales workers, farm workers

61. In which three occupational groups did women represent over 50 percent of total employment in 1965?

A. professional and technical, clerical, sales
B. clerical, private-household workers, service workers
C. managers, operatives, and service workers
D. sales, services, craftsmen

62. Looking ahead to 1975 indicate about what percentage of women between 35 and 65 will be working or looking for work.

A. about 25%
B. nearly 50%
C. about 75%
D. nearly 90%

63. How many different types of jobs are you likely to have during your years of employment?

A. only one
B. three or four
C. eight or ten
D. dozens

64. When will your occupational education be finished?

A. when you graduate from high school
B. when you finish a vocational program
C. once you begin your first full-time employment
D. continuing education will be required to meet the challenge of change in the world of work

65. Worthwhile sources of occupational information include

A. school counselor
B. school and public libraries
C. friends and relatives
D. all of the above

DIRECTIONS:

Questions 66-80 have only two possible answers. Use only the first two spaces on your answer sheet to answer these questions.

In the following pairs, which occupation has the largest total number of people employed?

66. A. telephone operator
    B. airline hostess

67. A. physical therapist
    B. nurse

68. A. saleswoman
    B. fashion coordinator

In the following pairs of occupations, which requires the most education:

69. A. librarian
    B. surgeon

70. A. airline hostess
    B. dietitian

71. A. typist
    B. registered nurse

72. A. sales clerk
    B. laboratory technician

73. A. beauty operator
    B. high school counselor

DIRECTIONS:

The following questions can be answered with yes or no. If you decide the answer is "yes," mark "A" beside the item number on the answer sheet. If you decide the answer is "no," mark "B" beside the item number on the answer sheet. Be sure that the letter you mark is the same as the answer you chose. Answer every question. Use only the first two answer spaces on your answer sheet to answer these questions.

Remember - A. yes
B. no

74. The majority of women employed as professional workers have completed less than 12 years of school.

75. The majority of women employed as medical and other health workers have completed at or above 12 years of school.

76. Summer or part-time job experience is helpful in finding work later.

77. An individual needs to make an alternative vocational plan.

78. It is possible for a woman to successfully combine roles of wife, mother, and worker.

79. There are employment opportunities for women in jobs that are often considered men's work.

80. A study of occupational employment projections is a good way to get some idea of which occupations will offer the best job opportunities in the 1970's.

PART THREE

DIRECTIONS:

For statements 81-94, mark A if the statement applies to you. If it does not apply to you or if you don't know or aren't sure, mark B.

A. Yes, this statement applies to me.
B. No, this statement does not apply to me
(or) I'm not sure
(or) I don't know

Statistics show that 90-95 percent of all American women marry and that about one-third of married women are working. Assuming that you will marry some time, which pattern(s) would you plan to follow in your life?

81. I plan to marry right after high school.

82. I plan to work a couple of years after high school.

83. I have no plans to ever be employed.

84. I plan to marry while I'm still in college or some kind of occupational education.

85. I plan to marry right after college or other education beyond high school.

86. I plan to work a couple of years after college or other education beyond high school.

87. I plan to quit work when I marry.

88. I plan to continue working after I marry until we have our first baby.

89. I plan to return to work as soon as possible after my children are born.

90. I plan to work after all my children begin school.

91. I plan to work after all my children are in high school.

92. I plan to work when my children are grown up and on their own.

93. I definitely do not plan to marry.

94. I plan to work continuously after completing my education.

Pretest Field Study

_____
Name

DIRECTIONS:

Check or write in the correct answer for you. Be sure to put your name on this page and the next page.

95. Do you have plans for education following high school?

_____Yes _____No

If your answer is yes, please check the choice you have made.

_____junior college
_____four year college or university
_____business or commercial school
_____cosmetology (beauty) school
_____nursing school (2 or 3 year registered nurse program)
_____other (please specify_____)

96. What are your plans for working after you graduate from high school?

_____begin working immediately
_____begin working after further education or training
_____do not plan to work
_____undecided

97. What are your plans for marriage?

_____following high school graduation
_____following further education or training
_____after working at least two years
_____no plans for marriage
_____undecided

98. What job would you like to have when you first start working? (examples of jobs include: secretary, waitress, nurse)

_____
Name

99. How much do you think you will be able to earn when you get the job you chose in question 98?

_____$2,000 per year
_____$3,500 per year
_____$5,000 per year
_____$10,000 per year

100. How much education and/or training will you need to get the job you chose in question 98?

_____less than high school graduation
_____high school graduation
_____high school graduation plus some further education
_____four years of college
_____on-the-job training

101. How many children would you like to have?

102. Has your mother worked outside the home?

103. Is she working now?

104. What does (did) she do?

105. What is your father's occupation?

106. How many years of school did your father complete? (High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

107. How many years of school did your mother complete? (High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

108. Have you had a job?

109. What did you do?

Post-test Field Study

_____
Name

DIRECTIONS:

Check or write in the correct answer for you. Be sure to put your name on this page and the next page.

95. Do you have plans for education following high school?

_____Yes _____No

If your answer is yes, please check the choice you have made.

_____junior college
_____four year college or university
_____business or commercial school
_____cosmetology (beauty) school
_____nursing school (2 or 3 year registered nurse program)
_____other (please specify _____)

96. What are your plans for working after you graduate from high school?

_____begin working immediately
_____begin working after further education or training
_____do not plan to work
_____undecided

97. What are your plans for marriage?

_____following high school graduation
_____following further education or training
_____after working at least two years
_____no plans for marriage
_____undecided

98. What job would you like to have when you first start working? (examples of jobs include secretary, waitress, nurse)

_____
Name

99. How much do you think you will be able to earn when you get the job you chose in question 98?

_____$2,000 per year
_____$3,500 per year
_____$5,000 per year
_____$10,000 per year

100. How much education and/or training will you need to get the job you chose in question 98?

_____less than high school graduation
_____high school graduation
_____high school graduation plus some further education
_____four years of college
_____on-the-job training

101. How many children would you like to have?

102. Have you made any change in your plans since you started this unit of study?

103. Explain your answer to question 102 (If you have made changes in your plans, tell why. If you have not made changes in your plans, tell why not.)

Retest Field Study

_____
Name

DIRECTIONS:

Check or write in the correct answer for you. Be sure to put name on this page and the following pages.

95. Which of the following choices most closely describes your grades in all courses over the past two years?

_____mostly A's or equivalent
_____mostly A's and B's or equivalent
_____mostly B's and C's or equivalent
_____mostly C's and D's or equivalent
_____mostly D's and below or equivalent

96. Do you have plans for education following high school?

_____Yes _____No

If your answer is yes, please check the choice you have made.

_____junior college
_____four-year college or university
_____business or commercial school
_____cosmetology (beauty) school
_____nursing school (2 or 3 year registered nurse program)
_____other (Please specify_____)

97. What are your plans for working after you graduate from high school?

_____begin working immediately
_____begin working after further education or training
_____do not plan to work
_____undecided

98. What are your plans for marriage?

_____following high school graduation
_____following further education or training
_____after working at least two years
_____no plans for marriage
_____undecided

99. What job would you like to have when you first start working? (examples of jobs include: secretary, waitress, nurse)

_____
Name

100. How much do you think you will be able to earn when you get the job you chose in question 98?

_____$2,000 per year
_____$3,500 per year
_____$5,000 per year
_____$10,000 per year

101. How much education and/or training will you need to get the job you chose in question 98?

_____less than high school graduation
_____high school graduation
_____high school graduation plus some further education
_____four years of college
_____on-the-job training

102. How many children would you like to have?

103. Has your mother worked outside the home?

104. Is your mother working now?

105. What does (did) your mother do?

106. What is your father's occupation?

107. How many years of school did your father complete? (High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

108. How many years of school did your mother complete? (High school graduation would be equal to 12 years, college graduate would be equal to 16 years.)

109. If you have had a job for which you have been paid, what was it? (If you have never worked for pay, write "none.")

_____
Name

110. Have there been any changes in your plans for the future since this time last year?

_____Yes _____No

If you answered yes, please check one or more of the categories listed below to indicate the area(s) of change.

_____Change in educational plans
What was the change?

_____Change in occupational plans
What was the change?

_____Change in marriage and family plans
What was the change?

111. Who do you think influenced the changes in your plans?

_____there has been no change in my plans
_____teacher
_____counselor
_____parent or guardian
_____other relative
_____friend
_____other
(Please specify_____)

Appendix B

Table 4

Analyses of Variance: Pretest Scores (N=326)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Knowledge of work					
	Experimental vs. Control	6.68	1	6.68	0.52
	Grade level	137.81	2	68.90	5.37**
	Interaction	4.36	2	2.18	0.17
	Error	4105.61	320	12.83	
Economic Mobility					
	Experimental vs. Control	15.87	1	15.87	0.69
	Grade level	83.74	2	41.87	1.81
	Interaction	101.42	2	50.71	2.19
	Error	7404.95	320	23.14	
Role Security					
	Experimental vs. Control	25.00	1	25.00	1.33
	Grade level	179.85	2	89.92	4.78**
	Interaction	22.02	2	11.01	0.58
	Error	6023.87	320	18.82	
Intrinsic Reward					
	Experimental vs. Control	6.62	1	6.62	0.50
	Grade level	24.95	2	12.48	0.95
	Interaction	87.38	2	43.69	3.32*
	Error	4204.87	320	13.14	
Challenge					
	Experimental vs. Control	5.65	1	5.65	0.38
	Grade level	2.12	2	1.06	0.07
	Interaction	34.40	2	17.20	1.16
	Error	4760.33	320	14.88	
Extrinsic Reward					
	Experimental vs. Control	4.18	1	4.18	0.26
	Grade level	15.05	2	7.53	0.47
	Interaction	12.04	2	6.02	0.37
	Error	5151.66	320	16.10	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Choice of First Occupation (98)					
	Experimental vs. Control	0.92	1	0.92	0.37
	Grade level	5.41	2	2.70	1.10
	Interaction	11.03	2	5.52	2.25
	Error	785.03	320	2.45	
Plan to Never Work (83)					
	Experimental vs. Control	0.08	1	0.08	1.02
	Grade level	0.30	2	0.15	1.82
	Interaction	0.07	2	0.03	0.42
	Error	26.63	320	0.08	
Plan to Work After High School (82)					
	Experimental vs. Control	0.07	1	0.07	0.32
	Grade level	0.20	2	0.10	0.43
	Interaction	0.09	2	0.45	0.20
	Error	74.28	320	0.23	
Plan to Work After Completion of Education (86)					
	Experimental vs. Control	0.12	1	0.12	0.55
	Grade level	0.86	2	0.43	1.87
	Interaction	0.05	2	0.02	0.10
	Error	73.35	320	0.23	
Plan to Stop Working at Marriage (87)					
	Experimental vs. Control	0.22	1	0.22	1.71
	Grade level	0.57	2	0.28	2.16
	Interaction	0.24	2	0.12	0.92
	Error	42.01	320	0.13	
Plan to Stop Working When First Baby Arrives (88)					
	Experimental vs. Control	0.50	1	0.50	2.15
	Grade level	0.54	2	0.27	1.15
	Interaction	0.05	2	0.02	0.10
	Error	74.87	320	0.23	
Plan to Return to Work After Children are Born (89)					
	Experimental vs. Control	0.05	1	0.05	0.34
	Grade level	0.12	2	0.06	0.40
	Interaction	0.43	2	0.21	1.46
	Error	47.00	320	0.15	

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Work After Children Begin School (90)					
	Experimental vs. Control	0.00	1	0.00	0.00
	Grade level	0.11	2	0.06	0.23
	Interaction	0.79	2	0.40	1.67
	Error	75.97	320	0.24	
Plan to Work After Children are in High School (91)					
	Experimental vs. Control	0.83	1	0.83	3.52
	Grade level	0.32	2	0.16	0.67
	Interaction	0.29	2	0.14	0.61
	Error	75.70	320	0.24	
Plan to Work After Children are Grown (92)					
	Experimental vs. Control	0.05	1	0.52	0.21
	Grade level	0.39	2	0.19	0.78
	Interaction	0.14	2	0.07	0.28
	Error	79.77	320	0.25	
Plan to Work Continuously (94)					
	Experimental vs. Control	0.15	1	0.15	0.68
	Grade level	0.37	2	0.18	0.81
	Interaction	0.03	2	0.02	0.07
	Error	72.99	320	0.23	

* $p < .05$
** $p < .01$

Table 5
Analyses of Variance: Post-test Scores (N=326)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Knowledge of Work Test					
	Experimental vs. Control	1279.48	1	1279.48	44.26**
	Grade Level	292.18	2	146.09	5.05**
	Interaction	97.95	2	48.97	1.69
	Error	9250.17	320	28.91	
Economic Mobility					
	Experimental vs. Control	314.25	1	314.25	11.83**
	Grade level	55.28	2	27.64	1.04
	Interaction	143.31	2	71.65	2.70
	Error	8499.80	320	26.56	
Role Security					
	Experimental vs. Control	0.54	1	0.54	0.02
	Grade level	169.22	2	84.61	3.70*
	Interaction	62.74	2	31.37	1.37
	Error	7326.13	320	22.89	
Intrinsic Reward					
	Experimental vs. Control	55.27	1	55.27	3.43
	Grade level	56.52	2	28.26	1.75
	Interaction	122.70	2	61.35	3.81*
	Error	5157.21	320	16.12	
Challenge					
	Experimental vs. Control	124.23	1	124.23	6.95**
	Grade level	4.90	2	2.45	0.14
	Interaction	39.42	2	19.71	1.10
	Error	5717.85	320	17.87	

Table 5 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Extrinsic Reward					
	Experimental vs. Control	34.46	1	34.46	1.80
	Grade level	1.79	2	0.90	0.05
	Interaction	15.51	2	7.75	0.40
	Error	6129.92	320	19.16	
Choice of First Occupation (98)					
	Experimental vs. Control	0.81	1	0.81	0.39
	Grade level	32.93	2	16.46	7.90**
	Interaction	35.21	2	17.60	8.45**
	Error	666.67	320	2.08	
Plan to Never Work (83)					
	Experimental vs. Control	0.00	1	0.00	0.03
	Grade level	0.03	2	0.01	0.20
	Interaction	0.32	2	0.16	2.21
	Error	23.43	320	0.07	
Plan to Work After High School (82)					
	Experimental vs. Control	0.10	1	0.10	0.42
	Grade level	0.76	2	0.38	1.66
	Interaction	0.07	2	0.03	0.15
	Error	73.25	320	0.23	
Plan to Work After Completion of Education (86)					
	Experimental vs. Control	0.06	1	0.06	0.24
	Grade Level	2.01	2	1.00	4.30
	Interaction	0.38	2	0.19	0.81
	Error	74.71	320	0.23	

Table 5 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Stop Working at Marriage (87)					
	Experimental vs. Control	0.43	1	0.43	2.88
	Grade Level	0.05	2	0.02	0.15
	Interaction	0.11	2	0.06	0.37
	Error	47.79	320	0.15	
Plan to Stop Working When First Baby Arrives (88)					
	Experimental vs. Control	0.64	1	0.64	3.05
	Grade level	1.57	2	0.79	3.77*
	Interaction	0.20	2	0.10	0.47
	Error	66.78	320	0.21	
Plan to Return to Work After Children are Born (89)					
	Experimental vs. Control	0.03	1	0.03	0.19
	Grade level	0.20	2	0.10	0.62
	Interaction	0.59	2	0.29	1.82
	Error	51.96	320	0.16	
Plan to Work After Children Begin School (90)					
	Experimental vs. Control	1.85	1	1.85	7.63**
	Grade level	0.43	2	0.21	0.88
	Interaction	2.10	2	1.05	4.34**
	Error	77.55	320	0.24	
Plan to Work After Children are in High School (91)					
	Experimental vs. Control	0.55	1	0.55	2.27
	Grade level	0.32	2	0.16	0.65
	Interaction	0.87	2	0.44	1.78
	Error	78.18	320	0.24	

Table 5 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Work After Children are Grown (92)					
	Experimental vs. Control	2.10	1	2.10	8.73**
	Grade level	0.94	2	0.47	1.97
	Interaction	0.85	2	0.43	1.78
	Error	76.83	320	0.24	
Plan to Work Continuously (94)					
	Experimental vs. Control	0.00	1	0.00	0.01
	Grade level	1.00	2	0.50	2.11
	Interaction	0.13	2	0.06	0.28
	Error	75.60	320	0.24	

*$p < .05$
**$p > .01$

Table 8

Analyses of Variance: Retest Scores (N=247)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Knowledge of work					
	Experimental vs. Control	55.80	1	55.80	3.29
	Grade level	45.08	2	22.54	1.33
	Interaction	7.66	2	3.83	0.23
	Error	4093.31	241	16.98	
Economic Mobility					
	Experimental vs. Control	58.93	1	58.93	2.23
	Grade level	40.67	2	20.34	0.77
	Interaction	22.48	2	11.48	0.43
	Error	6363.38	241	26.40	
Role Security					
	Experimental vs. Control	40.87	1	40.87	1.68
	Grade level	64.20	2	32.10	1.32
	Interaction	34.65	2	17.33	0.71
	Error	5868.53	241	24.35	
Intrinsic Reward					
	Experimental vs. Control	27.75	1	27.75	1.49
	Grade level	22.16	2	11.08	0.59
	Interaction	89.96	2	44.98	2.41
	Error	4493.18	241	18.64	
Challenge					
	Experimental vs. Control	78.60	1	78.60	4.23*
	Grade level	52.99	2	26.49	1.43
	Interaction	57.03	2	28.52	1.54
	Error	4473.67	241	18.56	

Table 8 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Extrinsic Reward					
	Experimental vs. Control	0.21	1	0.21	0.01
	Grade level	150.31	2	75.61	3.91*
	Interaction	96.64	2	48.32	2.52
	Error	4627.16	241	19.20	
Choice of First Occupation (98)					
	Experimental vs. Control	0.06	1	0.06	0.06
	Grade level	6.42	2	3.21	3.62*
	Interaction	7.49	2	3.74	4.22*
	Error	213.18	241	0.88	
Plan to Never Work (83)					
	Experimental vs. Control	0.02	1	0.02	0.46
	Grade level	0.49	2	0.24	0.62
	Interaction	0.03	2	0.01	1.24
	Error	9.47	241	0.04	
Plan to Work After High School (82)					
	Experimental vs. Control	0.01	1	0.01	0.05
	Grade level	2.79	2	1.40	7.17**
	Interaction	0.11	2	0.05	0.27
	Error	49.97	241	0.19	
Plan to Work After Completion of Education (86)					
	Experimental vs. Control	0.01	1	0.01	0.05
	Grade level	2.79	2	1.40	7.17**
	Interaction	0.11	2	0.05	0.27
	Error	46.97	241	0.19	

Table 8 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Stop Working at Marriage (87)					
	Experimental vs. Control	0.05	1	0.05	0.55
	Grade level	0.14	2	0.07	0.74
	Interaction	0.01	2	0.01	0.04
	Error	22.27	241	0.09	
Plan to Stop Working When First Baby Arrives (88)					
	Experimental vs. Control	0.02	1	0.02	0.11
	Grade level	1.59	2	0.79	3.83
	Interaction	0.34	2	0.17	0.83
	Error	49.90	241	0.21	
Plan to Return to Work After Children are Born (89)					
	Experimental vs. Control	0.58	1	0.58	3.90*
	Grade level	0.03	2	0.01	0.09
	Interaction	0.41	2	0.20	1.36
	Error	36.00	241	0.15	
Plan to Work After Children Begin School (90)					
	Experimental vs. Control	2.48	1	2.48	10.43**
	Grade level	0.03	2	0.02	0.07
	Interaction	2.94	2	1.47	6.18*
	Error	57.26	241	0.24	
Plan to Work After Children are in High School (91)					
	Experimental vs. Control	1.62	1	1.62	7.06**
	Grade level	0.07	2	0.04	0.16
	Interaction	3.65	2	1.82	7.97**
	Error	55.12	241	0.23	

Table 8 (cont.)

Scale	Source of Variation	Sum of Squares	df	Mean Square	F
Plan to Work After Children are Grown (92)					
	Experimental vs. Control	1.18	1	1.18	4.87*
	Grade level	0.31	2	0.15	0.63
	Interaction	0.91	2	0.45	1.88
	Error	58.15	241	0.24	
Plan to Work Continuously (94)					
	Experimental vs. Control	0.37	1	0.37	1.77
	Grade level	0.19	2	0.09	0.45
	Interaction	0.55	2	0.28	1.32
	Error	50.72	241	0.21	

*$p < .05$
**$p < .01$

References

Cook, B.I., and Stone, B. *Counseling Women.* Series VII, Special Topics in Counseling, Guidance Monograph Series. Boston: Houghton Mifflin Company, 1973.

Douvan, E., and Kaye, C. *Adolescent Girls.* Study for the Girl Scouts of the U.S.A. by the Survey Research Center, the University of Michigan. New York: Girl Scouts of the U.S.A., 1957. Cited by Cook, B.I., and Stone, B. *Counseling Women.* Series VII, Special Topics in Counseling, Guidance Monograph Series. Boston: Houghton Mifflin Company, 1973, p. 42.

Hansen, L.S. "We Are Furious (Female) But We Can Shape Our Own Development." *The Personnel and Guidance Journal* 51(1972):87-93.

Lee, S.L.; Ray, E.M.; Vetter, L.; Murphy, Lila; and Sethney, B.J. *High School Senior Girls and the World of Work: Occupational Knowledge, Attitudes and Plans.* Columbus: The Center for Vocational and Technical Education, The Ohio State University, January, 1971.

Matthews, E., and Tiedeman, D.V. "Attitudes Toward Career and Marriage and the Development of Life Style in Young Women." *Journal of Counseling Psychology* 4(1964):375-384.

McNally, G.B. Patterns of Female Labor Force Activity. *Industrial Relations* 7(1968):204-218.

Schlossberg, N.K. "A Framework for Counseling Women." *The Personnel and Guidance Journal* 51(1972):137-143.

U.S. Congress. Education Amendments of 1972. Public Law 92-318. 92nd Congress, S. 659. June 23, 1972.

U.S. Department of Labor, Wage and Labor Standards Administration, Women's Bureau. *Expanding Opportunities for Girls: Their Special Counseling Needs.* Washington, D.C.: Women's Bureau, Wage and Labor Standards Administration, U.S. Department of Labor, 1970, 4pp.

Vetter, L. "A Factor Analytic Study of the Attitudes Toward Work of High School Senior Girls." Unpublished doctoral dissertation, The Ohio State University, 1969.

Vetter, L., and Sethney, B.J. *Women in the Work Force: Development and Field Testing of Curriculum Materials.* Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1972, 62pp. Available from the ERIC Document Reproduction Service, P.O. Drawer O, Bethesda, MD 20014, ED 050 272, MF $0.65 HC $3.29.

Warner, W.L.; Meeker, M.; and Eels, K. *Social Class in America.* New York: Harper Torchbooks, 1960.

Winer, B.J. *Statistical Principles in Experimental Design.* 2nd. ed. New York: McGraw-Hill, 1971.

T 102 198

PUBLICATION DATE: 30JUN75

TITLE: HAWAII CAREER DEVELOPMENT CONTINUUM, K-14. FINAL REPORT.

PERSONAL AUTHOR: RYAN, T. ANTOINETTE

DESCRIPTOR: *VOCATIONAL DEVELOPMENT; *CAREER EDUCATION; ELEMENTARY GRADES; SECONDARY EDUCATION; *PROGRAM DESCRIPTIONS; INSERVICE TEACHER EDUCATION; MATERIAL DEVELOPMENT; *PROGRAM EVALUATION

IDENTIFIER: HAWAII

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 235P.; SEE RELATED DOCUMENTS VT 102 045, VT 102 046, VT 102 047 AND VT 102 048 IN THIS ISSUE.

ABSTRACT: THIS REPORT DESCRIBES THE THIRD PHASE OF A THREE-PHASE PROJECT DESIGNED TO PROVIDE CAREER DEVELOPMENT AT ALL LEVELS IN HAWAII SCHOOLS. THE PROJECT PROPOSED TO MEET THE NEED OF A SYSTEMATICALLY DEVELOPED PROGRAM THROUGH THE DEVELOPMENT OF A CONCEPTUAL FRAMEWORK AND CURRICULUM GUIDES, PROVISION OF INSERVICE TRAINING FOR SCHOOL PERSONNEL, AND DEVELOPMENT OF INSTRUMENTS FOR EVALUATING STUDENT GROWTH IN CAREER DEVELOPMENT. THE CONCEPTUAL FRAMEWORK AND CURRICULUM GUIDES WERE DEVELOPED IN THE FIRST TWO PHASES. THE TWO MAJOR GOALS OF PHASE III WERE INSERVICE TRAINING OF SCHOOL PERSONNEL IN GRADES K-12 IN HAWAII AND THE DEVELOPMENT OF INSTRUMENTS TO ASSESS STUDENT GROWTH. FROM FEBRUARY 1974 TO JUNE 1975, INSERVICE TRAINING WAS PROVIDED TO 286 PARTICIPANTS THROUGH SEVEN TWO-DAY WORKSHOPS. A BATTERY OF FOUR INSTRUMENTS WAS DEVELOPED. RESULTS FROM AN ANALYSIS OF PRETESTS AND POSTTESTS ADMINISTERED TO 852 STUDENTS IN GRADES 3, 6, 9 AND 12 INDICATE THE INSTRUMENTS ARE VALID AND RELIABLE FOR ASSESSING STUDENT GROWTH IN CAREER DEVELOPMENT. AN ADMINISTRATOR'S MANUAL OF INSTRUCTIONS WAS DEVELOPED FOR EACH INSTRUMENT. RESULTS OF AN OUTSIDE EVALUATION INDICATE THAT GENERALLY THE PROJECT ACHIEVED ITS OBJECTIVES RELATING TO INSERVICE TRAINING AND INSTRUMENT DEVELOPMENT. THE REPORT CONTAINS A DESCRIPTION OF THE PROJECT, ACTIVITIES, RESULTS AND ACCOMPLISHMENTS RELATED TO EACH OF THE OBJECTIVES. SAMPLE PROJECT-DEVELOPED EVALUATION INSTRUMENTS ARE APPENDED. (AUTHOR/NJ)

INSTITUTION NAME: HAWAII UNIV., HONOLULU. COLL. OF EDUCATION.

SPONSORING AGENCY NAME: BUREAU OF ADULT, VOCATIONAL, AND TECHNICAL EDUCATION (DHEW/OE), WASHINGTON, D.C.; HAWAII STATE DEPT. OF EDUCATION, HONOLULU.

Made Primarily from Xerox Copies

FINAL REPORT

Project No. V361021L
Grant No. OEG-0-73-2912

Hawaii Career Development Continuum, K-14

Conducted Under
Part C of Public Law 90-576

Emiko I. Kudo, Project Co-Director
Wah Jim Lee, Project Co-Director
State Department of Education
1270 Queen Emma Street
Honolulu, Hawaii 96813

T. Antoinette Ryan, Principal Investigator
University of Hawaii
1776 University Avenue
Honolulu, Hawaii 96822

June 30, 1975

VT 102 198

FINAL REPORT

Project No. V361021L
Grant No. OEG-0-73-2912

Hawaii Career Development Continuum, K-14

Conducted Under
Part C of Public Law 90-576

This project was funded by P. L. 90-576 funds awarded to the State Board of Vocational Education but sponsored by the Department of Education. The actual development was undertaken by the College of Education of the University of Hawaii under contract to the Department of Education.

The project reported herein was performed pursuant to a grant from the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Emiko I. Kudo, Project Co-Director
Wah Jim Lee, Project Co-Director
State Department of Education
1270 Queen Emma Street
Honolulu, Hawaii 96813

T. Antoinette Ryan, Principal Investigator
University of Hawaii
1776 University Avenue
Honolulu, Hawaii 96822

June 30, 1975

TABLE OF CONTENTS

	Page
List of Figures and Tables	iii
Summary of the Report	1
Body of the Report	
Problem Area	
Need	3
Related Literature	6
Goals and Objectives	11
Project Design and Procedures	
Activities Related to Objective 1: Staff In-Service Training.	12
Activities Related to Objective 2: Development of Instruments for Student Growth Assessment	15
Results and Accomplishments	
Results and Accomplishments Related to Objective 1: Staff In-Service Training	19
Results and Accomplishments Related to Objective 2: Development of Instruments for Student Growth Assessment	34
Evaluation of the Project	115
Conclusions and Recommendations	
Conclusions and Recommendations Related to Objective 1: Staff In-Service Training	125
Conclusions and Recommendations Related to Objective 2: Development of Instruments for Student Growth Assessment	126
References	127
Appendices	129
Appendix A: Advisory Committee Members	130
Appendix B: Sample Workshop Agenda	133
Appendix C: Administrator's Manual of Instructions - Form A	137
Appendix D: Student Growth Assessment of Career Development Inventory Form A	145

		Page
Appendix E:	Administrator's Manual of Instructions - Form B .	154
Appendix F:	Student Growth Assessment of Career Development Inventory Form B	162
Appendix G:	Administrator's Manual of Instructions - Form C .	179
Appendix H:	Student Growth Assessment of Career Development Inventory Form C	187
Appendix I:	Administrator's Manual of Instructions - Form D .	203
Appendix J:	Student Growth Assessment of Career Development Inventory Form D	211

LIST OF FIGURES AND TABLES

Page

Figures

Figure 1: Outline of model developed for the Hawaii Career Development Continuum Project's in-service staff training 13

Tables

Table 1: Participant Sex, Age, and Education by Workshop Location 19

Table 2: Participant Employment by Workshop Location 20

Table 3: Percent of Participants Acquiring Career Development Knowledge and Skills by Self-Evaluation 22

Table 4: Participant Self-Evaluation of Achievement of Training Objectives by Workshop Location 23

Table 5: Participant Scores on Tests of Career Development Knowledge and Skills by Workshop 24

Table 6: Percent of Participants Acquiring Career Development Knowledge and Skills by Objective Tests 25

Table 7: Participant Rating of Workshop Activities 27

Table 8: Participant Rating of Staff and Resource Personnel Competence by Workshop Location 29

Table 9: Participant Rating of Program Factors 31

Table 10: Mean Rating of Training Process Factors 33

Table 11: Third Grade Students Pretested by School 35

Table 12: Third Grade Students Posttested by School 35

Table 13: Grade 3 Pretest Results by Subtest and by School . . 36

Table 14: Grade 3 Posttest Results by Subtest and by School . 38

Table 15: Means, Standard Deviations, and t Tests for Third Grade Experimental and Control Groups by School . . 39

Table 16: Third Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 40

Page

Table 17: Third Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 43

Table 18: Third Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form A 45

Table 19: Third Grade Teacher Item Evaluation of Inventory Form A 46

Table 20: Item Analysis of Inventory Form A by Subtest 49

Table 21: Means, Standard Deviations, and Correlation Coefficients from Inventory Form A by Subtest and by Group 51

Table 22: Relationship of Inventory Form A Items to Career Development Goals, Subgoals, and Objectives 52

Table 23: Intercorrelation Between Subtests of Inventory Form A 53

Table 24: Sixth Grade Students Pretested by School 54

Table 25: Sixth Grade Students Posttested by School 54

Table 26: Grade 6 Pretest Results by Subtest and by School . . 56

Table 27: Grade 6 Posttest Results by Subtest and by School . 58

Table 28: Means, Standard Deviations, and t Tests for Sixth Grade Experimental and Control Groups by School . . 59

Table 29: Sixth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 60

Table 30: Sixth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 62

Table 31: Sixth Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form B 64

Table 32: Sixth Grade Teacher Item Evaluation of Inventory Form B 65

Table 33: Item Analysis of Inventory Form B by Subtest 69

Table 34: Means, Standard Deviations, and Correlation Coefficients from Inventory Form B by Subtest and by Group 73

Table 35: Relationship of Inventory Form B Items to Career Development Goals, Subgoals, and Objectives 74

Table 36: Intercorrelation Between Subtests of Inventory Form B 75

Page

Table 37: Ninth Grade Students Pretested by School 76

Table 38: Ninth Grade Students Posttested by School 76

Table 39: Grade 9 Pretest Results by Subtest and by School . . 77

Table 40: Grade 9 Posttest Results by Subtest and by School . 79

Table 41: Means, Standard Deviations, and t Tests for Ninth Grade Experimental and Control Groups by School . . 80

Table 42: Ninth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 81

Table 43: Ninth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 83

Table 44: Ninth Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form C 85

Table 45: Ninth Grade Teacher Item Evaluation of Inventory Form C 86

Table 46: Item Analysis of Inventory Form C by Subtest 90

Table 47: Means, Standard Deviations, and Correlation Coefficients from Inventory Form C by Subtest and by Group 94

Table 48: Relationship of Inventory Form C Items to Career Development Goals, Subgoals, and Objectives 95

Table 49: Intercorrelation Between Subtests of Inventory Form C 96

Table 50: Twelfth Grade Students Pretested by School 97

Table 51: Twelfth Grade Students Posttested by School 97

Table 52: Grade 12 Pretest Results by Subtest and by School . 98

Table 53: Grade 12 Posttest Results by Subtest and by School . 100

Table 54: Means, Standard Deviations, and t Tests for Twelfth Grade Experimental and Control Groups by School . . 101

Table 55: Twelfth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 102

Table 56: Twelfth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest 104

Table 57: Twelfth Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form D 105

Page

Table 58: Twelfth Grade Teacher Item Evaluation of Inventory Form D 106

Table 59: Item Analysis of Inventory Form D by Subtest 109

Table 60: Means, Standard Deviations, and Correlation Coefficients from Inventory Form D by Subtest and by Group 112

Table 61: Relationship of Inventory Form D Items to Career Development Goals, Subgoals, and Objectives 113

Table 62: Intercorrelation Between Subtests of Inventory Form D 114

SUMMARY OF THE REPORT

Time Period Covered: February 1, 1974 - June 30, 1975.

Goals and Objectives: The two major goals of Phase III were: (a) in-service training of school personnel in grades K-12 in Hawaii, and (b) development of instruments to assess student growth in career development. Subgoals of the staff training goal were to develop participants' understanding of career development as well as its importance, and to increase staff capabilities for infusing career development learning experiences into the existing curriculum. Subgoals of the instrument development goal were to develop instruments to measure students' career development growth in grades 3, 6, 9, and 12.

Procedures: In-service training was carried out through a series of seven workshops held in the fall of 1974 on four islands. Three workshops were held on Oahu, two on Hawaii, and one each on Kauai and Maui. The workshops were activity-oriented and used a variety of teaching techniques along with a multi-media approach.

A battery of four instruments to assess student growth in career development and four accompanying Administrator's Manual of Instructions were developed in fall 1974. An initial pool of items was categorized according to the objectives and subgoals of the four major goals of career development. Item analyses were made and items were combined to form the four instruments. Exploratory testing was done in fall 1974 and minor revisions were made on each inventory. The instruments were then tested in spring 1975. A pretest was administered to control and experimental groups of 3rd, 6th, 9th, and 12th grade students in April 1975. A posttest was administered in May 1975. Results from testing, analysis of teacher evaluations, and item analyses provided the basis for refinement of the four instruments.

Results and Accomplishments: In-service training was provided to 286 participants, most of whom were teaching personnel, through seven two-day workshops. Fifty-four percent of the participants reached criterion level on the posttest for acquiring career development knowledge and skills.

A battery of four instruments, each consisting of four subtests, was developed. Results from an analysis of pretests and posttests administered to 852 students in grades 3, 6, 9, and 12 indicate the instruments are valid and reliable for assessing student growth in career development. An Administrator's Manual of Instructions was developed and refined for each instrument.

Evaluation: Formative and summative evaluations were made. Self-evaluations were made of the in-service training and the instrument development. An outside evaluation was made by an independent evaluator. The results of self-evaluation are generally consistent with those of the independent evaluation. The outside evaluation generally is that the project achieved its objectives relating to in-service training and instrument development. Inadequacies were noted, particularly in regard to participant selection, and follow-through activities of the training program.

Conclusions and Recommendations: The results of the in-service program suggest the workshop format to be a viable one and point up the importance of creating an appropriate environment for learning as well as providing a set of systematically designed and logically-related learning experiences if training objectives are to be achieved. It is recommended that continued in-service training be implemented to reach all personnel in Hawaii's schools. There is a critical need for training administrative and guidance personnel, teacher trainers, and counselor educators. It is recommended that selection procedures be implemented, and that in-depth training as well as orientation to career development be provided. All training activities should be carried out as part of a single coordinated plan.

Data resulting from administration of the four forms of the Student Growth Assessment of Career Development Inventory to sample populations of 3rd, 6th, 9th, and 12th grade students in Hawaii schools indicate the instruments are suitable for assessing student growth in career development. It is recommended they be used for instructional and guidance purposes as well as for assessment of student growth in career development.

BODY OF THE REPORT

This report describes the third phase of a three-phase project designed to provide career development to learners in Hawaii schools. The Career Development Continuum Project was implemented under provisions of Part C of P.L. 90-576 for the purpose of providing a comprehensive, logically developed, rational system of career education for learners in Hawaii schools. During Phases I and II (April 1972 to June 30, 1973) a conceptual model and implementing curriculum guides (K-3, 4-6, 7-9, 10-12) were developed. Phase III (February 1, 1974 to June 30, 1975) focused on (a) training of Hawaii school personnel to implement career development concepts and principles in the existing curriculum, and (b) development of instruments for assessing student growth in the area of career development.

Problem Area

Need

The overall mission of the project has been to increase the capacity of the educational system to provide career development to all learners in Hawaii's schools. The Hawaii Career Development Continuum Project is part of the nationwide concern for changing the educational system to make it more relevant to the needs of today's youth. This nationwide concern is reflected in Hawaii's continuing concern for providing the best education possible for Hawaii's youth.

The need for career education was brought to the attention of the American public in 1971 by Sidney P. Marland, Jr., then Commissioner of Education. Academic, vocational, and technical education were not new concepts, but bringing them together under the umbrella of career education was. Marland (1971a) suggested that public education was in need of widespread revision if it was to meet the needs of all youth. Statistics bear out Marland's contention that current public education practices were failing to equip youth for personally satisfying and worthwhile participation in society:

> In 1969, 40% of the American labor force had less than a high school education. (Dunn, 1974, p. 1)
>
> In 1973 there were 900,000 public school dropouts. (Dunn, 1974, p. 1)
>
> (In 1971), the high school general curriculum generated 750,000 students who (had) neither vocational training nor who planned to go to college. (Cunha, Laramore, Lowrey, Mitchell, Smith, & Woolley, 1972, p. 1)

In a speech at the annual meeting of the State Directors of Vocational Education in Washington, D. C., in May 1971, Commissioner Marland stated:

> We have in this country the highest youth unemployment rate in the world, and the relentless advance of technology is making

> the situation explosively worse. . . . By 1975 we expect the unskilled to account for less than five percent of the labor force or something in the neighborhood of 4.5 million jobs. Yet Bureau of Labor Statistics' projections indicate that we will still have more than 3.5 million young people with no salable skills trying to squeeze themselves into this sad five percent category. For them there will literally be no room at the bottom.
>
> This tragic situation clearly indicates that America's educational efforts are failing or at least that they are not attuned to the realities of our times. If we are to correct that failure and if education is to serve properly its national purpose, then we must bridge the gulf between man and his work. We in education must be actively concerned with the boys and girls in our charge, not just until they receive a diploma, but until they have made the transition from student to worker or are enrolled in post-secondary education. Our job is not done properly, in other words, until each and every one of those youngsters is capable of developing a clear sense of direction in life and is able to make a responsible career choice. (Marland, 1971a, pp. 4-5)

Preparation for employment is only part of what career education is all about; learning the life skills of satisfying social relationships, civic responsibility, and self-realization are just as important. As Marland pointed out at the 1971 Convention of the National Association of Secondary School Principals in Houston, Texas:

> It is terribly important to teach a youngster the skills he needs to live, whether we call them academic or vocational, whether he intends to make his living with a wrench, or a slide rule, or folio editions of Shakespeare. But it is critically important to equip that youngster to live his life as a fulfilled human being. . . . Life and how to live it is the primary vocation of all of us. And the ultimate test of our educational process, on any level, is how close it comes to preparing our people to be alive and active with their hearts, and their minds, and, for many, their hands as well. (Marland, 1971b, pp. 8-9)

The need for school personnel trained to deliver career education to learners is vitally important if the potential of career education is to be realized. In 1974, it was pointed out that, "the retraining of virtually every person in every educational institution in the nation" (Hoyt, Evans, Mackin, & Mangum, 1974, p. 171) is essential. Today's youth cannot successfully achieve worthwhile and meaningful career development unless teachers, administrators, and counselors are prepared to implement the basic concepts and principles of career education.

These national concerns related to career development were reflected in Hawaii's proposal in 1971 for the development of a career development continuum for grades K-14 for the state of Hawaii. The results of a 1971 needs assessment which found Hawaii's career development programs fragmented and offered in only a few schools established the need for a

systematically developed career development program for all learners. The assessment revealed: (a) a statewide conceptual framework for a comprehensive program of career education that integrated instruction, guidance, and administrative functions was lacking; (b) orientation activities to educational and occupational requirements and opportunities, which had been called for in the Hawaii Foundation Program, were offered in only a few schools; (c) counselor effectiveness was lessened by lack of a systematic information and career development instructional program; (d) counseling services relating to students' self-appraisal, self-understanding, and career development were inadequate; and (e) teachers, counselors, and administrators were not delivering career development to students as an organized and coordinated team effort.

The Hawaii Career Development Continuum Project was one of the state's efforts to meet these needs. The project proposed to help meet the needs through development of a conceptual framework of career development, development of implementing curriculum guides, provision of in-service training in career development for Hawaii school personnel, and development of instruments for evaluating student growth in the areas of career development. The conceptual framework and the curriculum guides were developed in Phases I and II. The first step, development of the conceptual framework, integrated four career development goals among the various grade levels. The curriculum guides, developed for grades K-3, 4-6, 7-9, and 10-12, presented activities for teachers and counselors to use or adapt in order to integrate career development learning experiences into their existing curriculum.

Once the conceptual framework and curriculum guides were completed, the need was to give Hawaii school personnel the opportunities to develop an understanding of career development for grades K-12. It was necessary to offer training opportunities for school personnel to better understand basic concepts and principles of career education and to develop the skills needed to integrate career development learning experiences into the existing curriculum. Objective 1 of Phase III, derived from this need, was to provide in-service training in career development concepts to selected school personnel of Hawaii.

It is not enough to hand teachers a curriculum guide; it is equally important to increase their understanding of the concepts and principles of career development and to help them develop the skills to utilize the guides and adapt the learning experiences into their own subject areas. The importance of and need for training has been emphasized by the National Advisory Panel of the American Institutes for Research:

> Teachers must receive in-service training in (career education), (they must) understand the importance of career education. . . . Since teachers often think of themselves as being trained in a subject matter, it is important to show them that the resources of that subject have bearing on career education. (American Institutes for Research, 1974, p. 8)

These in-service training needs were the primary focus of Phase III of the Hawaii Career Development Continuum Project. In-service training was one of the objectives of Phase III of the project.

The second objective focused on meeting another need, that of developing an instrument for assessing student growth in career development. It is not sufficient to merely develop a new curriculum; there must be some way to assess its effectiveness. Concomitant with the development of the career development curriculum, therefore, there is the need to determine the effectiveness of the curriculum in meeting career development needs of students. The need, therefore, was for an instrument to determine the extent to which the conceptual framework with the implementing curriculum guides was, in fact, viable. A survey of literature revealed that suitable instruments did not already exist. The need, then, was to develop instruments to assess student growth in areas of career development. Objective II of Phase III was the development of instruments to meet this need.

The Hawaii Career Development Continuum Project reflects and becomes part of the national thrust toward making education more responsive to the needs of today's youth. The project is one of Hawaii's efforts made in response to the U. S. Office of Education's call for "preparation of each and every pupil for meaningful work or meaningful higher education lending itself to ultimate career entry and personal fulfillment" (Marland, 1972, p. 35).

Related Literature

Career education literature becomes more abundant daily. Since 1971 when Marland introduced the term, innumerable private, public, and commercial organizations and agencies have made available literally thousands of career education books, reports, newsletters, films, filmstrips, study guides, and teacher aids. A continuing effort has been made throughout all phases of this project to review results from related projects in career education and career development. Reports emanating from projects throughout the nation have been regularly reviewed and results have been related to the Hawaii Career Development Continuum Project.

Research, development, and training efforts of the U. S. Office of Education, state department of education, laboratories, centers, and private agencies have contributed to the project. Reports have been analyzed on a continual basis from the Center for Vocational and Technical Education at Ohio State University, the ERIC Clearinghouse on Career Education at Northern Illinois University at De Kalb, the Far West Laboratory for Educational Research, the American Institutes for Research, the Educational Testing Service, the Career Development Guidance, Counseling and Placement Project at the University of Missouri, and the Northwest Regional Educational Laboratory. The reports from organizations, universities, and state agencies throughout the nation have been reviewed routinely. In conducting Phase III of the Hawaii Career Development Continuum Project, a concerted effort was made to review literature in two areas: staff development and instrument development.

Literature Related to Objective 1: In-Service Staff Training. Of all materials reviewed, the most significant in terms of having a bearing on the in-service staff training component of the Hawaii Career Development Continuum Project include reports by Norton (1972), Drier and Jacobsen (1973), Drier (1974b), Ryan (1973a, 1973b), Trenton State College (1972), and Nelson (1974).

Reports related to staff training from the Comprehensive Career Education Model (CCEM) Project conducted by the Center for Vocational and Technical Education at Ohio State University included those by Norton (1972), Drier and Jacobsen (1973), and Drier (1974b). Norton stressed the importance of adequately preparing the staff for the roles they will be required to play in a career education program. This includes orienting and training staff in the philosophy and basic concepts of career education. The CCEM recommends that two staff groups be established: a Staff Development Cadre, members of which would be responsible for designing and conducting additional in-service sessions on a wide-scale; and a Building Coordinator group, members of which would be responsible for in-service activities in their respective buildings. While the Hawaii Career Development Continuum Project did not follow the exact outline of the CCEM Project, it did incorporate many of the same underlying staff training principles.

Drier and Jacobsen (1973) conducted and reported on a major study for the Comprehensive Career Education Model Project at the Center for Vocational and Technical Education. The authors stress the need for in-service training and have as their major focus an inherent problem in the implementation of career education, that of how to effectively deal with teachers who resist change. The authors recommend assessing where teachers are on a continuum of acceptance - resistance to change, assigning them to like groups, and then tailoring in-service activities specifically to each group. The Hawaii Career Development Continuum agreed with the importance and need for staff in-service training stated by the authors. However, instead of providing a variety of training sessions with participant selection procedures, the Hawaii Project offered a series of orientation workshops open to all Hawaii public school personnel in grades K-12. The limit on funds to support the Hawaii Project precluded the possibility of the more comprehensive and controlled approach. The orientation workshops conducted as part of the Hawaii Project represented only one component in the total state plan for staff training.

Drier (1974b) reports on materials originating from the CCEM Project for conducting staff development in career education. The Hawaii Career Development Continuum followed the design of many of the training programs and products of the CCEM Project. Like the CCEM Staff Development Guidelines, the Hawaii Continuum used a staff development model. The CCEM Project places more emphasis on staff needs assessment and employs a different evaluation method. The Hawaii Project utilizes a staff development program much like that of the CCEM, in that both give sample lessons with performance objectives and goals, learning activities, lesson-related resources, and evaluation activities. Unlike the CCEM, the Hawaii Project did not utilize a community resource program, self-instructional materials, or an attitude change in-service program as components in the orientation workshops.

One of the major sources used by the Hawaii Career Development Continuum Project were the references related to the Adult Career Education in Corrections Program conducted by the University of Hawaii. Ryan (1973a, 1973b), director of the program, reports on methods, goals, and purposes of the program. One of the major differences between the two programs was in the method of staff training. Like the Comprehensive Career Education Model of the Center for Vocational and Technical Education, the Adult Career Education in Corrections Program utilized a two-level staff training model, whereas the training in the Hawaii Career Development Project was limited to orientation. However, the emphasis placed on participant involvement as an integral and crucial part of a successful career education program is inherent in both programs.

In 1972, Trenton State College published a guide to available career education in-service teacher training programs. A wide variety of training programs are described, and most employ methods and activities similar to those of the in-service staff training component of the Hawaii Career Development Continuum Project. Most programs have participants working in task groups, attending lectures, participating in discussions, viewing films, reviewing career development/education instructional materials, and reading assigned reference materials. Many of the programs listed in this publication also employ self-evaluation techniques similar to those used by the Hawaii Career Development Continuum.

In 1973, the University of Bridgeport in Connecticut (Nelson, 1974) initiated a project to develop and implement three interrelated career education models. The first model focused on promoting and strengthening relationships among the business, educational, and industrial sectors of a community. The second model focused on K-12 teachers, and the third focused on developing a career education resource center. The Hawaii Career Development Continuum Project did not include community personnel to the extent the first model of the Connecticut Project did. In the second model, an individual, in-classroom approach was used, whereas for the Hawaii Career Development Continuum Project it was felt a concentrated, two-day, group-centered training approach would be more effective. The development of a career education resource center for staff was not incorporated into the Hawaii Project since a Career Information Center has been established in Hawaii.

Literature Related to Objective 2: Development of Instruments for Student Growth Assessment. A comprehensive search of available career development instruments revealed a number of tests and inventories which were relevant; however, no single instrument or technique completely and adequately met the project needs. Thus, instruments had to be developed and techniques selected to meet specific project needs.

The Career Education Survey, developed by Behavioral Consultants (n.d.), is a screening instrument designed to provide general feedback regarding career education needs and programs. It provides a needs assessment, diagnostic data, and is prescriptive. The Hawaii Career Development Inventory, like the Career Education Survey is not an achievement test, but instead gathers information from students regarding attitudes, knowledge, and experience in the area of career development, and can be used to gather data from any size group of students.

The Hawaii Career Development Inventory is not prescriptive since other needs areas are presently emphasized by the project.

The Career Maturity Inventory (Crites, 1973) was one of the instruments found to be most applicable to project needs. Two sections of the Career Maturity Inventory were adapted for use in the Hawaii Career Development Inventory, those of self-appraisal and occupational information. However, other sections of the Career Maturity Inventory were not applicable to or did not meet project needs, thus the instrument as a whole could not be used.

Clapsaddle (1973) reports on a study utilizing the Career Maturity Inventory to determine the relationship of career education teacher in-service preparation to the vocational development of 6th grade children. The testing design used by Clapsaddle was also used by the Hawaii Career Development Continuum Project: the respective project instruments were administered to both control and experimental groups, the experimental groups were composed of students of teachers who had received in-service training, control groups were composed of students of teachers who had not received training, and pre- and posttests were administered.

The Assessment of Career Development available from Houghton-Mifflin is designed for use in grades 8-11, thus had limitations for use by the Hawaii Career Development Continuum Project as the latter was concerned with testing students in grades 3, 6, 9, and 12. However, the testing models used by both projects are similar in that both call for control and experimental groups to be pre- and posttested using the same instrument for both tests.

Also available from Houghton-Mifflin is the Career Planning Program for grades 8-11. This instrument is designed to assess student experiences, interests, and abilities, and help the student identify and explore career options. This instrument was not applicable to the Hawaii Career Development Continuum Project needs since the focus was on assessing student growth in career development and the effects on student growth of in-service training of school personnel and exposure to the experiences in the Hawaii Career Development Continuum Curriculum Guides. As student interests or self-estimates of ability were not the primary focus it was not possible to utilize the Career Planning Program instrument.

The Differential Aptitude Test developed by Bennett, Seashore and Wesman (1974) was not applicable to the Hawaii Career Development Continuum as the Hawaii Project is concerned with measuring total career development effects of the Continuum on the student, rather than being limited to student aptitudes.

Materials available from the Comprehensive Career Education Model Project at the Center for Vocational and Technical Education were not applicable. Drier (1974a) reports on assessing community resources and local needs, and the Hawaii Career Development Continuum was concerned with developing an instrument for use with students.

Many of the materials available from the Achievement Competence Training (ACT) Project (Brandes, 1974; Buckingham, Davis, Kekalos, 1974) were not applicable, although some of the methods used by ACT were. ACT field testing procedures were similar to those employed by the Hawaii

Career Development Continuum Project, although specific testing techniques differed. The ACT utilized interviews and anecdotal reports. Because of time and personnel required to utilize these methods with a significant number of students, the Hawaii Project elected not to use this approach.

The designs which were devised for in-service training and instrument development were built on findings from related works in these areas, and, at the same time, incorporated factors to meet the unique needs of Hawaii.

Goals and Objectives

Phase III of the Hawaii Career Development Continuum Project had three aims.

Aim 1: Training of personnel in use of systems approach to plan, implement, and evaluate delivery systems for career development for all learners, K-14, in Hawaii.

Goal 1: To develop workshop participants' understanding of career development and to increase their capabilities of infusing career development into the existing curriculum.

Subgoal 1: For workshop participants to understand the basic concepts and principles of career development.

Subgoal 2: For workshop participants to understand the importance of and be motivated to utilize career development learning experiences in the classroom.

Subgoal 3: For workshop participants to develop the skills necessary to identify career development learning experiences which can be used in existing curriculum.

Aim 2: Development and testing of career development instruments appropriate for the learners and compatible with the socio-economic cultural setting in Hawaii.

Goal 1: To develop an instrument to assess career development growth of students in grade 3.

Goal 2: To develop an instrument to assess career development growth of students in grade 6.

Goal 3: To develop an instrument to assess career development growth of students in grade 9.

Goal 4: To develop an instrument to assess career development growth of students in grade 12.

Aim 3: Revision of the conceptual model and implementing curriculum guides.

Project Design and Procedures

Activities Related to Objective 1: In-Service Staff Training

Training Design. Design of the in-service training package was based primarily on the training design of the six-year national program of Adult Career Education in Corrections (Ryan, 1973a), the California Development Model (Cunha, Laramore, Lowrey, Mitchell, Smith, & Woolley, 1972), and the model of the American Institutes for Research (Dunn, 1974).

The six-year Adult Career Education in Corrections (ACEC) Program trained personnel in 45 states, 4 territories, the District of Columbia, and Canada. Personnel training in the ACEC Program was offered through an articulated program of basic and advanced seminars to equip participants for subsequent leadership roles and training and technical assistance responsibilities at the local and regional level. The training program design produced a multiplier effect through the two-level training model which produced technical assistance teams. Those trained in the basic seminars were equipped with basic skills and knowledge needed to implement career education programs, and to function as members of teams which provided technical assistance or training in their local settings. Participants were chosen from the basic seminar trainees for advanced training. Those who completed the advanced training were equipped with competencies to assume responsibilities of team leaders and with knowledge and skills to provide technical assistance or training on a regional level. This two-level training design sets in motion a process which supplies trained personnel who train other personnel, who train still others, thus achieving the multiplier effect by having trainers in each institution, capable of carrying on in-service training at the local unit level.

The Hawaii Career Development Continuum training activities chosen were similar to those recommended by the American Institutes for Research (Dunn, 1974) in that the workshops were the same length, two days, and used similar formats. The AIR Workshops, "typically involved opening remarks by school district leaders, . . . extensive career education materials displays, and workshop-type activities" (Dunn, 1972, p. 31). Although the AIR Workshops contained cadre teacher involvement as activity leaders, the Hawaii Career Development Continuum did not have a cadre of previously trained teachers, but did utilize participants as chairpersons and recorders at each workshop.

The Hawaii Career Development Continuum training activities chosen were also similar to those utilized by the California model (Cunha, Laramore, Lowrey, Mitchell, Smith, & Woolley, 1972), in that there were no selection procedures, but rather, voluntary participation by school staff members. It was felt,

> that the most effective volunteers were school staff members who were willing to accept the risks of innovation and the extra work involved in relating classroom activities and group guidance activities to learning about occupations and varied life styles. (Cunha, Laramore, Lowrey, Mitchell, Smith & Woolley, 1972, p. 26)

In addition, the California model,

> included an opportunity for staff members to work as teams and to have an opportunity to "brainstorm" the kinds of experiences they might organize to enable students to discover and understand the basic career development concepts. (p. 26)

The training model utilized by the Hawaii Career Development Continuum also incorporated opportunities for participants to work together as members of teams and to brainstorm experiences that might be organized in their classrooms.

The Hawaii Career Development Continuum Project utilized only the basic training portion of the ACEC training design. The design for the Hawaii training was a two-day workshop which was based upon the basic training portion of the ACEC Program. There were seven steps in the model developed: (a) analysis of the real-life environment, (b) a statement of the ideal, (c) assessment of needs, (d) definition of goals, subgoals, and objectives, (e) formulation of a training plan, (f) program implementation, and (g) evaluation. Figure 1 illustrates the Hawaii Career Development Continuum's training model.

Analyze Real-Life Environment (1.0)
- Analyze Workshop Setting (1.1)
- Analyze Participant Population (1.2)
- Analyze Workshop Functions (1.3)

State the Ideal (2.0)
- State the Philosophy (2.1)
- Describe Ideal Workshop Setting (2.2)
- Describe Ideal Participant Population (2.3)
- Describe Ideal Workshop Functions (2.4)

Assess Needs (3.0)
- State Participant Needs (3.1)
- State Program Needs (3.2)
- Rank Order Needs (3.3)

Define System Goals/Subgoals/Objectives (4.0)
- Define Concepts (4.1)
- Define Management Goals/Subgoals/Objectives (4.2)

Formulate Plan (5.0)
- State Mission/Parameters (5.1)
- State Constraints/Resources (5.2)
- Synthesize Possible Solutions (5.3)

Develop/Implement Program (6.0)
- Provide Management Support (6.1)
- Develop Curriculum (6.2)
- Implement Program (6.3)

Evaluate System (7.0)

Figure 1. Outline of model developed for the Hawaii Career Development Continuum Project's in-service staff training.

In analyzing the real-life environment (1.0), information was gathered in three areas: (a) the workshop settings, (b) the participant population, and (c) the workshop functions. The workshop setting refers to: support services, including physical facilities, food, and clerical services; social factors affecting the interaction of the participants; and the community in which the workshop is held, including resources, accessibility, and costs. The participant population was analyzed according to their training and background. Workshop functions refer to activities needed to implement the workshop; and were either participant-related functions or management-related functions.

Step 2 involved stating the ideal (2.0), in terms of philosophy, settings, participants, and functions of the workshop. The philosophy statement which gave direction to the workshops was:

> We believe that all participants can develop and be committed to incorporating career development into the school curriculum and that staff has the responsibility to provide optimal resources to help participants to realize this potential.

The description of the ideal workshop setting helped to identify criteria against which to measure practical workshop settings. Describing the ideal participants helped to identify guidelines for the best participant balance.

Step 3 involved comparing the real-life situation against the ideal, thus revealing needs (3.0). Participant needs included learning needs, social needs, need for adequate support services, needs for an environment conducive to learning, and needs for learner-involvement activities. Program needs included participant selection, pre-workshop indoctrination, and post-workshop communication.

Once the needs were identified, the training mission was implemented in goals, subgoals and objectives for the workshop participants (4.0).

The next step was the formulation of the plan for the workshop. Parameters, constraints, and resources were considered and a plan was then chosen. The outline of the workshop agenda is attached as Appendix B.

Upon selection of the plan, the curriculum for the workshop was developed and arrangements made for the services required: materials and activities for the workshop were developed, workshop sites and facilities were selected, and resource persons to serve as panelists and speakers were selected.

The last step, evaluation (7.0) was the process of determining the efficiency and effectiveness of the total system design. Evaluation forms were developed for distribution to workshop participants for their evaluation of the workshop's effectiveness and value to each.

Training Procedures. The actual procedures used at the Hawaii Career Development Continuum Project Workshops were as follows:

Settings and Dates: In 1974, seven workshops were given, three on Oahu and four on outer islands. Dates and places of the workshops were:

October 18-19	for Windward District held at Ulu Mau Village
October 25-26	for Kauai District held at Kauai Beachboy Hotel
November 1-2	for Honolulu District held at Ala Moana Banquet Hall
November 8-9	for Hawaii District (Hilo) held at Hilo Lagoon Hotel
November 15-16	for Hawaii District (Kona) held at Kona Lagoon Hotel
November 22-23	for Leeward and Central Districts held at Leeward Community College
December 6-7	for Maui District held at Maui Community College

The workshops originally were scheduled for alternate weekends, but rescheduling due to printing delays caused the workshops to be held on six successive weekends with Thanksgiving intervening before the seventh workshop.

Participants: In September 1974, notices and enrollment forms for the workshops were sent to district coordinators appointed by the Department of Education. The district coordinators were responsible for distributing information to all school personnel in their districts. Enrollment forms were to be returned two weeks ahead of workshop dates so that materials and final arrangements could be made.

Program: The workshop activities were scheduled from 3:30 p.m. to 10:30 p.m. on Friday and from 8:00 a.m. to 4:30 p.m. on Saturday. The program included individual, small group, and large group activities. Audio visual materials were used in connection with a variety of teaching techniques, including lecture, discussion, role playing, and simulation. The workshop opened with a meeting of the large group followed by a task activity session in small groups, after which reports, discussion, and evaluations were held in the large group. Large group activities included a film, banquet, a keynote speech, an address on the conceptual model, a panel discussion, and task group reports. Small group activities included task assignments on communication, assumptions undergirding career development, cooperation, and infusing career education into lesson plans. Individual activities included readings on career development, an assignment on career development instructional guidance materials, and assigned program responsibilities.

Staff: The principal investigator and 2 assistants comprised the staff for seven workshops. A guest speaker attended each workshop. Two to four teachers, counselors, and/or administrators were chosen from each district as panelists at the workshops.

Activities Related to Objective 2: Development of Instruments for Student Growth Assessment.

The Hawaii Career Development Inventory was constructed by establishing an instrument construction design, developing items, testing, refining, and synthesizing an inventory.

Construction of Preliminary Instruments. Initial consideration was given to possible approaches to instrumentation: the multi-instrument vs. single instrument, objective vs. non-objective, pictorial vs. word, and multichotomous vs. dichotomous. The decision was made to use four forms of a single instrument with each form designed for a specified grade level. It was decided that the inventory would be an objective, paper-and-pencil instrument. The choice of this approach to instrumentation was based on the fact that a single instrument alleviates the problem of establishing theoretical and empirical linkages between instruments, and also avoids the problem of scoring when different dimensions are used for different instruments. The preference for an objective instrument, as opposed to a subjective measure, was based on the assumption that objective instruments can be administered more easily and scored more economically, with less chance for error than is the case with subjective tests. A word statement instrument, as compared to pictorial stimuli, has the advantage of minimizing the margin of errors, since there is less chance for ambiguity.

The development of items for the four forms of the career development inventory was accomplished by establishing and then drawing from an initial pool of career development statements and items obtained from three sources: (a) published tests and inventories, (b) books and articles, and (c) item writing. The first step in item construction was the screening of items on the basis of relevancy, uniqueness, and specificity. Items which failed to measure up to these criteria or which were duplicate items were eliminated, rewritten, revised, or refined. In item construction, an effort was made to obtain as pure a measure of the dimension or subgoal as possible. Items which were ambiguous or vague were revised. The inventory was designed to provide as nearly as possible an equal number of positive and negative items to counteract effects of acquiescent response set. After faulty items were eliminated, the remaining items were categorized by career development goal, subgoal, and objective.

The next step was writing additional items to provide an equivalent set of stimuli at each level for eliciting responses related to the twenty-four subgoals defined in the conceptual framework of career development for Hawaii's public schools. The preliminary version of the inventory by intent had more items than would be included in the final version, to allow for elimination of faulty items. In the preliminary version, each inventory had four subtests, one for each goal area, with a possible score of 110 points.

The inventory had four forms, one for each grade level. All forms were for group administration. Forms B, C, and D were designed so students could read the items and record their responses on the inventory booklets. Form A, for administration to 3rd graders, was designed for the items to be read orally by the teacher. Students responded by circling yes or no for each item on the answer sheet. The four forms of the Inventory, A, B, C, and D, therefore had four parts, 1, 2, 3, and 4. In each form Part 1 consisted of items to sample self-realization achievement, Part 2 sampled economic efficiency achievement, Part 3 sampled civic responsibility achievement, and the fourth part, was to sample students' social relationship skills.

Because of reading limitations of learners in Kindergarten to Grade 3, the oral administration technique was selected for this level. The instrument provided a report form on which the learners could record their responses with a minimum of trouble. For the other three levels, the instruments were designed for easy recording of responses directly on the test booklets. Both multiple choice and true/false items were included in the preliminary version.

In constructing the inventory, care was taken to produce an inventory which would satisfy the demands for ease of administration. The inventory was not a power test. It was felt that respondents should not be penalized because of having relatively slow reading rates. Provision was made for respondents to ask questions of the administrator in cases where there was a lack of understanding about the meaning of words in the items. It was found, that most students could complete the inventory in 45 minutes to one hour. Each form had a set of Directions for Administration and Scoring.

Exploratory Testing of Instrument. Upon completing the four primary versions of the inventories, exploratory testing was done on the items. Items were revised or deleted to implement the results of the exploratory testing and the recommendations and comments of professional staff and an outside consultant. The preliminary versions were then reviewed by two specialists in the State Department of Education and one outside evaluator. Additional revisions were made to implement recommendations made.

Pilot Testing of Instruments. Schools were identified for pilot testing the instruments at grades 3, 6, 9, and 12. The design was pre-post experimental control groups. Teachers were assigned to experimental and control groups. Two field supervisors were responsible for distribution and collection of data. The testing design called for one experimental and one control group in each of the following schools, and two in each of the schools marked with an asterisk:

Grade 3: Fern, Kuhio, Maile, Makaha, Holualoa, Kealakehe
Grade 6: Fern, Kuhio, Maile, Makaha, Kealakehe, Konawaena
Grade 9: Central, Jarrett, Kaimuki, Washington, Nanakuli, Waipahu, Konawaena*
Grade 12: Kaimuki*, Nanakuli, Waipahu, Konawaena*

However, due to malfunctions in printing and a concomitant delay in instrument distribution, it was necessary to revise the training design as follows:

Grade 3: Fern, Konawaena, Kuhio, Maile
Grade 6: Konawaena, Kuhio, Maile, Puuhale
Grade 9: Central, Jarrett, Konawaena, Nanakuli, Waipahu
Grade 12: Kaimuki*, Konawaena, Nanakuli, Waipahu

The instruments, directions for administration, and teacher evaluation forms were distributed to participating schools for the pretest which was administered in April to a sample population. In May, using the same procedures as for the pretests, posttests were administered to students in grades 3, 6, 9, and 12.

As part of the pilot testing of the instrument, teachers were required to evaluate the instrument and also to rate each item on the instrument. Results of pre- and posttests and teacher evaluations were treated statistically.

Refinement and Synthesis of Final Instrument. Based on results from the analysis of results from pre-posttests, experimental and control groups, and teacher ratings, the instrument was refined.

Results and Accomplishments

Results and Accomplishments Related to Objective 1: In-Service Staff Training.

Participants. Three hundred persons returned completed enrollment forms for the seven two-day workshops. Fourteen of the 300 applicants withdrew, leaving a total of 286 participants. In addition, four panelists participated during the morning session of each workshop. Table 1 shows a breakdown of the participants at each workshop by sex, age, and education.

Table 1

Participant Sex, Age, and Education by Workshop Location

Participant Characteristics	Workshop Location							Total
	Windward	Kauai	Honolulu	Hilo	Kona	Leeward	Maui	
Sex								
Male	12	9	23	11	21	8	14	98
Female	36	33	31	23	37	14	14	188
Total	48	42	54	34	58	22	28	286
Age								
20 - 24	1	0	1	2	5	1	1	11
25 - 29	5	12	10	8	11	9	6	61
30 - 34	5	10	4	7	11	4	3	44
35 - 39	9	6	6	4	13	2	6	46
40 - 44	13	4	14	4	8	1	3	47
45 - 49	8	6	9	3	3	1	3	33
50 - 54	4	2	6	0	2	0	3	17
55 - 59	1	2	3	3	1	3	1	14
60 - up	0	0	0	1	0	0	0	1
Total	46	42	53	32	54	21	26	274
No Response	2	0	1	2	4	1	2	12
Median Age	41.5	33.5	42.0	34.5	35.5	29.5	37.5	37.0
Education								
Less than BA	1	0	0	0	0	0	1	2
BA	29	32	26	27	46	12	24	196
MA	17	8	21	6	11	10	3	76
Ph.D.	1	1	7	0	0	0	0	9
No Response	0	1	0	1	1	0	0	3
Total	48	42	54	34	58	22	28	286

Inspection of Table 1 shows that nearly twice as many women as men attended. Only at the Maui workshop did the men equal the women in numbers. In age, the Leeward workshop had the youngest group, and Windward and Honolulu the oldest groups. Nearly 30% of the participants held advanced degrees, with over half of this 30% represented by participants in the Windward and Honolulu workshops.

Table 2 presents the employment classifications of the workshop participants.

Table 2

Participant Employment by Workshop Location

Employment Classification	Workshop Location							Total
	Windward	Kauai	Honolulu	Hilo	Kona	Leeward	Maui	
Teachers								
K - 3	9	13	3	9	18	0	3	55
4 - 6	7	11	5	5	16	2	3	49
7 - 9	3	3	9	0	6	2	3	26
10 - 12	4	9	10	9	6	5	14	57
Library	1	1	0	0	0	0	0	2
Special Education, Elementary	2	0	2	0	2	0	0	6
Special Education, Secondary	5	0	1	0	0	1	0	7
Diagnostic Prescriptive	3	0	0	1	0	0	0	4
Total	34	37	30	24	48	10	23	206
Counselors								
Elementary	0	1	0	0	2	0	0	3
Secondary	3	0	4	4	3	3	2	19
Total	3	1	4	4	5	3	2	22
Administrators								
Elementary	4	0	0	0	2	1	1	8
Secondary	0	0	3	1	1	0	0	5
Total	4	0	3	1	3	1	1	13
District Office Specialists	2	4	0	5	1	0	2	14
Department of Education Specialists	4	0	2	0	0	1	0	7
University of Hawaii								
Faculty	1	0	14	0	0	1	0	16
Students	0	0	1	0	1	6	0	8
Total	1	0	15	0	1	7	0	24
Total Participants	48	42	54	34	58	22	28	286
Total Withdrawals	2	4	1	2	1	0	4	14
Total Applicants	50	46	55	36	59	22	32	300

Table 2 shows that the majority of participants were teachers. Teachers were in heavy majority at Kauai and Kona. Leeward was the only workshop at which teachers were not in the majority. A comparison of Table 2 with Table 1 leads to the conjecture that the relatively young median age at Leeward was due to the fact that over a quarter of the Leeward participants (27%) were University of Hawaii students. Further investigation proved this untrue; the average age of the six students was exactly the same as the median age of the entire group. Kauai and Kona teachers were predominently elementary school teachers, while Leeward and Maui teachers were predominently high school teachers. A preponderance of elementary teachers was expected at Kona, since the workshop date fell on the homecoming weekend for the largest high school in the Kona area. Representation from intermediate schools was light for all the workshops except Honolulu. Counselors were mostly secondary counselors. District office representation was particularly strong in Kauai and Hilo. Department of Education representation occurred only at the Oahu workshops, with a majority of the Department of Education participants attending the Windward workshop. University of Hawaii was represented mainly at Honolulu and Leeward, with representation primarily by faculty at Honolulu and by students at Leeward.

Participant Self-Evaluation. Participants' self-evaluation was made to determine the extent to which participants felt they had achieved the program goals: understanding career development concepts and principles, and development of skills for infusing career development into the existing curriculum. Table 3 gives the results of the self-evaluation.

Inspection of Table 3 reveals that over 80% of the participants at Windward, Kauai, Hilo, Kona, Leeward, and Maui felt they had succeeded in acquiring understanding of career development concepts and principles through participation in the workshop. Over 80% of participants in Windward, Kauai, Hilo, Kona, and Maui felt they had acquired skills for implementing career development in the classroom. For all seven workshops, 89.25% of the 286 participants felt they had acquired the necessary knowledge, while 2.85% felt they had not. In the area of developing skills, 88.12% of all the participants felt they had succeeded in developing the necessary skills, while 3.11% felt they had not. There was little difference between participants' estimate of knowledge increase and skill development.

Participants self-evaluation also included ratings of the achievement of objectives which implemented the major goals. Ratings were given of the extent to which major concepts were acquired and primary skills developed, as well as an assessment of professional competencies developed. The results of the participant ratings on a scale of 1 to 4 of the achievement of these training objectives are given in Table 4.

Table 3

Percent of Participants Acquiring Career Development Knowledge and Skills by Self-Evaluation

Workshop	Acquired Knowledge at Criterion Level	Developed Skills at Criterion Level	Combined Knowledge and Skills
	Percent	Percent	Percent
Windward			
Did acquire	83.33	83.33	83.33
Did not acquire	0.00	2.08	1.04
No response	16.67	14.56	15.63
Kauai			
Did acquire	92.85	95.23	94.04
Did not acquire	0.00	2.38	1.19
No response	7.15	2.38	4.77
Honolulu			
Did acquire	77.77	72.22	75.00
Did not acquire	5.55	7.40	6.47
No response	16.68	20.38	13.52
Hilo			
Did acquire	94.11	94.11	94.11
Did not acquire	0.00	2.94	1.47
No response	5.89	2.94	4.42
Kona			
Did acquire	93.10	98.27	95.69
Did not acquire	1.72	1.72	1.72
No response	5.13	0.00	2.59
Leeward			
Did acquire	94.74	73.68	84.21
Did not acquire	5.26	5.26	5.26
No response	0.00	21.06	10.53
Maui			
Did acquire	88.88	100.00	94.44
Did not acquire	7.40	0.00	3.70
No response	3.72	0.00	1.86
N Percentages for 7 Workshops			
Did acquire	89.25	88.12	88.69
Did not acquire	2.85	3.11	2.98
No response	7.90	8.77	8.33

Table 4

Participant Self-Evaluation of Achievement of Training Objectives
by Workshop Location

Achievement of Training Objectives	Workshop Location							M Rating
	(n=45) Windward $\bar{X}$	(n=43) Kauai $\bar{X}$	(n=43) Honolulu $\bar{X}$	(n=34) Hilo $\bar{X}$	(n=57) Kona $\bar{X}$	(n=15) Leeward $\bar{X}$	(n=27) Maui $\bar{X}$	
Knowledge Acquired								
1. Increase in the understanding of career development	3.40	3.67	3.60	3.79	3.75	3.80	3.62	3.66
2. Increase in the understanding of the Hawaii Career Development Continuum	3.36	3.32	3.39	3.55	3.40	3.46	3.25	3.37
3. Increase in the understanding of the Career Development Curriculum Guides	2.97	3.13	3.23	3.41	2.92	3.26	3.33	3.17
Skills Developed Development of skills necessary to develop relevant career development learning experiences	3.17	3.39	3.20	3.57	2.92	3.40	3.40	3.29
Professional Competencies Developed Increase in personal and professional growth	3.28	3.60	3.20	3.76	3.64	3.53	3.62	3.51
M Ratings	3.22	3.42	3.34	3.62	3.33	3.49	3.45	3.40

* scale = 0.0 (slight) to 4.0 (very much)

Inspection of Table 4 reveals that overall, participants indicated they had significantly increased their understanding of career development concepts. In each workshop the self-evaluation showed greatest achievement in the understanding of career development. With the exception of Maui participants, the development of understanding of the Hawaii Career Development Continuum was in second place in the order of objectives accomplished to implement the goal of increasing understanding of basic career development concepts. All participants, except at Maui, rated their understanding of the Career Development Curriculum Guides at a lower level than understanding of basic concepts or understanding of the career development continuum.

A secondary objective for the workshop was to increase participants' professional role competencies. The self-rating by participants of accomplishment of this objective, as reported in Table 4, reveals a significant achievement in all workshops except Windward and Honolulu. In these two workshops, there was achievement of the professional growth objective, but the level of achievement was less than at the other workshops. Windward and Honolulu reported a mean rating of 3.28 and 3.20, respectively, compared to a mean of 3.63 for the other five workshops.

Objective Tests. The extent to which training objectives were achieved was also assessed by an objective test. The training mission was for participants to reach a 70% criterion level on tests of knowledge and skills. Table 5 shows the results of this objective evaluation of the participants' acquisition of knowledge about career development concepts and development of skills for infusing career development into the curriculum.

Table 5

Participant Scores* on Tests of Career Development Knowledge and Skills by Workshop

Test	Workshop Location							N
	Windward	Kauai	Honolulu	Hilo	Kona	Leeward	Maui	
Knowledge	4.96	8.22	8.22	7.36	6.62	6.00	7.40	6.[illegible]
Skill	6.42	7.21	6.61	7.56	6.52	5.56	6.44	6.61
Total	11.38	15.43	14.83	14.92	13.14	11.56	13.84	13.5[illegible]

* Possible Score = 10 points each test

Inspection of Table 5 shows the mean score for all seven workshops to be close to 70% for knowledge, 66% for skill, and almost 68% for knowledge and skills combined. This is slightly below criterion level of 70%. All except Windward, Kona, and Leeward reached criterion level on knowledge acquisition; only Kauai and Hilo met criterion level on skill development.

Table 6 shows the percentage of participants in each workshop reaching criterion level on the tests over acquisition of knowledge and development of skills.

Table 6

Percent of Participants Acquiring Career Development Knowledge and Skills by Objective Tests

Workshop	Acquisition of Knowledge at Criterion Level	Development of Skills at Criterion Level	Total
	Percent	Percent	Percent
Windward			
Did reach Criterion Level	22.92	64.58	43.75
Did not reach Criterion Level	54.16	35.42	44.79
No response	22.92	0.00	11.46
Kauai			
Did reach Criterion Level	73.81	71.43	72.62
Did not reach Criterion Level	26.19	28.57	27.38
No response	0.00	0.00	0.00
Honolulu			
Did reach Criterion Level	44.45	59.26	51.86
Did not reach Criterion Level	22.22	35.19	28.70
No response	33.33	5.55	19.44
Hilo			
Did reach Criterion Level	58.82	82.35	70.59
Did not reach Criterion Level	35.29	17.65	26.47
No response	5.89	0.00	2.94
Kona			
Did reach Criterion Level	60.34	56.90	58.62
Did not reach Criterion Level	39.66	43.10	41.38
No response	0.00	0.00	0.00
Leeward			
Did reach Criterion Level	50.00	13.63	31.82
Did not reach Criterion Level	36.36	59.09	47.72
No response	13.64	27.28	20.46
Maui			
Did reach Criterion Level	46.43	53.57	50.00
Did not reach Criterion Level	32.14	42.86	37.50
No response	21.43	3.57	12.50
Percentages for 7 Workshops			
Did reach Criterion Level	50.96	57.39	54.18
Did not reach Criterion Level	35.15	37.41	36.28
No response	13.89	5.20	9.54

Inspection of Table 6 shows close to a normal distribution across workshops for results of both knowledge and skill tests. Of the participants at Kauai, 74% met criterion level in the knowledge test compared to only 23% at Windward. The percentage of participants meeting criterion level at the other workshops were 60%, 59%, 50%, 46%, and 44% at Kona, Hilo, Leeward, Maui, and Honolulu, respectively. On the skills test, 82% of participants met criterion level at Hilo and 71% at Kauai, compared to only 13% at Leeward. The percentage of participants meeting criterion level on the skills test in the other workshops were 65%, 59%, 57%, and 53% at Windward, Honolulu, Kona, and Maui, respectively. The percentages of participants reaching criterion level on overall achievement of training objectives, as measured by objective tests, for the seven workshops were 72%, 71%, 58%, 52%, 50%, 44%, and 32% for Kauai, Hilo, Kona, Honolulu, Maui, Windward, and Leeward, respectively.

The results of the objective tests generally confirm the results of self-evaluation, as far as Kauai and Hilo workshops being the most effective in achieving training objectives. There also is agreement that the Kona workshop was very effective, with the percentage of participants reaching criterion level roughly 10 percentage points below that for Hilo and Kauai. Discrepancies are found between self-evaluations and objective tests for the other workshops. This may be accounted for in part by the number of non-responses. The objective tests show Leeward, Windward, Maui, and Honolulu to have been relatively less effective than Kauai, Hilo, and Kona.

Training Evaluation. Evaluation was made of the training process by participant rating of the workshop activities, reading materials, staff and resource persons, facilities, and schedule. The program contained a variety of different kinds of tasks and techniques. Table 7 shows participant ratings of the various activities on a 4-point scale, from 1 to 4.

Inspection of Table 7 shows that all but three activities were rated as contributing significantly to achievement of the training objectives. The film, study of materials, and readings, with ratings of 3.10, 3.10, and 3.08, respectively, on a scale of 1 to 4, were considered worthwhile but were of relatively less value than the other activities which had ratings ranging from 3.20 to 3.70.

Overall, participation in task groups was considered to be the most important activity. The banquet session was generally considered the next most valuable activity. Five workshops rated task groups the highest and two workshops gave the highest rating to listening at the banquet session. Ratings for task group activity and banquet session were 3.70 and 3.56, respectively, on a scale of 1.0 to 4.0. In general the participants favored group activities over individual activities, as seen by the relatively lower ratings given to reading reference materials, reviewing instructional materials, and watching the career education film. Comments by participants also revealed more enjoyment derived from participation-type activities than from the passive activities. A Leeward participant declared, "I'm glad somebody realized sitting and listening are not nearly as important as involvement!" The fact that listening at the banquet session, a passive activity, was highly rated is a tribute to the banquet speakers.

Table 7

Participant Rating* of Workshop Activities

Workshop Activities	Workshop Location							M Rating
	Windward n=45	Kauai n=43	Honolulu n=43	Hilo n=34	Kona n=57	Leeward n=15	Maui n=27	
Participating in task groups	3.38	3.65	3.37	3.88	3.73	4.00	3.92	3.70
Listening at banquet session	3.13	3.93	3.53	3.47	3.68	3.73	3.46	3.56
Informal discussions with participants	3.28	3.52	3.47	3.67	3.46	3.66	3.61	3.52
Dialogue with resource persons	3.20	3.82	3.21	3.57	3.36	3.73	3.41	3.47
Listening to career development presentations	3.20	3.39	3.19	3.61	3.42	3.46	3.44	3.38
Participating in general discussion	2.66	3.37	3.28	3.00	3.50	3.66	3.53	3.28
Viewing career education film	2.80	2.97	3.00	3.33	3.44	3.14	3.04	3.10
Reviewing career development instructional materials	2.77	3.04	2.76	3.48	3.14	3.40	3.11	3.10
Reading assigned reference materials	3.00	3.17	3.11	3.21	3.07	3.00	3.00	3.08
M Rating	3.05	3.43	3.21	3.48	3.44	3.56	3.40	3.35

* Scale = 1.0 (not worthwhile) to 4.0 (extremely worthwhile)

The reading materials, which were included for reference in conducting task group activities at the workshop and for subsequent use in the participants' school roles, might have been more effective had the workshop been longer, and allowed more time for participants to do in-depth reading. It was suggested that the reading materials be sent to participants in advance. A Kona participant wrote, "A bibliography of suggested readings would have been excellent preparation for this intensive 15-hour workshop." However, lack of sufficient funds to defray mailing costs, together with the lack of time, made this impossible. To have sent the reference materials to participants in advance, it would have been necessary to have enrollments for a workshop completely processed two weeks before the starting date. There was no workshop where this situation occurred.

Workshop personnel constituted an important factor in the training process. The extent to which instructional personnel contributed to the program objectives was determined. The instructional staff, consisting of the program director, and resource persons, consisting of the guest speaker and local panelists, were rated by participants on mastery of content and on communication skills. Results of this rating are shown on Table 8.

Inspection of Table 8 reveals significantly high rating for the program director and the guest speaker, with overall ratings of 3.76 and 3.73, respectively, on a scale of 1.0 to 4.0. There was little variation across seminars in ratings of these instructional personnel on their contribution to the program goals, with the exception of Windward and Honolulu where ratings on content and communication were 3.32 and 3.62, and 3.67 and 3.59 for program director and guest speaker, respectively. At all workshops the program director and guest speaker contributed significantly to program goals. Local panelists, rated separately from the outside resource person, were seen as an important part of the program at all workshops. The highest ratings were for the panelists at the Leeward and Maui workshops, with ratings of 3.57 and 3.49, respectively. In general, communication skills were rated slightly higher than content mastery, the single exception being the rating for program director, where content mastery was higher than communication, with ratings of 3.80 and 3.72, respectively. This difference is accounted for by the discrepant ratings given to mastery of content and communication at the Windward workshop, where the difference was .38, a significant difference. The differences at the other six workshops ranged from zero at Kauai and Leeward to .12 at Honolulu, with an average discrepancy of .04.

Table 8

Participant Rating* of Staff and Resource Personnel Competence
by Workshop Location

Workshop	Personnel					M
	Program Director	Resource Persons				
		Guest Speaker	Panelist 1	Panelist 2	Panelist 3	
Windward (n=45)						
Content Mastery	3.51	3.62	2.97	3.13	3.23	3.29
Communication Skill	3.13	3.62	3.07	3.04	3.25	3.22
M	3.32	3.62	3.02	3.09	3.24	3.26
Kauai (n=43)						
Content Mastery	3.90	3.95	3.06	3.27	0.00	3.55
Communication Skill	3.90	3.86	3.09	3.28	0.00	3.53
M	3.90	3.90	3.08	3.27	0.00	3.54
Honolulu (n=43)						
Content Mastery	3.73	3.56	3.35	3.35	3.23	3.44
Communication Skill	3.61	3.61	3.36	3.28	3.02	3.38
M	3.67	3.59	3.36	3.32	3.12	3.41
Hilo (n=34)						
Content Mastery	3.84	3.63	3.19	3.44	3.40	3.50
Communication Skill	3.91	3.64	3.27	3.58	3.42	3.56
M	3.88	3.64	3.23	3.51	3.41	3.53
Kona (n=57)						
Content Mastery	3.85	3.82	3.19	3.32	3.17	3.47
Communication Skill	3.82	3.76	3.27	3.30	3.27	3.48
M	3.84	3.79	3.23	3.31	3.25	3.48
Leeward (n=15)						
Content Mastery	3.93	3.73	3.46	3.57	3.46	3.63
Communication Skill	3.93	3.86	3.60	3.71	3.60	3.74
M	3.93	3.80	3.53	3.64	3.53	3.79
Maui (n=27)						
Content Mastery	3.84	3.76	3.58	3.36	3.47	3.60
Communication Skill	3.80	3.84	3.58	3.31	3.66	3.64
M	3.82	3.80	3.58	3.34	3.57	3.62
Total (n=206)						
Content Mastery M	3.80	3.72	3.25	3.34	3.33	3.49
Communication Skill M	3.72	3.73	3.32	3.35	3.37	3.50
Combined Competence M	3.76	3.73	3.29	3.35	3.35	3.50

*Scale = 1.0 (poor) to 4.0 (outstanding)

Three other program factors which were considered important variables in the training process were rated: program information, workshop facilities and services, and time allocation. Results of the ratings of these factors are found in Table 9.

Inspection of Table 9 reveals considerable variation among the workshops on the different items. Program information was rated relatively lower than either facilities and services or time allocation. The rating of 2.93, on a scale of 1.0 to 4.0, for adequacy of program information was above the chance mean of 2.50, but significantly less than the rating for workshop facilities (3.46) or time allocation (3.12). Inspection of the ratings for program information by workshop suggests that the overall rating of less than 3.0, on a scale of 1.0 to 4.0, was accounted for by the ratings of 2.82 and 2.62 for Windward and Honolulu respectively. A comparison of the adequacy of information across workshops shows Kauai and Kona to have the highest ratings, with 3.05 and 3.08, respectively. The relatively high ratings at Kauai and Kona might be explained by the fact that these two workshop locations were the only ones for which letters from the Career Development Continuum Project Coordinator were mailed to school personnel in the area. It is possible that the rating on the program information factor might have been higher had it been possible to have provided a more comprehensive and systematic program of information dissemination. Lack of funds to defray communication costs, and the concomitant lack of an overall plan for a single, unified operation, precluded implementation of an optimally functioning information system. Information bulletins and enrollment forms were mailed to the district offices in September. However, in many reported instances, the information failed to reach school personnel in time to enroll in the workshops. Personnel from several schools in Honolulu, Central, and Leeward districts reported, after the fact, that they had not received notification of the workshops.

Workshop facilities and services are considered important factors for delivery of in-service training. Facilities and services combine to be the single most important factor in establishing the extent to which the environment is conducive to learning. Facilities and services include items such as type and arrangement of furniture, ventilation, lighting, sound, space, food service, and audio visual equipment.

An ideal location was judged to be one where (a) food and coffee were nourishing, appetizing, plentiful, and prepared and served by professional food service staff; (b) furniture was set up in advance of the opening of the workshop according to a scientifically designed and tested plan; (c) lighting was adequate for reading and writing, with a dimming adjustment for use with audio visual aids; (d) heating and cooling could be regulated and held constant; (e) the space was neither so small as to be crowded nor so large as to dwarf the group; and (f) there was minimal distraction to interfere with the purpose and content of the workshop.

Table 9

Participant Rating* of Program Factors

Factors	Workshop Location							Factor
	Windward n=45	Kauai n=43	Honolulu n=43	Hilo n=34	Kona n=57	Leeward n=15	Maui n=27	M
Program Information								
Pre-workshop information was adequate	2.90	3.00	2.59	3.03	3.10	2.92	3.00	
Pre-workshop information accurately described program	2.73	3.09	2.65	2.94	3.05	2.92	3.00	2.93
M	2.82	3.05	2.62	2.99	3.08	2.92	3.00	
Workshop Facilities and Services								
Location (city) for workshop was satisfactory	3.24	3.48	3.46	3.52	3.50	3.66	3.50	
Coffee service was satisfactory	3.52	3.47	3.26	3.48	3.40	3.73	3.55	
Meal service was satisfactory	3.60	3.74	2.95	3.61	3.31	3.86	3.92	
Menu was satisfactory	3.72	3.71	2.96	3.55	3.22	3.66	3.95	
Meeting space allocation was satisfactory	3.30	3.72	3.20	3.64	3.52	3.80	3.77	
Tables and chairs were satisfactory	3.26	3.69	3.13	3.61	3.76	3.40	3.62	3.46
Lighting was satisfactory	2.22	3.67	3.11	3.58	3.00	3.73	3.66	
Sound system was satisfactory	3.02	3.72	3.30	3.67	3.52	3.73	3.74	
Audio visual equipment was satisfactory	3.15	3.53	3.23	3.57	3.43	3.46	3.59	
Ventilation was satisfactory	3.24	3.53	2.69	3.36	2.57	3.73	3.62	
Working space was satisfactory	3.20	3.69	3.00	3.47	3.33	3.80	3.70	
M	3.22	3.63	3.12	3.55	3.32	3.69	3.69	
Time Allocation								
Length of workshop (15 hours) was satisfactory	3.02	3.33	3.05	3.14	3.10	3.26	3.22	
Daily schedule (3:30-10:30 Friday 8:00-4:30 Saturday) was satisfactory	2.86	3.23	2.92	3.20	3.03	3.13	3.18	3.12
M	2.94	3.28	2.99	3.17	3.07	3.20	3.20	
Combined M	3.13	3.51	3.03	3.42	3.26	3.52	3.53	

* Scale = 1.0 (low) to 4.0 (high)

The facilities varied greatly among the various workshops. Overall, the mean rating of 3.46 for facilities and services indicates the physical environments which were created at the seven workshops were conducive to learning. An inspection of the ratings on facilities and services for the respective workshops, and study of ratings of the individual items within each workshop, reveals the workshop environments to fall in two groups. Three workshops were relatively lower than the other four. Rating for the facilities and services at Honolulu, Windward, and Kona were 3.12, 3.22, and 3.32, respectively, with a mean of 3.22, compared to ratings of 3.55, 3.63, 3.69, and 3.69 for Hilo, Kauai, Leeward, and Maui, respectively, with a mean of 3.64.

An analysis of the facilities and services at the individual workshops reveals that the rating of the Honolulu facilities and services, 3.12, would have been even lower had it not been for the favorable reaction to the city location, 3.46. At Windward, the 3.22 rating would have been considerably lower, except for the favorable reaction to coffee service, meal service, and menu, where ratings of 3.52, 3.60, and 3.72, respectively, served to inflate the otherwise depressed mean.

The overall high rating of 3.69 for Leeward and Maui is accounted for in both instances by the favorable reaction to food service. Individual ratings show the lighting at Windward was poor, with a rating of 2.22, and ventilation at Honolulu and Kona was unsatisfactory, with ratings of 2.69 and 2.57, respectively. Although overall ratings for the seven workshop facilities suggest the environments were adequate, the deficiencies in environmental factors, such as lighting and ventilation, might have worked against attainment of program goals. The rating of 3.63 for the Kauai facilities is reinforced by the participant comment, "Excellent physical setup for meeting." It should be noted that the rating for Leeward facilities was the result of ratings by only 15 participants, since seven enrollees did not attend the full program.

Scheduling is an important factor in delivery of in-service training. The evaluation of this factor was accomplished by participant rating of time allocation. The overall rating of 3.12 on a scale of 1.0 to 4.0 suggests the scheduling of time was satisfactory. The length of the workshop, 15 hours, generally was considered all right. Windward and Honolulu participants were relatively less satisfied, as evidenced by ratings of 3.02 and 3.05, respectively, compared to 3.10, 3.14, 3.22, 3.26, and 3.33 for Kona, Hilo, Maui, Leeward, and Kauai, respectively. The daily scheduling of time was considered satisfactory for accomplishing the workshop goals. However, scheduling at Windward, Honolulu, and Kona, with ratings 2.86, 2.92, and 3.03, respectively, was relatively less satisfactory than the scheduling at Leeward, Maui, Hilo, and Kauai, where ratings were 3.13, 3.18, 3.20, and 3.23, respectively.

Since the same time schedule was used at all workshops, this discrepancy must be explained in terms of other interacting or contributing variables. It should be noted that the program at Windward for Day 1 was not followed according to schedule. A task activity scheduled for the first session was not carried out. Comments from participants at

Honolulu and Kona suggest the rating on scheduling at these workshops may have been a reflection of the desire for more time. A Honolulu participant commented, "I enjoyed participating in this workshop, but felt we needed more time. . . ." A Kona participant observed that, "The time flew by very quickly," and another said, "We need more time." The relatively higher rating on the scheduling factor by Maui participants is reflected in the comment, "I got more than my money's worth in profitable time spent - even though it meant giving up my precious Saturday!"

The combined ratings on program information, facilities and services, and time allocation reveal the workshops to be in two groups. Windward, Honolulu, and Kona had mean ratings on these three program factors of 2.94, 2.99, and 3.07, respectively, with a mean of 3.00. This compares to mean ratings of 3.17, 3.20, 3.20, and 3.28 for Hilo, Leeward, Maui, and Kauai with a mean of 3.21, a difference of .21 between the groups. When the ratings on these three factors are combined with ratings on instructional personnel, activities, and materials, the results, as shown in Table 10, is an overall rating of the training process which indicates all workshops were above average. The process implemented at Windward and Honolulu were relatively less effective than at the other five workshops.

Table 10

Mean Rating of Training Process Factors

Training Factors	Workshop						
	Windward	Kauai	Honolulu	Hilo	Kona	Leeward	Maui
Personnel	3.26	3.54	3.41	3.53	3.48	3.79	3.62
Information	2.82	3.05	2.62	2.99	3.08	2.92	3.00
Facilities	3.22	3.63	3.12	3.55	3.32	3.69	3.69
Schedule	2.94	3.28	2.99	3.17	3.07	3.20	3.20
Materials and Activities	3.05	3.43	3.21	3.48	3.44	3.56	3.40

Scale = 1.0 (low) to 4.0 (high)

The overall ratings of the training process is supported by participants' comments which reveal considerable satisfaction with the organization and administration of the workshops. A sampling of the comments are:

"The organization was superb." (Kauai)

"Most organized workshop I've ever attended." (Kona)

"I was really impressed with the organization and efficiency exhibited by the workshop staff and the punctuality and effectiveness of the sessions. Obviously, much thought and experience went into the smooth-running, worthwhile, and rewarding sessions." (Maui)

"A well planned and thought out workshop. I would be very much interested in attending another, with or without credit!" (Hilo)

"Extremely well-organized and productive. One of the best workshops I have attended in respect to content, delivery system, and personnel participation. Professional! Those who didn't sign up really missed a good program!" (Leeward)

"This was truly one of the most outstanding workshops I have attended." (Hilo)

"I would like to see something similar presented to each faculty upon implementing the career development continuum throughout the schools." (Windward)

"Please bring back more workshops of this nature." (Kona)

"You planned and conducted a superb activity-oriented workshop! Thank you!" (Honolulu)

Perhaps most significant was the enthusiasm expressed by participants at the conclusion of the workshops--enthusiasm which is likely to enrich the Hawaii school system. One Hilo participant summed it up: "Highly stimulating. Can't wait to incorporate experiences in this class to (my) own classroom."

Results and Accomplishments Related to Objective 2: Development of Instruments for Student Growth Assessment.

A Student Growth Assessment of Career Development Inventory battery consisting of four tests, for grades 3, 6, 9, and 12, was developed. The Inventory was designed to assess student growth in career development by providing a measure of the extent to which the four goals of the Career Development Continuum, as implemented in the Career Development Continuum Curriculum Guides, are achieved. The battery does not attempt to measure attitudes toward work or vocational preferences.

After exploratory testing, preliminary versions of each of the four subtests were pilot tested with inventories administered to experimental and control groups of students in April 1975 and again in May 1975. The development of each of the inventories comprising the Student Growth Assessment Inventory is discussed for the following: Inventory Form A, Inventory Form B, Inventory Form C, and Inventory Form D.

Inventory Form A

Results of Pilot Testing

Inventory Form A was administered to 212 third grade students assigned to experimental and control groups in three schools on the island of Oahu and one school on the island of Hawaii. The tests were administered by regular classroom teachers who had received prior training. Tables 11 and 12 show the numbers of students in the pretest and posttest groups by school.

Table 11

Third Grade Students Pretested by School

School	Experimental Group	Control Group	Total
Fern	24	20	44
Konawaena	31	33	64
Kuhio	26	24	50
Maile	31	33	64
Total	102	110	212

Table 12

Third Grade Students Posttested by School

School	Experimental Group	Control Group	Total
Fern	24	16	40
Kuhio	25	22	47
Total	49	38	87

Posttests from Maile and Konawaena schools were not returned to the project office. Field supervisors reported these tests were lost in the mail.

The preliminary version of Inventory Form consisted of 120 questions divided among the four career development goal areas, with a total possible score of 110. Total possible scores for each of the subtests are as follows: Self-Realization, 25; Economic Efficiency, 25; Social Relationship, 25; Civic Responsibility, 35. Table 13 presents the pretest results, by school and by experimental and control groups of third grade students for the four subtests representing the four goal areas of career development.

Table 13

Grade 3 Pretest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Fern	14.87	17.70	3.93	3.59	.80	.80	0.29	-0.98	-0.08	-0.68
Kuhio	12.50	16.20	2.84	3.37	.55	.68	-0.48	0.31	-0.62	-0.10
Maile	17.86	14.94	3.93	4.00	.82	.97	-0.06	0.27	-1.37	-0.54
Konawaena	17.09	15.78	4.10	2.89	.73	.50	-0.07	0.24	-0.88	-1.03
All Schools	15.60	16.14	4.24	3.45	.41	.35	0.76	-0.07	-1.27	-1.22
Economic Efficiency										
Fern	18.20	16.75	3.28	3.65	.67	.81	-0.72	0.61	0.23	-0.91
Kuhio	14.61	16.37	3.06	3.06	.60	.62	0.02	1.03	-1.15	0.50
Maile	18.17	15.52	3.37	4.48	.70	1.08	-0.62	-0.26	-1.25	-0.94
Konawaena	19.09	19.15	3.23	3.44	.58	.60	-1.71	-0.37	0.58	-0.52
All Schools	17.56	17.27	3.64	3.83	.35	.39	-1.29	-0.15	-1.35	-0.94
Social Relationships										
Fern	16.12	17.40	4.27	3.33	.87	.74	-0.10	-1.05	-0.49	-0.50
Kuhio	13.42	13.37	3.78	4.49	.74	.91	-0.61	-0.08	-0.78	-0.77
Maile	17.00	16.52	3.82	3.74	.79	.90	-2.09	-1.00	1.24	-0.25
Konawaena	18.96	19.78	3.32	3.36	.59	.58	0.05	-0.75	-0.76	-0.85
All Schools	16.49	17.05	4.26	4.44	.41	.45	-1.47	-2.03	-0.31	-0.39
Civic Responsibility										
Fern	18.95	20.75	3.41	2.69	.69	.60	0.11	-0.68	-0.91	-0.53
Kuhio	16.34	19.37	4.69	3.11	.91	.63	-1.67	-0.90	0.92	-0.40
Maile	20.86	19.52	2.65	4.10	.55	.99	-1.30	-0.23	-0.58	-1.05
Konawaena	20.12	20.36	4.34	2.89	.78	.50	-1.18	-0.86	-1.29	-0.80
All Schools	19.07	20.04	4.23	3.15	.41	.32	-3.14	-1.62	1.49	-1.12
Combined Subtests										
Fern	68.16	72.60	12.70	11.50	2.59	2.57	0.24	-0.45	-0.61	-1.06
Kuhio	56.50	65.33	11.47	12.25	2.25	2.50	-0.59	0.58	-0.33	-0.50
Maile	73.91	66.52	11.18	13.50	2.33	3.27	-0.48	-0.66	-1.32	-1.06
Konawaena	75.29	75.09	13.10	10.45	2.35	1.82	-0.02	-0.94	-1.36	-0.63
All Schools	68.64	70.52	14.19	12.30	1.39	1.26	-0.35	-1.17	-1.06	-1.48

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Examination of Table 13 reveals that, overall, the control groups scored slightly higher than the experimental groups. This is accounted for by the higher mean scores of control subjects in Fern and Kuhio schools. The differences between experimental and control groups however were not significant. This was expected as the testing design called for both groups to be at equivalent career development levels prior to treatment.

Posttest results of experimental and control groups of students at Fern and Kuhio schools are presented in Table 14.

Table 14

Grade 3 Posttest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Fern	15.70	17.00	4.39	4.03	.89	1.00	-1.31	-0.94	1.26	-0.53
Kuhio	12.56	15.18	3.94	4.34	.78	.92	0.03	0.92	-1.01	-0.70
All Schools	14.10	15.94	4.42	4.26	.63	.69	-0.56	-0.53	-0.31	-1.08
Economic Efficiency										
Fern	18.08	16.06	4.89	4.02	.99	1.00	-2.83	-0.12	2.73	-0.22
Kuhio	15.12	16.90	3.23	4.17	.64	.88	0.23	-0.49	-1.05	-0.90
All Schools	16.57	16.55	4.35	4.07	.62	.66	-1.63	-0.43	1.25	-0.89
Social Relationships										
Fern	6.45	18.75	5.80	4.10	1.18	1.02	-1.28	-1.19	-0.03	0.03
Kuhio	4.28	14.59	3.48	6.29	.69	1.34	-0.06	0.28	-1.13	-1.25
All Schools	15.34	16.34	4.84	5.79	.69	0.94	-0.64	-0.85	-0.08	-1.37
Civic Responsibility										
Fern	18.33	19.12	4.41	4.25	.90	1.06	-1.30	-2.24	0.81	0.83
Kuhio	15.52	18.59	3.87	4.00	.77	.85	-0.32	-0.27	-1.20	-0.84
All Schools	16.89	18.81	4.34	4.06	.62	.65	-0.75	-1.74	-0.43	-0.18
Combined Subtests										
Fern	68.58	70.93	18.17	14.78	3.70	3.69	-1.85	-1.94	1.73	0.38
Kuhio	57.40	64.36	10.70	16.03	2.14	3.41	0.44	0.03	-0.48	-1.06
All Schools	62.87	67.13	15.72	15.66	2.24	2.54	-0.52	-1.10	1.25	-1.16

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Inspection of Table 14 reveals that control groups scored slightly higher than experimental groups on the posttest. This was also true on the pretest. On the posttest, both experimental and control groups at Fern scored slightly higher than the groups at Kuhio, and again, this was also true of pretest results.

Table 15 presents means, standard deviations, and *t* tests by school for third grade groups for comparisons between pre- and posttest results.

Table 15

Means, Standard Deviations, and *t* Tests
for Third Grade Experimental and Control Groups by School

School/Group	M		S.D.		*t*
	Pretest	Posttest	Pretest	Posttest	
Fern					
Experimental	69.9	72.3	12.98	14.19	.903
Control	72.1	73.1	12.04	12.30	.512
Kuhio					
Experimental	56.9	57.4	11.46	10.70	.289
Control	64.9	64.3	12.55	16.01	-.217

Inspection of Table 15 reveals there were no significant differences between pre- and posttest means. None of the *t* values was significant at .10, .05, or .01 level. The finding of non-significant results, no doubt, is a function of insufficient treatment time. The time interval between pre- and posttests was only one month.

Standardization

Raw scores of third grade students were converted to standardized scores and precentile rankings. For comparison purposes, both pretest and posttest scores were converted. Table 16 presents the pretest raw scores, standardized scores, and percentile rankings by subtest; Table 17 presents the same breakdowns for posttest scores.

Table 16

Third Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	7	30	1
	8	32	3
	9	34	5
	10	37	7
	11	39	12
	12	41	23
	13	44	31
	14	46	37
	15	49	46
	16	51	55
	17	53	66
	18	56	73
	19	58	76
	20	60	82
	21	63	87
	22	65	90
	23	68	94
	24	70	98
Economic Efficiency	9	26	1
	10	29	2
	11	32	5
	12	35	9
	13	37	13
	14	40	19
	15	43	25
	16	46	32
	17	48	41
	18	51	51
	19	54	62
	20	57	71
	21	59	81
	22	62	89
	23	65	95
	24	68	98

Subtest	Raw Score	Standardized Score	Percentile
Social Relationships	5	23	1
	6	25	1
	8	30	2
	9	32	6
	10	35	10
	11	37	13
	12	39	16
	13	42	20
	14	44	24
	15	46	31
	16	49	41
	17	51	53
	18	54	63
	19	56	72
	20	58	80
	21	61	87
	22	63	91
	23	65	94
	24	68	97
	25	70	99
Civic Responsibility	3	12	1
	10	28	2
	11	31	3
	12	33	5
	13	36	9
	14	38	13
	15	40	18
	16	43	22
	17	45	27
	18	47	37
	19	50	47
	20	52	57
	21	55	63
	22	57	69
	23	59	78
	24	62	88
	25	64	97
Combined Subtests	30	23	1
	38	28	1
	40	30	2
	44	33	3
	45	33	4
	46	34	5
	49	36	6
	50	37	7
	51	38	9
	53	39	12

Subtest	Raw Score	Standardized Score	Percentile
Combined Subtests (continued)	54	40	15
	55	40	17
	56	41	20
	57	42	23
	58	42	25
	59	43	27
	60	44	30
	61	45	35
	62	45	37
	63	46	40
	64	47	42
	65	47	43
	66	48	45
	67	49	48
	68	50	50
	69	50	51
	70	51	54
	71	52	56
	72	52	58
	73	53	59
	74	54	62
	75	54	65
	76	55	67
	78	57	70
	79	57	74
	80	58	76
	82	59	78
	83	60	81
	84	61	84
	85	62	86
	86	62	88
	87	63	91
	90	65	93
	91	66	94
	92	67	95
	93	67	97
	94	68	98
	96	69	99
	98	71	99

Examining Table 16 reveals that a combined subtests raw score of 58 falls into the 25th percentile, a raw score of 68 falls into the 50th percentile, and a raw score of 79 falls into the 74th percentile. It was necessary to score at least 96 points to fall into the 99th percentile. These were compared with posttest scores and percentile rankings which are presented in Table 17.

Table 17

Third Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	3	25	1
	6	32	4
	8	36	9
	9	38	13
	10	41	17
	11	43	23
	12	45	32
	13	47	41
	14	50	48
	15	52	54
	16	54	63
	17	57	73
	18	59	81
	19	61	88
	20	63	93
	21	66	95
	22	68	97
	24	73	99
Economic Efficiency	2	16	1
	10	35	4
	11	37	7
	12	39	12
	13	42	21
	14	44	28
	15	46	35
	16	49	45
	17	51	56
	18	53	64
	19	56	68
	20	58	73
	21	60	81
	22	63	89
	23	65	95
	24	67	99
Social Relationships	2	22	1
	7	33	3
	8	35	5
	9	37	9
	10	39	14
	11	41	20
	12	43	26
	13	45	31
	14	47	38
	15	49	46
	16	51	55
	17	53	61
	18	56	66
	19	58	76
	20	60	86
	21	62	91
	23	66	94
	25	70	98

Subtest	Raw Score	Standardized Score	Percentile
Civic Responsibility	6	25	1
	9	32	3
	10	34	7
	11	36	11
	12	39	15
	13	41	20
	14	43	24
	15	46	30
	16	48	37
	17	50	47
	18	53	60
	19	55	68
	20	57	74
	21	60	84
	22	62	90
	24	67	94
	25	69	98
Combined Subtests	13	18	1
	37	33	3
	42	37	5
	44	38	7
	45	39	9
	49	41	12
	50	42	16
	51	43	19
	53	44	22
	54	44	26
	55	45	29
	56	46	35
	57	46	41
	58	47	44
	59	48	47
	60	48	50
	61	49	53
	63	50	56
	64	51	58
	65	51	60
	66	52	62
	67	53	64
	69	54	66
	71	55	68
	72	56	70
	73	57	72
	75	58	74
	76	58	79
	79	60	84
	80	61	87
	81	62	89
	84	64	91
	85	64	93
	92	69	95
	94	70	97
	97	72	99

Examination of Table 17 reveals that a combined subtests raw score of 54 fell into the 26th percentile as compared to a pretest raw score of 53 falling into the 25th percentile. It was necessary to score 68 on the pretest to be in the 50th percentile, and only 60 on the posttest. A pretest raw score of 79 and a posttest raw score of 75 fell into the 74th percentile. And, a pretest raw score of 96 and a posttest raw score of 97 fell into the 99th percentile. In comparing pre- and posttest data it should be noted that pretest data consisted of responses by students in four schools and posttest data consisted of data from only two schools.

Evaluation of Inventory Form A

Inventory Form A was evaluated by teachers who completed a questionnaire to elicit their ratings of the following: readability, length, reliability, scoring, clarity of expression, and freedom from bias. Table 18 shows the mean ratings, on a scale of 1.0 to 5.0, of the evaluative criteria by participating third grade teachers.

Table 18

Third Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form A

Evaluative Criteria	Mean Rating
Freedom from bias	3.50
Directions to students	3.33
Directions for administration	3.33
Coverage of key concepts/subgoals	3.17
Scoring	3.00
Relevance to career development objectives	2.83
Reliability	2.80
Length	2.67
Readability	2.60
Clarity of expression	2.17

Note. N = 6
Rating: 1.0 = low 5.0 = high

Inspection of Table 18 suggests teachers felt there were inadequacies in the areas of relevance to career development objectives, reliability, length, readability, and clarity of expression. Comments of the teachers suggested the inventory should be shortened and the reading level should be lowered. Readability and clarity are related and together could account for realiability deficiencies. These factors were taken into consideration in modifying the inventory.

Participating third grade teachers also evaluated each item on Inventory Form A. For each item, teachers recommended that the item be (a) eliminated, (b) modified, or (c) retained in the existing form. When elimination or modification were recommended, teachers provided substitute items. The teacher evaluations are presented in Table 19.

Table 19

Third Grade Teacher Item Evaluation of Inventory Form A

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	1	3
2	0	1	3
3	0	0	4
4	0	1	3
5	0	1	3
6	0	1	3
7	0	0	4
8	0	0	4
9	1	1	2
10	2	0	2
11	1	0	3
12	1	0	3
13	1	1	2
14	1	1	2
15	1	0	3
16	0	0	4
17	0	1	3
18	0	0	4
19	0	0	4
20	0	0	4
21	0	0	4
22	0	0	4
23	0	1	3
24	0	1	3
25	0	0	4
26	0	0	4
27	0	0	4
28	0	1	3
29	0	0	4
30	0	0	4
31	0	0	4
32	0	1	3
33	0	0	4
34	0	1	3
35	0	1	3
36	0	0	4
37	1	0	3
38	0	0	4
39	0	1	3
40	0	0	4

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
41	0	0	4
42	0	0	4
43	0	1	3
44	0	0	4
45	0	0	4
46	1	0	3
47	1	0	3
48	2	0	2
49	1	0	3
50	0	0	4
51	0	1	3
52	0	0	4
53	0	0	4
54	0	0	4
55	0	1	3
56	0	0	4
57	0	0	4
58	0	0	4
59	0	0	4
60	0	1	3
61	0	1	3
62	0	0	4
63	0	0	4
64	0	0	4
65	0	0	4
66	0	0	4
67	1	0	3
68	1	0	3
69	1	1	2
70	1	1	2
71	1	0	3
72	1	0	3
73	1	0	3
74	0	1	3
75	0	1	3
76	0	1	3
77	0	1	3
78	0	2	2
79	0	1	3
80	0	0	4
81	0	0	4
82	0	0	4
83	1	1	2
84	0	0	4
85	0	0	4
86	0	0	4
87	0	1	3
88	0	0	4
89	0	2	2
90	0	0	4

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
91	0	0	4
92	0	0	4
93	0	1	3
94	0	0	4
95	0	0	4
96	0	0	4
97	1	2	1
98	0	1	3
99	0	0	4
100	0	0	4
1	1	0	3
2	1	0	3
3	1	0	3
4	1	0	3
5	1	0	3
6	1	0	3
7	0	1	3
8	0	0	4
9	0	1	3
10	0	1	3
11	0	0	4
12	0	0	4
13	0	1	3
14	0	0	4
15	0	1	3
16	0	0	4
17	0	0	4
18	0	0	4
19	0	0	4
20	0	0	4

Note. N = 4

Inspection of Table 19 reveals that teachers recommended that no items be eliminated or modified. Results of item evaluations by participating teachers indicated that all of the items were satisfactory in their present form and should be retained.

In addition to teacher evaluations of items, an item analysis was performed using results from pilot testing with 3rd graders. The results of the item analysis on Inventory Form A presented in Table 20 show the percent of correct responses for each item by subtest.

Table 20

Item Analysis of Inventory Form A by Subtest

Subtest	Item Number	Percent of Correct Responses
Self-Realization	1	73
	2	67
	3	58
	4	78
	5	82
	6	55
	7	72
	8	85
	9	63
	10	52
	11	42
	12	75
	13	43
	14	88
	15	75
	16	68
	17	62
	18	78
	19	53
	20	80
	21	60
	22	37
	23	58
	24	55
	25	72
Economic Efficiency	26	88
	27	78
	28	17
	29	63
	30	70
	31	88
	32	63
	33	78
	34	75
	35	65
	36	63
	37	80
	38	92
	39	67
	40	73
	41	83
	42	57
	43	87
	44	75
	45	60
	46	43
	47	37
	48	49
	49	47
	50	80

Subtest	Item Number	Percent of Correct Responses
Social Relationships	51	72
	52	58
	53	55
	54	48
	55	47
	56	52
	57	68
	58	72
	59	75
	60	87
	61	72
	62	82
	63	95
	64	95
	65	82
	66	53
	67	57
	68	63
	69	62
	70	52
	71	43
	72	43
	73	32
	74	88
	75	70
Civic Responsibility	76	67
	77	50
	78	68
	79	62
	80	67
	81	65
	82	54
	83	80
	84	85
	85	73
	86	88
	87	52
	88	87
	89	72
	90	82
	91	80
	92	87
	93	90
	94	93
	95	93
	96	88
	97	83
	98	80
	99	87
	100	90
	1	53
	2	65
	3	54
	4	62
	5	65
	6	58
	7	65
	8	60
	9	67
	10	68
	11	70
	12	57
	13	58
	14	62

Subtest	Item Number	Percent of Correct Responses
Civic Responsibility (continued)	15	63
	16	63
	17	50
	18	70
	19	68
	20	73

Note. Criterion level is a 75% correct response rate.

Inspection of Table 20 reveals that roughly 65% of all inventory items failed to meet the criterion level of 75%. On the Self-Realization subtest 72% of the items needed modification, as compared to 68% on the Social Relationship subtest, 67% on the Civic Responsibility subtest, and 56% on the Economic Efficiency subtest.

Reliability

Estimates of test reliability are obtained to establish the precision of a test as a measuring instrument. The reliability of any instrument refers to the extent that an individual would remain at the same relative place in a group in repeated measurements of the group. Therefore, the more reliable a test, the more consistently would an individual make the same or nearly the same score on the test, assuming no change in ability. To determine the reliability of Inventory Form A, correlation coefficients for pre- and posttest results on each of the four subtests were determined for experimental and control groups of third grade students. These data are presented in Table 21.

Table 21

Means, Standard Deviations, and Correlation Coefficients from Inventory Form A by Subtest and by Group

Subtest/Group	Mean		Standard Deviation		Correlation Coefficient
	Pre.[a]	Post.[b]	Pre.[a]	Post.[b]	
Self-Realization					
Experimental	13.93	14.28	3.54	4.22	.70
Control	16.83	16.13	3.51	4.15	.61
Economic Efficiency					
Experimental	16.46	15.93	3.69	3.85	.61
Control	16.43	16.75	3.38	3.93	.62
Social Relationship					
Experimental	14.82	15.73	4.34	4.48	.73
Control	14.86	16.48	4.69	5.81	.71
Civic Responsibility					
Experimental	17.73	17.11	4.37	4.21	.59
Control	19.70	19.08	2.96	3.77	.57
Total Test					
Experimental	62.73	64.02	13.67	14.33	.75
Control	57.03	67.91	12.69	15.09	.72

Note. [a]Pre. = Pretest
[b]Post. = Posttest

Inspection of Table 21 reveals a relatively high degree of reliability for each of the subtests based on comparisons of pre- and post-test results. The Civic Responsibility subtest was the lowest of the four with a correlation coefficient of .58, compared to a correlation coefficient of .75 for the total test.

Validity

It was deemed important to determine whether the inventory was measuring growth in those career development areas for which it was designed. The process of establishing the validity of any test is an ongoing process that requires the continuous gathering and evaluating of various types of evidence indicative of the performance of the test. Users of Inventory Form A are urged to conduct additional validation studies.

Content Validity. The high content validity of Inventory Form A arises from the fact that the items for the preliminary and modified versions of the inventory were keyed to the goals, subgoals, and objectives of the Career Development Continuum. The relationship between career development goals, subgoals, and objectives, and the 100 items which constitute Inventory Form A, after modification, is shown in Table 22.

Table 22

Relationship of Inventory Form A Items(I) to Career Development Goals(G), Subgoals(SG), and Objectives(O)

I.	G. (SR)	SG.	O.	I.	G. (EE)	SG.	O.	I.	G. (SR*)	SG.	O.	I.	G. (CR)	SG.	O.
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	1	52	3	1	-	77	4	1	-
3	1	1	3	28	2	1	2	53	3	1	-	78	4	1	-
4	1	1	4	29	2	1	2	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	1	-	31	2	2	-	56	3	2	-	81	4	2	-
7	1	1	-	32	2	2	-	57	3	2	-	82	4	2	-
8	1	1	-	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	-	84	4	3	1
10	1	3	-	35	2	3	2	60	3	3	-	85	4	3	-
11	1	3	-	36	2	3	3	61	3	3	-	86	4	3	-
12	1	3	-	37	2	3	3	62	3	3	-	87	4	3	-
13	1	4	-	38	2	4	1	63	3	4	-	88	4	4	1
14	1	4	-	39	2	4	-	64	3	4	-	89	4	4	-
15	1	4	-	40	2	4	-	65	3	4	-	90	4	4	-
16	1	4	-	41	2	4	-	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	-
18	1	5	2	43	2	5	-	68	3	5	-	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	-	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	-	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	1	47	2	6	1	72	3	6	-	97	4	6	-
23	1	6	2	48	2	6	2	73	3	6	-	98	4	6	-
24	1	6	2	49	2	6	2	74	3	6	-	99	4	6	-
25	1	3	-	50	2	3	3	75	3	3	-	100	4	1	-

Note. SR = Self-Realization; EE = Economic Efficiency; SR* = Social Relationships; CR = Civic Responsibility

Criterion-Related Validity. Criterion-related validity refers to establishing the relationship between scores obtained on a given test and those obtained on other specific external criterion measures generally associated with the attribute measured by the test. It was not possible to determine a criterion-related validity estimate as there were no external criteria available which could be used for comparison purposes with inventory scores.

Construct Validity. The construct validity of Inventory Form A was found by determining intercorrelations among the inventory subtests. The degree of intercorrelation between preliminary versions of the subtests was determined and is presented in Table 23.

Table 23

Intercorrelation Between Subtests of Inventory Form A

Subtest	Subtest				Total Test
	Self-Realization	Economic Efficiency	Civic Responsibility	Social Relationships	
Self-Realization	1.00				
Economic Efficiency	.75	1.00			
Civic Responsibility	.62	.65	1.00		
Social Relationships	.61	.67	.66	1.00	
Total Test	.85	.86	.80	.87	1.00

Inspection of Table 23 reveals that the intercorrelation between subtests of Inventory Form A was relatively high. This is not unexpected as the four goal areas of the Career Development Continuum are closely interrelated. Because of the overlapping among goals, it is unrealistic to expect to find pure and completely independent subtests.

Revision and Synthesis of the Final Form of Inventory Form A

Although the results from the teacher item evaluation suggested no need for modifying items on Inventory Form A, the results of the item analysis clearly indicated the need to modify or eliminate some of the items. Teacher comments indicated modifications were needed in relation to readability. The wording of items included in the modified version of the inventory was changed to clarify ambiguous items and to lower the reading level. Administration and scoring were simplified. Each item was given a one point value for a possible score of 25 on each subtest, with a total possible score of 100. Each item called for a true-false response.

The final form of Inventory Form A consists of 100 items, in four parts. Each part has 25 items, with four items for each of the six subgoals, and one item a repeated item to provide a check on reliability. The repeated items are as follows: Items 25 and 11, 50 and 36, 45 and 60, and 100 and 77.

The Administrator's Manual of Instructions - Form A was modified presenting standard procedures to follow in administering and scoring the inventory. Inventory Form A was then administered to a small group of third grade students to verify readability. Results indicated all items were appropriate for a third grade level reading ability.

A copy of the Administrator's Manual of Instructions - Form A, and a copy of Inventory Form A, with correct answers marked, appear as Appendices C and D of this report.

Inventory Form B

Results of Pilot Testing

Inventory Form B was administered to 185 sixth grade students assigned to experimental and control groups in three schools on the island of Oahu and one school on the island of Hawaii. The tests were administered by regular classroom teachers who had received prior training. Tables 24 and 25 show the numbers of students in the pretest and posttest groups by school.

Table 24

Sixth Grade Students Pretested by School

School	Experimental Group	Control Group	Total
Konawaena	25	26	51
Kuhio	24	26	50
Maile	23	19	42
Puuhale	23	19	42
Total	95	90	185

Table 25

Sixth Grade Students Posttested by School

School	Experimental Group	Control Group	Total
Kuhio	24	25	49
Puuhale	21	20	41
Total	45	45	90

Posttests from Konawaena and Maile schools were not returned to the project office. Field supervisors reported these tests were lost in the mail.

The preliminary version of Inventory Form B consisted of 174 questions divided among the four career development goal areas, with a total possible score of 110. Total possible scores for each of the subtests are as follows: Self-Realization, 24; Economic Efficiency, 40; Social Relationships, 20; and Civic Responsibility, 26. Table 26 presents the pretest results, by school and by experimental and control groups of sixth grade students for the four subtests representing the four goal areas of career development.

Table 26

Grade 6 Pretest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Konawaena	18.72	22.07	2.85	1.46	.57	.28	0.31	-1.74	-1.10	-0.57
Kuhio	20.04	20.73	3.09	3.47	.63	.68	-0.61	-0.76	-1.15	-0.32
Maile	20.73	19.31	3.00	3.00	.62	.68	-2.66	0.05	1.46	-0.97
Puuhale	18.08	17.15	3.88	4.05	.80	.93	-0.84	-0.64	-0.88	-0.71
All Schools	19.38	20.06	3.34	3.51	.34	.37	-2.17	-3.15	-0.98	0.70
Economic Efficiency										
Konawaena	26.92	28.84	4.85	4.89	.97	.96	-2.01	-2.43	0.26	1.50
Kuhio	28.08	27.11	4.48	3.93	.91	.77	-1.26	-0.25	-0.36	-0.71
Maile	28.69	30.36	3.36	4.31	.70	.98	0.70	-1.25	-0.66	0.16
Puuhale	25.30	24.47	4.27	4.12	.89	.94	-0.12	0.77	-0.57	-0.90
All Schools	27.25	27.74	4.41	4.74	.45	.50	-2.24	-1.40	-0.04	-0.87
Civic Responsibility										
Konawaena	17.16	18.65	3.37	3.33	.67	.65	-1.39	-0.26	0.30	-1.63
Kuhio	17.50	16.53	3.82	2.99	.78	.58	-0.37	-0.54	-0.38	-0.04
Maile	16.47	16.26	3.31	3.17	.69	.72	-0.53	-0.13	-0.56	-1.18
Puuhale	15.69	13.94	3.29	3.25	.68	.74	-1.64	-0.40	-0.37	-0.24
All Schools	16.72	16.54	3.47	3.54	.35	.37	-1.53	-0.43	-0.23	-0.91
Social Relationships										
Konawaena	14.80	15.07	2.30	2.22	.46	.43	-1.30	-1.03	-0.43	-0.29
Kuhio	13.13	12.43	2.66	2.79	.55	.52	-0.62	-0.26	0.91	-0.78
Maile	13.60	13.10	3.07	2.20	.64	.50	0.70	1.17	0.00	0.89
Puuhale	13.30	12.15	2.16	2.93	.45	.67	-0.73	-2.82	-0.49	2.84
All Schools	13.73	13.27	2.61	2.75	.26	.29	-0.56	-2.14	0.30	2.14
Combined Subtests										
Konawaena	76.52	84.69	10.90	9.73	2.18	1.90	-0.70	-0.16	-0.32	-1.27
Kuhio	77.16	76.73	11.55	10.12	2.35	1.98	-0.28	-0.18	-1.14	-0.85
Maile	79.60	79.15	8.89	9.46	1.85	2.17	-1.09	-0.88	0.31	-0.60
Puuhale	72.39	67.58	11.41	10.15	2.37	2.32	-1.04	0.73	-0.58	-0.53
All Schools	76.43	77.63	10.89	11.43	1.11	1.20	-1.74	-0.54	-0.56	-1.30

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Inspection of Table 26 reveals that overall, control groups scored slightly although not significantly higher than experimental groups. This was not unexpected as the training design specified that the groups be at similar career development levels prior to treatment.

Posttest results of experimental and control groups from Kuhio and Puuhale schools are presented in Table 27.

Table 27

Grade 6 Posttest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Kuhio	19.37	20.52	3.00	2.78	.61	.55	-0.22	-0.72	-1.14	-1.44
Puuhale	19.04	19.10	3.76	2.73	.82	.61	-1.23	-1.79	-0.69	0.80
Both Schools	19.22	19.88	3.34	2.82	.49	.42	-1.36	-1.50	-0.92	-0.19
Economic Efficiency										
Kuhio	27.66	25.00	5.56	5.11	1.13	1.02	-1.64	0.07	-0.33	-1.12
Puuhale	25.95	24.65	5.58	5.14	1.21	1.15	-1.52	-0.31	-0.33	-0.79
Both Schools	26.86	24.84	5.57	5.07	.83	.75	-2.16	-0.15	-0.45	-1.34
Civic Responsibility										
Kuhio	17.41	16.64	4.23	4.08	.86	.81	-1.26	-0.27	-1.04	-1.18
Puuhale	15.09	15.65	4.38	3.81	.95	.85	-2.31	-0.96	1.64	0.27
Both Schools	16.33	16.20	4.41	3.95	.65	.58	-2.35	-0.70	0.85	-0.69
Social Relationships										
Kuhio	13.33	12.48	2.95	2.45	.60	.49	-1.03	0.24	1.11	-0.36
Puuhale	12.71	12.35	2.02	2.49	.44	.55	-1.11	-1.08	1.55	0.81
Both Schools	13.04	12.42	2.55	2.44	.38	.36	-1.15	-0.56	2.13	0.34
Combined Subtests										
Kuhio	77.16	75.04	13.33	11.62	2.72	2.32	-1.51	-0.29	-0.61	-1.16
Puuhale	72.09	71.40	13.05	11.22	2.84	2.51	-1.86	-0.61	0.32	-0.32
Both Schools	74.80	73.42	13.30	11.46	1.98	1.70	-2.20	-0.54	-0.14	-0.97

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Inspection of Table 27 reveals minimal differences between experimental and control group posttest scores. Both experimental and control groups at Kuhio scored slightly higher than the groups at Puuhale on the posttest.

Table 28 presents means, standard deviations and t tests by school for sixth grade groups for comparisons between pre- and posttest results.

Table 28

Means, Standard Deviations, and t Tests
for Sixth Grade Experimental and Control Groups by School

School/Group	M		S.D.		t
	Pretest	Posttest	Pretest	Posttest	
Kuhio					
Experimental	77.6	77.9	11.51	13.10	.141
Control	76.2	75.0	10.06	11.62	.768
Puuhale					
Experimental	73.3	73.6	11.50	13.10	.207
Control	67.7	71.9	10.44	11.52	2.670*

* $< .05$

Examination of Table 28 reveals there were no significant differences between pre- and posttest means for Kuhio groups of students or for the experimental group at Puuhale. None of the t values for these groups was significant at .10, .05, or .01 levels; however the t values for the control group at Puuhale was significant at .10, .05, and .01 levels. The non-significant results at Kuhio and also for the experimental group at Puuhale probably were a function of insufficient treatment time as there was only a one-month interval between test administrations. The significant difference between pre- and posttest means of the control group at Puuhale is difficult to explain. It may be that students in these classes were experiencing career development activities through other means which were powerful enough to produce differences even in the short time span.

Standardization

Both pretest and posttest raw scores of sixth grade experimental and control groups were converted to standardized scores and percentile rankings. Table 29 shows pretest conversions and Table 30 presents posttest raw scores, standardized scores and percentiles by subtest.

Table 29

Sixth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	11	25	1
	12	28	3
	13	31	5
	14	34	7
	15	37	11
	16	40	17
	17	43	26
	18	46	33
	19	49	41
	20	52	51
	21	55	63
	22	58	73
	23	61	85
	24	64	96
Economic Efficiency	14	20	1
	17	27	2
	18	29	3
	19	31	5
	20	33	8
	21	36	12
	22	38	15
	23	40	17
	24	43	20
	25	45	26
	26	47	35
	27	49	44
	28	52	52
	29	54	63
	30	56	72
	31	59	78
	32	61	86
	33	63	93
	34	65	96
	35	68	98
Civic Responsibility	8	25	1
	9	28	2
	10	31	6
	11	33	9
	13	39	14
	14	42	20
	15	45	27
	16	48	39
	17	51	50
	18	54	62
	19	57	73
	20	59	82
	21	62	90
	22	65	96
	23	68	98
	25	74	99

Subtest	Raw Score	Standardized Score	Percentile
Social Relationships	6	20	1
	8	28	2
	9	32	4
	10	36	9
	11	39	15
	12	43	24
	13	47	36
	14	51	54
	15	55	70
	16	59	81
	17	63	89
	18	66	95
	20	74	99
Combined Subtests	49	25	1
	50	26	2
	52	27	3
	56	31	4
	57	32	6
	59	34	7
	61	36	9
	62	37	11
	63	38	13
	64	39	15
	65	39	17
	66	40	19
	67	41	22
	68	42	25
	70	44	27
	71	45	29
	72	46	31
	73	47	33
	74	48	35
	75	49	38
	76	50	43
	77	51	45
	78	51	50
	79	52	55
	80	53	58
	81	54	62
	82	55	67
	83	56	73
	84	57	76
	85	58	78
	86	59	81
	87	60	83
	88	61	85
	89	62	87
	90	63	90
	91	63	92
	92	64	93
	93	65	95
	94	66	97
	95	67	98
	97	69	99

Examining Table 29 reveals that a combined subtests raw score of 68 falls into the 25th percentile; a raw score of 78 falls into the 50th percentile; a raw score of 84 falls into the 76th percentile; and a raw score of 97 falls into the 99th percentile. These were compared with posttest scores and percentile rankings which are presented in Table 30.

Table 30

Sixth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	12	28	2
	13	31	6
	14	34	9
	15	37	13
	16	40	19
	17	43	26
	18	46	33
	19	49	44
	20	52	53
	21	55	62
	22	58	76
	23	61	88
	24	64	97
Economic Efficiency	13	25	1
	15	28	3
	17	32	7
	18	34	10
	19	36	13
	20	38	18
	22	41	21
	24	45	23
	25	47	27
	26	48	36
	27	50	46
	28	52	50
	29	54	53
	30	56	63
	31	57	74
	32	59	82
	33	61	90
	34	63	97
Civic Responsibility	2	17	1
	10	35	6
	11	38	16
	14	45	27
	15	47	37
	16	49	43
	17	52	48
	18	54	56
	19	56	64
	20	58	77
	21	61	88
	22	63	96
Social Relationships	5	18	1
	7	26	3
	10	38	7
	11	42	16
	12	46	31
	13	50	50
	14	54	68
	15	58	81

Subtest	Raw Score	Standardized Score	Percentile
Social Relationships (continued)	16	62	89
	17	66	93
	18	70	97
	19	74	99
Combined Subtests	38	22	1
	47	29	3
	52	33	6
	55	35	9
	56	36	13
	60	39	17
	61	40	19
	65	43	21
	66	43	23
	69	46	26
	70	46	32
	71	47	39
	74	49	41
	75	50	43
	76	51	46
	77	52	48
	80	54	51
	81	55	57
	82	55	62
	83	56	68
	84	57	72
	85	58	74
	86	59	78
	87	59	82
	89	61	86
	90	62	90
	91	62	97

Inspection of Table 30 reveals that, for the combined subtests, a posttest raw score of 69 fell into the 26th percentile as compared to a pretest raw score 68 falling into the 25th percentile. A posttest raw score of 80 was in the 51st percentile, whereas a pretest raw score of 78 was in the 50th percentile. Scores of 85 and 86 on the pre- and posttests, respectively, fell into the 78th percentile. The greatest difference was at the higher raw score levels; whereas a pretest score of 91 fell into the 92nd percentile, the same posttest raw score was in the 97th percentile. In comparing pre- and posttest data it should be noted that pretest data consisted of responses by students in four schools and posttest data consisted of data from only two schools.

Evaluation of Inventory Form B

Inventory Form B was evaluated by teachers who completed a questionnaire to elicit their ratings of the following: length, scoring, clarity, reliability, and readability. Table 31 shows the mean ratings, on a scale of 1.0 to 5.0, of the evaluative criteria by participating sixth grade teachers.

Table 31

Sixth Grade Teacher Mean Ratings
of Evaluative Criteria for Inventory Form B

Evaluative Criteria	Mean Rating
Feedom from bias	3.20
Coverage of key concepts/subgoals	3.00
Relevance to career development objectives	2.75
Directions for administration	2.60
Directions to students	2.40
Clarity of expression	2.20
Scoring	2.20
Length	2.00
Readability	2.00
Reliability	1.25

Note. N = 5
Rating: 1.0 = low 5.0 = high

Inspection of Table 31 reveals that all evaluative criteria, with the exception of freedom from bias and coverage of key concepts/subgoals, were rated relatively low. Teacher comments indicated that of all areas, readability, length, and scoring most needed modifying. The low reliability rating may be accounted for by the low readability and clarity of expression ratings which are related. All of these ratings were noted by project staff for subsequent inventory modifications.

Participating sixth grade teachers were also asked to rate each inventory item as to whether it should be (a) eliminated, (b) modified, or (c) retained in the existing form. When recommending elimination or modification, teachers provided substitute items. The teacher item evaluations are presented in Table 32.

Table 32

Sixth Grade Teacher Item Evaluation
of Inventory Form B

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	0	3
2	0	0	3
3	0	0	3
4	0	2	1
5	0	1	2
6	0	2	1
7	0	0	3
8	0	1	2
9	0	0	3
10	0	2	1
11	0	0	3
12	0	0	3
13	0	2	1
14	0	1	2
15	0	0	3
16	0	2	1
17	0	0	3
18	0	0	3
19	0	2	1
20	0	1	2
21	0	0	3
22	0	1	2
23	0	0	3
24	0	0	3
25	0	2	1
26	0	0	3
27	0	0	3
28	0	0	3
29	0	0	3
30	0	0	3
31	0	0	3
32	0	0	3
33	0	1	2
34	0	0	3
35	0	0	3
36	0	0	3
37	0	0	3
38	0	0	3
39	0	0	3
40	0	0	3
41	0	0	3
42	0	0	3
43	0	1	2
44	0	0	3
45	0	0	3
46	0	0	3
47	0	0	3
48	0	0	3

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	0	3
2	0	2	1
3	0	1	2
4	0	2	1
5	0	1	2
6	0	2	1
7	0	0	3
8	0	0	3
9	0	2	1
10	0	2	1
11	0	2	1
12	0	2	1
13	0	2	1
14	0	2	1
15	0	2	1
16	0	2	1
17	0	2	1
18	1	1	1
19	0	1	2
20	0	2	1
21	0	1	2
22	0	2	1
23	0	2	1
24	0	1	2
25	0	0	3
26	0	2	1
27	0	1	2
28	0	2	1
29	0	1	2
30	0	1	2
31	0	2	1
32	0	2	1
33	0	2	1
34	0	0	3
35	0	2	1
36	0	2	1
37	0	0	3
38	0	2	1
39	0	1	2
40	0	1	2
41	0	0	3
42	0	2	1
43	0	2	1
44	1	0	2
45	1	0	2
46	0	2	1
47	0	0	3
48	0	2	1
49	0	2	1
50	0	2	1

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
51	0	0	3
52	1	1	1
53	0	2	1
54	0	1	2
55	0	2	1
56	0	1	2
57	0	2	1
58	1	0	2
59	0	2	1
60	0	1	2
61	0	0	3
62	0	1	2
63	0	1	2
64	0	1	2
65	0	1	2
66	0	1	2
67	0	2	1
68	0	1	2
69	0	1	2
70	0	0	3
71	0	1	2
72	0	2	1
73	0	1	2
74	0	0	3
75	1	1	1
76	0	0	3
77	0	0	3
78	0	0	3
79	0	1	2
80	0	1	2
1	0	0	3
2	0	0	3
3	0	2	1
4	0	2	1
5	0	0	3
6	0	2	1
7	0	2	1
8	0	2	1
9	0	1	2
10	0	2	1
11	0	1	2
12	0	1	2
13	0	2	1
14	0	1	2
15	0	1	2
16	0	1	2

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	0	3
2	0	0	3
3	0	0	3
4	0	0	3
5	0	0	3
6	0	0	3
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
1	0	0	3
2	0	0	3
3	0	0	3
4	0	0	3
5	0	0	3
6	0	0	3
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
11	0	0	3
12	0	0	3
13	0	0	3
14	0	0	3
15	0	0	3
16	0	0	3
17	0	0	3
18	0	0	3
19	0	0	3
20	0	0	3

Note. N = 3

Examination of Table 32 reveals that teachers recommended that roughly 21% of the items needed modification. No items were recommended to be eliminated. As with the teacher survey results, these evaluations were noted for use by project staff in making inventory modifications.

In addition to teacher evaluations of items, an item analysis was performed using results from pilot testing. The results of the item analysis on Inventory Form B presented in Table 33 show the percent of correct responses for each item by subtest.

Table 33

Item Analysis of Inventory Form B by Subtest

Subtest	Item Number	Percent of Correct Responses
Self-Realization	1	87
	2	68
	3	83
	4	50
	5	75
	6	67
	7	60
	8	72
	9	78
	10	73
	11	88
	12	77
	13	73
	14	85
	15	75
	16	68
	17	75
	18	65
	19	63
	20	75
	21	78
	22	77
	23	85
	24	85
	25	73
	26	45
	27	80
	28	58
	29	73
	30	78
	31	97
	32	83
	33	83
	34	92
	35	88
	36	92
	37	98
	38	97
	39	98
	40	85
	41	83
	42	83
	43	74
	44	74
	45	86
	46	86
	47	91
	48	91

Subtest	Item Number	Percent of Correct Responses
Economic Efficiency	1	98
	2	52
	3	70
	4	72
	5	37
	6	92
	7	73
	8	88
	9	82
	10	83
	11	65
	12	2
	13	50
	14	82
	15	90
	16	67
	17	78
	18	73
	19	52
	20	82
	21	87
	22	90
	23	55
	24	92
	25	23
	26	85
	27	74
	28	68
	29	82
	30	87
	31	78
	32	67
	33	65
	34	77
	35	80
	36	77
	37	47
	38	82
	39	78
	40	30
	41	97
	42	87
	43	62
	44	68
	45	58
	46	68
	47	92
	48	72
	49	87
	50	60

Subtest	Item Number	Percent of Correct Responses
Economic Efficiency (continued)	51	67
	52	57
	53	65
	54	87
	55	63
	56	65
	57	68
	58	95
	59	33
	60	40
	61	18
	62	73
	63	73
	64	70
	65	58
	66	77
	67	42
	68	40
	69	80
	70	77
	71	65
	72	52
	73	85
	74	75
	75	70
	76	85
	77	63
	78	75
	79	68
	80	62
Social Relationships	1	77
	2	87
	3	85
	4	88
	5	53
	6	43
	7	30
	8	43
	9	64
	10	45
	11	62
	12	68
	13	55
	14	48
	15	57
	16	60

Subtest	Item Number	Percent of Correct Responses
Social Relationships (continued)	1	75
	2	70
	3	37
	4	88
	5	23
	6	55
	7	48
	8	55
	9	47
	10	33
Civic Responsibility	1	68
	2	40
	3	35
	4	53
	5	53
	6	38
	7	62
	8	50
	9	55
	10	30
	11	37
	12	40
	13	32
	14	23
	15	37
	16	37
	17	37
	18	55
	19	57
	20	33

Note. Criterion level is a 75% correct response rate.

Examination of Table 33 reveals that roughly 58% of all items on Inventory Form B failed to meet the criterion level of 75%. On the Civic Responsibility subtest 100% of the items needed modification, as compared to 78% on the Social Relationship subtest, 57% on the Economic Efficiency subtest, and 31% on the Self-Realization subtest.

Reliability

In order to establish the precision of a test as a measuring instrument, estimates of test reliability are obtained. The reliability of any instrument refers to the extent that an individual would remain at the same relative place in a group in repeated measurements of the group. The more reliable a test, the more consistently would an individual make the same or nearly the same score on the test, assuming no change in ability. To determine the reliability of Inventory Form B, correlation coefficients for pre- and posttest results on each of the four subtests were determined for experimental and control groups of sixth grade students. These data are presented in Table 34.

Table 34

Means, Standard Deviations, and Correlation Coefficients from Inventory Form B by Subtest and by Group

Subtest/Group	Mean		Standard Deviation		Correlation Coefficient
	Pre.[a]	Post.[b]	Pre.[a]	Post.[b]	
Self-Realization					
Experimental	19.41	19.58	3.38	3.20	.73
Control	19.18	19.88	4.16	2.88	.63
Economic Efficiency					
Experimental	27.14	27.48	4.50	5.35	.77
Control	26.02	25.09	4.16	4.99	.59
Civic Responsibility					
Experimental	15.78	16.53	3.75	4.52	.77
Control	15.39	16.30	3.36	4.00	.50
Social Relationships					
Experimental	13.37	13.12	2.40	2.64	.31
Control	12.16	12.37	2.72	2.46	.45
Total Test					
Experimental	75.80	76.04	11.56	13.11	.78
Control	72.69	73.74	10.96	11.54	.77

Note. [a]Pre. = Pretest
[b]Post. = Posttest

Examination of Table 34 reveals a relatively high degree of reliability for each of the subtests based on comparisons of pre- and posttest results. The Social Relationships subtest was the lowest of the four with correlation coefficients of .31 and .45 for experimental and control groups respectively.

Validity

It was deemed important to determine whether Inventory Form B was measuring growth in those career development areas for which it was designed. The process of establishing the validity of any test is an ongoing process that requires the continuous gathering and evaluating of various types of evidence indicative of the performance of the test. Users of Career Development Inventory Form B are urged to conduct additional validation studies.

Content Validity. The high content validity of Inventory Form B arises from the fact that the items for the preliminary and modified versions of the inventory were keyed to the goals, subgoals, and objectives of the Career Development Continuum. The relationship between career development goals, subgoals, and objectives, and the 100 items which constitute Inventory Form B, after modification, is shown in Table 35.

Table 35

Relationship of Inventory Form B Items(I) to Career Development Goals(G), Subgoals(SG), and Objectives(O)

I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.
	(SR)				(EE)				(SR*)				(CR)		
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	1	52	3	1	-	77	4	1	-
3	1	1	2	28	2	1	2	53	3	1	-	78	4	1	-
4	1	1	2	29	2	1	2	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	2	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	3	32	2	1	-	57	3	2	-	82	4	2	-
8	1	2	3	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	-	35	2	3	2	60	3	3	-	85	4	3	-
11	1	3	-	36	2	3	3	61	3	3	-	86	4	3	-
12	1	3	-	37	2	3	3	62	3	3	-	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	2	39	2	4	1	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	2	65	3	4	-	90	4	4	-
16	1	4	3	41	2	4	2	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	-	68	3	5	-	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	-	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	-	95	4	5	-
21	1	6	-	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	-	47	2	6	1	72	3	6	-	97	4	6	-
23	1	6	-	48	2	6	2	73	3	6	-	98	4	6	-
24	1	6	-	49	2	6	2	74	3	6	-	99	4	6	-
25	1	1	2	50	2	1	2	75	3	1	1	100	4	1	-

Note. SR = Self-Realization SR* = Social Relationships
EE = Economic Efficiency CR = Civic Responsibility

Criterion-Related Validity. Criterion-related validity refers to establishing the relationship between scores obtained on a given test and those obtained on other specific external criterion measures generally associated with the attribute measured by the test. It was not possible to determine a criterion-related validity estimate as there were no external criteria available which could be used for comparison purposes with Inventory Form B scores.

Construct Validity. The construct validity of Inventory Form B was determined by obtaining intercorrelations among the inventory subtests. The degree of intercorrelation between preliminary versions of the subtests was determined and is presented in Table 36.

Table 36

Intercorrelation Between Subtests of Inventory Form B

Subtest	Subtest				Total Test
	Self-Realization	Economic Efficiency	Civic Responsibility	Social Relationships	
Self-Realization	1.00				
Economic Efficiency	.53	1.00			
Civic Responsibility	.70	.77	1.00		
Social Relationships	-.01	.13	.34	1.00	
Total Test	.74	.82	.95	.41	1.00

Inspection of Table 36 reveals that the intercorrelations between subtests of Inventory Form B are relatively high in most instances. This is not unexpected as the four goal areas of the Career Development Continuum are closely interrelated. Because of the overlapping among goals, it is unrealistic to expect to find pure and completely independent subtests.

Revision and Synthesis of Final Form of Inventory Form B

Modifications were made on Inventory Form B based on teacher evaluations and comments, and the item analysis. The wording of items was changed to clarify ambiguities and to lower the reading level. All items included were four-choice multiple choice items, each having only one correct response. The inventory was shortened to 100 items, 25 items for each of four subtests. There are four items for each of the six subgoals, and one item a repeated item to provide a check on reliability. The repeated items are as follows: Items 4 and 25, 29 and 50, 51 and 75, and 79 and 100. Scoring was also simplified as each item on the modified version is worth one point, making a total possible score of 100.

The Administrator's Manual of Instructions - Form B was also modified and presents standard procedures to follow in administering and scoring the inventory. Inventory Form B was then administered to a group of sixth grade students. Results indicated that the modifications made, particularly the lower reading level, were satisfactory.

A copy of the Administrator's Manual of Instructions - Form B and a copy of Inventory Form B, with correct answers marked, appear as Appendices E and F of this report.

Inventory Form C

Results of Pilot Testing

Inventory Form C was administered to 255 ninth grade students assigned to experimental and control groups in four schools on the island of Oahu and one school on the island of Hawaii. The tests were administered by regular classroom teachers who had received prior training. Tables 37 and 38 show the number of students in pretest and posttest groups by school.

Table 37

Ninth Grade Students Pretested by School

School	Experimental Group	Control Group	Total
Central	19	22	441
Jarrett	31	25	56
Konawaena	27	24	51
Nanakuli	30	25	55
Waipahu	24	28	52
Total	131	124	255

Table 38

Ninth Grade Students Posttested by School

School	Experimental Group	Control Group	Total
Central	14	20	34
Jarrett	30	24	54
Waipahu	23	27	50
Total	67	71	138

Posttests from Konawaena and Nanakuli were not returned to the project office. Field supervisors reported these tests were lost in the mail.

The preliminary version of Inventory Form C had a total possible score of 110 points. The Self-Realization subtest had 24 possible points, the Economic Efficiency subtest 40 possible points, the Civic Responsibility subtest 26 possible points, and the Social Relationships subtest 20 possible points. Table 39 presents the pretest results, by school and by experimental and control groups of ninth grade students for the four subtests representing the four goal areas of career development.

Table 39

Grade 9 Pretest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Konawaena	16.11	15.91	3.14	3.13	.60	.63	-0.12	-2.05	-0.49	0.34
Central	16.57	15.63	2.11	2.40	.48	.51	-1.74	-0.49	0.46	-0.89
Jarrett	15.58	16.00	2.34	2.76	.42	.55	-0.92	0.17	0.79	0.25
Nanakuli	16.73	15.84	3.24	1.51	.59	.30	0.45	-0.77	-0.89	-0.91
Waipahu	16.04	15.10	2.25	2.98	.46	.56	0.35	-1.36	-0.23	2.01
All Schools	16.18	15.68	2.70	2.61	.23	.23	0.13	-2.71	-0.26	2.86
Economic Efficiency	23.00									
Konawaena	23.00	23.20	5.50	5.03	1.05	1.02	-0.08	-0.64	-0.71	-0.46
Central	22.94	20.18	4.32	3.62	.99	.77	-0.49	-0.67	-1.16	-0.55
Jarrett	27.19	22.32	2.90	3.40	.52	.68	-0.08	-1.54	-0.86	-0.03
Nanakuli	20.96	21.16	5.18	3.27	.94	.65	1.17	-0.35	-0.65	-0.78
Waipahu	23.04	22.96	3.19	5.23	.65	.98	-0.14	-0.52	0.36	-1.18
All Schools	23.52	22.02	4.82	4.31	.42	.38	-0.93	-0.42	-1.49	-1.07
Civic Responsibility										
Konawaena	18.14	18.50	3.48	2.87	.67	.58	0.34	0.44	0.05	-0.34
Central	17.31	17.18	2.35	2.53	.54	.54	-0.60	-0.19	-0.72	-0.83
Jarrett	20.74	17.20	1.61	3.57	.28	.74	0.85	-1.24	-0.90	-0.31
Nanakuli	17.40	17.80	2.56	2.19	.46	.43	1.09	-0.84	-0.37	0.24
Waipahu	18.16	16.71	2.56	3.56	.52	.67	0.37	-0.50	-0.19	-0.24
All Schools	18.47	17.45	2.85	3.04	.24	.27	-0.20	-1.77	-0.48	0.55
Social Relationships										
Konawaena	14.03	12.75	2.08	2.89	.40	.59	-0.16	-1.93	0.33	0.69
Central	13.78	14.27	2.22	1.95	.51	.41	0.26	1.11	-1.04	-0.02
Jarrett	16.19	14.68	5.47	2.57	.98	.51	0.11	-0.53	0.26	-0.98
Nanakuli	14.36	14.24	2.70	1.83	.49	.36	-1.61	-0.90	0.52	-0.24
Waipahu	15.75	14.07	1.79	3.66	.36	.69	-0.05	1.15	-0.79	1.59
All Schools	14.90	14.00	3.41	2.74	.29	.24	0.23	-0.29	1.04	4.74
Combined Subtests										
Konawaena	71.22	70.08	10.41	9.74	2.00	1.99	0.58	-0.36	-0.00	-0.81
Central	70.15	66.81	7.12	7.98	1.63	1.70	0.27	0.22	-1.08	-0.92
Jarrett	78.80	70.60	4.68	7.78	.84	1.55	0.21	-0.73	-0.30	-0.74
Nanakuli	69.33	68.64	8.87	5.88	1.61	1.17	0.41	-0.00	-0.69	-0.76
Waipahu	73.04	68.92	5.85	10.90	1.19	2.06	0.63	-0.03	-0.94	-0.01
All Schools	72.63	69.05	8.38	8.65	.73	0.77	-0.73	-0.31	0.07	0.16

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Inspection of Table 39 reveals that, overall, experimental groups scored slightly higher than control groups within the same school, as well as across schools. However, the difference was not significant. The testing design required that both groups be at equivalent career development levels at the time of the pretest. Posttest results are given in Table 40.

Table 40

Grade 9 Posttest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Central	18.35	16.13	2.61	3.84	.70	.81	0.23	-1.00	-0.62	-0.01
Jarrett	16.46	15.79	2.78	2.48	.50	.50	-1.77	0.90	1.73	1.22
Waipahu	16.82	15.18	2.57	3.53	.53	.67	-1.06	-0.94	0.48	-0.38
All Schools	16.98	15.67	2.73	3.30	.33	.38	-1.69	-1.26	1.81	0.43
Economic Efficiency										
Central	24.42	23.50	5.37	4.87	1.43	1.03	-0.71	-0.17	-0.75	-0.90
Jarrett	26.13	21.50	4.34	3.62	.79	.73	-2.19	0.57	0.61	-0.67
Waipahu	23.82	23.03	4.19	6.45	.87	1.24	-1.44	-0.52	-0.22	-0.19
All Schools	24.98	22.67	4.58	5.18	.55	.60	-2.36	-0.09	-0.41	0.05
Civic Responsibility										
Central	18.92	17.77	3.58	2.30	.95	.49	-0.29	-1.00	-0.78	-0.38
Jarrett	20.70	17.12	2.47	3.20	.45	.65	-2.79	-1.07	1.69	-0.49
Waipahu	20.39	16.37	2.53	3.28	.52	.68	-0.68	1.06	-0.95	-0.27
All Schools	20.22	17.04	2.80	3.01	.34	.35	-2.61	-0.60	-0.03	-0.84
Social Relationships										
Central	14.28	15.00	2.43	2.70	.64	.57	0.28	0.02	-0.94	-1.33
Jarrett	15.96	15.16	2.09	2.89	.38	.59	-1.28	-1.36	0.39	0.81
Waipahu	15.69	14.30	2.18	3.06	.45	.60	-1.52	-2.29	-0.03	1.17
All Schools	15.52	14.80	2.25	2.89	.27	.34	-1.66	-2.44	-0.74	1.19
Combined Subtests										
Central	75.85	72.40	10.64	10.19	2.84	2.17	0.11	-0.21	-1.05	-0.72
Jarrett	79.26	69.58	6.93	8.13	1.26	1.66	-2.18	-0.41	1.14	0.35
Waipahu	76.73	68.11	8.03	10.63	1.67	2.04	-1.03	0.26	-0.13	-0.05
All Schools	77.68	69.89	8.19	9.76	1.00	1.14	-1.83	-0.09	-0.22	-0.12

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Examination of Table 40 reveals that experimental groups at each school scored somewhat higher than control groups on all parts of the posttest. Similarly, on total test mean scores, both experimental and control groups scored higher than on the pretest. A *t* test was conducted to determine if the mean differences between pre- and posttests were significant, the results of which are presented in Table 41.

Table 41

Means, Standard Deviations, and *t* Tests
for Ninth Grade Experimental and Control Groups by School

School/Group	M		S.D.		*t*
	Pretest	Posttest	Pretest	Posttest	
Central					
Experimental	74.4	79.2	6.56	10.62	1.983**
Control	67.3	72.6	8.47	10.30	3.722*
Jarrett					
Experimental	78.8	79.2	4.72	7.04	.283
Control	70.[illegible]	69.5	7.45	8.31	-.749
Waipahu					
Experimental	73.3	77.3	6.06	7.90	2.94 *
Control	69.1	67.8	11.10	10.75	-.858

* <.10 ** <.05

Examination of Table 41 reveals that there were no significant differences between pre- and posttest results of experimental and control groups at Jarrett or for the control group at Waipahu. None of the *t* values was significant at the .01, .05, or .10 levels. These non-significant differences probably are a function of insufficient treatment time which was only a one month period. The mean difference was significant for the control group at Central and the experimental group at Waipahu at all three levels. For the experimental group at Central, the mean difference was significant at the .05 level. These significant differences between pre- and posttest mean scores are possibly due to students experiencing career development experiences, other than those from the Career Development Curriculum Guides, which could be powerful enough to affect posttest results even in the short time span between tests.

Standardization

Raw scores of ninth grade students were converted to standardized scores and percentile rankings. For comparison purposes, both pretest and posttest scores were converted. Table 42 presents the pretest raw scores, standardized scores, and percentile rankings by subtest; Table 43 presents the same breakdowns for posttest scores.

Table 42

Ninth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	9	23	1
	10	27	1
	11	31	4
	12	34	7
	13	38	10
	14	42	20
	15	46	35
	16	49	47
	17	53	61
	18	57	77
	19	60	86
	20	64	91
	21	68	95
	22	72	98
	23	75	99
Economic Efficiency	11	24	1
	12	26	1
	13	28	2
	16	34	5
	17	36	11
	18	39	16
	19	41	20
	20	43	25
	21	45	31
	22	47	37
	23	49	43
	24	51	52
	25	53	60
	26	55	68
	27	57	74
	28	59	79
	29	61	85
	30	63	90
	31	66	94
	32	68	98
Civic Responsibility	11	24	1
	13	31	3
	14	34	7
	15	38	13
	16	41	19
	17	45	29
	18	48	43
	19	52	56
	20	55	69
	21	59	81
	22	62	90
	23	66	94
	24	69	97
	25	73	99
	26	76	99

Subtest	Raw Score	Standardized Score	Percentile
Social Relationships	7	27	1
	9	33	2
	10	36	3
	11	39	5
	12	41	11
	13	44	21
	14	47	34
	15	50	52
	16	53	72
	17	56	87
	18	59	94
	19	62	98
Combined Subtests	53	26	1
	54	28	1
	55	29	2
	56	30	3
	58	32	5
	59	34	7
	60	35	9
	61	36	10
	62	37	11
	63	38	14
	64	40	17
	65	41	20
	66	42	22
	67	43	24
	68	44	28
	69	45	32
	70	47	36
	71	48	40
	72	49	44
	73	50	48
	74	51	51
	75	53	55
	76	54	61
	77	55	68
	78	56	72
	79	57	76
	80	59	81
	81	60	85
	82	61	89
	83	62	90
	84	63	93
	86	66	95
	87	67	97
	88	68	98
	98	80	99

Inspection of Table 42 reveals that a combined subtests, or total test, raw score of 67 falls into the 24th percentile; a raw score of 75 falls into the 55th percentile; a raw score of 79 falls into the 76th percentile; and a raw score of 98 falls into the 99th percentile. These were compared with posttest scores and percentile rankings which are presented in Table 43.

Table 43

Ninth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	8	17	1
	10	24	2
	11	28	4
	13	35	5
	14	39	10
	15	43	19
	16	46	33
	17	50	51
	18	54	67
	19	57	76
	20	61	86
	21	65	94
	22	68	97
	23	72	99
Economic Efficiency	15	28	3
	16	30	7
	18	35	10
	19	37	13
	20	39	18
	21	41	22
	22	43	25
	23	46	28
	24	48	30
	25	50	37
	26	52	49
	27	54	63
	28	57	73
	29	59	82
	30	61	91
	31	63	96
	32	65	98
	34	70	99
Civic Responsibility	13	24	1
	14	28	4
	15	31	6
	16	35	10
	17	38	15
	18	42	19
	19	46	28
	20	49	40
	21	53	54
	22	56	69
	23	60	84
	24	64	96

Subtest	Raw Score	Standardized Score	Percentile
Social Relationships	10	25	1
	11	30	4
	12	34	10
	13	39	14
	14	43	24
	15	48	38
	16	52	54
	17	57	70
	18	61	85
	19	66	97
Combined Subtests	58	26	1
	59	27	2
	60	28	4
	63	32	6
	64	33	9
	65	34	11
	67	37	13
	70	41	15
	71	42	20
	72	43	25
	73	44	27
	74	45	29
	75	47	31
	76	48	35
	77	49	41
	78	50	48
	79	52	54
	80	53	58
	81	54	63
	82	55	68
	83	57	70
	84	58	74
	85	59	78
	86	60	82
	87	61	87
	88	63	92
	89	64	95
	90	65	97
	91	66	99

Examination of Table 43 reveals that a combined subtests raw score of 72 fell into the 25th percentile as compared to a pretest combined subtests raw score of 67 falling into the 24th percentile. On the posttest it was necessary to score 79 to be in the 54th percentile, whereas a pretest score of 75 fell into the 55th percentile. A posttest raw score of 86 fell into the 82nd percentile and a pretest raw score of 80 fell into the 81st percentile. And, a posttest score of 91 fell into the 99th percentile as compared to a pretest score of 98 falling into

the 99th percentile. In comparing pre- and posttest data it should be noted that pretest data consisted of responses by students in five schools and posttest data consisted of data from students in three schools.

Evaluation of Inventory Form C

Inventory Form C was evaluated by participating ninth grade teachers in May 1975. Teachers were asked to complete a Survey Form which elicited their ratings of the following: directions for administration, readability, relevance, and reliability. The mean ratings, on a scale of 1.0 to 5.0, by teachers of the evaluative criteria are presented in Table 44.

Table 44

Ninth Grade Teacher Mean Ratings
of Evaluative Criteria for Inventory Form C

Evaluative Criteria	Mean Rating
Relevance to career development objectives	3.44
Coverage of key concepts/subgoals	3.44
Directions for administration	3.44
Directions to students	3.33
Freedom from bias	3.22
Readability	2.89
Reliability	2.78
Clarity of expression	2.78
Length	2.67
Scoring	2.56

Note. N = 8
Rating: 1.0 = low 5.0 = high

Inspection of Table 44 indicates the criteria which were rated low were readability, reliability, clarity of expression, length, and scoring. Ratings and comments of teachers indicated that directions for administration, directions to students, freedom from bias, relevance to career development objectives, and coverage of key concepts/subgoals were satisfactory. This evaluation was taken into consideration by project staff at the time modifications were made on Inventory Form C and the accompanying Administrator's Manual of Instructions - Form C.

Participating ninth grade teachers were also asked to rate each item as to whether it should be (a) eliminated, (b) modified, or (c) retained in the existing form. When recommending elimination or modification, teachers provided substitute items. The teacher evaluations of items are presented in Table 45.

Table 45

Ninth Grade Teacher Item Evaluation of Inventory Form C

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	0	6
2	0	2	4
3	0	0	6
4	0	0	6
5	0	1	5
6	0	0	6
7	0	1	5
8	0	0	6
9	0	2	4
10	0	0	6
11	0	1	5
12	0	0	6
13	0	0	6
14	0	1	5
15	0	0	6
16	0	0	6
17	0	0	6
18	0	0	6
19	0	0	6
20	0	2	4
21	0	0	6
22	0	0	6
23	1	0	5
24	0	0	6
25	0	0	6
26	0	0	6
27	0	0	6
28	0	1	5
29	0	1	5
30	0	0	6
31	0	1	5
32	0	0	6
33	0	0	6
34	0	0	6
35	0	0	6
36	0	0	6
37	0	1	5
38	0	2	4
39	1	0	5
40	0	1	5

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	6	0
2	0	6	0
3	0	6	0
4	0	6	0
5	0	6	0
6	0	6	0
7	0	6	0
8	0	6	0
9	0	6	0
10	0	6	0
11	0	1	5
12	0	0	6
13	0	1	5
14	0	0	6
15	0	0	6
16	0	0	6
17	0	0	6
18	0	0	6
19	0	0	6
20	0	0	6
21	0	0	6
22	0	1	5
23	0	0	6
24	0	0	6
25	0	0	6
26	0	0	6
27	0	0	6
28	0	0	6
29	0	0	6
30	0	0	6
31	0	0	6
32	0	0	6
33	1	1	4
35	0	0	6
36	0	0	6
37	0	0	6
38	0	0	6
39	0	0	6
40	0	1	5
41	0	0	6
42	0	2	4
43	1	0	5
44	0	1	5
45	0	0	6
46	1	1	4
47	0	0	6
48	0	0	6
49	0	1	5
50	0	1	5
51	0	0	6
52	0	0	6
53	0	0	6
54	0	0	6
55	0	0	6

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
56	0	0	6
57	0	0	6
58	0	0	6
59	0	0	6
60	0	0	6
61	0	0	6
62	0	0	6
63	0	0	6
64	0	0	6
65	1	1	4
66	0	0	6
67	0	1	5
68	0	0	6
69	0	0	6
70	0	0	6
71	0	1	5
72	0	0	6
73	0	2	4
74	0	1	5
75	0	0	6
76	0	0	6
77	1	0	5
78	2	0	4
79	1	0	5
80	0	1	5
1	0	0	6
2	0	0	6
3	0	0	6
4	0	0	6
5	0	0	6
6	0	0	6
7	0	0	6
8	0	0	6
9	0	0	6
10	0	0	6
11	0	0	6
12	0	0	6
13	0	0	6
14	0	1	5
15	0	0	6
16	0	0	6
1	0	0	6
2	0	0	6
3	0	0	6
4	0	1	5
5	0	0	6
6	0	0	6
7	0	1	5
8	0	0	6
9	0	0	6
10	0	0	6

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	0	1	5
2	0	1	5
3	0	0	6
4	0	0	6
5	0	1	5
6	0	1	5
7	0	0	6
8	0	0	6
9	0	0	6
10	0	0	6
11	0	0	6
12	0	0	6
13	0	0	6
14	0	0	6
15	0	0	6
16	0	0	6
17	0	2	4
18	0	0	6
19	0	0	6
20	0	0	6

Note. N = 6

Examination of Table 45 reveals that teachers recommended that roughly 5% of the items were in need of modification. They did not recommend that any items be eliminated. As with the survey results, these evaluations were noted for use in subsequent inventory modification.

In addition to teacher evaluations of items, an item analysis was performed using results from pilot testing with ninth graders. The results of the item analysis on Inventory Form C presented in Table 46 show the percent of correct responses for each item by subtest.

Table 46

Item Analysis of Inventory Form C by Subtest

Subtest	Item Number	Percent of Correct Responses
Self-Realization	1	34
	2	26
	3	40
	4	87
	5	40
	6	60
	7	73
	8	73
	9	100
	10	60
	11	0
	12	60
	13	40
	14	87
	15	73
	16	46
	17	26
	18	46
	19	93
	20	73
	21	67
	22	26
	23	80
	24	53
	25	73
	26	67
	27	60
	28	46
	29	40
	30	20
	31	40
	32	13
	33	67
	34	60
	35	73
	36	60
	37	73
	38	87
	39	67
	40	67
Economic Efficiency	1	18
	2	28
	3	38
	4	43
	5	53

Subtest	Item Number	Percent of Correct Responses
Economic Efficiency (continued)	6	55
	7	58
	8	25
	9	20
	10	43
	11	83
	12	45
	13	13
	14	67
	15	55
	16	65
	17	52
	18	51
	19	85
	20	82
	21	17
	22	40
	23	55
	24	15
	25	70
	26	42
	27	60
	28	7
	29	40
	30	30
	31	82
	32	58
	33	17
	34	30
	35	20
	36	40
	37	83
	38	72
	39	72
	40	30
	41	58
	42	21
	43	68
	44	60
	45	62
	46	78
	47	58
	48	83
	49	70
	50	60
	51	72
	52	78
	53	88
	54	68
	55	73

Subtest	Item Number	Percent of Correct Responses
Economic Efficiency (continued)	56	78
	57	75
	58	70
	59	82
	60	87
	61	35
	62	85
	63	62
	64	88
	65	68
	66	40
	67	82
	68	60
	69	62
	70	90
	71	52
	72	38
	73	93
	74	35
	75	40
	76	52
	77	57
	78	45
	79	62
	80	35
Social Relationships	1	57
	2	80
	3	52
	4	65
	5	78
	6	60
	7	88
	8	52
	9	68
	10	63
	11	63
	12	50
	13	43
	14	72
	15	82
	16	87
	1	93
	2	67
	3	67
	4	78
	5	33
	6	57
	7	58
	8	55
	9	60
	10	60

Subtest	Item Number	Percent of Correct Responses
Civic Responsibility	1	63
	2	58
	3	43
	4	67
	5	75
	6	55
	7	63
	8	72
	9	65
	10	55
	11	75
	12	48
	13	48
	14	53
	15	58
	16	40
	17	41
	18	77
	19	80
	20	68

Note. Criterion level is a 75% correct response rate.

Examination of Table 46 reveals that roughly 79% of all items on Inventory Form C failed to meet the criterion level of 75%. On the Self-Realization subtest 85% of the items needed modification as compared to 80% of the items on the Civic Responsibility subtest, 78% of the Economic Efficiency items, and 73% of the Social Relationships items. This information was used in modifying the inventory.

Reliability

Estimates of test reliability are obtained to establish the precision of a test as a measuring instrument. The reliability of any instrument refers to the extent that an individual would remain at the same relative place in a group in repeated measurements of the group. Therefore, the more reliable a test, the more consistently would an individual make the same or nearly the same score on the test, assuming no change in ability. To determine the reliability of Inventory Form C, correlation coefficients for pre- and posttest results on each of the four subtests were determined for experimental and control groups of ninth grade students. These data are presented in Table 47.

Table 47

Means, Standard Deviations, and Correlation Coefficients from Inventory Form C by Subtest and by Group

Subtest/Group	Mean		Standard Deviation		Correlation Coefficient
	Pre.[a]	Post.[b]	Pre.[a]	Post.[b]	
Self-Realization					
Experimental	16.08	16.96	2.29	2.75	.27
Control	15.66	22.58	2.77	5.26	.35
Economic Efficiency					
Experimental	25.33	25.42	3.61	4.58	.61
Control	21.85	16.89	4.35	3.04	.58
Civic Responsibility					
Experimental	19.41	20.35	2.52	2.79	.58
Control	17.08	16.89	3.34	3.04	.46
Social Relationships					
Experimental	15.73	15.78	4.35	2.07	.41
Control	14.54	14.51	2.72	3.40	.29
Total Test					
Experimental	75.98	78.51	6.08	7.98	.56
Control	69.17	69.76	9.24	9.91	.69

Note. [a]Pre. = Pretest
[b]Post. = Posttest

Inspection of Table 47 reveals that the Self-Realization subtest had the lowest correlation coefficient, next was the Social Relationship subtest, followed by the Social Relationships and Civic Responsibility subtests. This information was utilized in modifying Inventory Form C.

Validity

It was deemed important to determine whether Inventory Form C was measuring growth in those career development areas for which it was designed. The process of establishing the validity of any test is an ongoing process that requires the continuous gathering and evaluating of various types of evidence indicative of the performance of the test. Users of Inventory Form C are urged to conduct additional validation studies.

Content Validity. The high content validity of Inventory Form C arises from the fact that the items for the preliminary and modified versions of the inventory were keyed to the goals, subgoals, and objectives of the Career Development Continuum. The relationship between career development goals, subgoals, and objectives, and the 100 items which constitute Inventory Form C, after modification, is shown in Table 48.

Table 48

Relationship of Inventory Form C Items(I) to
Career Development Goals(G), Subgoals(SG), and Objectives(O)

I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.
	(SR)				(EE)				(SR*)				(CR)		
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	-	52	3	1	-	77	4	1	-
3	1	1	2	28	2	1	-	53	3	1	-	78	4	1	-
4	1	1	2	29	2	1	-	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	1	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	2	32	2	2	-	57	3	2	-	82	4	2	-
8	1	2	2	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	1	35	2	3	1	60	3	3	1	85	4	3	-
11	1	3	2	36	2	3	2	61	3	3	2	86	4	3	-
12	1	3	2	37	2	3	2	62	3	3	2	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	1	39	2	4	1	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	2	65	3	4	-	90	4	4	-
16	1	4	2	41	2	4	2	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	-	68	3	5	1	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	2	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	2	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	2	47	2	6	-	72	3	6	-	97	4	6	-
23	1	6	3	48	2	6	-	73	3	6	-	98	4	6	-
24	1	6	3	49	2	6	-	74	3	6	-	99	4	6	-
25	1	2	1	50	2	2	1	75	3	3	1	100	4	3	-

Note. SR = Self-Realization SR* = Social Relationships
EE = Economic Efficiency CR = Civic Responsibility

Criterion-Related Validity. Criterion-related validity refers to establishing the relationship between scores obtained on a given test and those obtained on other specific external criterion measures generally associated with the attribute measured by the test. It was not possible to determine a criterion-related validity estimate as there were no external criteria available which could be used for comparison purposes with inventory scores.

Construct Validity. The construct validity of Inventory Form C was found by determining intercorrelations among the inventory subtests. The degree of intercorrelation between preliminary versions of the subtests was determined and is presented in Table 49.

Table 49

Intercorrelation Between Subtests of Inventory Form C

Subtest	Subtest				Total Test
	Self-Realization	Economic Efficiency	Civic Responsibility	Social Relationships	
Self-Realization	1.00				
Economic Efficiency	.17	1.00			
Civic Responsibility	.21	.52	1.00		
Social Relationships	.31	.06	.28	1.00	
Total Test	.58	.75	.74	.55	1.00

Inspection of Table 49 reveals that the intercorrelations between subtests of Inventory Form C ranged from a high of .52 (Civic Responsibility--Economic Efficiency) to a low of .06 (Social Relationship--Economic Efficiency). Because of the overlapping among career development goals, it is unrealistic to expect to find pure and completely independent subtests.

Revision of Synthesis of the Final Form of Inventory Form C

Modifications made on Inventory Form C were based on teacher evaluations and comments, as well as the item analysis. In revising items or adding new ones, wording was modified for clearer expression and to obtain a lower reading level. To facilitate inventory administration and scoring: (a) items were modified so that all were four-choice multiple choice items, each having only one correct response, (b) the number of items were reduced from 166 to 100, 25 items for each of four subtests, and (c) each item was given a one point value, making a total possible score of 100. The final form of Inventory Form C consists of 100 items, divided into four parts. Each part has 25 items, with four items for each of the six subgoals, and one item a repeated item to provide a check on reliability. The repeated items are as follows: items 6 and 25, 30 and 50, 59 and 75, and 85 and 100.

Modifications were also made in the Administrator's Manual of Instructions - Form C to present standard procedures to follow in administering and scoring the inventory. Inventory Form C was then administered to a small group of ninth grade students to verify readability. Results indicated modifications implemented were satisfactory in meeting the needs pointed out by teacher evaluations and the item analysis.

A copy of the Administrator's Manual of Instructions - Form C and a copy of Inventory Form C, with correct answers marked, appear as Appendices G and H of this report.

Inventory Form D

Results of Pilot Testing

Inventory Form D was administered to 214 twelfth grade students assigned to experimental and control groups in three schools on the island of Oahu and one school on the island of Hawaii. The tests were administered by regular classroom teachers who had received prior training. Tables 50 and 51 show the numbers of students in the pretest and posttest groups by school.

Table 50

Twelfth Grade Students Pretested by School

School	Experimental Group	Control Group	Total
Kaimuki	43	56	99
Konawaena	22	13	35
Nanakuli	21	27	48
Waipahu	17	15	32
Total	103	111	214

Table 51

Twelfth Grade Students Posttested by School

School	Experimental Group	Control Group	Total
Kaimuki	30	19	49
Total	30	19	49

Posttests from Konawaena, Nanakuli, and Waipahu schools were not returned to the project office. Field supervisors reported these tests were lost in the mail.

A perfect score of 110 was possible on Inventory Form D. Total possible scores for each subtest were as follows: Self-Realization, 24; Economic Efficiency, 40; Civic Responsibility, 26; and Social Relationships, 20. Pretest results, by school and by experimental and control groups on twelfth grade students for the four subtests representing the four goal areas of career development are presented in Table 52.

Table 52

Grade 12 Pretest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Konawaena	18.40	13.84	1.86	1.28	.39	.35	0.44	0.43	-0.75	-0.46
Kaimuki	17.88	17.58	1.95	1.97	.29	.26	-0.49	0.42	0.81	-0.12
Nanakuli	15.80	16.37	2.85	2.18	.62	.42	-0.15	-0.93	-0.72	-0.22
Waipahu	17.94	17.60	2.58	2.44	.62	.63	-2.22	-0.77	0.99	0.23
All Schools	17.58	16.85	2.40	2.34	.23	.22	-2.76	-0.52	1.04	-0.61
Economic Efficiency										
Konawaena	31.04	27.92	3.45	4.03	.73	1.11	0.31	-0.30	-0.28	-0.83
Kaimuki	29.11	29.05	4.73	5.12	.72	.68	-0.77	-3.85	-1.68	4.30
Nanakuli	20.80	21.07	6.15	6.92	1.34	1.33	-0.07	-0.54	-1.04	-0.73
Waipahu	25.35	25.20	5.36	5.10	1.30	1.31	0.33	-0.99	-0.32	0.74
All Schools	27.22	26.45	6.06	6.36	.59	0.60	-2.53	-3.85	-0.21	1.39
Civic Responsibility										
Konawaena	20.31	20.69	2.12	1.43	.45	.39	-0.70	-0.20	-0.58	-0.75
Kaimuki	20.23	18.78	2.32	2.46	.35	.33	0.70	0.06	-0.23	-0.85
Nanakuli	17.71	18.11	3.37	3.14	.73	.60	-1.98	-1.15	0.70	-0.22
Waipahu	19.00	19.13	3.51	2.61	.85	.67	0.13	-0.23	-0.68	-0.58
All Schools	19.54	18.89	2.89	2.65	.28	.25	-2.76	-1.88	2.70	-0.03
Social Relationships										
Konawaena	16.09	16.38	1.87	2.63	.39	.72	-0.85	-0.10	-0.68	-0.67
Kaimuki	16.39	15.30	1.62	1.93	.24	.25	-2.40	0.34	1.38	-0.66
Nanakuli	14.42	14.81	2.24	2.23	.49	.43	-0.12	-0.25	-0.46	-0.34
Waipahu	15.17	14.46	1.91	2.50	.46	.64	-1.55	0.28	-0.01	-0.15
All Schools	15.72	15.19	1.99	2.21	.19	.20	-2.86	0.29	0.05	-0.45
Combined Subtests										
Konawaena	85.81	78.84	5.47	6.49	1.16	1.80	-0.72	0.51	-0.10	-0.86
Kaimuki	83.86	81.28	6.33	8.22	.96	1.09	0.06	-0.11	-0.30	-0.39
Nanakuli	69.09	70.34	9.85	9.52	2.15	1.86	-0.83	-0.45	-0.84	-0.68
Waipahu	77.52	78.73	9.03	10.09	2.19	2.60	-0.90	-0.98	-0.12	0.81
All Schools	80.22	78.06	9.67	9.61	0.95	0.91	-3.58	-1.61	2.02	0.73

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Examination of Table 52 reveals that, overall, there is very little difference between pretest results of experimental and control groups within a school. However, both experimental and control groups in Nanakuli scored slightly lower than other schools, and experimental and control groups in Kaimuki scored slightly higher than other schools. These differences were not significant. The non-significant differences were expected as the testing design called for both control and experimental groups to be at equivalent career development levels prios to treatment. Posttest results from experimental and control groups of students at Kaimuki are presented in Table 53.

Table 53

Grade 12 Posttest Results by Subtest and by School

Subtest/School	M		S.D.		S.D.(M)		Skewness		Kurtosis	
	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]	Exp.[a]	Con.[b]
Self-Realization										
Kaimuki	19.06	18.26	2.34	2.40	.42	.55	0.61	-3.87	0.15	4.89
Economic Efficiency										
Kaimuki	30.30	28.52	4.14	5.14	.75	1.18	-0.19	-1.88	-0.02	0.32
Civic Responsibility										
Kaimuki	20.40	20.00	2.19	3.24	.40	0.74	-1.21	-1.01	-0.06	0.10
Social Relationships										
Kaimuki	16.16	15.68	2.65	2.26	.48	.51	-2.80	0.03	3.04	-1.50
Combined Subtests										
Kaimuki	86.13	82.84	8.09	8.73	1.47	2.00	-0.96	-2.04	0.63	1.23

Note. [a]Exp. = Experimental Group
[b]Con. = Control Group

Inspection of Table 53 reveals that, overall, the experimental group scored slightly higher than the control group at Kaimuki. This was also true of pretest results of the two groups. Table 54 presents means, standard deviations, and t tests for twelfth grade groups for comparisons between pre- and posttest results.

Table 54

Means, Standard Deviations, and t Tests
for Twelfth Grade Experimental and Control Groups by School

School/Group	M		S.D.		t
	Pretest	Posttest	Pretest	Posttest	
Kaimuki					
Experimental	84.1	87.6	6.95	6.87	2.763*
Control	83.3	84.5	7.84	6.58	0.995

Note. * $<$ .10

Inspection of Table 54 reveals there were no significant differences between pre- and posttest means of the control group, but the opposite was true of the experimental group. The non-significant results are probably a function of insufficient treatment time which was only a one month period. The significant difference between pre- and posttest means of the experimental group are probably not solely a function of treatment as the time span between tests was only one month, but the significant difference could be due to a combination of many career development experiences undergone by the experimental group, which included the Career Development Continuum Curriculum Guide experiences as well as others.

Standardization

Raw scores of twelfth grade students were converted to standardized scores and percentile rankings. For comparison purposes, both pretest and posttest scores were converted. Table 55 presents the pretest raw scores, standardized scores, and percentile rankings by subtest; Table 56 presents the same breakdowns for posttest scores.

Table 55

Twelfth Grade Pretest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw *Score*	Standardized *Score*	Percen-*tile*
Self-Realization	11	23	1
	12	27	4
	14	35	7
	15	39	12
	16	43	22
	17	48	37
	18	52	54
	19	56	71
	20	60	83
	21	64	94
	22	68	99
Economic Efficiency	10	21	1
	13	26	2
	14	28	3
	15	30	5
	16	31	7
	17	33	8
	19	36	9
	20	38	10
	21	40	12
	22	41	17
	23	43	24
	24	45	30
	25	46	36
	26	48	41
	27	50	44
	28	51	48
	29	53	54
	30	55	63
	31	56	70
	32	58	76
	33	60	81
	34	61	87
	35	63	93
	36	65	97
	37	66	99
	38	68	99
Civic Responsibility	9	13	1
	11	20	1
	13	27	2
	14	31	4
	16	38	10
	17	41	17
	18	45	27
	19	48	38
	20	52	52
	21	55	69

Subtest	Raw Score	Standardized Score	Percentile
Civic Responsibility (continued)	22	59	83
	23	62	91
	24	65	95
	25	69	98
	26	72	99
Social Relationships	10	21	1
	11	26	2
	12	31	7
	13	36	11
	14	41	17
	15	46	33
	16	51	51
	17	56	69
	18	61	88
	19	66	99
Combined Subtests	49	18	1
	53	22	1
	56	25	2
	57	26	3
	60	29	4
	61	30	6
	63	32	8
	64	33	9
	67	36	10
	69	38	11
	71	40	13
	72	41	16
	73	42	18
	74	44	20
	75	45	22
	76	46	27
	77	47	31
	78	48	34
	79	49	40
	80	50	44
	81	51	47
	82	52	51
	83	53	54
	84	54	59
	85	55	68
	86	56	73
	87	57	76
	88	58	79
	89	59	82
	90	60	85
	91	61	89
	92	62	93
	93	63	95
	94	64	96
	95	65	98
	97	67	99

Examining Table 55 reveals that a combined subtests raw score of 76 falls into the 27th percentile, a raw score of 82 falls into the 51st percentile, a raw score of 87 falls into the 76th percentile, and a raw score of 97 falls into the 99th percentile. These were compared with posttest scores and percentile rankings which are presented in Table 56.

Table 56

Twelfth Grade Posttest Raw Scores Converted to Standardized Scores and Percentiles by Subtest

Subtest	Raw Score	Standardized Score	Percentile
Self-Realization	10	15	3
	16	40	8
	17	45	16
	18	49	37
	19	53	58
	20	57	79
	21	62	97
Economic Efficiency	16	25	3
	19	31	8
	22	37	13
	23	39	18
	26	45	24
	28	49	29
	29	51	37
	30	53	45
	31	55	63
	32	57	84
	34	61	92
	36	65	97
Civic Responsibility	12	25	3
	16	37	8
	17	41	18
	19	47	32
	20	50	47
	21	53	63
	22	56	71
	23	59	79
	24	63	89
	25	66	97
Social Relationships	13	38	13
	14	42	34
	15	47	47
	17	56	58
	18	61	79
	19	65	97
Combined Subtests	58	21	3
	72	37	8
	73	38	13
	78	44	18
	79	45	24
	80	47	29
	81	48	37
	83	50	47
	84	51	55
	86	54	61
	87	55	66
	90	58	74
	91	60	82
	92	61	89
	94	63	97

Inspection of Table 56 and a comparison of it with Table 55 reveals that a pretest combined subtests raw score of 76 fell into the 27th percentile as compared to a posttest raw score of 79 falling into the 24th percentile. A posttest raw score of 84 fell into the 55th percentile, whereas the same score on the pretest fell into the 59th percentile. It was necessary to score 90 to be in the 74th percentile in the posttest group, and it was necessary to score 87 to be in the 76th percentile in the pretest group. Finally, a pretest score of 94 fell into the 96th percentile as compared to the same posttest raw score falling into the 97th percentile. In comparing pre- and posttest data it should be noted that pretest data consisted of responses by students in four schools and posttest data consisted of data from only one school.

Evaluations of Inventory Form D

Participating twelfth grade teachers completed a questionnaire designed to elicit their evaluation of Inventory Form D. Teachers were asked to rate, on a scale of 1.0 to 5.0, such evaluative criteria as readability, length, scoring, and reliability. Table 57 presents the mean ratings on the evaluative criteria.

Table 57

Twelfth Grade Teacher Mean Ratings of Evaluative Criteria for Inventory Form D

Evaluative Criteria	Mean Rating
Freedom from bias	3.63
Length	3.63
Coverage of key concepts/subgoals	3.57
Directions for administration	3.38
Readability	3.38
Relevance to career development objectives	3.13
Clarity of expression	3.25
Directions to students	3.14
Scoring	2.71
Reliability	2.38

Note. N = 8
Rating: 1.0 = low 5.0 = high

Inspection of Table 57 reveals that scoring and reliability were the only criteria rated relatively low. In addition, teacher comments indicated that the scoring needed to be simplified, a lower reading level was needed, and there were some ambiguous items which needed clarification. The teacher comments and ratings were noted for subsequent inventory modifications.

Participating twelfth grade teachers were also asked to rate each inventory item as to whether it should be (a) eliminated, (b) modified, or (c) retained in the existing form. When recommending elimination or modification, teachers provided substitute items. The teacher evaluations are presented in Table 58.

Table 58

Twelfth Grade Teacher Item Evaluation
of Inventory Form D

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
11	1	1	1
12	1	1	1
13	1	1	1
14	1	1	1
15	1	1	1
16	1	1	1
1	0	0	3
2	0	0	3
3	0	1	2
4	0	0	3
5	0	0	3
6	0	1	2
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
11	0	1	2
12	0	0	3
13	0	0	3
14	0	0	3
15	0	0	3
16	0	0	3
1	0	0	3
2	0	0	3
3	0	0	3
4	0	3	0
5	0	0	3
6	0	1	2
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
11	0	0	3
12	0	0	3
13	0	0	3
14	0	0	3
15	0	0	3
16	0	0	3

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
17	0	0	3
18	0	1	2
19	0	0	3
20	0	0	3
21	0	0	3
22	1	1	1
23	0	0	3
24	0	1	2
25	0	0	3
26	0	0	3
27	0	0	3
28	0	2	1
29	0	0	3
30	0	0	3
31	0	0	3
32	0	0	3
33	0	0	3
34	0	0	3
35	0	0	3
36	0	0	3
37	0	0	3
38	0	0	3
29	0	0	3
40	0	1	2
1	0	1	2
2	0	0	3
3	0	0	3
4	0	0	3
5	0	0	3
6	1	0	2
7	0	0	3
8	0	0	3
9	0	0	3
10	0	1	2
11	9	1	2
12	0	0	3
13	0	0	3
14	0	0	3
15	0	0	3
16	0	0	3
1	0	0	3
2	0	0	3
3	0	0	3
4	0	0	3
5	0	0	3
6	0	0	3
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
1	0	1	2
2	0	0	3
3	0	0	3
4	0	0	3
5	0	0	3

Item Number	Item Evaluation		
	Eliminate	Modify	Retain
6	0	0	3
7	0	0	3
8	0	0	3
9	0	0	3
10	0	0	3
11	0	0	3
12	0	0	3
13	0	0	3
14	0	0	3
15	0	0	3
16	0	0	3
17	0	1	2
18	0	0	3
19	0	0	3
20	0	0	3

Note. N = 3

Inspection of Table 58 reveals that teachers recommended that roughly 2% of the items needed modification. They did not recommend that any items be eliminated.

In addition to the teacher evaluations, an item analysis was performed using results from pilot testing with twelfth graders. Results of the item analysis on Inventory Form D presented in Table 59 show the percent of correct responses for each item by subtest.

Table 39

Item Analysis of Inventory Form D by Subtest

Subtest	Item Number	Percent of Correct Responses
Self-Realization	1	71
	2	38
	3	83
	4	75
	5	83
	6	87
	7	18
	8	92
	9	95
	10	97
	11	25
	12	88
	13	33
	14	95
	15	92
	16	43
	1	80
	2	75
	3	83
	4	73
	5	77
	6	70
	7	77
	8	82
	9	80
	10	75
	11	83
	12	73
	13	77
	14	70
	15	77
	16	82
Economic Efficiency	1	87
	2	88
	3	90
	4	57
	5	83
	6	80
	7	47
	8	90
	9	45
	10	63
	11	40
	12	45
	13	72
	14	56
	15	55
	16	62

Subtest	Item Number	Percent of Correct Responses
Economic Efficiency (continued)	17	55
	18	88
	19	87
	20	47
	21	83
	22	57
	23	80
	24	93
	25	92
	26	82
	27	72
	28	67
	29	46
	30	82
	31	55
	32	87
	33	65
	34	87
	35	45
	36	33
	37	15
	38	88
	39	83
	40	25
Social Relationships	1	32
	2	47
	3	57
	4	50
	5	75
	6	53
	7	70
	8	32
	9	70
	10	65
	11	60
	12	40
	13	75
	14	72
	15	32
	16	72
	1	90
	2	75
	3	85
	4	63
	5	47
	6	82
	7	65
	8	47
	9	57
	10	57

Subtest	Item Number	Percent of Correct Responses
Civic Responsibility	1	73
	2	70
	3	58
	4	80
	5	87
	6	62
	7	60
	8	65
	9	58
	10	38
	11	83
	12	40
	13	53
	14	57
	15	62
	16	63
	17	35
	18	75
	19	85
	20	62

Note. Criterion level is a 75% correct response rate.

Inspection of Table 59 reveals that roughly 57% of all Inventory Form D items did not meet criterion level of 75%. On the Social Relationships subtest, roughly 77% of the items needed modification, as compared to 75% of the Civic Responsibility items, 55% of the Economic Efficiency items, and 31% of the Self-Realization items.

Reliability

Estimates of test reliability are obtained to establish the precision of a test as a measuring instrument. The reliability of any instrument refers to the extent that an individual would remain at the same relative place in a group in repeated measurements of the group. Therefore, the more reliable a test, the more consistently would an individual make the same or nearly the same score on the test, assuming no change in ability. To determine the reliability of Inventory Form D, correlation coefficients for pre- and posttest results for each of the four subtests were determined for experimental and control groups of twelfth grade students. These data are presented in Table 60.

Table 60

Means, Standard Deviations, and Correlation Coefficients from Inventory Form D by Subtest and by Group

Subtest/Group	Mean		Standard Deviation		Correlation Coefficient
	Pre.[a]	Post.[b]	Pre.[a]	Post.[b]	
Self-Realization					
Experimental	18.07	19.34	2.26	2.26	.32
Control	18.05	18.23	1.78	2.48	.21
Economic Efficiency					
Experimental	29.19	30.96	5.02	3.61	.44
Control	29.35	29.64	3.93	3.99	.81
Civic Responsibility					
Experimental	20.11	20.69	2.16	1.97	.56
Control	20.05	20.47	2.60	2.76	.85
Social Relationships					
Experimental	16.50	16.46	1.47	1.98	.64
Control	15.88	15.76	2.17	2.27	.65
Total Test					
Experimental	84.15	87.65	6.95	6.87	.58
Control	83.35	84.52	7.84	6.58	.80

Note. [a]Pre. = Pretest
[b]Post. = Posttest

Examination of Table 60 reveals a relatively high degree of reliability for each of the subtests, with the exception of the Self-Realization subtest, based on comparisons of pre- and posttest results. The Self-Realization subtest was the lowest of the four with correlation coefficients for experimental and control groups of .32 and .21, respectively. This information was noted for use by staff when modifying the inventory.

Validity

It was deemed important to determine whether the inventory was measuring growth in those career development areas for which it was designed. The process of establishing the validity of any test is an ongoing process that requires the continuous gathering and evaluating of various types of evidence indicative of the performance of the test. Users of Inventory Form D are urged to conduct additional validation studies.

Content Validity. The high content validity of Inventory Form D arises from the fact that the items for the preliminary and modified versions of the inventory were keyed to the goals, subgoals, and objectives of the Career Development Continuum. The relationship between career development goals, subgoals, and objectives, and the 100 items which constitute Inventory Form D, after modification, is shown in Table 61.

Table 61

Relationship of Inventory Form D Items(I) to
Career Development Goals(G), Subgoals(SG), and Objectives(O)

I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.
	(SR)				(EE)				(SR*)				(CR)		
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	1	27	2	1	-	52	3	1	1	77	4	1	-
3	1	1	1	28	2	1	-	53	3	1	2	78	4	1	-
4	1	1	2	29	2	1	-	54	3	1	2	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	1	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	1	32	2	2	-	57	3	2	-	82	4	2	-
8	1	2	2	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	1	35	2	3	1	60	3	3	-	85	4	3	-
11	1	3	2	36	2	3	2	61	3	3	-	86	4	3	-
12	1	3	2	37	2	3	2	62	3	3	-	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	1	39	2	4	-	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	-	65	3	4	-	90	4	4	-
16	1	4	2	41	2	4	-	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	1	68	3	5	1	93	4	5	-
19	1	5	2	44	2	5	2	69	3	5	2	94	4	5	-
20	1	5	3	45	2	5	2	70	3	5	2	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	1	47	2	6	-	72	3	6	1	97	4	6	-
23	1	6	2	48	2	6	-	73	3	6	-	98	4	6	-
24	1	6	2	49	2	6	-	74	3	6	-	99	4	6	-
25	1	2	1	50	2	1	-	75	3	3	1	100	4	2	-

Note. SR = Self-Realization
EE = Economic Efficiency
SR* = Social Relationships
CR = Civic Responsibility

Criterion-Related Validity. Criterion-related validity refers to establishing the relationship between scores obtained in a given test and those obtained on other specific external criterion measures generally associated with the attribute measured by the test. It was not possible to determine a criterion-related validity estimate as there were no external criteria available which could be used for comparison purposes with inventory scores.

Construct Validity. The construct validity of Inventory Form D was found by determining intercorrelations among the inventory subtests. The degree of intercorrelation between preliminary versions of the subtests was determined and is presented in Table 62.

Table 62

Intercorrelation Between Subtests of Inventory Form D

Subtest	Subtest				Total Test
	Self-Realization	Economic Efficiency	Civic Responsibility	Social Relationships	
Self-Realization	1.00				
Economic Efficiency	-.08	1.00			
Civic Responsibility	.57	-.14	1.00		
Social Relationships	.44	-.25	.74	1.00	
Total Test	.71	.41	.69	.58	1.00

Examination of Table 62 reveals that the intercorrelations between subtests of Inventory Form D are relatively low, with the exception of the intercorrelation between the Social Relationships and Civic Responsibility subtests. Thus, despite the overlapping of the four career development goal areas, this test had relatively pure measures in three areas. Since the four goal areas of the Career Development Continuum are closely interrelated, it is unrealistic to expect to find completely pure and independent subtests.

Revision and Synthesis of the Final Form of Inventory Form D

The item analysis and teacher evaluations and comments formed the basis for modifying Inventory Form D. In revising items or adding new items, wording was modified for clearer expression and to remove ambiguities, as well as to obtain a lower reading level. To facilitate inventory administration and scoring: (a) items were modified so that all were four-choice multiple choice items, each having only one correct response, (b) the number of items was reduced from 188 to 100 items, 25 items for each of the four subtests, and (c) each item was given a one point value, making a total possible score of 100. The final form of Inventory Form D consists of 100 items, in four parts. Each part has 25 items, with four items for each of the six subgoals, and one item a repeated item to provide a check on reliability. The repeated items are as follows: Items 6 and 25, 29 and 50, 59 and 75, and 81 and 100.

The Administrator's Manual of Instructions - Form D was modified presenting standard procedures to follow in administering and scoring the inventory. Inventory Form D was then administered to a small group of twelfth grade students. Results indicated all items were appropriate for a twelfth grade reading ability.

A copy of the Administrator's Manual of Instructions - Form D and a copy of Inventory Form D, with correct answers marked, appear as Appendices I and J of this report.

A PROJECT EVALUATION REPORT

Preparatory Activities for Implementing The Hawaii Career Development Continuum In Hawaii's Schools

Submitted to

Mrs. Emiko I. Kudo, Administrator
Vocational-Technical Curriculum Section, Department of Education

Mr. Wah Jim Lee, Administrator
Student Affairs Section, Department of Education

Co-Directors, Career Development Continuum Project

by

Earl J. Moore*
Consultant, Georgia Career
Guidance Projects
College of Education

The University of Georgia
Athens, Georgia
June 15, 1975

*On leave from the University of Missouri, Columbia, Missouri

PROJECT EVALUATION REPORT

Hawaii Career Development Continuum Project

Phase III

Introduction

The Hawaii State Department of Education has undertaken a systematic effort to integrate a comprehensive program of career education into the State of Hawaii's schools. This effort envisioned a sequential, step by step approach that would involve various phases over an extended period of time. This procedure is intended to insure an efficient and effective utilization of a comprehensive career development program.

The overall effort has come to be known as the Career Development Continuum Project (CDC). The project was implemented under provisions of P.L. 90-576, Part C, with funds awarded to the State Board of Vocational Education and sponsored by the State Department of Education. The project has been conducted by the Educational Research and Development Center and the Department of Educational Psychology of the College of Education, University of Hawaii, under contract to the State Department of Education. The University of Hawaii appointed Dr. T. Antoinette Ryan as project coordinator.

The initial phases produced 1) a career development model and conceptual framework, Kindergarten through grade 14, and 2) a set of related curriculum guides for school implementation, Kindergarten through grade 12. The project under consideration in this evaluation report is Phase III in the total systematic effort. The elements developed in previous phases were to be utilized in Phase III involving the following (Memorandum of Agreement, May, 1974):

1. inservice training of personnel
2. development of testing materials and instruments
3. evaluation and revision of the model and guides

Sources for the Evaluation Report

Information for this report was obtained from the following sources:

1. Review of CDC documents from previous phases:

   A Conceptual Framework for a Career Development Continuum K-14 for Hawaii's Schools

   Hawaii Career Development Continuum Curriculum Guide K-3

   Hawaii Career Development Continuum Curriculum Guide 4-6

   Hawaii Career Development Continuum Curriculum Guide 7-9

Hawaii Career Development Continuum Curriculum Guide 10-12

2. Career Development Continuum Project 1974 Workshop Syllabus

3. Materials and content used in 1974 Workshops, including handouts, references, agenda outlines, descriptions of procedures, methods and techniques.

4. Summary Report of Individual Workshop and Combined Workshops Data collected by the project coordinator.

5. Personal contact with the project coordinator and her staff.

6. Observations of the inservice program including discussion with program participants.

7. Preliminary copies of a Career Development Inventory battery.

8. Report of findings from pilot testing of the Career Development Inventory.

9. Revised Hawaii Career Development Continuum Curriculum Guides.

The Inservice Training Program

The Department of Education and the University of Hawaii collaborated on arrangements for the training program. The basic format for instruction and the target population for the program were agreed upon after reviewing resources available and imposed constraints. It was decided to offer a series of orientation workshops through the University of Hawaii, Manoa and Hilo, Division of Continuing Education and Community Services, and the Department of Educational Psychology. Dr. Ryan and her staff were responsible for defining the specific program objectives, developing the staff development procedures and materials, and implementing the program as planned.

The program series consisted of seven 2-day workshops which were designed to make some initial impact on a representative number of schools. Therefore, all seven major districts in the State of Hawaii were chosen for participation in the program. A two day workshop for one semester hour credit offered through the University of Hawaii's Center for Continuing Education was judged to be a feasible time commitment and reasonable incentive. Any school personnel in the designated areas, regardless of position assignment, could participate for credit or non-credit. The nature of the workshop did pose some restrictions on the number of participants.

The seven 15 hour workshops were held on Fridays and Saturdays, October through December 1974. The same basic instructional and staff development procedures were used in each workshop.

Factors Evaluated

This evaluation report will attend to the following factors and provide a summary of concluding remarks:

Staff Development Rationale

Selection of Participants

Organization of Workshops

Goals and Objectives of the Workshops

Process Evaluation

Outcome Evaluation

Staff Development Rationale

The career development workshops were described as one of a series of orientation experiences for school personnel. The specific intent seemed to be the implementation of the set of curriculum guides for elementary and secondary personnel. This mission is well documented in the workshop syllabus. The attention given to the concept of career development and systematic curriculum development scheme was well founded and developed. In this reviewer's opinion, they are high quality products.

However, preoccupation with the career development continuum framework may have caused a channeled view that has ignored some important development needs. There is no evidence of the typical staff development concerns such as the following:

1. Needs assessment of staff
2. Procedure for selection of participants
3. Differential needs of groups e.g. teachers, counselors, or administrators
4. Identification of competencies and attitudes required for goal achievement
5. Longitudinal and followup activities
6. Suggested school, group, and individualized programs
7. Integration of staff development within implementation plan
8. Provision of resources and a continuing education plan to support inservice activities

The most serious indictment may be the failure to provide an overall plan and/or rationale for staff development. Discussions with the

project coordinator suggested that some consideration had been given to a systematic staff development program by the University of Hawaii and DOE coordinators but documentation or other evidence of such a commitment were not available.

Selection of Participants

The career development workshops were organized around Hawaii's seven districts (regions). Specific school participation was not controlled. This plan did guarantee a spreadoff effect to the total state. All districts solicited participation of school personnel from elementary and secondary schools. Within the limitations of workshop size, this approach seemed reasonably effective.

Since the major concern of the project was the implementation of curriculum guides, a more selective process for workshop participation may have contributed more specific school building/unit implementation. Participation may have been organized around school units and representation of different school personnel. What are the critical school personnel needed to implement a program of career development in a particular school unit? From this point of departure each school unit could develop its own implementation plan, including their own individualized staff development program. This approach would have assured the important mixture of leadership, instruction, and guidance staff. Followup and continued progress activities could be better followed up on the basis of a building or unit approach. Workshop goals and instructional processes could have featured this point of departure. In light of the participation groups (See Summary Report), this would have been a viable and easily administered contingency.

Organization of Workshops

The Hawaii DOE and project coordinator should be credited with an outstanding job of workshop organization. This aspect is documented in the participants response in the Summary Report and feedback received by the evaluator from workshop participants. The length of the workshop was feasible (15 hours), Friday evening and all day Saturday. Most of the facilities and supportive arrangements were conducive to the type of instructional activities used. The various incentives employed including college credit and personal recognition were evidently effective. The motivational level seemed to be relatively high. This motivation may have varied somewhat according to area or group. The workshops seemed especially meaningful to classroom teachers and counselors and less appropriate for administrators and college trainers (teacher educators and counselor educators). Again, this may not be the organization of the workshops but rather consideration for rationale and selection.

Participant ratings of program factors (Table 9, Summary Report) support a positive attitude toward program organization. "Pre-workshop information" received the lowest rating. This is understandable considering the press of the workshop activities.

The DOE and district administrative support for the workshops was good. Their participation in various components of the program lend credence to the career development commitment. The utilization of administrative staff may have been further enhanced by a preliminary staff development program for administrative personnel.

Goals and Objectives of the Workshops

There is no question that goals and objectives were stated and systematically developed. The Syllabus for 1974 Workshops provides an excellent outline of the workshop objectives. The goal for the workshops was:

> To develop participants understanding of career development and to increase their capabilities of infusing career development into the existing curriculum.

The basic assumption that this is the only or most prominent goal could be challenged. Is this the only implementation goal for career development? Is this goal the result of a feasibility or priority study? The evaluator had no indication of any such study and suspects that none has been undertaken. Some critics would point up that infusion of career development into the existing curriculum is but one goal of career development.

Assuming the central focus of the goal statement leads to subgoals and performance objectives as stated in the syllabus, the following is an example of this procedure:

> Subgoal 2: For participants to understand the importance of and be motivated to utilize career development learning experiences in the classroom.
>
> Objective 2.3: Given a 40 minute task assignment on cooperation, participants will demonstrate their awareness of the need for cooperative efforts of teachers and/or administrators, counselors, instructors, and community persons in delivering learning experiences to learnee by correctly responding to questions 19-26, and 28 (Section 2) on the Inventory of Educational Improvement.

The sequence of instruction included excellent evaluation procedures for each objective. The Workshops were readily amenable to outcome evaluation.

Process Evaluation

There were a variety of techniques employed to achieve the workshops objectives. The match of the type of techniques with the objective seemed appropriate. On a 1.0 (not worthwhile) to 4.0 (extremely worthwhile) scale the participants rated the workshop activities 3.35 (Table 7, Summary Report). "Reading assigned reference materials" (3.08) and "viewing career education materials" (3.10) were rated lowest. "Participating in task groups" (3.70) was rated highest. The

high rating of the task group participation is representative of the basic thrust employed in the workshops. A great deal of effort was given to organizing workshop activities into task groups. This allowed the participants to achieve a sense of ownership and feel that they were capable of employing the career development continuum in their schools. This performance emphasis in the processes was in keeping with the objectives outlines in the syllabus.

Staff and resource personnel were rated on Content Mastery and Communication Skill scales (1.0 poor to 4.0 outstanding). The mean rating on Content Mastery was 3.49 and the mean rating for Communication Skill was 3.50 (Table 8, Summary Report). The participants' rating of staff and resource personnel indicated an exceptional positive reaction to those involved in the program activities. The ratings of Training Process Factors (Table 10, Summary Report) summarized various workshop elements. All were ranked above 3.00 on a 4.00 scale. The overall ratings of the training processes were very positive.

There were some variations of participants' responses by workshop setting. The make up of the participant roster may have demanded special consideration be given to certain characteristics of personnel in some of the districts (See Table 2, Summary Report). Again, this situation may have been best handled by a workshop participant selection procedure.

Outcome Evaluation

The training objectives of the workshops were stated in terms of performance behaviors. As indicated earlier, this approach lends itself to outcome evaluation. Outcome data were collected in two basic goal areas: Acquired Knowledge and Developed Skills. Two basic evaluation procedures were used: Perceived Self-Evaluation and Objective Test Responses.

Self-evaluation techniques indicated that the participants felt they had acquired the necessary knowledge and skills to implement the career development continuum. A combined 88.69 percent expressed this positive belief (Table 3, Summary Report). On a scale for the self-evaluation of achievement of training objectives, a 3.60 average was reported on a 4.00 scale (Table 4, Summary Report).

However, results from the objective test evaluation were not so conclusive. The mean score for all seven workshops was approximately 70 percent for Knowledge, 55 percent for Skill and almost 60 percent for Knowledge and Skill combined. This is slightly below the criterion level of 70 percent (Table 5, Summary Report). Considerable variation existed among workshop sites in their response to the objective tests. Likewise there was considerable variation in response to the two outcome areas: Acquisition of Knowledge and Development of Skills.

The contrasting results and variability on the objective tests casts some doubts about the test's validity. Observed performance by the project staff and the evaluator would tend to support the participants' self-evaluation.

Conclusions

Within the content of the workshop objectives the inservice program was successful. There is ample evidence that the DOE and the University of Hawaii have achieved some preliminary implementation goals.

To state that the Career Development Continuum Project has implemented career education into the State of Hawaii's Schools would be an over generalization. Considerable readiness has been established. However, a more systematic, unit by unit (school buildings) approach would be needed before any immediate or significant impact could be noticed. The success of this particular inservice program is promising.

A staff development needs assessment is still needed. This is especially true now that some staff members have received some training. The differences among staff members regarding competencies in career education has now increased. Further staff development activities are needed but this may now require differentiated approaches. School administrators must become involved or the leadership at the local level will suffer. Their participation in this evaluated workshop was certainly minimal.

A major strength of this workshop approach was the amount of guided participant involvement. This enabled the staff in training to relate to the CDC conceptual framework and the Guide Materials. As participants took responsibility for integrating activities, a sense of ownership and willingness to risk was noted. It was evident that a great majority of staff members felt comfortable with the career education approach. Many of these people could be used in further staff/inservice training activities. A follow up procedure would help clarify the possibilities in this area.

This series of workshops should be encouraged. Likewise the stimulation created in the local schools deserves systematic, in-depth commitment and support. Follow up and continued activities are definitely needed.

Development of Testing Materials and Instruments

An objective test battery was developed for grades 3, 6, 9, and 12. There is a 100 item form for each grade level. Four items represent each of six subgoals from the four career development goals of the Career Development Continuum Model. One item in each goal area is repeated for a reliability check.

The battery was developed by the following process:

1. Review of existing instruments and the development of prototype instruments.

2. Selection and construction of items for a preliminary version of a four subtest inventory.

3. Administration of a preliminary Career Development Inventory to experimental and control groups of students (April, 1975).

4. Administration of a Teacher Survey Form that gathered teachers' reactions to the Inventory and an evaluation of each item in each of the subtests.

5. Item analysis based upon student group responses.

6. Revision of items as indicated by student and teacher responses, also, keyed items to subgoals and modified directions for administration and scoring.

7. Administration of the Career Development Inventory battery to experimental and control groups of students (June, 1975).

8. Revision as test data indicated.

The result of this process was a Career Development Inventory battery that included Form A for grade 3, Form B for grade 6, Form C for grade 9, and Form D for grade 12. An Administrator's Manual of Instructions accompanies each form.

Developmental Concerns

A developer of a new sequential career development battery can expect to encounter some difficulties. First, similar career development batteries are not available for modeling or for cross validation. This area of test development is in its infancy. Research reports, consultation, and expert opinion in career development evaluation is lacking. It is understandable that an earlier national search inquiry by the inventory developer provided little assistance.

Secondly, the goal areas of the Career Development Continuum are relatively unique. The content validity of the battery was greatly enhanced by relating the items to the subgoals. The lack of knowledge about the flow of developmental elements as one proceeds from early childhood to adulthood makes item construction difficult. The same concerns were probably faced when the Career Development Continuum Curriculum Guides were developed. However, a testing battery will predetermine expectancies and influence the setting of developmental goals.

Lastly, new concepts and vocabulary will be included in such a battery. It may be difficult to determine if "readability" level is not just the function of lack of treatment (process of career development programs). There will be more of this readability concern in primary years where reading problems already exist. It is also possible that the Career Development Continuum goal areas represent more abstract concepts than usually found in other curriculum areas. In particular the goal areas of self-realization, social relationships and civic responsibility may contain many abstract concepts.

Utilization of Developmental Data

An experimental-control comparison is a rigorous test for this instrument development process. While this method may be desirable

for idealized test development and program evaluation, it does not seem to be an appropriate method for a situation where the adequacy of the treatment process can be questioned. However, it is doubtful that the comparison was the primary input for item revision. The teachers' reactions on the Teacher Survey Form and the item analysis data would seem to be more helpful at this stage of development. Student performance data from next year may allow another experimental-control design to be employed at that time.

The preliminary data (April, 1975) seemed to focus attention on readability, reliability, clarity, length, and scoring. This evaluator is concerned that the lack of experience with career development concepts, both students and teachers, may unduly suppress and constrict the scope of the instrument. Staff development programs and intensified career development programs may run pupils' scores to the ceiling of the battery.

Test Development and Program Evaluation

The development of a feasible testing battery for Career Development Continuum goal areas is an admirable research and development accomplishment. The fundamental instrument development process was sound, and considering the exploratory nature of the area, the results are extremely promising. A sequential testing of the Career Development Continuum subgoals will place school programs of career development in a comparable perspective with other curriculum objectives. The availability of evaluation procedures will give impetus to career development program implementation. Few evaluation instruments have been related to subgoals of instruction such as represented in the Career Development Inventory battery. This state of Hawaiian integration of rationale, model, curriculum guides, staff development, and evaluation is an outstanding program development capstone for the implementation of career development philosophy.

Other career development evaluation procedures will need to be employed. It is hoped that the impact of the Career Development Inventory will not be to over-simplify the career development program evaluation procedure. Some fundamental assumptions of the career development philosophy would suggest a number of evaluation procedures be used. The development of the Career Development Inventory battery should be a beginning not an end for program evaluation.

Evaluation and Revision of the Model and Guides

In accordance with Phase II evaluation input the Hawaiian Career Development Continuum Curriculum Guides were revised and printed. Preliminary evaluation data seems to substantiate the model on which the Guides are based.

This evaluator feels that the four Guides represent the most systematic, comprehensive approach to career development at this point in time. While the Guides have been made relevant to the state of Hawaii, they will provide assistance to other states and school districts interested in career development. The press for implementation will undoubtedly be one of Hawaii's top priorities.

Conclusions and Recommendations Related to Objective 1: In-Service Staff Training.

When the training results are interpreted in light of the process evaluation, it can be seen that the three workshops which were most effective in achieving training objectives, Kauai, Hilo, and Kona, were the three for which the process evaluation showed the highest ratings. Results show that the knowledge objective generally was achieved at a higher level than the skill objective. The process evaluation pointed up the time constraint. This factor may account, in part at least, for the lower level of achievement of the skill objective. Another process factor contributing to this was the fact that the supply of curriculum guides was not sufficient to permit each participant to have a set.

The relatively low rating for the Leeward workshop on the objective test, showing that only 32% of the participants met criterion level, is accounted for in part by the fact that 20% of the participants did not take the objective tests and a large number did not participate in the entire program. This points to a critical factor in any training program--selection of participants. In this in-service training program there were no criteria for selection of participants. In the Leeward workshop, one-third of the enrolled participants did not attend the total program. Windward, Honolulu, and Maui workshops also had participants who were not in attendance for the entire training program.

Another conclusion which can be drawn is that the learning environment is a critical factor in any training program. It can be noted that the three workshops which were most successful in achieving objectives, Kauai, Hilo, and Kona, were conducted in hotels where regular conference facilities and services were provided, according to requirements stipulated in the design for the delivery system.

The results of evaluating this training program suggest that with a systematic procedure for selecting participants, a training environment conducive to learning, and with participation in the total training program, the acquisition of basic knowledge about career development and development of preliminary skills for infusing career development into the curricula can be achieved with this training program.

The training package provided a model for an innovative, activity-oriented workshop. The success of this format was evident from the comments made by the participants. The format of "staying put and listening to lectures," as one participant stated, requires less in the way of planning and organization, but the learning is less than it would be when learning is activity-oriented.

It is important that the populations at the workshops be selected, and that administrators, counselors, and teachers receive in-service training. In order to have the greatest impact on the schools, it is necessary to select participants in the initial orientation and advanced training with great care. Effectiveness, enthusiasm, dedication, energy, and potential for leadership are important factors to consider when choosing participants. Training persons selected on the basis of these qualifications will make much more of an impact in the school system than training participants selected at random.

It is recommended that future training models incorporate a two-level training design and that participants for advanced training be chosen extremely carefully from among those who have completed the basic workshop and have shown leadership potential and mastery of career development concepts. Such two-level training will be more effective as well as more economical since the advanced participants should be fully capable, after training, to assume leadership positions in training others in their schools and districts. Involvement of more community representatives should also be considered. Training of administrators and counselors is essential.

Conclusions and Recommendations Related to Objective 2: Development of Instruments for Student Growth Assessment.

The four forms of the Student Growth Assessment of Career Development Inventory measured student growth in the career development areas of self-realization, economic efficiency, civic responsibility, and social relationships. Results from the pre- and posttests of control and experimental groups indicated there were no significant differences between experimental and control groups, nor were there significant differences between pre- and posttest responses. This, no doubt, is accounted for by the limited treatment time. These time constraints were due to the fact that all testing had to be completed by the end of the current fiscal year. Teachers had little time to incorporate career development learning experiences into their curriculum. However, trend data indicate that the instruments would measure differences between the two groups if the time interval was significantly longer.

It is recommended that data be gathered and analyzed routinely from the results of using the Student Growth Assessment of Career Development Inventory in subsequent years. Then data can form an important bank of information to help in interpreting results.

In classes with low reading ability, it is recommended that the inventory in the student growth assessment battery for the next lower level be used in testing career development outcomes. Since each guide has the same sequence of goals, subgoals, and objectives, the items in all four inventories are comparable in terms of testing achievement of objectives.

It is recommended that the inventories be used for instructional or guidance functions as well as for measurement instruments. Counselors can use the instruments for individual counseling purposes, and teachers can utilize them for stimulating discussions in the four career development goal areas.

References

American Institutes for Research. Proceedings of the national advisory panel (Vol. 1). Palo Alto: American Institutes for Research in the Behavioral Sciences, 1974.

Behavioral Consultants. Career education survey. Salt Lake City: Behavioral Consultants, n.d.

Bennett, G. K., Seashore, H. G., & Wesman, A. G. The differential aptitude tests. New York: The Psychological Corporation, 1974.

Brandes, B. J. Achievement competence training, a report, part VII, field test and evaluation. Philadelphia: Research for Better Schools, Inc., 1974.

Buckingham, P., Davis, F. V., & Kehalos, D. Achievement Competence Training, a report, part VIII: Anecdotal reports, exhibits, and structured interviews. Philadelphia: Research for Better Schools, Inc., 1974.

Clapsaddle, D. K. Career development and teacher in-service preparation: Vocational development inventory. Elementary School Guidance and Counseling, 1973, 8, 92-97.

Crites, J. O. Career maturity inventory. Monterey, Calif.: McGraw-Hill, Inc., 1973.

Cunha, J. E., Laramore, D., Lowrey, B. L., Mitchell, A. M., Smith, T. W., & Woolley, D. C. (Eds.). Career development: A California model for career guidance curriculum, K-adult, monograph #5. Fullerton, Calif.: California Personnel and Guidance Association, 1972.

Drier, H. N. Staff development program for promoting more effective use of community resources in career education: Local needs and attitudes assessment. Columbus, Ohio: Ohio State University, Center for Vocational and Technical Education, 1974a.

Drier, H. N. Staff development projects. Columbus, Ohio: Ohio State University, Center for Vocational and Technical Education, 1974b.

Drier, H. N., & Jacobsen, K. Attitudes toward career education: Identification and change. Paper presented at the Seventh Annual National Vocational and Technical Teacher Education Seminar, Dallas, 1973.

Dunn, J. A. Career education curriculum development: Grades K-9. Palo Alto: American Institutes for Research, 1974.

Houghton-Mifflin. The assessment of career development. Boston: Houghton-Mifflin, n.d. (a).

Houghton-Mifflin. Career planning program, grades 8-11. Boston: Houghton-Mifflin, n.d. (b).

Hoyt, K. B., Evans, R. N., Mackin, E. F., Mangum, G. L. Career education: What it is and how to do it. Salt Lake City: Olympus, 1974.

Marland, S. P., Jr. Career education - more than a name. Address presented at the annual meeting of the State Directors of Vocational Education, Washington, D. C., May 4, 1971. (a)

Marland, S. P., Jr. Career education now. Address presented at the Convention of the National Association of Secondary School Principals, Houston, Texas, January 23, 1971. (b)

Marland, S. P., Jr. Career education: Every student headed for a goal. American Vocational Journal, 1972, 47, 34-36.

Nelson, R. J. Providing career education through teachers: Three related models. Peabody Journal of Education, 1974, 52, 14-17.

Norton, R. E. Staff development guidelines for comprehensive career education. Columbus, Ohio: Ohio State University, Center for Vocational and Technical Education, 1972.

Ryan, T. A. Career-based adult education in corrections: A national program of training and model design. Honolulu: University of Hawaii, Education Research and Development Center, 1973a.

Ryan, T. A. A new conviction: Career education in corrections. Paper prepared for the American Correctional Association Congress of Correction, Seattle, August 13, 1973. (b)

Trenton State College. Career education: In-service teacher training programs available to the public schools. Trenton, N. J.: Trenton State College, Division of Continuing Education, 1972.

APPENDICES

		Page
Appendix A:	Advisory Committee Members	130
Appendix B:	Sample Workshop Agenda	133
Appendix C:	Administrator's Manual of Instructions-Form A. . .	137
Appendix D:	Student Growth Assessment of Career Development Inventory Form A	145
Appendix E:	Administrator's Manual of Instructions-Form B. . .	154
Appendix F:	Student Growth Assessment of Career Development Inventory Form B	162
Appendix G:	Administrator's Manual of Instructions-Form C. . .	179
Appendix H:	Student Growth Assessment of Career Development Inventory Form C	187
Appendix I:	Administrator's Manual of Instructions-Form D. . .	203
Appendix J:	Student Growth Assessment of Career Development Inventory Form D	211

APPENDIX A

Advisory Committee Members

Mr. Kazuo Agena
President
Hawaii School Counselors Association
Farrington High School
1564 N. King Street
Honolulu, Hawaii 96817

Mr. John Akana
Education Training Officer
Hawaii Government Employees Association
888 Williani Street
Honolulu, Hawaii 96813

Dr. Richard Ando
Chairman
Board of Education
1010 South King Street
Honolulu, Hawaii 96814

Mr. Walter Choy
Director
Office of Economic Opportunity
504 Kokoo Street
Honolulu, Hawaii 96817

Mr. Thomas H. Hamilton
Advisor to Board of Trustees
Kamehameha Schools
631 South King Street
Honolulu, Hawaii 96813

Mr. Francis Hatanaka
District Superintendent (Honolulu)
Department of Education
1037 S. Beretania Street
Honolulu, Hawaii 96814

Mr. Charles Y. Hayashi
Personnel Management Specialist
Department of Labor & Industrial Relations
825 Millani Street
Honolulu, Hawaii 96813

Mr. William C. Hightower
Representative
Hawaii-Pacific Area, AFL-CIO
925 Bethel Street, Room 215
Honolulu, Hawaii 96813

Mr. Teichiro Hirata
Superintendent of Education
Department of Education
1390 Miller Street
Honolulu, Hawaii 96813

Dr. George K. Ikeda
Executive Secretary
Commission on Manpower & Full Employment
567 South King Street
Honolulu, Hawaii 96814

Mr. Ralph Kiyosaki
Executive Secretary
Hawaii State Teachers Association
1649 Kalakaua Avenue
Honolulu, Hawaii 96814

Mr. Benny Mazda
Representative
Hawaii Congress of Parents & Teachers
144 Bates Street
Honolulu, Hawaii 96817

Mrs. Harriet Mizuguchi
Chairperson
Board of Regents
University of Hawaii
Bachman Hall
Honolulu, Hawaii 96822

Dr. Walter Nunokawa
Dean
College of Continuing Education and Community Service
University of Hawaii
2500 Dole Street
Honolulu, Hawaii 96822

Mr. John Sakuda
Representative
Hawaii State Student Council
Kaimuki High School
2075 Kaimuki Avenue
Honolulu, Hawaii 96815

Dr. Samson Shigetomi
State Director for Vocational Education
Board for Vocational Education
2444 Dole Street, Bachman 101
Honolulu, Hawaii 96822

Mrs. Yasuko Takemoto
Rehabilitation Planning Specialist
Vocational Rehabilitation Division
Department of Social Services
P. O. Box 339
Honolulu, Hawaii 96809

Dr. John A. Thompson
Chairman
Department of Educational Administration
University of Hawaii
1776 University Avenue
Honolulu, Hawaii 96822

Mr. Marvin Vereggee
President
Hawaii Practical Arts & Vocational Education
47-136 Iuiu Street
Kaneohe, Hawaii 96744

(Not named yet) Chancellor
Community Colleges
University of Hawaii
Bachman Hall 201
Honolulu, Hawaii 96822

NOTE: A new representative of the Council of Community Colleges Provosts will be named later.

Ex-Officio Members:

Dr. Philip K. Ige
Assistant Superintendent
Office of Instructional Services
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Mrs. Emiko I. Kudo
Administrator
Vocational-Technical Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Mr. Wah Jim Lee
Administrator
Student Affairs Section
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Staff Participants:

Mr. Thomas Hatakeyama
Program Specialist
Agricultural Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Dr. Lawrence Inaba
Program Specialist
Industrial Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii

Mr. Frank Kanzaki
Program Specialist
Industrial Arts Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Mrs. Clara Katekaru
Program Specialist, Counseling
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Mr. Nelson Muraoka
Coordinator, Special Needs Program
Board for Vocational Education
2444 Dole Street, Bachman 101
Honolulu, Hawaii 96822

Mrs. Barbara Nakagawa
Program Specialist
Home Economics Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Dr. T. Antoinette Ryan
Researcher/Professor
University of Hawaii
1776 University Avenue
Honolulu, Hawaii 96822

Mrs. Florence Sakai
Program Specialist
Business Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96322

APPENDIX B

Sample Workshop Agenda

1974 DISTRICT WORKSHOPS

AGENDA

Afternoon Session

Chairperson:
Recorder:

3:30 - 4:15	Registration
4:15 - 4:20	Opening
4:20 - 4:30	Program Overview: Objectives and Procedures. T. A. Ryan
4:30 - 5:00	Film Presentation. Career Education
5:00 - 5:05	Task Group Assignment: Communication on Career Education Experiences. T. A. Ryan
5:05 - 5:30	Task Group Activity.
5:30 - 5:45	Task Group Reports Group IA Chairperson: Group IB Chairperson: Group IC Chairperson: Group ID Chairperson: Group IE Chairperson:
5:45 - 5:55	Discussion
5:55 - 6:00	Closing

PROGRAM

for the

BANQUET SESSION

CAREER DEVELOPMENT CONTINUUM PROGRAM

1974 DISTRICT WORKSHOP

conducted by the

COLLEGE OF EDUCATION

of the

UNIVERSITY OF HAWAII

* * * * * * * * * * * * *

6:00 - 7:00	Banquet
7:00 - 7:10	Presiding. T. A. Ryan, Professor, College of Education University of Hawaii
7:10 - 7:20	Welcome. District Superintendent _____
7:20 - 7:25	Introduction of Speaker. T. A. Ryan
7:25 - 8:15	Address. Life Career Development: A New Investment Earl J. Moore, Professor of Education Department of Counseling and Personnel Services University of Missouri, Columbia

* * * * * * * * * * * * *

8:15 - 10:30	Career Development Instructional Guidance Materials Sharon Wago, Director, Career Information Center Office of the State Director of Vocational Education

1974 DISTRICT WORKSHOPS

AGENDA

Morning Session

Chairperson:
Recorder:

8:00 - 8:05	Opening
8:05 - 8:10	Feedback. T. A. Ryan
8:10 - 8:30	Career Development Continuum. T. A. Ryan
8:30 - 8:35	Task Group Assignment. Involvement Strategies. T.A. Ryan
8:35 - 8:55	Task Group Activity
8:55 - 9:10	Task Group Reports.
	Group IIA Chairperson:
	Group IIB Chairperson:
	Group IIC Chairperson:
	Group IID Chairperson:
	Group IIE Chairperson:
9:10 - 9:15	Discussion
9:15 - 10:00	Panel: Delivering Career Development in the Schools
	Panelist: Teacher
	Panelist: Counselor
	Panelist: Administrator
10:00 - 10:15	Recess
10:15 - 10:25	Task Group Assignment: Cooperation. T. A. Ryan
10:25 - 10:35	Task Group Activity
10:35 - 10:45	Task Group Reports
	Group IIIA Chairperson:
	Group IIIB Chairperson:
	Group IIIC Chairperson:
	Group IIID Chairperson:
10:45 - 10:55	Discussion
10:55 - 11:00	Task Group Assignment: Assumptions. T. A. Ryan
11:00 - 11:30	Task Group Activity
11:30 - 11:45	Task Group Reports.
	Group IVA Chairperson:
	Group IVB Chairperson:
	Group IVC Chairperson:
	Group IVD Chairperson:
11:45 - 11:50	Discussion
11:50 - 11:55	Feedback. T. A. Ryan
11:55 - 12:00	Closing

1974 DISTRICT WORKSHOPS

AGENDA

Afternoon Session:

Chairperson:
Recorder:

12:00 - 1:00	Luncheon Meeting. Discussion Session.
1:00 - 1:05	Opening
1:05 - 1:15	Task Group Assignment: Infusing Career Development into Subject Matter and Guidance. T. A. Ryan
1:15 - 3:00	Task Group Activity
3:00 - 3:15	Recess
3:15 - 3:45	Task Group Reports Group VA Chairperson: Group VB Chairperson: Group VC Chairperson: Group VD Chairperson: Group VE Chairperson:
3:45 - 4:00	Discussion
4:00 - 4:15	Assessment. T. A. Ryan
4:15 - 4:25	Recapitulation. T. A. Ryan
4:25 - 4:30	Closing

APPENDIX C

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY

ADMINISTRATOR'S MANUAL OF INSTRUCTIONS - FORM A

* * * * * * * *

Student Growth Assessment of Career Development Inventory (SGACDI) battery is composed of items designed to measure the extent to which four major goals of career development are being achieved. The goals are: Self-Realization, Economic Efficiency, Social Relationships, and Civic Responsibility. The SGACDI battery consists of four forms. Form A is designed to measure achievement of third grade students. Form B is designed to measure achievement of sixth grade students. Form C is designed to measure achievement of ninth grade students. Form D is designed to measure achievement of twelfth grade students.

This manual describes administration procedures for the SGACDI Form A, designed for administration to third grade students. It is important that these procedures be thoroughly understood and followed by anyone who is involved in administering the inventory.

Inventory Form A consists of 100 items which are to be answered by responding true or false. The inventory should be administered to a group of third grade students. It will take about one hour to administer the inventory. To avoid student boredom and fatigue, the inventory can be administered in 1 day, 2 days, 3 days, or 4 days.

PART 1

A. General Duties of the SGACDI Administrator

1. Supervising the administration of the SGACDI.

2. Selecting and instructing SGACDI inventory proctors, if any.

3. Providing optimal conditions for inventory administration by preventing distractions and interruptions.

4. Becoming thoroughly familiar with this manual, <u>in particular</u>, Part 2.

5. Recommending to the students in advance that they have two or more sharpened soft lead (No. 2) pencils with erasers.

B. Materials Required

1. A copy of this manual should be on hand and a large enough supply of the SGACDI booklets to provide one copy to each student and one to the administrator.

2. A supply of sharpened No. 2 lead pencils with erasers should be on hand for students who forget to bring pencils or break theirs.

3. Tables and desks should be available for all students. If chairs with arms are used, adequate provision must be made for left-handed students.

PART 2

A. General Directions for the Administration of the Inventory

1. Instructions enclosed in boxes are to be read aloud by the administrator. In order to provide a standardized administering situation, these directions should not be changed.

2. During the inventory, the administrator should walk around the room checking to see that students are following the procedure properly. The students should have nothing on their desks except the inventory booklets and pencils.

3. Care should be taken to explain to students that they are not being graded, but they should do their best.

4. The administrator should answer any questions that the students may raise.

5. The administrator should follow the "Specific Directions" (Part 2-B) in each testing session, in order to orient the students to the procedure for marking their responses.

6. If the testing is done in two or more sessions, collect the inventory booklets systematically for each row or table. This will facilitate redistribution of the booklets in the next session, provided the students occupy the same seats.

7. If testing is done in two or more sessions, the students will use the same inventory booklets in each session. Therefore, the administrator should make sure each student receives his or her own booklet in each testing session. The administrator should ask the students to check their names on the booklets to see that they have their own booklets.

B. Specific Directions for the Administration of the SGACDI

1. When all students have been seated, say:

YOU ARE GOING TO RECEIVE A BOOKLET ON CAREER DEVELOPMENT. DO NOT OPEN THE BOOKLET UNTIL I TELL YOU TO DO SO.

2. Now distribute the booklets and say:

THE STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY IS EXACTLY WHAT THE TITLE SUGGESTS: AN INVENTORY OF YOUR GROWTH IN AREAS WHICH CONTRIBUTE TO CAREER DEVELOPMENT. THIS IS NOT A TEST. IT IS AN INVENTORY OF GROWTH IN FOUR AREAS WHICH RELATE TO CAREER DEVELOPMENT; SELF-REALIZATION, THAT IS, YOUR UNDERSTANDING OF YOURSELF; ECONOMIC EFFICIENCY, THAT IS, YOUR UNDERSTANDING OF WHAT IT TAKES TO BE AN EFFECTIVE PRODUCER OR CONSUMER OF GOODS AND SERVICES; SOCIAL RELATIONSHIP, THAT IS, YOUR ABILITY TO GET ALONG WITH OTHERS; AND CIVIC RESPONSIBILITY, THAT IS, YOUR UNDERSTANDING OF THE RIGHTS AND RESPONSIBILITIES OF YOURSELF AND OTHERS. THE RESULTS OF THIS INVENTORY CAN HELP YOU IN ASSESSING YOUR CAREER DEVELOPMENT. DO NOT TALK OVER THE QUESTIONS WITH ANYONE ELSE. UNLESS THE ANSWER IS WHAT YOU THINK, IT WILL NOT REALLY HELP TO GIVE A TRUE PICTURE OF YOUR CAREER DEVELOPMENT.

3. Write the date, teacher's name, and school on the board, and say:

WRITE YOUR FIRST AND LAST NAME ON THE TOP LINE. ON THE NEXT LINE GIVE YOUR GRADE, AGE, AND SEX. ON THE LINE BELOW THAT, WRITE YOUR TEACHER'S NAME. ON THE LOWEST LINE WRITE THE NAME OF OUR SCHOOL AND TODAY'S DATE. TODAY IS _____.

Provide assistance if necessary.

4. After completion of this, proceed by saying:

NOW LOOK AT THE SECTION WHERE IT SAYS "DIRECTIONS" AND LISTEN AS I READ THE DIRECTIONS TO YOU.

DIRECTIONS: LISTEN AS YOUR TEACHER READS EACH STATEMENT ALOUD. FOR EACH STATEMENT YOU SHOULD ANSWER EITHER TRUE OR FALSE. IF THE STATEMENT IF TRUE, CIRCLE THE WORD TRUE IN THE COLUMN TO THE RIGHT OF THE STATMENT. IF THE STATEMENT IS NOT TRUE, CIRCLE THE WORD FALSE. BE SURE TO LISTEN FOR THE STATEMENT NUMBER SO THAT YOU MARK THE CORRECT STATEMENT.

5. NOW LET US LOOK AT THE EXAMPLE ON THE BLACKBOARD.

Write on the board:

Today is Sunday.	True	False

IS TODAY SUNDAY? NO. TODAY IS NOT SUNDAY, SO WE SHOULD CIRCLE FALSE.

6. Explain that:

YOU SHOULD CIRCLE YOUR ANSWER IMMEDIATELY AFTER I READ EACH QUESTION TO YOU; IN THE SAME WAY WE DID THE EXAMPLE ON THE BOARD. O.K.?

7. Emphasize that:

NO QUESTION SHOULD BE LEFT UNANSWERED. FOR EACH QUESTION ONLY ONE CIRCLE MUST BE MADE. IF A MISTAKE IS MADE, IT MUST BE ERASED COMPLETELY. MAKE SURE YOUR MARK IS HEAVY AND DARK.

8. Make sure everyone understands the answering procedures properly and is ready before you begin reading the questions.

9. Read each question twice. Read the question number. Then read the question. Then say:

MARK YOUR ANSWER FOR QUESTION NUMBER _____.

10. Allow approximately 10 seconds for each question. Be sure the students answer all questions.

11. At the end of the session, after the last question is answered, say:

NOW CLOSE YOUR BOOKLETS AND LEAVE THEM ON YOUR DESKS.

12. If testing is done in two or more sessions, at the end of the session, conclude by saying:

THIS IS THE END OF THIS PART OF THE INVENTORY. WE WILL CONTINUE WITH THE NEXT PART IN THE NEXT SESSION. THE NEXT SESSION WILL BE _____.

Please provide the time of the next session.

C. Directions for Scoring

For scoring use the Scoring Key - Form A. The inventory is made up of 4 parts. Each part includes 25 items, and measures achievement of objectives implementing one of the four goals of career development. Part 1 includes items 1 to 25. Part 2 includes items 26 to 50. Part 3 includes items 51 to 75. Part 4 includes items 76 to 100. Give one point for each correct answer. Maximum possible score for each part will be 25 points, and for the whole inventory will be 100 points.

SCORING KEY

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM A

Item	Answer	Item	Answer	Item	Answer	Item	Answer
1	True	26	False	51	False	76	False
2	True	27	False	52	False	77	False
3	False	28	False	53	True	78	True
4	False	29	True	54	True	79	False
5	False	30	True	55	True	80	True
6	True	31	True	56	False	81	False
7	False	32	False	57	True	82	True
8	True	33	True	58	True	83	False
9	True	34	True	59	False	84	False
10	True	35	False	60	False	85	False
11	False	36	False	61	True	86	True
12	True	37	True	62	False	87	True
13	False	38	False	63	False	88	False
14	False	39	False	64	False	89	True
15	True	40	True	65	False	90	True
16	False	41	True	66	True	91	True
17	True	42	True	67	True	92	True
18	True	43	False	68	False	93	False
19	False	44	True	69	True	94	True
20	False	45	False	70	True	95	True
21	False	46	False	71	True	96	False
22	True	47	False	72	True	97	True
23	True	48	True	73	False	98	True
24	False	49	True	74	False	99	False
25	False	50	False	75	False	100	False

Part 3

INVENTORY INTERPRETATIONS

The SGACDI has been developed to assess student growth in four areas: self-realization, economic efficiency, social relationships, and civic responsibility. The inventory is designed to measure the extent to which the objectives of the Hawaii Career Development have been achieved; and to provide information and to assist counselors and teachers for designing new or improving existing programs to meet student needs. The inventory items have been constructed to measure achievement in relation to the 4 goals, 24 subgoals, and implementing learner objectives of the Hawaii Career Development Continuum. There are 6 subgoals to each goal as shown in Table 1.

TABLE 1

Major Goals and Subgoals

Goals	Subgoals
Self-Realization	1. Acquire skills of self-appraisal.
	2. Develop awareness and understanding of self.
	3. Develop understanding of decision-making process.
	4. Acquire skills of decision-making, risk taking, value clarification, and goal setting.
	5. Develop understanding of the relationship between work and life style.
	6. Develop appreciation for individual differences in interests, values, aptitude, skills, abilities, attitudes.
Economic Efficiency	1. Develop understanding of variety of occupations and knowledge of occupational classification and job descriptions.
	2. Develop understanding that occupations exist for a purpose and contribute to the dignity of the individual.
	3. Develop appreciation for the value of work, its contribution to society and the economy, and appreciate that work means different things to different people.
	4. Develop understanding that new occupations develop in response to needs of society.
	5. Develop employability skills.
	6. Develop understanding of the relationship between education and work.

Social Relationships	1. Develop interpersonal skills.
	2. Develop understanding of social roles.
	3. Develop understanding of cooperation.
	4. Develop understanding of community workers.
	5. Develop appreciation for flexibility and adaptability in social relationships.
	6. Develop understanding of interrelatedness of occupational roles.
Civic Responsibilities	1. Develop understanding of rights, privileges, and responsibilities on the job, in the home, in the community.
	2. Develop understanding of ways in which participation in civic groups contributes to individual and group goals.
	3. Develop understanding of importance of rules in society.
	4. Develop understanding of relationships between reponsibilities and rewards in work and leisure.
	5. Develop capabilities for making effective use of resources and understand relation of environment to work.
	6. Develop ability to participate in various kinds of civic groups.

These are four items for each subgoal. These items relate to the learner objectives for that subgoal, as shown in Table 2. Items 1 to 24 test the achievement of the Self-Realization Subgoals. Items 26 to 49 test the achievement of the Economic Efficiency Subgoals. Items 51 to 74 test the achievement of the Social Relationships Subgoals. Items 76 to 99 test the achievement of the Civic Responsibility Subgoals. Items 25, 50, 75, and 100 are repeated items for reliability. A reliability check can be made by comparing responses to the following items: Items 25 and 11, 50 and 36, 75 and 60, 100 and 77. In Table 2, the dash signs imply there were not any objectives available for the corresponding items, but that the items were constructed according to the subgoal or the one single objective if available for that subgoal.

Table 2

Student Growth Assessment of Career Development Inventory - Form A

Distribution of the Items(I) According to Goals(G), Subgoals (SG) and Objectives(O)

I.	G. (SR)	SG.	O.	I.	G. (EE)	SG.	O.	I.	G. (SR*)	SG.	O.	I.	G. (CR)	SG.	O.
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	1	52	3	1	-	77	4	1	-
3	1	1	3	28	2	1	2	53	3	1	-	78	4	1	-
4	1	1	4	29	2	1	2	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	1	-	31	2	2	-	56	3	2	-	81	4	2	-
7	1	1	-	32	2	2	-	57	3	2	-	82	4	2	-
8	1	1	-	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	-	84	4	3	1
10	1	3	-	35	2	3	2	60	3	3	-	85	4	3	-
11	1	3	-	36	2	3	3	61	3	3	-	86	4	3	-
12	1	3	-	37	2	3	3	62	3	3	-	87	4	3	-
13	1	4	-	38	2	4	1	63	3	4	-	88	4	4	1
14	1	4	-	39	2	4	-	64	3	4	-	89	4	4	-
15	1	4	-	40	2	4	-	65	3	4	-	90	4	4	-
16	1	4	-	41	2	4	-	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	-
18	1	5	2	43	2	5	-	68	3	5	-	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	-	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	-	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	1	47	2	6	1	72	3	6	-	97	4	6	-
23	1	6	2	48	2	6	2	73	3	6	-	98	4	6	-
24	1	6	2	49	2	6	2	74	3	6	-	99	4	6	-
25	1	3	-	50	2	3	3	75	3	3	-	100	4	1	-

Note. SR = Self-Realization SR* = Social Relationships
EE = Economic Efficiency CR = Civic Responsibility

APPENDIX D

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM A

Student's Name _____

Grade _____ Age _____ Sex: Male Female

Teacher's Name _____

School _____ Date _____

The Student Growth Assessment of Career Development Inventory is exactly what the title suggests: an inventory of your growth in areas which contribute to career development. This is not a test. It is an inventory of growth in four areas which relate to career development: Self-Realization, that is, your understanding of yourself; Economic Efficiency, that is, your understanding of what it takes to be an effective producer or consumer of goods and services; Social Relationships, that is, your ability to get along with others; and Civic Responsibility, that is, your understanding of the rights and responsibilities of yourself and others. The results of this inventory can help you in assessing your career development. Do not spend a great deal of time on any one item. Do not talk over the questions with anyone else. Unless the answer is what you think, it will not really help to give a true picture of your career development.

DIRECTIONS: Listen as your teacher reads each statement aloud. For each statement you should answer either True or False. If the statement is true, circle the word True in the column to the right of the statement. If the statement is not true, circle the word False. Be sure to listen for the statement number so that you mark the correct statement.

Example: 1. Today is Sunday True False

Today is not Sunday, so circle the word False.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

Do Not Write Below This Line

PART	ITEMS	GOAL MEASURED	POSSIBLE SCORE	ACTUAL SCORE
1	1-25	Self-Realization	25	
2	26-50	Economic Efficiency	25	
3	51-75	Social Relationships	25	
4	76-100	Civic Responsibility	25	
		Total	100	

Inventory Form A

Part 1

1.	I can think of 3 different words to describe myself.	True	False
2.	I know which school subject I do best.	True	False
3.	All boys and girls are the same when they are 11 years old.	True	False
4.	All third-grade boys and girls weigh the same.	True	False
5.	Very loud noises are pleasant to everybody.	True	False
6.	A person who wants to be a teacher should like working with children.	True	False
7.	To be an artist a person should be a good speller.	True	False
8.	A person who is not good in mathematics could be a successful librarian.	True	False
9.	A person decides what to wear by thinking about where one is going and what one will be doing.	True	False
10.	If you are given $5 to spend, you will first have to decide what is most important to you.	True	False
11.	Knowing what will happen to you if you do something makes it harder to decide.	True	False
12.	In order to decide whether to do something or not, a person has to know what will happen if it is done or not done.	True	False
13.	Boys and girls are taking more of a chance if they play a game they know how to play well than if they play a game for the first time.	True	False
14.	The same things are important to boys and girls in the 3rd grade as to their parents and teachers.	True	False
15.	Knowing what you want is the most important part of deciding something.	True	False
16.	Planning ahead is of no value.	True	False
17.	A person who likes a lot of free time for surfing would probably not like to be a doctor.	True	False
18.	People who like their jobs are usually good at their jobs.	True	False

Inventory Form A (continued)

19.	Students usually make their best grades in subjects they do not like.	True	False
20.	Being lazy helps a person make good grades.	True	False
21.	All third graders like the same T.V. programs.	True	False
22.	Some children play baseball better than others.	True	False
23.	People from different countries sometimes have different manners.	True	False
24.	Everyone likes rice.	True	False
25.	Knowing what will happen to you if you do something makes it harder to decide.	True	False

Inventory Form A (continued)

Part 2

26.	A person who bakes bread is called a chef.	True	False
27.	A person who paints houses is called a plumber.	True	False
28.	A person who fixes cars is making a product.	True	False
29.	A person who paints pictures is producing something.	True	False
30.	Being able to do something well makes a person think better of himself or herself.	True	False
31.	Most people take pride in doing their job well.	True	False
32.	When you paint a picture and someone says they like it, you would probably feel disappointed.	True	False
33.	Most boys and girls feel proud when they know they have done something to help at home.	True	False
34.	Everyone in the school benefits from the school janitors doing their jobs well.	True	False
35.	If Hawaii had no hotels, tourists would come here anyway.	True	False
36.	A person who has lots of money never works.	True	False
37.	Many people enjoy working because their work helps others.	True	False
38.	A city without any police, firemen, and firewomen would be a safe place in which to live.	True	False
39.	A family can get along on its own without the help of the rest of the community.	True	False
40.	If there were no farmers, people in the city could not live.	True	False
41.	New jobs are made when people have new needs.	True	False
42.	A job is done better if it is done step by step in an organized way.	True	False
43.	It does not matter if a worker is on time for the job.	True	False
44.	In order to get a job, one should have the skills needed for that job.	True	False

Inventory Form A (continued)

45.	Having good manners is not important for most jobs.	True	False
46.	A person can become an English teacher as soon as he or she finishes high school.	True	False
47.	A person needs to go to school more years to become a bus driver than to become a doctor.	True	False
48.	A person who plans to become an airline steward or stewardess should study foreign languages.	True	False
49.	To become a doctor a person must study science.	True	False
50.	A person who has lots of money never works.	True	False

Inventory Form A (continued)

Part 3

51.	A person who smiles and says "hello" is being unfriendly.	True	False
52.	An unhappy person will have more friends than a happy person.	True	False
53.	Everyone needs to learn to communicate with others.	True	False
54.	Being helpful around home makes life easier for everyone in the family.	True	False
55.	People feel worthwhile and important when their jobs are of service to others.	True	False
*56.	Long distance telephone operators like their work because the phone calls are interesting to overhear.	True	False
57.	People feel worthwhile when they do their jobs well.	True	False
58.	Feeling proud of something you have done well is different from boasting.	True	False
59.	In doing a group activity, each person follows his or her own rules.	True	False
60.	Work done by a team is not as good as work done by one person.	True	False
61.	The waiter or waitress and the cook have to cooperate in order to serve people in a restaurant.	True	False
62.	People cooperate because they are too lazy to do things by themselves.	True	False
63.	The person who helps people find and check out books at the library is a bookkeeper.	True	False
64.	A mailman or woman is a person who gives people traffic tickets.	True	False
65.	A fireman or woman sells fire insurance.	True	False
66.	A bus driver helps people to get from one place to another.	True	False
67.	All jobs have some uninteresting parts to them.	True	False
68.	Boys and girls act the same on the playground as they do in the classroom.	True	False

69.	When the rules of a game are changed, players should play by the new rules.	True	False
70.	A third grader behaves differently from a ninth grader.	True	False
71.	In order to have grocers, we must have farm workers.	True	False
72.	It takes many different kinds of workers to put an astronaut on the moon.	True	False
73.	In order to build a house, one must hire a housekeeper.	True	False
74.	The job of a salesclerk is related to the job of a farmer.	True	False
75.	Work done by a team is not as good as work done by one person.	True	False

Part 4

76.	Being on time to meetings is not important.	True	False
77.	Teachers are responsible for seeing that students turn in their work on time.	True	False
78.	When United States citizens become 18 years old, they can vote to elect the President of the United States.	True	False
79.	Having jobs to do at home teaches children to be clean.	True	False
80.	When boys and girls join clubs like Cub Scouts and Brownies, they will probably make new friends.	True	False
81.	An organization that protects the welfare of workers is called a political party.	True	False
82.	When you take part in group games at school, you are contributing to group goals.	True	False
83.	When boys and girls collect money for UNICEF on Halloween, they are being greedy.	True	False
84.	A person can cross the street on a red light if no car is coming.	True	False
85.	The school has rules in order to teach students to obey.	True	False
86.	Waiting for your turn to speak makes it easier for a group to have a discussion.	True	False
87.	Laws are made to protect people.	True	False
88.	A person should be rewarded even if the person did the job badly.	True	False
89.	People feel proud of themselves when they do a job well.	True	False
90.	There are jobs from which people get great satisfaction even though the pay may be low.	True	False
91.	Doctors and nurses feel proud of their work because they are helping others.	True	False
92.	Everyone has a responsibility to keep from littering the school grounds.	True	False

93.	Keeping one's things neat makes it harder to find things.	True	False
94.	Most industries cause some pollution.	True	False
95.	Old newspapers and cans can be recycled.	True	False
96.	When you play a game, it is all right to take your turn before it is time to do so.	True	False
97.	Parents who take part in school activities benefit by learning more about their children.	True	False
98.	Adults who take part in neighborhood improvement groups increase their ability for getting along with others.	True	False
99.	Being a member of a group or on a committee makes a person feel more frightened and shy in front of a crowd.	True	False
100.	Teachers are responsible for seeing that students turn in their work on time.	True	False

APPENDIX E

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY

ADMINISTRATOR'S MANUAL OF INSTRUCTION - FORM B

* * * * * * * *

Student Growth Assessment of Career Development Inventory (SGACDI) battery is composed of items designed to measure the extent to which four major goals of career development are being achieved. The goals are: Self-Realization, Economic Efficiency, Social Relationships, and Civic Responsibility. The SGACDI battery consists of four forms. Form A is designed to measure achievement of third grade students. Form B is designed to measure achievement of sixth grade students. Form C is is designed to measure achievement of ninth grade students. Form D is designed to measure achievement of twelfth grade students.

This manual describes administration procedures for the SGACDI Form B, designed for administration to sixth grade students. It is important that these procedures be thoroughly understood and followed by anyone who is involved in administering the inventory.

Inventory Form B consists of 100 multiple choice items which will require about one hour to complete. To avoid student boredom and fatigue, the inventory may be administered in two or four sessions. Students can be asked to complete one or two parts for each session. Two possible schedules are as follow:

Schedule 1		Schedule 2	
Session 1	Part 1	Session 1	Parts 1 & 2
Session 2	Part 2	Session 2	Parts 3 & 4
Session 3	Part 3		
Session 4	Part 4		

Part 1

A. General Duties of the SGACDI Administrator

1. Supervising the administration of the SGACDI.

2. Selecting and instructing SGACDI proctors, if any.

3. Supplying inventory booklets, pencils, erasers, desks, chairs.

4. Preventing distractions and iterruptions, thus providing optimal conditions for the inventory administration.

5. Becoming thoroughly familiar with the SGACDI manual, <u>in particular</u>, Part 2-B.

B. Materials Required

1. A copy of this manual should be on hand, and a large enough supply of the inventory booklets to provide one copy for each student and one for the administrator.

2. An adequate supply of sharpened No. 2 lead pencils with erasers should be on hand for students who forget to bring pencils or in cases where their pencils break.

3. Tables and desks should be available for all students. If chairs with arms are used, adequate provision must be made for left-handed students.

Part 2

A. General Directions for the Administration of the Inventory

1. Instructions enclosed in boxes are to be read aloud by the administrator. In order to provide a standardized administering situation, these directions should not be changed.

2. Care should be taken to explain to students that they are <u>not</u> being graded, but they should do their best.

3. During the inventory completion, the administrator should walk around the room checking to see that the students are following the procedure correctly. The students should have nothing on their desks except the inventory booklets and pencils.

4. In response to questions about whether students should guess, say:

TRY TO ANSWER EVERY QUESTION. IF YOU ARE UNCERTAIN ABOUT AN ANSWER, SELECT THE ONE ALTERNATIVE YOU FEEL IS MOST NEARLY CORRECT.

5. Questions raised concerning the specific content of the item should not be answered by the administrator, except to clarify or define the meaning of words the students do not understand.

6. If testing is done in two or more sessions, the administrator should follow the "Specific Directions" (Part 2-B) in each testing session in order to reorient the students to the answering procedure.

7. If the inventory is being administered in two or more sessions, collect the inventory booklets systematically for each row or table, to facilitate redistribution in the next session, provided the students occupy the same seats.

8. If the inventory is being administered in two or more sessions, the administrator should make sure that each student receives his or her own inventory. The administrator should ask the students to check their names on the booklets to see that they have their own booklets.

B. Specific Directions for the Administration of the Inventory

1. When all the students have been seated, say:

> YOU ARE GOING TO RECEIVE A BOOKLET ON CAREER DEVELOPMENT. DO NOT OPEN THE BOOKLET UNTIL I TELL YOU TO DO SO.

2. Now distribute the booklets and say:

> THE STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY IS EXACTLY WHAT THE TITLE SUGGESTS: AN INVENTORY OF YOUR GROWTH IN AREAS WHICH CONTRIBUTE TO CAREER DEVELOPMENT. THIS IS NOT A TEST. IT IS AN INVENTORY OF GROWTH IN FOUR AREAS WHICH RELATE TO CAREER DEVELOPMENT: SELF-REALIZATION, THAT IS, YOUR UNDERSTANDING OF YOURSELF; ECONOMIC EFFICIENCY, THAT IS, YOUR UNDERSTANDING OF WHAT IT TAKES TO BE AN EFFECTIVE PRODUCER OR CONSUMER OF GOODS AND SERVICES; SOCIAL RELATIONSHIPS, THAT IS, YOUR ABILITY TO GET ALONG WITH OTHERS; AND CIVIC RESPONSIBILITY, THAT IS, YOUR UNDERSTANDING OF THE RIGHTS AND RESPONSIBILITIES OF YOURSELF AND OTHERS. THE RESULTS OF THIS INVENTORY CAN HELP YOU IN ASSESSING YOUR CAREER DEVELOPMENT. DO NOT SPEND A GREAT DEAL OF TIME ON ANY ONE ITEM. DO NOT TALK OVER THE QUESTIONS WITH ANYONE ELSE. UNLESS THE ANSWER IS WHAT YOU THINK, IT WILL NOT REALLY HELP TO GIVE A TRUE PICTURE OF YOUR CAREER DEVELOPMENT.

3. Write the date, teacher's name, and school on the board, and say:

> WRITE YOUR FIRST AND LAST NAME ON THE TOP LINE. ON THE NEXT LINE GIVE YOUR GRADE, AGE, AND SEX. THEN ON THE NEXT TWO LINES IN THE SPACES PROVIDED, WRITE YOUR TEACHER'S NAME, OUR SCHOOL, AND TODAY'S DATE. TODAY IS _____.

Provide assistance if necessary.

4. After each student has completed this part, proceed by saying:

> NOW LOOK AT THE SECTION WHERE IT SAYS "DIRECTIONS", AND READ IT SILENTLY AS I READ THE DIRECTIONS ALOUD. DIRECTIONS: FOR EACH ITEM IN THIS INVENTORY SELECT THE WORD OR PHRASE THAT BEST COMPLETES THE STATEMENT, AND WRITE THE LETTER OF YOUR CHOICE, (A), (B), (C), OR (D), ON THE LINE IN FRONT OF THE ITEM NUMBER.

NOW LOOK AT THE EXAMPLE GIVEN.

__C__ 1. THE NUMBER OF MONTHS IN ONE YEAR IS

(A) SEVEN
(B) TEN
(C) TWELVE
(D) TWENTY

THE BEST CHOICE IS TWELVE, SO THE LETTER C IS WRITTEN ON THE LINE IN FRONT OF THE STATEMENT.

ARE THERE ANY QUESTIONS? (PAUSE)

5. Emphasize that:

NO QUESTIONS SHOULD BE LEFT UNANSWERED. FOR EACH QUESTION ONLY ONE ANSWER MUST BE CHOSEN. IF A MISTAKE IS MADE, IT MUST BE ERASED COMPLETELY. WRITE YOUR ANSWER HEAVY AND CLEAR.

Make sure that everybody understands the answering procedure.

6. Then say:

TODAY YOU ARE GOING TO ANSWER ITEMS NUMBER ___ TO NUMBER ___. AFTER YOU HAVE FINISHED ANSWERING ALL THE QUESTIONS, CLOSE YOUR BOOKLETS AND LEAVE THEM ON YOUR DESKS.

The administrator should provide the numbers in the box above from the segment of the inventory which is going to be completed in that session.

7. Then say:

YOU MAY NOW BEGIN WORK ON THE INVENTORY STARTING WITH ITEM NUMBER ___.

Please provide the number.

8. If testing is done in two or more sessions, at the end of the session conclude by saying:

THIS IS THE END OF THIS PART OF THE INVENTORY. WE WILL CONTINUE WITH THE NEXT PART IN THE NEXT SESSION. THE TIME FOR THE NEXT SESSION IS _____.

Please provide the time of the next session.

C. Directions for Scoring

For scoring use the Scoring Key - Form B. The inventory is made up of 4 parts. Each part includes 25 items, and measures achievement of objectives implementing one of the four goals of career development. Part 1 includes items 1 to 25. Part 2 includes items 26 to 50. Part 3 includes items 51 to 75. Part 4 includes items 76 to 100. Give one point for each correct answer. Maximum possible score for each part will be 25, and for the whole inventory will be 100 points.

SCORING KEY

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM B

Item	Answer	Item	Answer	Item	Answer	Item	Answer
1	b	26	c	51	a	76	a
2	c	27	b	52	d	77	b
3	d	28	a	53	c	78	d
4	a	29	a	54	a	79	c
5	c	30	b	55	b	80	b
6	b	31	d	56	d	81	c
7	a	32	c	57	d	82	d
8	d	33	b	58	c	83	c
9	d	34	c	59	a	84	d
10	a	35	d	60	a	85	c
11	b	36	a	61	b	86	a
12	b	37	c	62	d	87	c
13	c	38	a	63	c	88	a
14	a	39	d	64	a	89	d
15	c	40	b	65	a	90	a
16	d	41	d	66	b	91	b
17	b	42	b	67	c	92	d
18	d	43	c	68	b	93	c
19	a	44	a	69	a	94	a
20	c	45	a	70	d	95	b
21	c	46	c	71	b	96	c
22	b	47	d	72	d	97	b
23	d	48	b	73	b	98	d
24	a	49	b	74	d	99	a
25	d	50	c	75	a	100	b

Part 3

Inventory Interpretations

The SGACDI has been developed to assess student growth in four areas: self-realization, economic efficiency, social relationships, and civic responsibility. The inventory is designed to measure the extent to which objectives of the Hawaii Career Development Continuum have been achieved; and to provide information and to assist counselors and teachers in designing new or improving existing programs to meet student needs. The inventory items have been constructed to measure achievement in relation to the 4 goals and 24 subgoals and implementing learner objectives of the Hawaii Career Development Continuum. There are 6 subgoals to each goal, as shown in Table 1.

Table 1

Major Goals and Subgoals

Goals	Subgoals
Self-Realization	1. Acquire skills of self-appraisal.
	2. Develop awareness and understanding of self.
	3. Develop understanding of decision-making process.
	4. Acquire skills of decision-making, risk taking, value clarification, and goal setting.
	5. Develop understanding of the relationship between work and life style.
	6. Develop appreciation for individual differences in interests, values, aptitude, skills, abilities, attitudes.
Economic Efficiency	1. Develop understanding of variety of occupations, interrelationship of occupations, and knowledge of occupational classifications and job descriptions.
	2. Develop understanding that occupations exist for a purpose and contribute to the dignity of the individual.
	3. Develop appreciation for the value of work, its contribution to society and the economy, and appreciate that work means different things to different people.
	4. Develop understanding that new occupations develop in response to needs of society.
	5. Develop employability skills.
	6. Develop understanding of the relationship between education and work.
Social Relationships	1. Develop interpersonal skills.
	2. Develop understanding of social roles.
	3. Develop understanding of cooperation.

	4. Develop understanding of community workers.
	5. Develop appreciation for flexibility and adaptability in social relationships.
	6. Develop understanding of interrelatedness of occupational roles.
Civic Responsibility	1. Develop understanding of rights, privileges, and responsibilities on the job, in the home, in the community.
	2. Develop understanding of ways in which participation in civic groups contributes to individual and group goals.
	3. Develop understanding of importance of rules in society.
	4. Develop understanding of relationships between responsibilities and rewards in work and leisure.
	5. Develop capabilities for making effective use of resources and understand relation of environment to work.
	6. Develop ability to participate in various kinds of civic groups.

There are four items for each subgoal. These items relate to the learner objectives for the subgoal, as shown in Table 2. Items 1 to 24 test the achievement of the Self-Realization Subgoals. Items 26 to 49 test the achievement of the Economic Efficiency Subgoals. Items 51 to 74 test the Social Relationships Subgoals. Items 76 to 99 test the achievement of Civic Responsibility Subgoals. Items 25, 50, 75, and 100 are repeated items for checking reliability. A reliability check can be made by comparing responses to the following items: Items 25 and 4, 50 and 39, 75 and 51, 100 and 79. The dash signs in Table 2 imply that there were no objectives for the corresponding items, but that the items were constructed according to the subgoal or the one single objective if available for that subgoal.

Table 2

Student Growth Assessment of Career Development Inventory - Form B

Distribution of the Items(I) According to Goals(G), Subgoals (SG) and Objectives(O)

I.	G. (SR)	SG.	O.	I.	G. (EE)	SG.	O.	I.	G. (SR*)	SG.	O.	I.	G. (CR)	SG.	O.
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	1	52	3	1	-	77	4	1	-
3	1	1	2	28	2	1	2	53	3	1	-	78	4	1	-
4	1	1	2	29	2	1	2	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	2	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	3	32	2	2	-	57	3	2	-	82	4	2	-
8	1	2	3	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	-	35	2	3	2	60	3	3	-	85	4	3	-
11	1	3	-	36	2	3	3	61	3	3	-	86	4	3	-
12	1	3	-	37	2	3	3	62	3	3	-	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	2	39	2	4	1	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	2	65	3	4	-	90	4	4	-
16	1	4	3	41	2	4	2	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	-	68	3	5	-	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	-	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	-	95	4	5	-
21	1	6	-	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	-	47	2	6	1	72	3	6	-	97	4	6	-
23	1	6	-	48	2	6	2	73	3	6	-	98	4	6	-
24	1	6	-	49	2	6	2	74	3	6	-	99	4	6	-
25	1	1	2	50	2	4	1	75	3	1	1	100	4	1	-

Note. SR = Self-Realization SR* = Social Relationships
EE = Economic Efficiency CR = Civic Responsibility

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM B

Student's Name_____

Grade_____ Age_____ Sex: Male Female

Teacher's Name_____

School_____ Date_____

The Student Growth Assessment of Career Development Inventory is exactly what the title suggests: an inventory of your growth in areas which contribute to career development. This is not a test. It is an inventory of growth in four areas which relate to career development: Self-Realization, that is, your understanding of yourself; Economic Efficiency, that is, your understanding of what it takes to be an effective producer or consumer of goods and services; Social Relationships, that is, your ability to get along with others; and Civic Responsibility, that is, your understanding of the rights and responsibilities of yourself and others. The results of this inventory can help you in assessing your career development. Do not spend a great deal of time on any one item. Do not talk over the questions with anyone else. Unless the answer is what you think, it will not really help to give a true picture of your career development.

DIRECTIONS: For each item in this inventory select the word or phrase that best completes the statement, and write the letter of your choice--(a), (b), (c), or (d)--on the line in front of the item number.

Example: __c__ 1. The number of months in one year is
(a) seven
(b) ten
(c) twelve
(d) twenty

The best choice is twelve, so the letter c is written on the line in front of the statement.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

Do Not Write Below This Line

PART	ITEMS	GOAL MEASURED	POSSIBLE SCORE	ACTUAL SCORE
1	1-25	Self-Realization	25	
2	26-50	Economic Efficiency	25	
3	51-75	Social Relationships	25	
4	76-100	Civic Responsibility	25	
		Total	100	

INVENTORY FORM 3

Part 1

__b__ 1. You can best tell if you are doing well in a subject by
(a) checking the time the subject is given
(b) looking at your report card
(c) asking your next door neighbor
(d) asking a friend

__c__ 2. One of the physical characteristics that a person might have is
(a) laziness
(b) coolness
(c) handsomeness
(d) cheerfulness

__d__ 3. A <u>social</u> characteristic of a person is being
(a) pretty
(b) short
(c) strong
(d) friendly

__a__ 4. An aptitude that a person might have is
(a) mechanical
(b) fat
(c) charming
(d) selfish

__c__ 5. The <u>best</u> way to find out if one is good at an activity is by
(a) thinking about it
(b) reading about it
(c) trying it
(d) asking a friend

__b__ 6. A person can become better at an activity by
(a) talking about it
(b) practicing it
(c) reading about it
(d) worrying about it

__a__ 7. Knowing that you do something well is important because it helps you to
(a) make use of it
(b) boast about it to others
(c) hide it from others
(d) forget about it altogether

__d__ 8. One good reason for knowing that a student is weak in a certain subject is that it gives the person a chance
(a) to forget about that subject
(b) to get someone else to do the assignments
(c) to avoid that teacher in the future
(d) to try and overcome the weakness if it is possible

__d__ 9. When deciding to do something, a person should think about
(a) why and how to do it but not when
(b) how and when to do it but not why
(c) why and when to do it but not how
(d) why, how, and when to do it

__a__ 10. When deciding to do something, it is important to know
(a) both the advantages and disadvantages of doing it
(b) the advantages of doing it
(c) the disadvantages of doing it
(d) neither the advantages nor disadvantages of doing it

__b__ 11. The first thing a person should do in making a career decision is
(a) ask teachers and parents what to do
(b) set life career goals
(c) check working conditions
(d) find out how long the work week is

__b__ 12. In order to do almost any job well, one will need to
(a) know lots of people
(b) be able to make decisions
(c) be good in sports
(d) know one's own interests

__c__ 13. Once a person decides to do something, the next step to take would be to
(a) give it more thought
(b) wait for a while until things get cleared up
(c) go ahead and do it
(d) forget about it

__a__ 14. In choosing an occupation, it is important to know about
(a) the jobs which you like and dislike
(b) only the jobs you dislike
(c) only the jobs you like
(d) any jobs, regardless of your likes or dislikes

__c__ 15. You can <u>best</u> tell how interested you are in a job by
(a) asking a person you work with
(b) asking a close friend
(c) knowing how much you enjoy it
(d) checking the time you spend working

__d__ 16. In deciding whether or not a particular job is of interest to you, it is most important to consider
(a) your aptitudes and values
(b) your abilities and skills
(c) your skills and values
(d) your likes and dislikes

__b__ 17. A worker who is likely to have a great deal of leisure time is a
(a) doctor
(b) sanitation worker
(c) governor
(d) hotel manager

__d__ 18. A person who would probably do a great deal of traveling to many parts of the country or the world would be
(a) a forklift operator
(b) a T.V. repairman
(c) a chemist
(d) an airline pilot

__a__ 19. You will usually do better in a subject at school if you are
(a) ambitious and dependable
(b) cheerful and dependable
(c) honest and friendly
(d) friendly and cheerful

__c__ 20. One is most likely to do well in a subject if one
(a) goes to school on time
(b) does the assignment only when one feels like it
(c) studies regularly
(d) keeps one's books neat and clean

__c__ 21. In a group of sixth grade boys, the main difference among them would be in their
(a) ages
(b) sex
(c) interests
(d) hair style

__b__ 22. The pupils and teachers of sixth grade classes in Hawaii will most likely
(a) have the same values and attitudes
(b) have different values and attitudes
(c) have different attitudes but the same values
(d) have the same attitudes but different values

__d__ 23. In any sixth grade class it is most likely that
(a) all the students will excel in the same activity
(b) some of the students will excel in all activities
(c) none of the students will excel in any activity
(d) the students will excel in different activities

__a__ 24. The best way to tell how two persons are different from each other is to observe the way they
(a) feel, behave, and look
(b) behave and look
(c) feel and look
(d) feel and behave

__d__ 25. A word which describes a person's <u>aptitude</u> is
(a) fat
(b) charming
(c) selfish
(d) mechanical

Part 2

__c__ 26. A person who puts gas in a car and checks the tires, battery, water, and oil is
(a) an automobile mechanic
(b) an autobody repairman
(c) a service station attendant
(d) a safety inspector

__b__ 27. A person who prepares food, wears an apron and a tall white hat, and plans the meal is called
(a) a waiter
(b) a chef
(c) a dietician
(d) a pantry worker

__a__ 28. A worker who cooperates with other workers to produce or make something is called
(a) a production worker
(b) a labor leader
(c) a coordinator
(d) a service worker

__a__ 29. A salesperson works mainly with
(a) people
(b) things
(c) ideas
(d) data

__b__ 30. People have respect for policemen and policewomen because
(a) people are afraid of them
(b) they enforce the law
(c) they can give traffic tickets
(d) they can arrest people

__d__ 31. An important official who works for the city government is
(a) the governor
(b) the United States' president
(c) a congressman
(d) the mayor

__c__ 32. A person who works to give service to others will most likely feel
(a) useless
(b) indifferent
(c) worthwhile
(d) respectful

__b__ 33. A farmer's job is of most help to
(a) a banker
(b) a baker
(c) a barber
(d) a bartender

__c__ 34. A teacher contributes to society by
(a) making a living
(b) using resources
(c) helping others
(d) creating new jobs

__d__ 35. If we had no medical doctors and hospitals in Hawaii,
(a) tourists would increase but economic goods would decrease
(b) economic goods would increase, but tourists would decrease
(c) economic goods and tourists would not change
(d) economic goods and tourists would both decrease

__a__ 36. When you participate in a group task at school, you will be able to contribute to the group goal by
(a) sharing part of the work with others
(b) sitting around and watching how others work
(c) being independent and doing things your own way
(d) refusing to help others unless they are friends

__c__ 37. You can <u>best</u> contribute to group goals when in a group activity by
(a) setting up your own rules
(b) being cooperative only when and if you desire
(c) following the rules set by the group
(d) asking others to follow your way

__a__ 38. You can find out which occupations have been developed within your lifetime by writing to
(a) the Department of Labor and the Chamber of Commerce
(b) the Department of Labor and the Honolulu Police Department
(c) the Department of Labor and the Visitors Bureau
(d) the Chamber of Commerce and the Honolulu Police Department

__d__ 39. The best way to find out what occupations have been developed during your lifetime is to
(a) read children's books
(b) ask a close friend
(c) view comic strips
(d) refer to an occupational handbook

__b__ 40. The best way to find out <u>why</u> a new occupation was created is by
(a) knowing how many people work in that occupation
(b) knowing what the occupation provides for people
(c) knowing who works in that occupation
(d) knowing whether the occupation is a daytime or nighttime job

__d__ 41. A policeman's job was created because society needs
(a) to take away people's property by force
(b) to take rich people's property and give it to poor people
(c) to give people traffic tickets and create money for the police department
(d) to protect people and their property

__b__ 42. To be successful in most jobs a worker should
(a) have a union card
(b) be skillful
(c) be friendly
(d) go to bed early

__c__ 43. To be successful in most jobs a worker should be
(a) friendly
(b) deliberate
(c) organized
(d) humorous

__a__ 44. To be successful in most jobs a worker should be
(a) responsible
(b) kind
(c) musical
(d) handsome

__a__ 45. To be successful in most jobs a worker should be
(a) cooperative
(b) considerate
(c) robust
(d) artistic

__c__ 46. A person must go to college to be
(a) an airline pilot
(b) a sanitation worker
(c) a professor
(d) a chef

__d__ 47. A nurse must take courses in
(a) mathematics
(b) English
(c) bookkeeping
(d) science

__b__ 48. An engineer must study
(a) biology and chemistry
(b) physics and mathematics
(c) history and geography
(d) economics and banking

__b__ 49. In order to become a doctor one must complete
(a) college, vocational school, and an apprenticeship
(b) college, medical school, and an internship
(c) vocational school, medical school, and an internship
(d) community college and medical school

__c__ 50. The best way to find out what occupations have been developed during your lifetime is by
(a) viewing comic strips
(b) reading children's books
(c) referring to an occupational handbook
(d) asking a close friend

Inventory Form B (continued)

Part 3

a 51. When you play a group game you know you can play well, you will likely feel very
(a) confident
(b) fearful
(c) tense
(d) weak

d 52. If you play in a group game and you win, you will probably feel
(a) selfish
(b) indifferent
(c) aggressive
(d) proud

c 53. Doing your share of work well in a group activity will make the group
(a) respect you less
(b) load you with extra work
(c) respect you more
(d) neglect you more

a 54. When several people participate in a group activity
(a) all of the participants should enjoy it
(b) only some of the participants need enjoy it
(c) only the leader should enjoy it
(d) none of the participants should enjoy it

b 55. I work in a courthouse. When people have arguments they cannot settle, they hire lawyers and present their arguments in front of me in court. I wear a robe and use a gavel. It is usually my job to decide which side is right. Who am I?
(a) mayor
(b) judge
(c) recorder
(d) senator

d 56. My job is important to everyone. I collect the garbage that people discard and put into cans and bags. If I did not do my job the garbage would collect on the streets and this would not be healthy. Who am I?
(a) fireman or firewoman
(b) policeman or policewoman
(c) meter reader
(d) sanitation worker

d 57. I work for the city. I am elected to be in charge of the city government. When things need to get done people call my office or attend our city council meetings. Who am I?
(a) governor
(b) police chief
(c) inspector
(d) mayor

c 58. One of my parents is a Republican and the other is a Democrat. They belong to what?
(a) service club
(b) trade unions
(c) political parties
(d) parent-teacher associations

a 59. Preventive medicine is best provided when
(a) doctors and nurses work together
(b) doctors and dentists work together
(c) doctors work alone
(d) dentists and nurses work together

a 60. The customers in an eating place are given the best service when
(a) counter workers and the fry cook work together
(b) fry cooks work alone
(c) counter workers work alone
(d) counter workers and customers work together

b 61. In order to manufacture an automobile it is important to have cooperation between
(a) customers and salespersons
(b) supervisors and assembly workers
(c) salespersons and assembly workers
(d) supervisors and customers

d 62. To provide a good education for Hawaii students it is especially important that
(a) the school clerk and bookkeeper work together
(b) the cafeteria workers and parents work together
(c) the maintenance workers and cafeteria workers work together
(d) the principals, teachers and parents work together

c 63. A baker's job depends on
(a) a broker's job
(b) a butcher's job
(c) a farmer's job
(d) a banker's job

a 64. The plastic industry is dependent upon the
(a) petroleum industry
(b) steel industry
(c) car industry
(d) cotton industry

a 65. A clothing salesperson's job depends upon the
(a) textile industry
(b) automobile industry
(c) food industry
(d) sugar industry

_b_ 66. The druggist's work depends on the work done by
(a) a teacher
(b) a doctor
(c) a storeclerk
(d) a policeman or policewoman

_c_ 67. Some people work because they want to
(a) kill time
(b) get tired
(c) make money
(d) relax

_b_ 68. Most people work because they want to
(a) get old faster
(b) feel useful
(c) waste their time
(d) sleep well at night

_a_ 69. Many people work because they want to
(a) make a living for themselves and their dependents
(b) take advantage of others
(c) use natural resources wisely
(d) punish themselves

_d_ 70. When parents are helping out at school by making things for school parties, they are
(a) relaxing
(b) teaching
(c) studying
(d) working

_b_ 71. A doctor's job is related to
(a) an engineer's job
(b) a druggist's job
(c) a banker's job
(d) a professor's job

_d_ 72. An engineer's job is related to
(a) a carpenter's job
(b) a chemist's job
(c) a teacher's job
(d) an architect's job

_b_ 73. A grocer's job is related to
(a) a baker's job
(b) a farmer's job
(c) a butcher's job
(d) a barber's job

_d_ 74. An actor's job is related to
(a) a realtor's job
(b) an architect's job
(c) a sculptor's job
(d) an actress's job

Inventory From B (continued)

__a__ 75. When you play a group game you know you can play well, you will likely feel very

(a) confident
(b) tense
(c) fearful
(d) weak

Inventory Form B (continued)

Part 4

__a__ 76. When you agree to do a share of work in a group activity, you have accepted
(a) a responsibility
(b) a privilege
(c) a right
(d) a hardship

__b__ 77. If you fail to do your share of work, your friends will probably think of you as being
(a) careless
(b) undependable
(c) forgetful
(d) carefree

__d__ 78. When you take a job, you are expected to
(a) do it whenever you are in the right mood
(b) ask somebody else to do it for you
(c) be carefree about doing it
(d) do it as best you can

__c__ 79. Workers will most likely be successful in their jobs if they are
(a) punctual, dependable, and artistic
(b) dependable, organized, and indulgent
(c) punctual, dependable, and organized
(d) punctual, organized, and evasive

__b__ 80. Taking part in an organized group activity most likely means
(a) learning new things and making money
(b) learning new things and making new friends
(c) making new friends and more money
(d) sharing things and giving up working

__c__ 81. Taking part in an organized group probably means
(a) giving up group goals
(b) sacrificing group goals for personal goals
(c) achieving personal goals by contributing to group goals
(d) giving up personal goals

__d__ 82. Taking part in an organized group probably means working
(a) independently
(b) competitively
(c) incompetently
(d) interdependently

__c__ 83. To take part in an organized group, one needs to be
(a) aggressive and agreeable
(b) aggressive and dependable
(c) agreeable and dependable
(d) agreeable and impersonal

d 84. In an election people do their voting at the
(a) senate chambers
(b) tax office
(c) T.V. station
(d) polls

c 85. We need to have laws in order to
(a) make jobs
(b) enforce rules
(c) protect society
(d) help lawmakers

a 86. In Hawaii state taxes are used to pay for
(a) schools
(b) industries
(c) newspapers
(d) hotels

c 87. When voting for a President, you would be least concerned about the person's
(a) leadership quality
(b) understanding of people's needs
(c) friendliness
(d) ability to solve problems

a 88. Some students help with chores at home without getting paid because they like to
(a) be praised
(b) get money
(c) spend time
(d) follow orders

d 89. Schools sometimes give prizes to students who
(a) do chores at home
(b) sit quietly in the classroom
(c) are very playful and friendly
(d) are excellent in their studies

a 90. An employer might reward a worker for doing a job well by giving the worker
(a) a promotion
(b) a club membership card
(c) a demotion
(d) a discharge note

b 91. A professor of chemistry might be rewarded by being
(a) awarded a badge for literary achievement
(b) awarded a medal for scientific distinction
(c) asked to retire early
(d) asked to write an autobiography

d 92. Pineapple workers live and work in
(a) warm, dry climates
(b) cold, wet climates
(c) cold, dry climates
(d) warm, wet climates

c 93. To have good crops it is most important for farmers to have water and
(a) barren soil
(b) good workers
(c) rich soil
(d) heavy trucks

a 94. Hawaii is a popular place for tourists because
(a) Hawaii has a beautiful climate
(b) Hawaii is the fiftieth state
(c) people in Hawaii are dependent on tourists
(d) Hawaii has so many different people

b 95. In order to keep tourists coming to Hawaii, we must keep Hawaii's beaches
(a) open only to tourists
(b) beautiful and clean
(c) under the control of hotels
(d) closed to surfers

c 96. When people join civic groups they will
(a) avoid working altogether
(b) avoid being interdependent
(c) become aware of their rights as citizens
(d) forget about their problems

b 97. By joining a civic group you can most likely learn how to be
(a) playful
(b) useful
(c) restless
(d) restful

d 98. When you join a civic group you will
(a) cooperate, compete and coordinate with others
(b) cooperate, compete, and organize with others
(c) coordinate, compete, and organize with others
(d) coordinate, cooperate, and organize with others

a 99. An organization that protects the welfare of the workers is called
(a) a labor union
(b) a political party
(c) a service club
(d) a professional society

__b__ 100. One may increase one's success in a job by being
(a) dependable, organized, and indulgent
(b) punctual, dependable, and organized
(c) organized, evasive, and punctual
(d) punctual, dependable, and artistic

APPENDIX G

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY

ADMINISTRATOR'S MANUAL OF INSTRUCTIONS - FORM C

* * * * * * * *

Student Growth Assessment of Career Development Inventory (SGACDI) battery is composed of items designed to measure the extent to which four major goals of career development are being achieved. The goals are: Self-Realization, Economic Efficiency, Social Relationships, and Civic Responsibility. The SGACDI battery consists of four forms. Form A is designed to measure achievement of third grade students. Form B is designed to measure achievement of sixth grade students. Form C is designed to measure achievement of ninth grade students. Form D is designed to measure achievement of twelfth grade students.

This manual describes administration procedures for the SGACDI Form C designed for administration to ninth grade students. It is important that these procedures be thoroughly understood and followed by anyone who is involved in administering the inventory.

Inventory Form C consists of 100 multiple choice items which will require about one hour to complete. To avoid student boredom and fatigue, the inventory may be administered in two or four sessions. Students can be asked to complete one or two parts for each session. Two possible schedules are as follow:

Schedule 1		Schedule 2	
Session 1	Part 1	Session 1	Parts 1 & 2
Session 2	Part 2	Session 2	Parts 3 & 4
Session 3	Part 3		
Session 4	Part 4		

PART 1

A. General Duties of the SGACDI Administrator

1. Supervising the administration of the SGACDI.

2. Selecting and instructing SGACDI proctors, if any.

3. Providing necessary materials such as pencils, erasers, inventory booklets.

4. Preventing distractions and interruptions, thus providing optimal conditions for the inventory administration.

5. Becoming thoroughly familiar with this manual, <u>in particular</u>, Part 2-B.

B. Materials Required

1. A copy of this manual should be on hand, and a large enough supply of the SGACDI booklets to provide one to each student and one to the administrator.

2. An adequate supply of sharpened No. 2 lead pencils with erasers should be on hand for students who forgot to bring pencils or in cases when their pencils break.

3. Tables and desks should be available for all students. If chairs with arms are used, adequate provision must be made for left-handed students.

PART 2

A. General Directions for the Administration of the Inventory

1. Instructions enclosed in boxes are to be read aloud by the administrator. In order to provide a standardized administering situation, these directions should not be changed.

2. Care should be taken to explain to students that they are <u>not</u> being graded, but they should do their best.

3. During the inventory completion, the administrator should walk around the room checking to see that students are following the procedures properly. The students should have nothing on their desks except the inventory booklets and pencils.

4. In response to questions about whether students should guess, say:

TRY TO ANSWER EVERY QUESTION. IF YOU ARE UNCERTAIN ABOUT AN ANSWER, SELECT THE ONE ALTERNATIVE YOU FEEL IS MOST NEARLY CORRECT.

5. Questions raised concerning the specific content of the item should not be answered by the administrator, except to clarify or define the meaning of words the students do not understand.

6. If testing is done in two or more sessions, the administrator should follow the "Specific Directions" (Part 2-B) in each testing session in order to reorient the students to the answering procedure.

7. If the testing is done in two or more sessions, the administrator should collect the inventory booklets systematically for each row or table, to facilitate redistribution in the next session, provided the students occupy the same seats.

8. If testing is done in two or more sessions, the students will use the same inventory booklets in each session. Therefore, the administrator should make sure each student receives his or her own booklet in each testing session. The administrator should ask the students to check their names on the booklets to see that they have their own booklets.

B. Specific Directions for the Administration of the Inventory

1. When all students have seated, say:

> YOU ARE GOING TO RECEIVE A BOOKLET ON CAREER DEVELOPMENT. DO NOT OPEN THE BOOKLET UNTIL I TELL YOU TO DO SO.

2. Now distribute the booklets and say:

> THE STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY IS EXACTLY WHAT THE TITLE SUGGESTS: AN INVENTORY OF YOUR GROWTH IN AREAS WHICH CONTRIBUTE TO CAREER DEVELOPMENT. THIS IS NOT A TEST. IT IS AN INVENTORY OF GROWTH IN FOUR AREAS WHICH RELATE TO CAREER DEVELOPMENT: SELF-REALIZATION, THAT IS, YOUR UNDERSTANDING OF YOURSELF; ECONOMIC EFFICIENCY, THAT IS, YOUR UNDERSTANDING OF WHAT IT TAKES TO BE AN EFFECTIVE PRODUCER OR CONSUMER OF GOODS AND SERVICES; SOCIAL RELATIONSHIPS, THAT IS, YOUR ABILITY TO GET ALONG WITH OTHERS; AND CIVIC RESPONSIBILITY, THAT IS, YOUR UNDERSTANDING OF THE RIGHTS AND RESPONSIBILITIES OF YOURSELF AND OTHERS. THE RESULTS OF THIS INVENTORY CAN HELP YOU IN ASSESSING YOUR CAREER DEVELOPMENT. DO NOT SPEND A GREAT DEAL OF TIME ON ANY ONE ITEM. DO NOT TALK OVER THE QUESTIONS WITH ANYONE ELSE. UNLESS THE ANSWER IS WHAT YOU THINK, IT WILL NOT REALLY HELP TO GIVE A TRUE PICTURE OF YOUR CAREER DEVELOPMENT.

3. Write the date, teacher's name, and school on the board, and say:

> WRITE YOUR FIRST AND LAST NAME ON THE TOP LINE. ON THE NEXT LINE GIVE YOUR GRADE, AGE, AND SEX. THEN ON THE NEXT TWO LINES IN THE SPACES PROVIDED WRITE YOUR TEACHER'S NAME, OUR SCHOOL, AND TODAY'S DATE. TODAY IS _____.

Provide assistance if necessary.

4. After each student has completed this part, proceed by saying:

> NOW LOOK AT THE SECTION WHERE IT SAYS "DIRECTIONS" AND READ IT SILENTLY AS I READ THE DIRECTIONS ALOUD.
> DIRECTIONS: FOR EACH ITEM IN THIS INVENTORY SELECT THE WORD OR PHRASE THAT BEST COMPLETES THE STATEMENT, AND WRITE THE LETTER OF YOUR CHOICE, (A), (B), (C), OR (D), ON THE LINE IN FRONT OF THE ITEM NUMBER.

NOW LOOK AT THE EXAMPLE GIVEN.

__C__ 1. THE NUMBER OF MONTHS IN ONE YEAR IS

(A) SEVEN
(B) TEN
(C) TWELVE
(D) TWENTY

THE BEST CHOICE IS TWELVE, SO THE LETTER C IS WRITTEN ON THE LINE IN FRONT OF THE STATEMENT. ARE THERE ANY QUESTIONS? (PAUSE)

5. Emphasize that:

NO QUESTIONS SHOULD BE LEFT UNANSWERED. FOR EACH QUESTION, ONLY ONE ANSWER MUST BE CHOSEN. IF A MISTAKE IS MADE, IT MUST BE ERASED COMPLETELY. WRITE YOUR ANSWER HEAVY AND CLEAR.

Make sure that everybody has understood the answering procedure.

6. Then say:

TODAY YOU ARE GOING TO ANSWER ITEMS NUMBER ___ TO NUMBER ___. AFTER YOU HAVE ANSWERED ALL THE QUESTIONS CLOSE YOUR BOOKLETS AND LEAVE THEM ON YOUR DESKS.

The administrator should provide the numbers in the box above from the segment of the inventory which is going to be completed in that session.

7. Then say:

YOU MAY NOW BEGIN WORK ON THE INVENTORY STARTING WITH ITEM NUMBER _____.

Please provide the item number.

8. If the testing is done in two or more sessions, at the end of a session conclude by saying:

THIS IS THE END OF THIS PART OF THE INVENTORY. WE WILL CONTINUE WITH THE NEXT PART IN THE NEXT SESSION. THE TIME FOR THE NEXT SESSION IS _____.

Please provide the time of next session.

C. Directions for Scoring

For scoring use Scoring Key - Form C. The inventory is made up of 4 parts. Each part includes 25 items, and measures achievement of objectives implementing one of the four goals of career development. Part 1 includes items 1 to 25. Part 2 includes items 26 to 50. Part 3 includes items 56 to 75. Part 4 includes items 76 to 100. Give one point for each correct

answer. Maximum possible score for each part will be 25 points, and for the whole inventory it will be 100 points.

SCORING KEY

CAREER DEVELOPMENT CONTINUUM INVENTORY - FORM C

Item	Answer	Item	Answer	Item	Answer	Item	Answer
1	b	26	c	51	a	76	d
2	b	27	b	52	d	77	c
3	d	28	a	53	c	78	a
4	a	29	c	54	b	79	c
5	b	30	d	55	d	80	a
6	d	31	c	56	c	81	b
7	b	32	c	57	a	82	b
8	c	33	b	58	a	83	c
9	d	34	a	59	b	84	d
10	c	35	a	60	c	85	c
11	d	36	d	61	a	86	a
12	a	37	c	62	a	87	d
13	c	38	a	63	d	88	a
14	a	39	d	64	a	89	d
15	b	40	b	65	c	90	b
16	b	41	d	66	b	91	c
17	c	42	b	67	d	92	c
18	d	43	a	68	b	93	d
19	b	44	d	69	d	94	a
20	c	45	d	70	a	95	b
21	c	46	b	71	a	96	a
22	b	47	b	72	d	97	d
23	b	48	c	73	c	98	c
24	a	49	a	74	b	99	a
25	c	50	b	75	d	100	d

PART 3

INVENTORY INTERPRETATIONS

The SGACDI has been develped to assess student growth in four areas: self-realization, economic efficiency, social relationships, and civic responsibility. The inventory is designed to measure the extent to which objectives of the Hawaii Career Development Continuum have been achieved; and to provide information to assist counselors and teachers in designing new or improving existing programs to meet student needs. The inventory items have been constructed to measure achievement in relation to the 4 goals, 24 subgoals and implementing learner objectives of the Hawaii Career Development Continuum. There are six subgoals to each goal, as shown in Table 1.

Table 1

Major Goals and Subgoals

Goals	Subgoals
Self-Realization	1. Acquire skills of self-appraisal.
	2. Develop awareness and understanding of self.
	3. Develop understanding of decision-making process.
	4. Acquire skills of decision-making, risk taking, value clarification, and goal setting.
	5. Develop understanding of the relationship between work and life style.
	6. Develop appreciation for individual differences in interests, values, aptitude, skills, abilities, attitudes.
Economic Efficiency	1. Develop understanding of variety of occupations, and knowledge of occupational classifications and job descriptions.
	2. Develop understanding that occupations exist for a purpose and contribute to the dignity of the individual.
	3. Develop appreciation for the value of work, its contribution to society and the economy, and appreciate that work means different things to different people.
	4. Develop understanding that new occupations develop in response to needs of society.
	5. Develop employability skills.
	6. Develop understanding of the relationship between education and work.
Social Relationships	1. Develop interpersonal skills.
	2. Develop understanding of social roles.
	3. Develop understanding of cooperation.
	4. Develop understanding of community workers.

	5. Develop appreciation for flexibility and adaptability in social relationships.
	6. Develop understanding of interrelatedness of occupational roles.
Civic Responsibility	1. Develop understanding of rights, privileges, and responsibilities on the job, in the home, in the community.
	2. Develop understanding of ways in which participation in civic groups contributes to individual and group goals.
	3. Develop understanding of importance of rules in society.
	4. Develop understanding of relationships between responsibilities and rewards in work and leisure.
	5. Develop capabilities for making effective use of resources and understand relation of environment to work.
	6. Develop ability to participate in various kinds of civic groups.

There are four items for each subgoal. These items relate to the learner objectives for the subgoal, as shown in Table 2. Items 1 to 24 test the achievement of the Self-Realization Subgoals. Items 26 to 49 test the achievement of the Economic Efficiency Subgoals. Items 51 to 74 test the achievement of the Social Relationships Subgoals. Items 76 to 99 test the achievement of the Civic Responsibility Subgoals. Items 25, 50, 75, and 100 are repeated items for checking reliability. A reliability check can be made by comparing responses to the following items: Items 25 and 6, 50 and 30, 75 and 59, 100 and 85. In Table 2 note that the dash signs imply that there were not any objectives for the corresponding items, but that the items were constructed according to the subgoal or the one single objective if available for that subgoal.

Table 2

Career Development Continuum Inventory - Form C

Distribution of Items(I) According to Goals(G) Subgoals(SG) and Objectives(O)

I.	G. (SR)	SG.	O.	I.	G. (EE)	SG.	O.	I.	G. (SR*)	SG.	O.	I.	G. (CR)	SG.	O.
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	2	27	2	1	-	52	3	1	-	77	4	1	-
3	1	1	2	28	2	1	-	53	3	1	-	78	4	1	-
4	1	1	2	29	2	1	-	54	3	1	-	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	1	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	2	32	2	2	-	57	3	2	-	82	4	2	-
8	1	2	2	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	1	35	2	3	1	60	3	3	1	85	4	3	-
11	1	3	2	36	2	3	2	61	3	3	2	86	4	3	-
12	1	3	2	37	2	3	2	62	3	3	2	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	1	39	2	4	1	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	2	65	3	4	-	90	4	4	-
16	1	4	2	41	2	4	2	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	-	68	3	5	1	93	4	5	-
19	1	5	2	44	2	5	-	69	3	5	2	94	4	5	-
20	1	5	3	45	2	5	-	70	3	5	2	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	2	47	2	6	-	72	3	6	-	97	4	6	-
23	1	6	3	48	2	6	-	73	3	6	-	98	4	6	-
24	1	6	3	49	2	6	-	74	3	6	-	99	4	6	-
25	1	2	1	50	2	2	1	75	3	3	1	100	4	3	-

Note. SR = Self-Realization SR* = Social Relationships
EE = Economic Efficiency CR = Civic Responsibility

APPENDIX H

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM C

Student's Name_____

Grade_____ Age_____ Sex: Male Female

Teacher's Name_____

School_____ Date_____

The Student Growth Assessment of Career Development Inventory is exactly what the title suggests: an inventory of your growth in areas which contribute to career development. This is not a test. It is an inventory of growth in four areas which relate to career development: Self-Realization, that is, your understanding of yourself; Economic Efficiency, that is, your understanding of what it takes to be an effective producer or consumer of goods and services; Social Relationships, that is, your ability to get along with others; and Civic Responsibility, that is, your understanding of the rights and responsibilities of yourself and others. The results of this inventory can help you in assessing your career development. Do not spend a great deal of time on any one item. Do not talk over the questions with anyone else. Unless the answer is what you think, it will not really help to give a true picture of your career development.

DIRECTIONS: For each item in this inventory select the word or phrase that best completes the statement, and write the letter of your choice--(a), (b), (c), or (d)--on the line in front of the item number.

Example: __c__ 1. The number of months in one year is
(a) seven
(b) ten
(c) twelve
(d) twenty

The best choice is twelve, so the letter c is written on the line in front of the statement.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

Do Not Write Below This Line

PART	ITEMS	GOAL MEASURED	POSSIBLE SCORE	ACTUAL SCORE
1	1-25	Self-Realization	25	
2	26-50	Economic Efficiency	25	
3	51-75	Social Relationships	25	
4	76-100	Civic Responsibility	25	
		Total	100	

INVENTORY FORM C

Part 1

b 1. A worker who needs to be especially fast and physically fit is
(a) a carpenter
(b) a policeman/woman
(c) a bus driver
(d) a house cleaner

b 2. A worker who does an extraordinary amount of physical work is
(a) a salesperson
(b) a sanitation worker
(c) a bus driver
(d) a tour director

d 3. A worker whose job demands a very great amount of accuracy is
(a) an economic analyst
(b) an account clerk
(c) a technical writer
(d) a medical surgeon

a 4. In choosing an occupation, people should be aware of their own
(a) abilities, interests, and attitudes
(b) abilities, interests, and place of birth
(c) attitudes, interests, and cultural background
(d) attitudes, interests, and racial background

b 5. If you engage in an occupation that you dislike, you will more likely be
(a) successful if you read fast
(b) successful if you grow to like the work
(c) unsuccessful no matter what
(d) successful if you make friends easily

d 6. Your disinterest in a job may be changed to interest after you
(a) tell your feelings to a friend
(b) leave it aside for a while
(c) take a vacation abroad
(d) learn more about it

b 7. The best reason for being aware of your own strengths is so that you can
(a) hide them from others
(b) use them to choose the right occupation
(c) use them to take advantage of others
(d) forget about your weaknesses

c 8. It is important for you to be aware of your own weaknesses because you can then
(a) make sure nobody finds out about them
(b) forget about the weaknesses completely
(c) try to find out how to overcome the weaknesses
(d) try to find other people with the same weaknesses

Inventory Form C (continued)

d 9. The more you know about a situation
(a) the more confusing the situation becomes
(b) the more critical the time element becomes
(c) the better off your opponents will be
(d) the better prepared you will be to make decisions

c 10. People who are able to make good decisions tend to be more
(a) impulsive
(b) impatient
(c) successful
(d) educated

d 11. In making career decisions a person must think first of all in terms of
(a) parents' interests
(b) friends' interests
(c) public interests
(d) personal interests

a 12. When a person decides on a career, the most important factor would probably be
(a) personal satisfaction
(b) social status
(c) family tradition
(d) making money

c 13. If you plan to be a teacher, your high school course of study will most likely be
(a) general education
(b) vocational training
(c) college preparatory
(d) technical training

a 14. An undesirable occupation for a shy person would be
(a) insurance salesperson
(b) brickmason
(c) carpenter
(d) farmer

b 15. A person who places high value on achievement and recognition from others would be most likely to choose a career as
(a) a gardener
(b) a musician
(c) a taxi driver
(d) a sanitation worker

b 16. If several career opportunities are open to a person, one would have to consider
(a) job location, income, and one's own friends
(b) income, job location, and one's own values
(c) transportation, hours, and one's own friends
(d) transportation, food preference, and one's own values

__c__ 17. One's occupation will likely determine one's
(a) age and income
(b) religion and race
(c) income and friends
(d) race and friends

__d__ 18. The people in a particular occupational group most likely will have the same
(a) age
(b) sex
(c) friends
(d) living style

__b__ 19. One who has a liking for figures and calculation would do well as
(a) a typist
(b) a bookkeeper
(c) a machinist
(d) a librarian

__c__ 20. People who were workers in the Peace Corps probably found that their way of life
(a) did not change
(b) was changed educationally
(c) was changed economically and socially
(d) was changed politically

__c__ 21. When people of different ethnic backgrounds work and live together they tend
(a) to develop different interests
(b) to dislike each other more
(c) to develop similar values
(d) to be suspicious of each other

__b__ 22. When you work or live with people from different cultural or racial backgrounds, you should
(a) try to change your ways to their ways
(b) understand and respect their ways
(c) avoid associating with such people
(d) try to change their ways to your ways

__b__ 23. The factor which is <u>least</u> helpful to describe how two groups of people are different is
(a) religion
(b) total population
(c) race
(d) customs

__a__ 24. We can <u>best</u> describe how two groups of people differ in their way of life by observing their
(a) behaviors
(b) heights
(c) weights
(d) sizes

Inventory Form C (continued)

__c__ 25. Your disinterest in an occupation may be changed to interest after you

(a) leave it aside for a while
(b) take a vacation abroad
(c) learn more about it
(d) tell your feelings to a friend

Inventory Form C (continued)

Part 2

__c__ 26. A salesperson is one who works with
(a) things
(b) data
(c) people
(d) ideas

__b__ 27. A statistician is a person who works with
(a) things
(b) data
(c) people
(d) ideas

__a__ 28. A mechanic works with
(a) things
(b) data
(c) people
(d) ideas

__c__ 29. A community worker whose job is concerned mainly with people is a
(a) meter reader
(b) sanitation worker
(c) policeman/woman
(d) telephone repairperson

__d__ 30. The worker whose job is most directly important to the welfare of people is the
(a) salesperson
(b) florist
(c) ditch digger
(d) social worker

__c__ 31. Ambulance drivers probably increase their feelings of personal dignity because
(a) the hours of work are flexible
(b) the rate of pay is very high
(c) their work involves great responsibility
(d) their work involves some travel

__c__ 32. Nurses probably develop feelings of worth because
(a) their hours change from time to time
(b) the fringe benefits are extraordinary
(c) they are helping other people
(d) they meet important people

__b__ 33. People have respect for policemen and policewomen because
(a) people are afraid of them
(b) they enforce the law
(c) they can give traffic tickets
(d) they can arrest people

Inventory Form C (continued)

a 34. A service worker whose work is often done in resort hotels is a
(a) cook
(b) fireman/woman
(c) policeman/woman
(d) pharmacist

a 35. A worker who contributes to our environment by keeping it healthy and clean is
(a) a sanitation worker
(b) a medical doctor
(c) a social worker
(d) a licensed nurse

d 36. A person to whom money means a great deal might decide to be a
(a) travel agent
(b) teacher
(c) farmer
(d) lawyer

c 37. If no one in Honolulu had jobs,
(a) everybody would be free and happy
(b) there would be no conflicts or crimes
(c) there would be many people who were frustrated
(d) there would be no worry about the future

a 38. There are many different jobs in the society because
(a) there exist so many different needs
(b) people like to try different jobs
(c) the population is so large in this country
(d) there are so many different people in this country

d 39. New occupations are created in the society because
(a) young people do not like to do old jobs
(b) some people always like to try new jobs
(c) people get tired of doing old jobs over and over again
(d) new needs arise in the society

b 40. Our community would become totally unsafe without the services of our
(a) mailman/woman
(b) policeman/woman
(c) zookeepers
(d) social workers

d 41. Our Hawaiian communities would be hardest hit economically if we did not have the contribution of
(a) doctors and nurses
(b) architects and engineers
(c) policemen/women and firemen/women
(d) hotel and restaurant workers

Inventory Form C (continued)

_b_ 42. When an employer has many applications for a particular job, the applicant who is picked most likely will be the one having
(a) the most references
(b) the best job qualifications
(c) the greatest economic need
(d) the greatest mental ability

_a_ 43. Those workers who are usually hardest hit by unemployment are
(a) the unskilled workers
(b) the semi-skilled workers
(c) the craftsmen
(d) the professional workers

_d_ 44. Your chances of being hired for a job will increase if you have
(a) motor skills and manners
(b) good manners and attitudes
(c) good manners and skills
(d) good attitudes and skills

_d_ 45. Once you are hired for a job your chances of keeping the job will increase if you are
(a) neat, punctual, forgetful
(b) organized, dependent, carefree
(c) organized, carefree, impersonal
(d) efficient, organized, neat

_b_ 46. To be able to work as an electrician a person should have
(a) a high school diploma with courses in mechanical drawing
(b) one or two years of post-secondary vocational technical education
(c) four or five years of college education
(d) an engineering degree

_b_ 47. To be able to work as an engineer one should have
(a) a high school diploma with courses in industrial arts
(b) four or five years of college with courses in mathematics and physics
(c) one or two years of community college or vocational-technical school
(d) a high school diploma with courses in mechanical drawing

_c_ 48. A person who studies uses and compositions of medicines is called
(a) a chemist
(b) a biochemist
(c) a pharmacist
(d) a nutritionist

__a__ 49. To become a newspaper reporter, one should study
(a) journalism
(b) physics
(c) English
(d) chemistry

__b__ 50. The worker whose job is most directly important to the welfare of the people is the
(a) ditch digger
(b) social worker
(c) florist
(d) salesperson

Inventory Form C (continued)

Part 3

a 51. One who makes friends quickly and easily is most likely to be
(a) compatible
(b) aggressive
(c) impulsive
(d) seclusive

d 52. The best thing to do if you cannot get what you want from other people is to
(a) take it from them by force
(b) steal it if you can
(c) beg for it or cry
(d) remain calm and patient

c 53. A very effective way to gain an understanding of oneself is through
(a) plenty of exercise each morning
(b) a well balanced diet
(c) interacting with various people
(d) keeping to oneself and avoiding people

b 54. If a person criticizes you or your work, you should
(a) demand an immediate apology
(b) see how to best benefit from the criticism
(c) respond with counter criticism
(d) stop interacting with that person

d 55. The way a person behaves depends largely on
(a) the time of year
(b) the place you are in
(c) the interests you have
(d) the groups you are in

c 56. A person has an expected way to behave if the person
(a) goes surfing alone
(b) does homework
(c) joins the basketball team
(d) watches TV

a 57. You can best influence a group by
(a) participating in its activities
(b) reading about the group
(c) thinking a great deal about it
(d) hearing what others say about it

a 58. Being a member of a group, like Boy Scouts or Girl Scouts, helps a person to
(a) appreciate different ethnic groups
(b) develop independence in thinking
(c) develop skills in athletics
(d) acquire skills in self-understanding

b 59. In a group activity participants should work
(a) independently
(b) cooperatively
(c) competitively
(d) impersonally

c 60. When participating in a group activity, the members should
(a) follow their own rules
(b) help others if they feel like it
(c) cooperate with others to do the task
(d) avoid being dependent on others

a 61. The effect of teamwork is that work is done more
(a) effectively
(b) inefficiently
(c) slowly
(d) competitively

a 62. People often cooperate to do things because
(a) they find it essential to their survival
(b) they are afraid of competing with each other
(c) they are too lazy to do things alone
(d) they like to check and control each other

d 63. To make the pineapple industry profitable, it is necessary for the jobs of cannery workers and pineapple pickers to be
(a) independent
(b) controlled
(c) competitive
(d) interrelated

a 64. A doctor's occupation is most closely related to that of
(a) a nurse
(b) a chemist
(c) a biochemist
(d) a physicist

c 65. A civil engineer's job is most closely related to
(a) a carpenter's job
(b) a sanitation engineer's job
(c) an architect's job
(d) a pilot's job

b 66. A newspaper editor's job is most closely related to
(a) a sociologist's job
(b) a journalist's job
(c) a realtor's job
(d) a biologist's job

d 67. People who can change their behavior from one situation to another are
(a) inconsistent
(b) maladjusted
(c) irresponsive
(d) flexible

b 68. A person who is able to play different roles when on a group project would most likely
(a) constantly interfere in everybody's work
(b) facilitate the completion of the project
(c) delay the completion of the project
(d) push everybody else aside and do the project alone

d 69. The best reason for changing from one occupation to a new or a different occupation is that a person
(a) is mentally unstable
(b) is not able to stick to a single job for long
(c) does not know what he or she really wants
(d) sees the change as essential to survival and success

a 70. Over a long period of time the relationship between any two people will most likely
(a) change somewhat
(b) remain the same
(c) become stronger
(d) become weaker

a 71. A baker's job would not continue to exist if there were no
(a) farmers
(b) teachers
(c) coal miners
(d) doctors

d 72. Your daily life at school is probably influenced most by
(a) teachers and custodians
(b) teachers and principal
(c) friends and principal
(d) teachers and friends

c 73. In order to build a house, one will likely need the services of
(a) a machinist, an electrician, and a carpenter
(b) an assembler, an architect, and an electrician
(c) a carpenter, a painter, and a plumber
(d) a plumber, a glazier, and an assembler

b 74. To meet the basic needs of the tourist industry, Hawaii needs
(a) hotel managers, tour directors, and movie projectionists
(b) food service workers, hotel workers, and bus drivers
(c) stenographers, typists, and immigration officials
(d) barbers, beauticians, and salesclerks

d 75. When people participate in a group task they tend to work
(a) impersonally
(b) competitively
(c) independently
(d) interdependently

Inventory Form C (continued)

Part 4

__d__ 76. Sharing part of the work in a group project means you should
(a) be unconcerned if the task is completed
(b) be unconcerned if the rest complete their parts of the task
(c) strictly stick to your own rules and standards
(d) be concerned with the efficiency of task completion

__c__ 77. If you accept a share of work in a group task but fail to do it as you promisted to, the other members would think of you as being
(a) careless
(b) forgetful
(c) irresponsible
(d) carefree

__a__ 78. An employee working for a company should follow the company rules
(a) even if they may seem unfair
(b) only as long as they are fair
(c) only if the worker is paid enough
(d) only if they are approved

__c__ 79. The safety rules in a construction company are for
(a) keeping the tools and machines undamaged
(b) operating the company efficiently
(c) the safety of the workers themselves
(d) the safety of the building itself

__a__ 80. Participating as a volunteer in a civic group would mean
(a) contributing to a cause
(b) avoiding working
(c) killing extra time
(d) earning extra money

__b__ 81. Participating in a civic group like the League of Women Voters will increase a person's chances for
(a) discussing personal problems and family matters
(b) becoming more aware of one's rights as a citizen
(c) creating an independent group in the community
(d) contributing to the blood bank in the community

__b__ 82. A person who joins a civic organization should be able
(a) to compete with others in the group
(b) to take initiative when necessary
(c) to be domineering and agressive
(d) to be submissive and non-challenging

c 83. People usually join civic organizations to
(a) gain self-understanding
(b) participate in social activities
(c) fight against social injustice
(d) make new friends

d 84. Labor unions were established in order
(a) to create new leadership roles among workers
(b) to have control over workers and check if they work properly
(c) to have workers get together sometimes to exchange their working knowledge
(d) to protect the rights and privileges of the workers

c 85. The reason for establishing laws in the society is
(a) to provide jobs for the lawyers
(b) to provide jobs for the police
(c) to provide protection of society
(d) to make money for the city

a 86. Rules and regulations which restrict areas where hiking is permitted
(a) should be obeyed under all circumstances
(b) should be obeyed only if rangers are around
(c) should not be obeyed if no fines are imposed
(d) should be obeyed under special circumstances

d 87. Laws and rules that are established in a society
(a) should never be changed
(b) should be changed if lawyers say so
(c) should be changed once in a while so that politicians can keep their jobs
(d) should be changed if most of the people say so

a 88. Working should give a person a feeling of being
(a) useful
(b) playful
(c) wasteful
(d) useless

d 89. Working should give a person a sense of
(a) belonging, incompetence, and achievement
(b) belonging, dependency, and unimportance
(c) achievement, impersonality, and importance
(d) belonging, achievement, and worth

b 90. Working should provide an opportunity for a person to satisfy his or her need for
(a) status, approval, and impersonality
(b) status, approval, and giving service
(c) approval, giving service, and aggression
(d) aggression, approval, and dependency

__c__ 91. A person who works will likely develop a strong appreciation for
(a) wastefulness
(b) dependency
(c) leisure time
(d) snobbishness

__c__ 92. The purpose of recycling cans and newspapers is
(a) to create new jobs for the unemployed
(b) to increase companies' profits
(c) to conserve resources
(d) to overcome temporary shortages of such products

__d__ 93. A social worker's job deals with conservation of
(a) natural resources
(b) energy
(c) endangered species
(d) human resources

__a__ 94. Keeping the environment clean is the responsibility of
(a) every person in the country
(b) sanitation workers
(c) all those who use motor vehicles
(d) all residents who live in cities

__b__ 95. Keeping the environment clean most likely will result in
(a) decreased use of resources
(b) less disease and death
(c) greater social costs
(d) greater personal loss

__a__ 96. Workers should be punctual for their work
(a) if they want to increase their chances for advancement
(b) only if they find the job is interesting
(c) if they will be fined for being late
(d) if they notice other workers are punctual

__d__ 97. Dependability in a job means that
(a) certain workers can be depended upon to complete everyone else's work
(b) one can depend on others to complete one's assigned work
(c) the worker is a helpless and dependent person
(d) the worker will complete the assigned work on time

__c__ 98. An employer of airplane mechanics usually wants to have employees who have
(a) intelligence, mental ability, good work habits
(b) psychomotor skills, manipulative skills
(c) good work habits, mental and motor skills
(d) mental abilities, motor skills, intelligence

__a__ 99. Personal traits that are important factors in working in groups are
(a) punctuality and dependability
(b) strength and aggressiveness
(c) sensitivity and stubbornness
(d) verbal skills and energy

__d__ 100. Laws are established in the society in order
(a) to make money for the city
(b) to create jobs for the lawyers
(c) to create jobs for the police
(d) to provide protection of society

APPENDIX I

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY

ADMINISTRATOR'S MANUAL OF INSTRUCTION - FORM D

* * * * * * * *

Student Growth Assessment of Career Development Inventory (SGACDI) battery is composed of items designed to measure the extent to which four major goals of career development are being achieved. The goals are: Self-Realization, Economic Efficiency, Social Relationships, and Civic Responsibility. The SGACDI battery consists of four forms. Form A is designed to measure achievement of third grade students. Form B is designed to measure achievement of sixth grade students. Form C is designed to measure achievement of ninth grade students. Form D is designed to measure achievement of twelfth grade students.

This manual describes administration procedures for the SGACDI Form D. It is important that these procedures be understood and followed by anyone who is involved in administering the inventory.

Inventory Form D consists of 100 multiple choice items which will require about one hour to complete. There are four parts, each part consisting of 25 items related to the four goals of career development. To avoid student boredom and fatigue, the inventory may be administered in two or four sessions. Students can be asked to complete one or two parts for each session. Two possible schedules are:

Schedule 1		Schedule 2	
Session 1	Part 1	Session 1	Parts 1 & 2
Session 2	Part 2	Session 2	Parts 3 & 4
Session 3	Part 3		
Session 4	Part 4		

Part 1

A. General Duties of the SGACDI Administrator

1. Supervising the administration of the SGACDI.

2. Selecting and instructing SGACDI proctors if any.

3. Providing necessary materials such as pencils, erasers, inventory bookelets.

4. Preventing distractions and interruptions, thus providing optimal conditions for the inventory adminitration.

5. Becoming thoroughly familiar with this manual, <u>in particular</u> Part 2-B.

B. Materials Required

1. A copy of the manual should be on hand as well as a large enough supply of the SGACDI booklets to provide one for each student and one to the administrator.

2. An adequate supply of sharpened No. 2 lead pencils with erasers should be on hand for students who forget to bring pencils or in cases when their pencils break.

3. Tables and desks should be available for all students. If chairs with arms are used, adequate provision must be made for left-handed students.

Part 2

A. General Directions for the Administration of the Inventory

1. Instructions enclosed in boxes are to be read aloud by the administrator. In order to provide a standardized administering situation, these directions should not be changed.

2. Care should be taken to explain to students that they are <u>not</u> being graded, but they should do their best.

3. During the inventory completion, the administrator should walk around the room checking to see that the students are following the procedures correctly. The students should have nothing on their desks except the inventory booklets and pencils.

4. In response to questions about whether students should guess, say:

TRY TO ANSWER EVERY QUESTION. IF YOU ARE UNCERTAIN ABOUT AN ANSWER, SELECT THE ONE ALTERNATIVE YOU FEEL IS MOST NEARLY CORRECT.

5. Questions raised concering the specific content of the item should not be answered by the administrator, except to clarify or define the meaning of words the students do not understand.

6. If testing is done in two or more sessions, the administrator should follow the "Specific Directions" (Part 2-B) in each testing session in order to reorient the students to the answering procedure.

7. If testing is done in two or more sessions, the administrator should collect the inventory booklets systematically for each row or table, to facilitate redistribution in the next session, provided the students occupy the same seats.

8. If testing is done in two or more sessions, the students will use the same booklets in each session. Therefore, the administrator should make sure each student receives his or her own booklet in each session. The administrator should ask the students to check their names on the booklets to see that they have their own booklets.

B. Specific Directions for the Administration of the Inventory

1. When all students have been seated, say:

> YOU ARE GOING TO RECEIVE A BOOKLET ON CAREER DEVELOPMENT. DO NOT OPEN THE BOOKLET UNTIL I TELL YOU TO DO SO.

2. Now distribute the booklets and say:

> THE STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY IS EXACTLY WHAT THE TITLE SUGGESTS: AN INVENTORY OF YOUR GROWTH IN AREAS WHICH CONTRIBUTE TO CAREER DEVELOPMENT. THIS IS NOT A TEST. IT IS AN INVENTORY OF GROWTH IN FOUR AREAS WHICH RELATE TO CAREER DEVELOPMENT: SELF-REALIZATION, THAT IS, YOUR UNDERSTANDING OF YOURSELF; ECONOMIC EFFICIENCY, THAT IS YOUR UNDERSTANDING OF WHAT IT TAKES TO BE AN EFFECITVE PRODUCER OR CONSUMER OF GOODS AND SERVICES; SOCIAL RELATIONSHIPS, THAT IS, YOUR ABILITY TO GET ALONG WITH OTHERS; AND CIVIC RESPONSIBILITY, THAT IS, YOUR UNDERSTANDING OF THE RIGHTS AND RESPONSIBILITIES OF YOURSELF AND OTHERS. THE RESULTS OF THIS INVENTORY CAN HELP YOU IN ASSESSING YOUR CAREER DEVELOPMENT. DO NOT SPEND A GREAT DEAL OF TIME ON ANY ONE ITEM. DO NOT TALK OVER THE QUESTIONS WITH ANYONE ELSE. UNLESS THE ANSWER IS WHAT YOU THINK, IT WILL NOT REALLY HELP TO GIVE A TRUE PICTURE OF YOUR CAREER DEVELOPMENT.

3. Write the date, teacher's name, and school on the board and say:

> WRITE YOUR FIRST AND LAST NAME ON THE TOP LINE. ON THE NEXT LINE, GIVE YOUR GRADE, AGE AND SEX. THEN ON THE NEXT TWO LINES IN THE SPACES PROVIDED WRITE YOUR TEACHER'S NAME, OUR SCHOOL, AND TODAY'S DATE. TODAY IS _____.

Provide assistance if necessary.

4. After each student has completed this part, proceed by saying:

> NOW LOOK AT THE SECTION WHERE IT SAYS "DIRECTIONS," AND READ IT SILENTLY AS I READ THE DIRECTIONS ALOUD.
>
> DIRECTIONS: FOR EACH ITEM IN THIS INVENTORY SELECT THE WORD OR PHRASE THAT BEST COMPLETES THE STATEMENT, AND WRITE THE LETTER OF YOUR CHOICE, (a), (b), (c), or (d), ON THE LINE IN FRONT OF THE ITEM NUMBER.
>
> NOW LOOK AT THE EXAMPLE GIVEN.
>
> __c__ THE NUMBER OF MONTHS IN ONE YEAR IS
>
> (a) SEVEN
> (b) TEN
> (c) TWELVE
> (d) TWENTY
>
> THE BEST CHOICE IS TWELVE, SO THE LETTER __c__ IS WRITTEN ON THE LINE IN FRONT OF THE STATEMENT.
>
> ARE THERE ANY QUESTIONS? (PAUSE)

5. Emphasize that:

NO QUESTION SHOULD BE LEFT UNANSWERED. FOR EACH QUESTION ONLY ONE ANSWER MUST BE CHOSEN. IF A MISTAKE IS MADE IT MUST BE ERASED COMPLETELY. WRITE YOUR ANSWER HEAVY AND CLEAR.

Make sure that everybody understands the answering procedures.

6. Then say:

TODAY YOU ARE GOING TO ANSWER ITEMS NUMBER ____ TO NUMBER ____. AFTER YOU HAVE ANSWERED ALL THE QUESTIONS, CLOSE YOUR BOOKLETS AND LEAVE THEM ON YOUR DESKS.

The administrator should provide the numbers in the box above from the segment of the inventory which is going to be completed in that session.

7. Then say:

YOU MAY NOW BEGIN WORK ON THE INVENTORY STARTING WITH ITEM NUMBER _____.

Please provide the number.

8. If testing is done in two or more sessions, at the end of the session conclude by saying:

THIS IS THE END OF THIS PART OF THE INVENTORY. WE WILL CONTINUE WITH THE NEXT PART IN THE NEXT SESSION. THE TIME FOR THE NEXT SESSION IS _____.

Please provide the time of the next session.

C. Directions for Scoring

For scoring uses the Scoring Key Form D. The inventory is made up of 4 parts. Each part includes 25 items, and measures achievement of objectives implementing one of the four goals of career development. Part 1 includes items 1 to 25. Part 2 includes items 26 to 50. Part 3 includes items 51 to 75. Part 4 includes items 76 to 100. Give one point for each correct answer. Maximum score for each part will be 25 points, and for the whole inventory it will be 100 points.

SCORING KEY

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM D

Item	Answer	Item	Answer	Item	Answer	Item	Answer
1	d	26	b	51	d	76	c
2	b	27	d	52	b	77	c
3	c	28	d	53	d	78	a
4	a	29	a	54	a	79	d
5	c	30	a	55	a	80	c
6	b	31	d	56	b	81	a
7	a	32	b	57	c	82	d
8	c	33	b	58	a	83	b
9	a	34	a	59	c	84	d
10	b	35	c	60	d	85	d
11	b	36	d	61	d	86	b
12	d	37	a	62	a	87	a
13	d	38	d	63	b	88	c
14	c	39	c	64	a	89	b
15	c	40	c	65	c	90	a
16	d	41	b	66	c	91	c
17	c	42	b	67	a	92	a
18	b	43	d	68	b	93	b
19	b	44	b	69	d	94	d
20	a	45	a	70	c	95	a
21	d	46	c	71	d	96	c
22	b	47	b	72	b	97	d
23	d	48	c	73	a	98	c
24	c	49	b	74	a	99	a
25	b	50	a	75	c	100	d

Part 3

Inventory Interpretations

The SGACDI has been developed to assess student growth in four areas: self-realization, economic efficiency, social relationships, and civic responsibility. The inventory is designed to measure the extent to which objectives of the Hawaii Career Development Continuum have been achieved; and to provide information to assist counselors and teachers in designing new or improving existing programs to meet student needs. The inventory items have been constructed to measure achievement in relation to the 4 goals, 24 subgoals and implementing learner objectives of the Hawaii Career Development Continuum. There are 6 subgoals to each goal as shown in Table 1.

Table 1

Major Goals and Subgoals

Goals	Subgoals
Self-Realization	1. Acquire skills of self-appraisal.
	2. Develop awareness and understanding of self.
	3. Develop understanding of decision-making process.
	4. Acquire skills of decision-making, risk taking, value clarification, and goal getting.
	5. Develop understanding of the relationship between work and life style.
	6. Develop appreciation for individual differences in interests, values, aptitude, skills, abilities, attitudes.
Economic Efficiency	1. Develop understanding of variety of occupations, interrelationship of occupations, and knowledge of occupational classifications and job descriptions.
	2. Develop understanding that occupations exist for a purpose and contribute to the dignity of the individual.
	3. Develop appreciation for the value of work, its contribution to society and the economy, and appreciate that work means different things to different people.
	4. Develop understanding that new occupations develop in response to needs of society.
	5. Develop employability skills.
	6. Develop understanding of the relationship between education and work.
Social Relationships	1. Develop interpersonal skills.
	2. Develop understanding of social roles.
	3. Develop understanding of cooperation.

	4. Develop understanding of community workers.
	5. Develop appreciation for flexibility and adaptability in social relationships.
	6. Develop understanding of interrelatedness of occupational roles.
Civic Responsibility	1. Develop understanding of rights, privileges, and responsibilities on the job, in the home, in the community.
	2. Develop understanding of ways in which participation in civic groups contributes to individual and group goals.
	3. Develop understanding of importance of rules in society.
	4. Develop understanding of relationships between responsibilities and rewards in work and leisure.
	5. Develop capabilities for making effective use of resources and understand relation of environment to work.
	6. Develop ability to participate in various kinds of civic groups.

There are four items for each subgoal. These items relate to the learner objectives for the subgoal, as shown in Table 2. Items 1 to 24 test the achievement of the Self-Realization Subgoals. Items 26 to 49 test the achievement of the Economic Efficiency Subgoals. Items 51 to 74 test the Social Relationships Subgoals. Items 76 to 99 test the achievement of Civic Responsibility Subgoals. Items 25, 50, 75, and 100 are repeated items for checking reliability. A reliability check can be made by comparing responses to the following items: Items 25 and 6, 50 and 29, 75 and 59, 100 and 81. The dash marks in Table 2 imply that there were no objectives for the corresponding items, but that the items were constructed according to the subgoal or the one single objective if available for that subgoal.

Table 2

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM D

Distribution of Items (I) According to
Goals (G), Subgoals (SG) and Objectives (O)

I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.	I.	G.	SG.	O.
(SR)				(EE)				(SR*)				(CR)			
1	1	1	1	26	2	1	1	51	3	1	1	76	4	1	1
2	1	1	1	27	2	1	-	52	3	1	1	77	4	1	-
3	1	1	1	28	2	1	-	53	3	1	2	78	4	1	-
4	1	1	2	29	2	1	-	54	3	1	2	79	4	1	-
5	1	2	1	30	2	2	1	55	3	2	1	80	4	2	1
6	1	2	1	31	2	2	-	56	3	2	-	81	4	2	-
7	1	2	1	32	2	2	-	57	3	2	-	82	4	2	-
8	1	2	2	33	2	2	-	58	3	2	-	83	4	2	-
9	1	3	1	34	2	3	1	59	3	3	1	84	4	3	1
10	1	3	1	35	2	3	1	60	3	3	-	85	4	3	-
11	1	3	2	36	2	3	2	61	3	3	-	86	4	3	-
12	1	3	2	37	2	3	2	62	3	3	-	87	4	3	-
13	1	4	1	38	2	4	1	63	3	4	1	88	4	4	1
14	1	4	1	39	2	4	-	64	3	4	-	89	4	4	-
15	1	4	2	40	2	4	-	65	3	4	-	90	4	4	-
16	1	4	2	41	2	4	-	66	3	4	-	91	4	4	-
17	1	5	1	42	2	5	1	67	3	5	1	92	4	5	1
18	1	5	1	43	2	5	1	68	3	5	1	93	4	5	-
19	1	5	2	44	2	5	2	69	3	5	2	94	4	5	-
20	1	5	3	45	2	5	2	70	3	5	2	95	4	5	-
21	1	6	1	46	2	6	1	71	3	6	1	96	4	6	1
22	1	6	1	47	2	6	-	72	3	6	-	97	4	6	-
23	1	6	2	48	2	6	-	73	3	6	-	98	4	6	-
24	1	6	2	49	2	6	-	74	3	6	-	99	4	6	-
25	1	2	1	50	2	1	-	75	3	3	1	100	4	2	-

Note. SR = Self-Realization
EE = Economic Efficiency
SR* = Social Relationships
CR = Civic Responsibility

APPENDIX J

STUDENT GROWTH ASSESSMENT OF CAREER DEVELOPMENT INVENTORY - FORM D

Student's Name_____

Grade_____ Age_____ Sex: Male Female

Teacher's Name_____

School_____ Date_____

The Student Growth Assessment of Career Development Inventory is exactly what the title suggests: an inventory of your growth in areas which contribute to career development. This is not a test. It is an inventory of growth in four areas which relate to career development: Self-Realization, that is, you understanding of yourself; Economic Efficiency, that is, your understanding of what it takes to be an effective producer or consumer of goods and services; Social Relationships, that is, your ability to get along with others; and Civic Responsibility, that is, your understanding of the rights and responsibilities of yourself and others. The results of this inventory can help you in assessing your career development. Do not spend a great deal of time on any one item. Do not talk over the questions with anyone else. Unless the answer is what you think, it will not really help to give a true picture of your career development.

DIRECTIONS: For each item in this inventory select the word or phrase that best completes the statement, and write the letter of your choice--(a), (b), (c), or (d)--on the line in front of the item number.

Example: __c__ 1. The number of months in one year is
(a) seven
(b) ten
(c) twelve
(d) twenty

The best choice is twelve, so the letter c is written on the line in front of the statement.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

Do Not Write Below This Line

PART	ITEMS	GOAL MEASURED	POSSIBLE SCORE	ACTUAL SCORE
1	1-25	Self-Realization	25	
2	26-50	Economic Efficiency	25	
3	51-75	Social Relationships	25	
4	76-100	Civic Responsibility	25	
		Total	100	

INVENTORY FORM D

Part 1

__d__ 1. To communicate effectively with different people in various situations and various positions it is necessary for a person
(a) to have a loud voice
(b) to have access to a microphone
(c) to be acquainted with them
(d) to have the necessary vocabulary

__b__ 2. Among the following pairs of persons, the pair who probably can communicate best with each other is
(a) electrical engineer and geologist
(b) psychologist and social worker
(c) psychiatrist and archeologist
(d) botanist and neurologist

__c__ 3. Among the following pairs of workers, the pair who probably can communicate most easily with each other in their work is
(a) surgeon and architect
(b) crane operator and radio operator
(c) zoologist and neurologist
(d) bookkeeper and bookseller

__a__ 4. One would choose a future occupation according to existing opportunities and one's own
(a) values, interests, and desired lifestyle
(b) values, interests, and religious affiliation
(c) attitude, ability, and ethnic background
(d) racial, cultural, and religious background

__c__ 5. A person who has a liking for figures and calculation would do well as
(a) a machinist
(b) a typist
(c) a bookkeeper
(d) a pharmacist

__b__ 6. A person who is interested in creative work would likely do well as
(a) a plumber
(b) an architect
(c) a doctor
(d) an engineer

__a__ 7. A person who likes to help people with their emotional and personal problems would likely do well as
(a) a social worker
(b) a medical doctor
(c) a librarian
(d) a policeman/woman

Inventory Form D (continued)

__c__ 8. Maximizing one's potential in daily life means
(a) devoting yourself to many necessary and unnecessary things
(b) doing many things that you both desire and do not desire
(c) planning to make best use of one's talents
(d) going through an intense program of physical fitness

__a__ 9. Once one makes a decision one should
(a) accept the consequences even if they don't live up to expectations
(b) accept the consequences only if they are desirable
(c) place blame for the consequences on others
(d) deny making the decision if it turns out badly

__b__ 10. A person who is responsible
(a) welcomes taking risks
(b) accepts the outcome of his or her action
(b) saves face by denying failure
(d) accepts only the good parts of his or her action

__b__ 11. In any life career decision the element of chance is involved
(a) never
(b) always
(c) seldom
(d) randomly

__d__ 12. One of the best reasons for choosing a career is
(a) to be well liked
(b) to buy a car
(c) to get away from home
(d) to be useful

__d__ 13. In making a career decision one of the first things to do is
(a) check working conditions
(b) compare opportunities
(c) consider benefits
(d) set goals

__c__ 14. A personal factor which might influence the choice of a career yet be beyond a person's control would be
(a) educational preparation
(b) skill acquisition
(c) physical limitations
(d) employment opportunity

__c__ 15. A person who has completed high school would be able to work as
(a) an electronic technician
(b) a computer programmer
(c) a bus driver
(d) a nurse

__d__ 16. A person who wants to become an engineer must have
(a) a high school diploma with courses in mechanical drawing
(b) one or two years of community college or vocational training
(c) a high school diploma with courses in industrial arts
(d) four or five years of college with courses in math and physics

__c__ 17. One who values power and wants to have influence over others would likely choose to be
(a) a professor
(b) a pilot
(c) a politician
(d) a painter

__b__ 18. A person who likes to travel and change work location might choose to be
(a) a dentist
(b) an archeologist
(c) a veterinarian
(d) a barber

__b__ 19. One who enjoys working <u>outdoors</u> might choose to be
(a) a plumber
(b) a mail carrier
(c) a janitor
(d) a carpenter

__a__ 20. The one who is most likely to change lifestyles when given a promotion is
(a) a diplomat
(b) a geologist
(c) a bus driver
(d) a pilot

__d__ 21. A person with a negative self-image would most likely
(a) be highly active in many social organizations
(b) be highly ambitious and assertive
(c) show more respect for self than for others
(d) tend to blame self rather than others for mistakes

__b__ 22. People have feelings of dignity and worth
(a) for the same reasons
(b) for different reasons
(c) for no reason
(d) for selected reasons

Inventory Form D (continued)

__d__ 23. One way to differentiate between yourself and another person is to see
(a) what things both of you can do
(b) what things both of you cannot do
(c) what things both of you can and cannot do
(d) what things one of you can do but the other one cannot do

__c__ 24. One can compare personalities of two persons best by comparing their
(a) age, race, and religion
(b) height, weight, and size
(c) values, abilities, and attitudes
(d) date of birth, place of birth, and income

__b__ 25. One who is interested in creative work would likely do well as
(a) a plumber
(b) an architect
(c) a doctor
(d) an engineer

Inventory Form D (continued)

Part 2

_b_ 26. Office occupations include
(a) waiter, waitress, cook, cashier
(b) bookkeeper, secretary, bill collector, clerk
(c) dancer, actor, singer, comedian
(d) personal manager, economist, engineer, statistician

_d_ 27. Fine arts and humanities occupations include
(a) nurse, doctor, lawyer, pharmacist
(b) mailman/woman, fireman/woman, bus driver, policeman/woman
(c) machinist, carpenter, plumber, electrician
(d) artist, poet, sculptor, musician

_d_ 28. The jobs <u>least</u> related to each other are
(a) dancer, actor, singer, musician
(b) banker, insurance adjuster, teller, broker
(c) house builder, road worker, heavy equipment operator, electrician
(d) architect, artist, archeologist, astronomer

_a_ 29. A construction worker's job is most closely related to that of
(a) an architect
(b) a banker
(c) a machinist
(d) an auto mechanic

_a_ 30. Sanitation workers probably increase their feelings of personal dignity because
(a) their work is essential
(b) the hours or work are flexible
(c) the rate of pay is very high
(d) their work develops physical fitness

_d_ 31. Most governors' secretaries feel pride in their work because
(a) they work in plush surroundings
(b) they meet important people
(c) the hours are flexible
(d) the governor's position is important to the state

_b_ 32. The meter reader develops a feeling of worth because
(a) the work is largely outdoors
(b) the city's income depends partly upon the work
(c) the hours are very flexible
(d) the work involves some travel

_b_ 33. The long distance telephone operator develops feelings of self-satisfaction because
(a) the hours change from time to time
(b) the work provides service to others
(c) the fringe benefits are extraordinary
(d) the conversations are interesting to overhear

Inventory From D (continued)

a 34. The worker whose service all of us receive almost every day is
(a) mailman/woman
(b) doctor
(c) pharmacist
(d) bus driver

c 35. The worker whose service is likely to be least urgently needed by the community is the
(a) bus driver
(b) policeman/woman
(c) social worker
(d) sanitation worker

d 36. An occupation from which a person might make either a lot of money or very little money is
(a) a librarian
(b) a secretary
(c) a professor
(d) a singer

a 37. If a person chooses to work for the Salvation Army or the Goodwill Industries, one can probably assume that money
(a) means very little to him or her
(b) means a great deal to him or her
(c) is the root of all evil
(d) has always been a problem

d 38. New occupations emerge because
(a) young people do not like to do old jobs
(b) some people are always interested in new jobs
(c) people get tired of doing old jobs over and over
(d) new needs develop in the society

c 39. The employment outlook of an occupation refers to
(a) where workers are located
(b) where workers are watched from outside
(c) future employment opportunities
(d) whether workers can look at outside activities

c 40. An expansion in the oil industry very likely would increase demand most for
(a) industrial engineers
(b) aeronautical engineers
(c) petrochemical engineers
(d) electrical engineers

b 41. An expansion in the space industry very likely would increase the need most for
(a) chemists
(b) physicists
(c) biochemists
(d) architects

_b_ 42. When many people apply for a particular job, the employer will likely pick the one having
(a) the most education
(b) the best job qualifications
(c) the greatest economic need
(d) the greatest mental ability

_d_ 43. The worker hardest hit by unemployment is likely to be the
(a) semi-skilled worker
(b) craftsman
(c) professional person
(d) unskilled worker

_b_ 44. A person getting an entry-level job would need to be able to demonstrate
(a) interpersonal skills
(b) employability skills
(c) communication skills
(d) mathematical skills

_a_ 45. A worker <u>most</u> capable of entering a job requiring work with data would be
(a) a statistician
(b) an electrician
(c) a radio operator
(d) a computer operator

_c_ 46. To be able to work as a newspaper reporter one has to study
(a) English
(b) philosophy
(c) journalism
(d) sociology

_b_ 47. A hotel manager would be wise to study
(a) civil service
(b) business administration
(c) home economics
(d) bookkeeping

_c_ 48. One who has studied the uses and compositions of medicines is called
(a) a chemist
(b) a dietician
(c) a pharmacist
(d) a nutritionist

_b_ 49. The person most likely to need a college degree would be
(a) a folk singer
(b) music professor
(c) piano teacher
(d) a rock musician

__a__ 50. A construction worker's job is most closely related to that of
(a) an architect
(b) a banker
(c) a machinist
(d) an auto mechanic

Inventory Form D (continued)

Part 3

__d__ 51. A good employer-employee relationship would be one based on
(a) impersonal interaction
(b) mutual non-interaction
(c) completely formal interaction
(d) personal interaction

__b__ 52. In order to keep a friend, it is important to be
(a) impulsive
(b) understanding
(c) dominant
(d) secretive

__d__ 53. If one cannot get from others what one needs, the best thing to do is
(a) to demand it from people
(b) to take it from people by force
(c) to steal it from people if necessary
(d) to remain patient and calm

__a__ 54. In all job interviews it is important to have good
(a) social skills
(b) computation skills
(c) mechanical skills
(d) psychomotor skills

__a__ 55. A <u>social role</u> which is important to most high school seniors is that of
(a) student
(b) child
(c) employee
(d) athlete

__b__ 56. The way a person behaves at any particular time depends largely on
(a) the time of year
(b) the group you are in
(c) the talents you have
(d) the place you are born

__c__ 57. A person's behavior is determined largely by others when the person
(a) rides a bicycle
(b) becomes a pilot
(c) joins a club
(d) watches T.V.

__a__ 58. A person has an expected way to behave if the person
(a) joins the basketball team
(b) goes swimming alone
(c) watches T.V.
(d) does homework

_c_ 59. Participating in a group activity means working
(a) independently
(b) competitively
(c) cooperatively
(d) impersonally

_d_ 60. Participating in a group activity requires
(a) following your own rules
(b) helping others if one feels like it
(c) avoiding being dependent on others
(d) following the rules of the group

_d_ 61. In any group situation it is important for the members to
(a) try to get recognition
(b) do the tasks alone
(c) ignore the rules
(d) be willing to give and take

_a_ 62. When a team cooperates on a project, the result is most likely to be
(a) creative and innovative
(b) conventional and correct
(c) limited and conforming
(d) traditional and sterile

_b_ 63. A policeman needs to be above average in
(a) verbal aptitude
(b) interpersonal skills
(c) computation skills
(d) spatial aptitude

_a_ 64. Public service occupations include
(a) fireman/woman, policeman/woman, bus driver, mailman/woman
(b) banker, broker, barber, baker
(c) nurse, doctor, lawyer, engineer
(d) stenographer, stockbroker, file clerk, typist

_c_ 65. The fireman/woman needs to be above average in
(a) verbal aptitude
(b) spatial ability
(c) physical agility
(d) interpersonal skills

_c_ 66. The sanitation worker needs to be above average in
(a) finger dexterity
(b) verbal aptitude
(c) physical strength
(d) quantitative aptitude

_a_ 67. Where the rules of a game are changed, it is most important for the players to
(a) play by the new rules
(b) memorize the new rules
(c) forget the old rules
(d) try to regain the old rules

_b_ 68. The expected behavior of a person would change most from
(a) one high school to another high school
(b) kindergarten to junior high school
(c) one job to another related job
(d) one city to another city

_d_ 69. A person who has many roles is likely to become more
(a) rigid
(b) disoriented
(c) unstable
(d) flexible

_c_ 70. A person who belongs to many social groups is likely to become more
(a) intelligent
(b) stable
(c) adaptable
(d) efficient

_d_ 71. One value from being in a group is that members
(a) have interpersonal competition
(b) do things alone
(c) have control over each other
(d) appreciate contributions of others

_b_ 72. Being a member of a group makes one have a feeling of
(a) disorientation
(b) belonging
(c) frustration
(d) enthusiasm

_a_ 73. Being a member of a group will likely give you
(a) an insight into your abilities
(b) a relief from working
(c) a false sense of security
(d) a feeling of dependency

_a_ 74. One of the benefits of belonging to a school club is that it
(a) contributes to social skills
(b) helps meet financial needs
(c) develops physical skills
(d) develops independence

_c_ 75. To participate effectively in a group activity, one must work

(a) independently
(b) competitively
(c) cooperatively
(d) impersonally

Inventory Form D (continued)

Part 4

c 76. Of the following, the one which is not a civic group is
(a) Lion's Club
(b) Life of the Land
(c) Board of Regents
(d) League of the Women Voters

c 77. When you accept a job, you commit yourself to certain
(a) rights
(b) privileges
(c) responsibilities
(d) rewards

a 78. One who often fails to fulfill his or her job responsibilities will likely be regarded by others as
(a) unreliable
(b) careless
(c) forgetful
(d) lax

d 79. One should complete one's job assignment
(a) only if the pay is good
(b) only if the work load is not heavy
(c) only if one enjoys it
(d) even if the working conditions are poor

c 80. The purpose of having a labor union is
(a) to keep laborers under surveillance
(b) to increase companies' profits
(c) to protect the rights of the workers
(d) to fight organized crime

a 81. A civic action group is often for the purpose of
(a) promoting the legal interests of certain groups
(b) organizing individuals against society
(c) disrupting the normal process of social activities
(d) aiding the exploitation of one group by another

d 82. A civic organization gives one an opportunity to
(a) lose one's civil liberties
(b) disrupt the process of social movements
(c) become disassociated from the community
(d) contribute to community improvement

b 83. The members participating in a civic group most likely will
(a) work for individual goals
(b) share common goals
(c) have different goals
(d) not be concerned about goals

d 84. When parliamentary procedures are followed to conduct a union meeting, a motion should be voted on
(a) only if it has been tabled
(b) without being seconded
(c) only if it has a third
(d) only if it has been seconded

d 85. A civic group works best when it is based on a system of
(a) communication, coordination, intercompetition
(b) concealment, coordination, mutual opposition
(c) coordination, concealment, cooperation
(d) communication, coordination, cooperation

b 86. A civic group is least likely to provide
(a) a system of hierarchy
(b) a system of competition
(c) a mutual decision-making process
(d) a system of communication

a 87. Disputes between labor and management over wages are best settled by
(a) negotiations between both groups
(b) negotiations by management
(c) declaration by the workers
(d) work slowdown by labor

c 88. Social security contributions are withheld from wages to
(a) support the government
(b) contribute to the community
(c) help support retired people
(d) help support employment agencies

b 89. To support oneself and one's family, one needs to be skilled in
(a) communicating with others
(b) managing money
(c) applying for credit
(d) buying antiques and artwork

a 90. One advantage of being self employed is that a person most likely will have
(a) more freedom
(b) more security
(c) more stability
(d) more traveling

c 91. The best way to keep a balanced budget is to
(a) make more money
(b) declare bankruptcy
(c) plan expenditures in advance
(d) buy only on installment

a 92. Conservation of resources refers to
(a) controlled use of resources
(b) concentrating resources in heavy industries
(c) producing the most goods
(d) using resources to meet human needs

b 93. The worker who will be least affected by an energy crisis is
(a) an air pilot
(b) an architect
(c) a truck driver
(d) an electrician

d 94. A worker whose occupation will likely be most affected by an energy crisis is
(a) an astronomer
(b) a surveyor
(c) a tool designer
(d) a bus driver

a 95. The study of the relationships between living organisms and their environment is called
(a) ecology
(b) zoology
(c) sociology
(d) geology

c 96. Team efforts often
(a) hinder task completion
(b) create conflicts among team members
(c) facilitate task completion
(d) result in wasteful use of resources

d 97. Keeping the environment clean can be achieved best through the efforts of
(a) sanitation workers only
(b) all people with motor vehicles
(c) sanitation workers and people with vehicles
(d) every person in the country

c 98. Preventive medicine requires the team efforts of
(a) doctor, zoologist, and medical secretary
(b) doctor, nurse, and receptionist
(c) doctor, biochemist, and x-ray technician
(d) pharmacist, psychologist, and patient

a 99. In order to achieve goals for the common good, it is important for people to
(a) work together cooperatively
(b) work on tasks competitively
(c) work on tasks independently
(d) work together conservatively

d 100. A civic organization is usually for the purpose of
(a) exploitation of one group by another group
(b) disrupting the normal process of social activities
(c) organizing individuals against society
(d) promoting the legal rights of certain groups

ACCESSION NUMBER: VT102199

PUBLICATION DATE: 75

TITLE: FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION. FINAL REPORT TO THE NATIONAL CENTER FOR EDUCATION STATISTICS.

PERSONAL AUTHOR: CHRISTOFFEL, PAMELA; RICE, LOIS

DESCRIPTOR: *EDUCATIONAL POLICY; *POST SECONDARY EDUCATION; *DATA BASES; *FEDERAL AID; *EDUCATIONAL PROGRAMS; STATE FEDERAL SUPPORT; STATISTICAL DATA

EDRS PRICE: MF AND HC AVAILABILITY WILL BE ANNOUNCED IN VOL. 9, NO. 2.

DESCRIPTIVE NOTE: 119P.

ABSTRACT: THIS REPORT DELINEATES THE MAJOR POLICY ISSUES IN FEDERALLY SUPPORTED POST SECONDARY EDUCATION PROGRAMS AND IDENTIFIES SPECIFIC CATEGORIES OF POSTSECONDARY EDUCATION DATA NEEDED AT THE FEDERAL LEVEL TO ADDRESS THESE ISSUES. TO ACCOMPLISH THESE TASKS: (1) MAJOR LITERATURE SOURCES PERTINENT TO FEDERAL POLICY ISSUES AND DATA NEEDS WERE REVIEWED; (2) FEDERAL OFFICIALS AND EXPERTS IN THE FIELD WERE INTERVIEWED; (3) A CONFERENCE OF POSTSECONDARY EDUCATION EXPERTS AND INTERESTED FEDERAL OFFICIALS WAS CONVENED IN AN ATTEMPT TO DEFINE POLICY ISSUES AND DATA NEEDS: (4) THE COMPILATION OF FEDERAL POSTSECONDARY EDUCATION PROGRAMS WAS REVIEWED FOR INHERENT POLICY ISSUES AND DATA NEEDS. THE FEDERAL POSTSECONDARY POLICY ISSUES IDENTIFIED WERE: (1) PROVIDING EQUAL EDUCATIONAL OPPORTUNITY; (2) MEETING MANPOWER NEEDS; (3) PROMOTING RECURRENT EDUCATION; (4) STIMULATING EDUCATIONAL DIVERSITY; AND (5) ENCOURAGING RESEARCH IN THE NATIONAL INTEREST. (VA)

CONTRACT NUMBER: OEC-0-74-2126

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402

INSTITUTION NAME: COLLEGE ENTRANCE EXAMINATION BOARD, WASHINGTON, D.C.

SPONSORING AGENCY NAME: OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

VT 102 199

Sponsored Reports Series

FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION

national center for education statistics

VT 102 199

NCES 75-222

FEDERAL POLICY ISSUES AND DATA NEEDS IN POSTSECONDARY EDUCATION

Final Report
to the
National Center for Education Statistics

by
Pamela Christoffel
and
Lois Rice

This report was prepared by the Washington Office of the College Entrance Examination Board under contract No. OEC-0-74-2126 with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects for the Government are encouraged to express freely their professional judgment. This report, therefore, does not necessarily represent positions or policies of the Office of the Assistant Secretary for Education, and no official endorsement should be inferred.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Caspar W. Weinberger, *Secretary*

Education Division
Virginia Y. Trotter, *Assistant Secretary for Education*

National Center for Education Statistics
Francis C. Nassetta, *Acting Administrator*

NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . and review and report on education activities in foreign countries."--Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1975

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 - Price $1.60

FOREWORD

This report delineates the major policy issues in federally supported postsecondary education programs and identifies specific categories of postsecondary education data needed at the Federal level to address these issues. The report constitutes an important phase in the Common Core of Data (CCD) program which is a major new concept of the National Center for Education Statistics. CCD provides an integrated and interlocking system of educational statistics to meet Federal, State, local, and institutional needs for planning and management.

Guidance in the preparation of this report was provided by Ron Pedone and Andrew Pepin of the National Center for Education Statistics.

Marjorie Chandler, Director
Division of Statistical
Information and Studies

CONTENTS

		Page
	Foreword	iii
I.	Introduction	1
II.	Postsecondary Education Programs at the Federal Level	3
III.	Federal Policy Issues	7
IV.	Federal Data Needs	25
V.	A Brief Comparison of NCES Current Postsecondary Data Collection With Data Needs	39
VI.	A Suggested Role for NCES in Postsecondary Education	45

APPENDIXES

Appendix A.--Listing of Federal Postsecondary Education Programs 53

Appendix B.--Outlines of Postsecondary Programs, Policy Issues, and Data Needs 65

Appendix C.--NCES Data-Collection Instruments and Reports Reviewed 103

Appendix D.--Office of Education Nonoperative Programs 107

Bibliography 109

I. INTRODUCTION

A. Background

The Education Amendments of 1974 transferred the National Center for Education Statistics (NCES) from the Office of Education (OE) into the Office of the Assistant Secretary for Education and stated that NCES shall "collect, collate and, from time to time, report full and complete statistics on the conditions of education in the United States." The legislation requires that NCES submit to the Congress an annual statistical report for the two preceding and three succeeding fiscal years. NCES shall participate with other Federal agencies in forming an education data "consortium" and shall provide all interested parties, including public and private agencies and individuals, "direct access" to data collected.

The tasks are not simple or easy. However, NCES has now received a congressional mandate to move beyond the collection of basic education data into a broader realm of examining the conditions of education.

Even before the Education Amendments of 1974, NCES had begun to move beyond simple data gathering. Its Common Core of Data (CCD) Program sought to respond to many of the broad education data needs of the Congress, the Federal Government, and the education community. As noted in the Office of Education's Request for Proposal which initiated this study, the CCD Program "is a major new concept of the U.S. Office of Education intended to replace the current uneven and largely inadequate provision for education statistics in the 50 States, six outlying areas, and the District of Columbia, with an integrated and interlocking system of education statistics to meet Federal, State, local, and institutional needs for planning and management."

B. The Tasks of This Study

The Washington Office of the College Entrance Examination Board received a request from NCES to assist it in this overall CCD effort in the area of postsecondary education.1/ This College Board study for NCES examines Federal post-

---

1/ For the purposes of this study, NCES provided a definition of a postsecondary education institution as follows: "A postsecondary education institution is defined as an academic, vocational, technical, home study, business, professional, or other school, college or university, or other organization or person offering educational credentials or offering instruction or educational services (primarily to persons who have completed or terminated their secondary education or who are beyond the age of compulsory school attendance), for attainment of educational, professional, or vocational objectives."

secondary education programs in all relevant agencies, Federal policy issues, and Federal data needs. The task included a survey of over 400 Federal postsecondary programs in 25 separate Federal departments and agencies. From this survey, a 1,200-page report titled A Compilation of Federal Programs Financing Postsecondary Education, An Update, Fall 1974, has been delivered to NCES separately from this study report.

Using the array of Federal programs supporting postsecondary education as a base, the College Board next was requested to identify the major postsecondary issues facing Federal policymakers and administrators and to specify the categories of postsecondary education data needed to enable them to address these issues. To accomplish these tasks, the Washington Office of the College Board:

1. reviewed the major literature sources pertinent to Federal policy issues and data needs;

2. interviewed Federal officials and experts in this field;

3. convened a conference of postsecondary education experts to meet with interested Federal officials and attempt definitions of Federal issues and data needs; and

4. reviewed the Compilation of Federal Postsecondary Education Programs for inherent policy issues and data needs.

This report distills information and recommendations received from these sources. Section II surveys briefly the Federal role in postsecondary education; section III defines and documents the Federal policy issues underlying current and future Federal efforts in this area; section IV describes categories of data Federal officials need to respond to questions raised by these policy issues. A brief comparison of NCES' current postsecondary data collection efforts with identified Federal data needs follows in section V. The final section addresses challenges and opportunities of the Education Amendments of 1974 and presents a possible role for NCES in postsecondary data collection and coordination. Appendixes A and B outline the Federal programs, policy issues, and data needs for postsecondary education; appendix C lists the NCES reports and instruments used in preparation of section V of this report; appendix D describes efforts to compile a list of nonoperative postsecondary programs.

Those who have previously pointed out needed data at the Federal level are cited in this report. What is significant in this document is that postsecondary education data needs have been derived in a unique way. Matrixes including current Federal programs and Federal policy issues have been used to identify needed postsecondary data, thus providing NCES with a rational framework for data-collection efforts. NCES will thus have the opportunity to review all its data-collection activities in postsecondary education, helping it meet the challenges of the Education Amendments of 1974.

II. POSTSECONDARY EDUCATION PROGRAMS AT THE FEDERAL LEVEL

A. The Development of a Federal Role in Postsecondary Education

Historical trends, political pressures, and the accretion of largely unrelated national policy decisions have combined to shape the role of the Federal Government in postsecondary education, traditionally a State responsibility.

Federal support for colleges and universities began with the establishment of West Point, the first Federal college. The first legislative authorization for postsecondary education was the Morrill Act of 1862, which provided endowment and other funds for the Nation's land-grant colleges. For the next 80 years, until World War II, the Federal role in postsecondary education involved a relatively modest investment of funds and slight Federal influence.1/

Following World War II, Federal support increased substantially. Funds made available through the G.I. Bill for veterans' education increased postwar enrollments at most colleges and universities. Increased Federal funds began to flow to postsecondary institutions, initially in support of research directed toward solving problems of national defense, but later toward an array of studies, including research into peacetime uses of atomic energy and other areas of basic and applied science.

Growing Federal interest in research for the needed quantity and quality of scientific manpower was also manifested. The Federal Government expected colleges and universities to produce more and more highly trained individuals. National concerns, intensified during the sputnik era, prompted the passage of the National Defense Education Act. Postsecondary education was now encouraged to train more college faculty, and the first low-interest Federal loans were made available to college students.

The 1960's saw a rapid expansion of Federal programs benefiting postsecondary education. Institutions received construction assistance. The disadvantaged received Federal scholarships and work-study assistance. Federal funds for research reached their highest level. By 1970, postsecondary education had become closely entwined with such national commitments as development of new knowledge through

---

1/ The Second Newman Report notes that by 1940 "total Federal funding was less than $50 million per year." The Second Newman Report: National Policy and Higher Education, (Cambridge, Mass : The MIT Press, 1973), p. 65.

research, the training of manpower for the economy, and expansion of equal opportunity. The Federal role had become substantial.

B. Current Federal Postsecondary Programs

The Compilation of Federal Programs Financing Postsecondary Education, An Update, Fall 1974, described on page 2, lists over 400 programs. Approximately 25 separate Cabinet-level departments and agencies, from the Department of Agriculture to the Veterans' Administration, administer them. Interestingly, the Department of Health, Education, and Welfare provides less than half and the Office of Education less than a quarter of the total Federal dollars received by postsecondary institutions and students. The following table, compiled for the National Commission on the Financing of Postsecondary Education, illustrates sources, amounts, and percents of Federal postsecondary support.

Selected Postsecondary Education Outlays by Major Participating Agencies:
Fiscal year 1972

Agency	Amount (in millions)	Percent of total
Department of Health, Education, and Welfare	$4,090.4	44.3
Veterans' Administration	2,006.5	21.7
Department of Defense	1,082.6	11.7
Department of Labor	898.2	9.7
National Science Foundation	390.2	4.2
All other agencies	769.0	8.3
TOTAL	$9,236.9	100.0

NOTES: Data supplied by the individual agencies.
Percents do not add to 100.0 because of rounding.

Source: National Commission on the Financing of Postsecondary Education, Financing Postsecondary Education in the United States. (Washington, D.C.: Government Printing Office, December 1973), p. 107.

Federal program purposes and financing mechanisms vary widely. (Appendix A lists programs; appendix B (part I) outlines programs by Federal goal and method of financing.) Many programs provide categorical aid to postsecondary education institutions. Purposes vary widely and include, for example, agricultural research, innovative approaches to the education of the handicapped, and training professionals in the study and control of water pollution. Students can receive financial assistance for various reasons; e.g., if they are veterans or willing to study in a field of special interest to the Federal Government, such as mental health, law enforcement, or urban mass transportation.2/ Indians, Social Security beneficiaries, or persons related to miners with black-lung disease are eli-

2/ Over 160 of the programs provide funds for teacher training of various kinds.

gible as students for special Federal support. The Federal Government runs a number of postsecondary institutions itself, including the military service academies, the merchant marine academy, a staff college for civil defense personnel, and a junior college in Panama. Federal funds also support Haskell Junior College (for Indians), Howard University, Gallaudet College for the deaf, maritime schools in six States, and Federal City College (through the District of Columbia budget). The Federal Government even provides assistance "in kind" to postsecondary institutions, ranging from loans of machine tools and dispersal of surplus Government property to provision of films for educational purposes. In addition, many other diverse Federal programs support postsecondary education.

C. The Future of Federal Support

The vast range of Federal postsecondary programs has been called a shopping list in search of a rationale. No coherent Federal postsecondary education policy exists, just as no single Federal agency administers a majority of the programs. Surveying the array of the programs, the Newman Task Force pointed out that "a sense of legitimacy for an issue of educational policy is often created by the existence of a Federal program."3/

However, the programs themselves imply broad principles of Federal support for activities in the national interest--including equality of opportunity, economic growth, upgrading of manpower, and research of national importance.

Still, in the last few years, groups and individuals have called for a better definition of the Federal role in postsecondary education. Some argue that the array of Federal programs hides a disarray of Federal policies. The Second Newman Report states:

> ...not since sputnik has the American public engaged in a thoughtful, extensive discussion of the national interest in postsecondary education. Student unrest became an important 'political' issue in the late 1960's, as did the question of access for minority students. In the early 1970's the institutions of higher education themselves raised the issue of their state of 'financial' distress. Yet none of these issues provoked a thoughtful debate about national "educational policy. 4/

Heated debate over the merits of Federal support to postsecondary institutions versus assistance to students preceded the passage of the Educational Amendments of 1972. The Congress reached a compromise agreement which accepted that student assistance would be a major Federal mechanism for support of postsecondary education. However, during the extensive review of postsecondary education in the Congress' work on the Education Amendments of 1972, discussion

---

3/ Ibid., p. 66.
4/ Ibid., pp. xx-xxi.

centered on postsecondary programs administered by the Office of Education. The broader Federal role--including other HEW programs, and National Science Foundation, Veterans' Administration, Department of Labor, and other programs--was not debated at that time, nor has it been since.

Postsecondary education today needs a definition of Federal policy. The growth in enrollments is slowing. In some areas Federal funding for colleges and universities is declining. New types of students are demanding that "educationally relevant" postsecondary education should be available to them. Oversupplies of teachers and college faculty have forced a reassessment of postsecondary education's role as a trainer of skilled manpower. Financial distress has become a familiar complaint of postsecondary institutions.

Predictable trends include an increase in recurrent postsecondary education at all age levels and experimentation with new curriculums, new teachers, and new types of schools. Efforts must be made to promote equality of opportunity at all levels of the educational system. Debates about the age of majority indicate that student assistance programs may have to be substantially revised. Career education will be emphasized at the postsecondary level.

Future directions for the Federal role in postsecondary education are certain to be a major congressional concern during 1975-76, when much of the higher education legislation administered by the Office of Education expires. The role of the Federal Government will be examined; program impact and effectiveness will be assessed. Postsecondary education must face the realities of increasing costs, new students seeking new types of education, and answer basic questions about the validity of college degrees in the economic marketplace.

The following chapter examines five broad areas which encompass the major policy issues confronting the Federal Government now and will in the near future.

III. FEDERAL POLICY ISSUES

A. Identification of Postsecondary Policy Issues

The identification of major Federal policy issues included three major steps:

(1) identification and examination of operating Federal programs supporting postsecondary education;

(2) review of recent major policy reports, including Carnegie Commission, Newman Task Force, Committee on Economic Development, and National Commission on the Financing of Postsecondary Education reports, and other relevant publications.

(3) discussions about the identification of policy issues with knowledgeable Federal officials, congressional staff, and others.

On June 25, 1974, the College Board convened a meeting of postsecondary education experts to discuss issue identification (and related data needs) with representatives from HEW and the Congress. This meeting clarified some important issues and helped project staff identify policy issues and data needs. Conference findings were selectively combined in the compilation of a comprehensive description of the major issues facing Federal policymakers. These issues have been grouped into five broad categories pertinent to operating programs and reflecting recent reports on postsecondary education. They include:

(1) providing equal educational opportunity;

(2) meeting manpower needs;

(3) promoting recurrent education;

(4) stimulating educational diversity; and

(5) encouraging research in the national interest.

The identification of these policy categories is not new. Chancellor Ernest L. Boyer, State University of New York, recently identified three national policy concerns: (1) promotion of equality of access, (2) support of key professional

needs, and (3) stimulation of research in high priority areas.1/ The National Commission on the Financing of Postsecondary Education described eight objectives for postsecondary education, all encompassing policy issues relevant to the Federal Government: (1) student access, (2) student choice, (3) student opportunity, (4) educational diversity and flexibility, (5) institutional excellence, (6) institutional accountability, and (8) adequate financial support.2/ The Second Newman Report and the report of the Committee for Economic Development stressed similar concerns.

The following section examines each policy category individually, defining the category and its inherent issues. These categories are not mutually exclusive; policy issues overlap among several of them.

B. Description of Individual Policy Categories

1. Equal Educational Opportunity

In the 1960's equal educational opportunity became a primary goal of Federal policy. It has been defined as the right of all individuals, regardless of race, age, income, or other characteristics, to have access to the postsecondary education best suited to their own purposes, needs, abilities, and aspirations. Dr. Patricia Cross was especially perceptive. She argued that equal educational opportunity did not mean simply sending everybody off to college in the same old fashion, and stated that "Equal opportunity does not mean that all students are exposed to a standard body of information, but that each individual is helped to develop the capabilities to solve the problems that are of importance to him or her."3/

The Federal policy goal most often cited by the literature, postsecondary education experts, and Federal officials themselves is probably equal opportunity. The Committee on Student Economics asserted that its basic assumption and overriding recommendation was "that the Nation will and should accelerate its effort to expand the opportunities for postsecondary education."4/ The Carnegie Commission has made similar statements.

Equal opportunity is, of course, still an unrealized goal. As one report put it, "the poor, even those of highest ability, do not enter higher education at the same rate as the rich. Minority students continue to have far less chance of entering and remaining in college than majority students. Equal opportunity

---

1/ In D. W. Vermilye, ed., The Future in the Making. (San Francisco: Jossey-Bass, 1973), p. 39.

2/ The National Commission on the Financing of Postsecondary Education, Financing Postsecondary Education in the United States. (Washington, D.C.: Government Printing Office, 1973), p. 54.

3/ In D. W. Vermilye, ed., op. cit., p. 90.

4/ Report of the Committee on Student Economics. (New York: College Entrance Examination Board, 1972), p. 3.

still remains the great unfinished business of the seventies."5/

Equal opportunity policies encompass three areas: access (initial entry into the postsecondary system); choice (both institutional and curricular); and opportunity for individuals to continue in education until they achieve their objectives.6/

a. Equal access

Equal access means equalization of enrollment rates by race, sex, and income, and also equalization in the timing of enrollments (the problem of delayed entrance) and in enrollment status (part-time versus full-time).

The Federal Government uses student assistance programs as the principal vehicle to improve access to postsecondary education. The National Commission on the Financing of Postsecondary Education estimated that in 1972 nearly 30 percent of the total local, State, and Federal funds supporting postsecondary education were directed, mainly through student aid programs, toward the improvement of access.7/ Talent Search, Upward Bound, Basic Educational Opportunity Grants, and National Direct Student Loans are among OE programs designed to provide equality of access to postsecondary education. In addition, funds for Social Security beneficiaries and G.I. Bill veterans have the same focus. Other Federal programs are also directed toward this goal. But Census statistics show that equal access has not yet been achieved, despite these large expenditures of government funds. The table below illustrates the continuing problem of participation rates of low-income students in postsecondary education.

Primary Families With Dependent Members 18 to 24 With Incomes Under $3,000
(Constant 1972 dollars)

Year	Number of families with enrolled dependents (thousands)	Percent of families with enrolled dependents
1967	87	13.1
1968	103	15.9
1969	99	16.5
1970	91	13.9
1971	99	14.0
1972	116	14.8

Source: Bureau of the Census, "Current Population Reports," p-20, No. 260, p. 5.

5/ Toward Equal Opportunity for Higher Education. (New York: College Entrance Examination Board, 1973), p. 6.

6/ National Commission on the Financing of Postsecondary Education's Report (op. cit.): pages 55-56 discuss these areas.

7/ Ibid., p. 134.

Federal officials face a clear policy issue--how can the Federal Government provide support to postsecondary education, to students and/or institutions, to ensure that equality of access is achieved? In particular, what kinds of programs can be developed or expanded at the Federal level to accomplish this objective? What incentives must the Federal Government provide to the States to bring about equal access?

The Carnegie Commission points out that those now unable to secure postsecondary education because of work schedules, geographic location or family responsibilities also need increased access.8/ The Federal Government must provide improved access for a broader population; more adult women, senior citizens, and others will seek postsecondary education.

b. Equal Choice

The National Commission on the Financing of Postsecondary Education (NCFPE) defined this goal as follows: "Each individual should have a reasonable choice among those institutions of postsecondary education that have accepted him or her for admission."9/ Others argue strongly for a broader definition. The Panel on Financing Low-Income and Minority Students in Higher Education calls for "equity in the distribution of minority and poverty students, among differing types of higher education institutions, providing them collegiate options that meet their individual interests, needs, and abilities."10/ One NCFPE commissioner, Tim Engen, argues that "a choice of program offerings that is responsive to student needs, desires, and capabilities supercedes the importance of institutional choice."11/

Percent Distribution of Full-Time Freshmen Among Types of Institutions, Fall 1973

	2-year colleges		4-year colleges		Universities	
	Public	Private	Public	Private	Public	Private
All incomes	38	3	20	16	18	5
Less than $3,000	54	4	17	15	7	2
$3,000 to $5,999	52	3	19	15	9	2
$6,000 to $9,999	47	3	19	15	13	3
$10,000 to $14,999	42	2	20	14	17	3
$15,000 to $19,999	35	3	22	15	21	5
$20,000 to $24,999	29	2	22	16	24	6
More than $25,000	21	3	17	23	25	11

NOTE: Rows may not add to 100 because of rounding.
Source: Computed from ACE, "National Norms," Fall 1973.

8/ In Less Time, More Options. (New York: McGraw-Hill, 1971), p. 20.

9/ In Financing Postsecondary Education..., op. cit., p. 55.

10/ In Toward Equal Opportunity, op. cit., p. 8.

11/ In Financing Postsecondary Education..., op. cit., p. 378.

As the table on the preceding page indicates, institutional price is a major barrier to equal choice of institutions. Students from low- and moderate-income families tend to enroll in low-cost 2-year institutions.

The Federal Government must make complex policy decisions if it is to achieve student choice of institution. Some insist that equal opportunity cannot be achieved unless student choice is addressed at the same time as student access. Equal educational opportunity, they maintain, means more than simply assuring entrance to some postsecondary institution. Too often, disadvantaged students have to choose public 2-year institutions because of their lower costs, when their educational needs and abilities would be better served by some other type of post-secondary institution. The first issue, then, concerns what the Federal role should be.

Second, the alternative mechanisms for promoting student choice present important policy issues for the Federal Government. The operations of the Supplementary Education Opportunity Grant program support the goal of student choice to some extent. Should student aid programs be expanded to enable disadvantaged students to attend higher-priced institutions? Should institutional support programs that encourage high-priced institutions to lower their charges to certain students be developed? Should incentives be provided to States to promote the equal opportunity goal of student choice? These are among the issues facing Federal policymakers at this time.

c. Opportunity

The NCFPE has defined opportunity as making available "academic assistance and counseling that will enable each individual, according to his or her needs, capability, and motivation to achieve his or her educational objectives," noting "it is only when opportunity for achievement is assured that the objectives of access and choice have real meaning."12/

Opportunity has been more broadly defined as the right to continue through the educational levels as long as one's abilities permit. This includes retention and transfer to upper division programs and entrance into graduate and professional institutions. Behind the statistics showing increased enrollment, the Newman Task Force found a "major phenomenon, the surprisingly large and growing number of students who voluntarily drop out of college."13/ Several factors, including lack of financial assistance and dissatisfaction with courses and teachers, appear to contribute to attrition. The key factor is that many dropouts are in the groups that Federal equal opportunity programs encouraged to enter postsecondary education. Dropouts are too often--but certainly not always--disadvantaged and poor.

12/ Ibid., p. 56 and p. 154.

13/ The Second Newman Report, op. cit., p. xi.

The Panel on Financing Low-Income and Minority Students called for equalization in postsecondary student retention rates.14/ The Newman Task Force recommended the development of new educational options to motivate students to complete their education; others called for special efforts to provide continuing financial assistance to students beyond the initial year.15/ The Carnegie Commission reminded the Federal Government and the postsecondary education community that the degree to which their recommendations on equal opportunity would be successful depended, in part, "on the availability of minority teachers at all levels."16/

Numerous current Federal programs have as their goal equal opportunity to continue in postsecondary education. Office of Education student financial aid programs provide funds to students beyond the freshman year; Special Services for Disadvantaged Students program funds seek to improve supportive student services in postsecondary institutions. At the graduate and professional levels, Federal programs in various agencies provide grants to graduate students in specific fields--some are directed toward disadvantaged and minority students; others promote equal opportunity in specific fields such as health, urban studies and science.

Federal policy issues include major questions: (1) To what extent have barriers to the opportunity to continue in postsecondary education hampered Federal efforts to ensure equal educational opportunity? (2) How can the Federal Government ensure that disadvantaged students will not be forced to drop out because of lack of adequate financing? (3) What can be done about underrepresentation of minorities in professional and graduate schools? (4) What programs should be operated which assist students, through the provision of counselors, tutors, etc., to continue their postsecondary education? (5) How can institutions be encouraged to develop programs and services which will promote educational opportunity for low-income students to continue and complete their education? (6) What should the State role be in this area and what should be the relationship of the Federal Government to the States?

2. Manpower Needs

The policy category of manpower needs subdivides into two basic areas: (1) the overall supply and demand for college-trained manpower, and (2) specific manpower needs.

a. Supply and Demand

In 1970 the Bureau of Labor Statistics estimated that a high school education would be sufficient for 8 out of 10 jobs during the 1970's. Current news reports have stated that many recent college graduates have blue-collar,

---

14/ Toward Equal Opportunity, op. cit., p. 7.

15/ See Warren W. Willingham, The No. 2 Access Problem: Transfer to the Upper Division. (Washington, D.C.: ERIC Clearinghouse on Higher Education, 1972)

16/ In A Chance to Learn, op. cit., p. 18.

sales and clerical jobs in which they do not utilize their postsecondary education. As the Newman Task Force put it:

> In the aggregate, technology creates more jobs than it destroys, but the jobs created do not always require more skill than those replaced. For the last few years, this problem has been compounded by an economic recession and a slowdown in the flow of research and development funds... which have combined to lessen the demand for college-trained employees just as the supply was reaching new peaks.17/

For years the demand for college graduates has exceeded the supply; however, the new phenomenon of graduates unable to find jobs appears likely to continue for some time. It is especially ironic, the Newman Task Force noted, that the demand for college-educated manpower is declining exactly when equal opportunity initiatives have encouraged so many new students to enter postsecondary education.

The Task Force observed that "whereas the ability of college degrees to ensure entrance to the middle class is eroding as degrees proliferate, they still have a more powerful ability to certify middle-class membership for minorities than for whites."18/

The Carnegie Commission has highlighted another supply and demand policy problem for educated manpower. Their report, College Graduates and Jobs, states that Federal research programs heavily and sometimes undesirably affect the supply of college graduates. The instability of support has been the problem. As Federal R&D expenditures fluctuated (as in the space industry) so did the demand for college-trained manpower. The Carnegie Commission noted the effect of Federal R&D expenditures on the market for Ph.D.'s as well (up in the early 1960's, down in the late 1960's, and up slightly in the early 1970's). The Commission also pointed out the probable future effects on the demand for college graduates as a result of such Federal programs as the National Direct Student Loan program and others which encourage individuals to enter certain fields.19/ The fact is that often one part of the Federal Government encourages what another part would discourage. Federal programs train more individuals, Federal planners worry about oversupply. As there is no overall postsecondary education policy, these problems will continue.

The Federal Government has, however, tried to help in the manpower and supply area through the use of economic forecasting techniques. Results suggest that the economy's requirements for college-educated manpower are extremely difficult to measure, especially by individual fields of study and/or employment. The Carnegie Commission describes the problem:

17/ The Second Newman Report, op. cit., p. 21.

18/ Ibid., p. 28.

19/ See the Carnegie Commission's College Graduates and Jobs: A Report and Recommendations. (New York: McGraw-Hill, 1973), pp. 142-144, 179.

> In varying degrees, the methods used in many of the projections that have been developed by Federal Government agencies in recent years have been deficient. They have relied too heavily on past trends and have failed to take into account probable adjustments on both the demand and the supply sides of the job market. And yet, it is not at all clear that enough is known about these adjustments to permit the development of adequately sophisticated models for long-range projections.20/

Though others have criticized various aspects of Federal Government manpower forecasting efforts, attempts must be made to predict the demand for college-educated manpower.21/ Until techniques improve, Federal policymakers cannot accurately assess the probable impact of alternative manpower strategies.

b. Specific Manpower Needs

Most Federal program support in manpower development has evolved in three distinct areas.

The first involves general skill training and is principally supported by the Department of Labor under the Job Corps, the Manpower Development and Training Act programs (now part of the Comprehensive Employment and Training Act) and similar programs. The Social and Rehabilitation Service (HEW) and the Appalachian Regional Commission provide additional support of similar kinds. These Federal programs have emphasized postsecondary training as a means of enabling individuals to find permanent and productive employment.

The numerous programs for postsecondary institutions and students in teacher training constitute a second area of Federal program support. Aid is available for teachers of elementary, secondary, and postsecondary education, as well as for college and university teacher training programs.

The third area of Federal involvement includes specific categories where the Government has decided that shortages of skilled manpower exist. These shortages are widely varied, and numerous Federal agencies operate programs to offset them. For example, HEW funds training programs in many areas such as health manpower; other agencies administer training programs in air and water pollution control, occupational safety, civil defense techniques, etc. Programs support institutions in these training efforts by assisting them to build facilities or by funding instructional costs (in some programs), or by providing equipment.

Federal policy issue questions in these manpower areas include: (1) Are Federal manpower skill training programs effective in providing postsecondary training to their participants? (2) Are participants finding productive long-term employment? (3) Since many Department of Labor training programs have been

---

20/ Ibid., p. 186.

21/ See, for example, Charles V. Kidd's comments in D. W. Vermilye, ed., The Future in the Making, op. cit., pp. 43-48.

consolidated into the Comprehensive Training and Employment Act and now will be administered by State and local governments, what should be the future Federal role in manpower training?

Postsecondary institutions are offering more and more skill training and occupational education. In The Open-Door Colleges, the Carnegie Commission recommends "coordinated efforts at the Federal, State, and local levels to stimulate the expansion of occupational education in community colleges and make it responsive to changing manpower requirements."22/

The Federal Government is facing the policy issue of postsecondary career education at this time. Clear definition of what career education means at the college and university level is necessary. Four-year institutions are beginning to develop occupational education programs for their students.23/ What should the Federal role be in the development of such programs?

Many sources, including the Carnegie Commission, are predicting continuing dim employment prospects for college faculty members as well as primary and secondary school teachers. With over 160 teacher training programs in operation in fiscal year 1974, the Federal Government is playing a major role in this manpower area. Though demographic factors are the chief cause of the surplus, the Federal Government must ensure its efforts do not increase the problem of oversupply. This is especially acute for women since, according to the Carnegie Commission "about one-half of all employed female college graduates have been engaged in teaching."24/

The Carnegie Commission, however, quotes the Bureau of Labor Statistics as noting:

> Teaching opportunities for both men and women will be very favorable in urban ghettos, rural districts, and other areas offering unfavorable working and living conditions. There will also be increased demands for teachers of mentally retarded or physically handicapped children, for teachers in vocational and technical schools, and teachers in two-year colleges.25/

The Commission suggests that the issue facing the Federal Government and others is that of adapting teacher training to changing needs for education manpower.

Federal manpower programs to reduce shortages of trained personnel in particular fields are based on the premise that shortages exist and their elimination is in the national interest. Though definitions of shortage areas and of

---

22/ Carnegie Commission on Higher Education, The Open-Door Colleges: Policies for Community Colleges. (New York: McGraw-Hill, 1970), p. 21.

23/ See, for example, Lewis B. Mayhew, Higher Education for Occupations. (Atlanta, Ga.: Southern Regional Education Board, 1974)

24/ In College Graduates and Jobs. op. cit., p. 71.

25/ Ibid.

the best means of alleviating them have been the source of constant Federal policy debate, most agree that the next few years will bring a manpower shortage in the health field, especially if national health legislation becomes a reality. But training programs in this, and in other less obvious shortage areas, require constant scrutiny by Federal program administrators as well as policy de lopers. Federal agencies must examine their support for specific graduate training programs. As the Newman Task Force pointed out, "The issue in graduate education today is not growth, but reform; not the shortage of needed manpower, but the need for improved training in certain fields."26/

3. Recurrent Education

In Purposes and the Performance of Higher Education in the United States, the Carnegie Commission stated, "We believe, first, that concern should be spread from the college-attending group to the total postsecondary age group."27/ They also recommend that "opportunities be created for persons to reenter higher education throughout their active careers in regular daytime classes, nighttime classes, summer courses and special short-term programs, with degrees and certificates available as appropriate."28/ Various experts called for more opportunities to be developed by the Federal Government for adults to take classes and to obtain any needed financial support. As the Newman Task Force put it, "Under any foreseeable conditions, there will be substantial underemployment of college graduates in relation to the traditional view of 'college-type' jobs. A more rational relationship between education and careers can come about if realistic opportunities exist for students to return to formal education on a recurrent basis throughout life..."29/ In discussing the scope of recurrent education, a Kellogg Foundation study found that "terms like 'continuing education' or 'adult education' are too conventional and administrative in meaning to encompass the comprehensive responses called for in attitudes and national policy."30/ This study and others called for broad opportunities for what they termed the "learning society."

Whatever it is titled, recurrent education has tremendous implications for the process of education and for national education policy. The New York Times Guide to Continuing Education in America, compiled by the College Entrance Examination Board, contains over 700 pages of continuing education opportunities (as of 1970) offered by accredited institutions. Many more such courses--accredited or nonaccredited--are available today. An OECD Conference on Recurrent Education (held at Georgetown University in 1973) discussed possibilities for financing such broad learning opportunities, and noted that "if recurrent education is to be taken seriously as a citizenship right, like social security or pensions, then

26/ The Second Newman Report..., op. cit., p. 100.

27/ Carnegie Commission on Higher Education, The Purposes and the Performance of Higher Education in the United States. (New York: McGraw-Hill, 1973), p. 37.

28/ Carnegie Commission on Higher Education, Less Time, More Options, op. cit., p. 19.

29/ The Second Newman Report..., op. cit., p. 34.

30/ Theodore M. Hesburgh, Paul A. Miller, and Clifton R. Wharton, Jr., Patterns for Lifelong Learning. (San Francisco: Jossey-Bass, 1973), pp. 4-5.

the transformation of the established system is at issue..." The report considered other innovative options including flexibility in the traditional work-education relationship, and admitted the need for increased education budgets.31/ The Kellogg Foundation study stressed the need for efforts to develop and improve recurrent education for professionals, as well as the need for retraining programs in areas of surplus manpower.32/

The National Advisory Council on Extension and Continuing Education identified (in 1972) over 140 Federal postsecondary education programs as supporting continuing education and recurrent education.33/ The Cooperative Extension Service programs (administered by the Department of Agriculture) and the less extensive Community Service and Continuing Education program (Office of Education) can be considered major programs. Other Federal programs encourage retraining of professionals in various fields; some provide fellowships and other benefits to established college faculty.

The issue facing the Federal Government concerning recurrent education is major. If support of recurrent education for adults is adopted as a national goal, as some groups recommend, the budget implications would be substantial. Some have argued that the Federal Government should provide an "educational bank account" for individuals, to be drawn against as they pursue postsecondary education throughout their lifetime. Many have suggested that the Federal Government will have to reassess the policy under which financial aid is provided largely to students between 18 and 22 years old. As technological change calls for more retraining of individuals during their working lives, Federal policymakers must decide upon the Federal role in sponsoring such retraining activities. The problem is broad and the policy issues are complex. Lifetime education is a new challenge to Federal planners concerned with education, the economy, and the general welfare.

4. Educational Diversity

The policy issues in the area of educational diversity can be divided into two areas: (1) issues dealing with new students and new types of education at the postsecondary level; and (2) problems of stimulating institutional diversity. Both are discussed in this section.

a. New Students and New Education

As postsecondary education enrollments have expanded over the last few years, a new population has been entering, larger and much more diverse than before. These new students are more varied in age, race, and social background, in acad-

---

31/ Selma J. Mushkin, ed., Recurrent Education. (Washington, D.C.: Department of Health, Education, and Welfare, National Institute of Education, 1974), p. 319.

32/ Patterns for Lifelong Learning, op. cit., p. 27.

33/ In A Question of Stewardship, A Study of the Federal Role in Higher Continuing Education. (Washington, D.C.: 1972)

emic experience and in ability. As Dr. Patricia Cross points out, so many students from the academic upper half of their high schools now go on to some form of postsecondary education that there are not many "academically well-prepared" students left to recruit, regardless of their social background. As she puts it, "a group of young people whom we used to dismiss as 'not college material' are now walking through the open doors of colleges, and they constitute a growing proportion of the college population."34/

The Newman Task Force highlighted another group of what might be called "new" students. "While hundreds of thousands of students leave college because they find it disappointing, hundreds of thousands more enter and stay in when they might better serve their interests and aspirations elsewhere. Strong pressures in our society, some old, others recent, keep students in the academic lockstep."35/

A new, diverse clientele for postsecondary education results today when we add to these two groups those aware of the recently declining demand for college-educated manpower. Many in this third group are, therefore, seeking postsecondary career education which will lead to productive jobs.

As entering students become more diverse, many study groups and others are accusing postsecondary education institutions of a discouraging similarity. The Newman Task Force noted:

> American higher education is renowned for its diversity. Yet in fact our colleges and universities have become extraordinarily similar. Nearly all 2,500 institutions have adopted the same mode of teaching and learning. Nearly all strive to perform the same generalized educational mission. The traditional sources of differentiation between public and private, large and small, secular and sectarian, male and female, are disappearing.36/

In reflecting on the original Rivlin Report (published in 1969), Alice Rivlin said later, "We spoke of preserving diversity as though we thought we had it. But if one thinks seriously about American higher education, it seems to me, its most singular characteristic is not its diversity but its uniformity."37/ Colleges and universities assume that the traditional academic method is the only method of teaching.

Yet new postsecondary students are seeking new types of learning, much of which is not in the traditional academic model. Dr. Cross suggests that even

34/ In D. W. Vermilye, ed., The Future in the Making, op. cit., p. 89.

35/ As quoted in The Second Newman Report, op. cit., p. xi, but originally included in the Task Force's first report.

36/ Ibid., pp. xi-xii.

37/ In Financing Equal Opportunity in Higher Education. (New York: College Entrance Examination Board, 1970), p. 6.

community colleges might not be "different enough" from the more traditional higher education institutions to serve these students. She calls for the design of new and different educational experiences for different kinds of students. "I believe we should strive for maximizing our chances of educating our diverse new clientele. Postsecondary education is too big and too influential for us all to do the same thing at the same time."38/

Several groups have pointed out the many close ties between the need to improve educational diversity for new students and the goals of assuring equal access and equal educational opportunity. The Newman Task Force emphasized that "if we are serious about equal opportunity, access alone is not enough. The national concern must move beyond a focus on access to a concern with the 'effectiveness' of the education process in relation to the individual."39/ The Task Force argued that an appropriate goal of public policy "is the provision of an opportunity for more meaningful choices among many forms of postsecondary education."40/

The Committee for Economic Development brought out another argument for the support of educational diversity. "...diversity in the type and character of colleges and universities--in such matters as education purposes and goals, instruction programs, types of facilities and students, institution size and location, and types of organization and control--serves the Nation's varied manpower requirement."41/

The rapidly increasing number of proprietary schools in postsecondary education has sought to bring innovative kinds of education within reach of students. New kinds of colleges, geared toward new students, have been opened.42/ Open universities, single-purpose institutions, experimental colleges within a larger university, urban learning centers, cooperative and consortia arrangements--all seek to bring new and more relevant education to the new students.

The Carnegie Commission and the Rivlin Report call for encouragement of educational diversity as a major Federal goal for postsecondary education, as does the National Commission on the Financing of Postsecondary Education.

Federal programs seeking to provide such encouragement include demonstration programs and funds for innovative teaching developments--as sponsored by the National Science Foundation and the Fund for the Improvement of Postsecondary Education. The real policy issue facing the Federal Government, as noted in the Second Newman Report, is whether the nature and extent of diversity matches the range of student needs. They question the spectrum of available educational

---

38/ The Future in the Making, op. cit., pp. 94-95.

39/ The Second Newman Report, op. cit., p. 5.

40/ Ibid., p. 6.

41/ In The Management and Financing of Colleges. (New York: 1937), p. 17.

42/ See, for example, Lawrence Hall and Associates, New Colleges for New Students. (San Francisco: Jossey-Bass, 1974)

choices for those who "want to develop differing skills, who want to capitalize on differing abilities, or who learn in different ways."43/

b. Stimulating Institutional Diversity

The problems the Federal Government faces in this area of educational diversity focus on higher education institutions, particularly traditional ones. In the 1960's a Federal rationale for support of colleges and universities developed. As the Newman Task Force explains it, "If it was important to conduct research or to educate, then it was important that the institution be properly equipped to do the job."44/ In keeping with this rationale, such Federal programs as construction aid, support for college libraries, funds for developing institutions and for support of particular academic departments within an institution came about. Each program was intended to provide assistance to institutions which were meeting particular Federal needs.

By the late 1960's and early 1970's, a number of factors (including rising enrollment levels of incoming students needing new institutional counseling and remedial services) created new pressures on college and university budgets. Declining enrollments in some schools and increased operational costs were among other factors. Apprehension grew over the perceived problems of college financing.45/ Predictions of severe financial distress for institutions prompted the passage, in the Education Amendments of 1972, of programs to provide Federal monies to colleges and universities. To date, the Office of Education has not funded these programs. Whether or not to operate them, or to develop others with similar purposes, is an important Federal policy issue.

Just how severe the "financial distress" faced by institutions is constitutes a problem. Another is whether or not the Federal goal of stimulating educational diversity is strong enough to require a substantial Federal role in institutional financing. A third problem, discussed by the National Commission on the Financing of Postsecondary Education, the Newman Task Force and the Committee for Economic Development, is the measurement of costs at postsecondary institutions. Accurate measurement of "financial distress" should be made before the Government takes any action on this particular issue. But the development of costing methods is not easy. Chapter 8 of the National Commission's report carries a full discussion of the possibilities and problems Federal policymakers face in seeking the development of uniform procedures for reporting annual per-student costs.

The policy issues in educational diversity are, it can be seen, numerous and Federal policymakers face significant questions.

43/ Op. cit., p. 40.

44/ Ibid., p. 67.

45/ See appendix C of the final report of the National Commission on the Financing of Postsecondary Education for a summary of the numerous studies which have discussed the problems of institutional financing.

5. Research

Federal planners have not considered the category of research a major area of policy issues to the extent they have the categories of equal opportunity or educational manpower and diversity. Research should be considered a major area, for at least two reasons: first, the Federal Government, through many of its separate agencies, supports a large number of categorical research programs in a wide range of fields. (See appendix B, part I.) Substantial amounts of Federal money go to postsecondary institutions to support these research efforts. Federal policymakers should question, therefore, the use and effectiveness of these funds. Consequently, it must be asked: What is the role of postsecondary education in the Nation's research effort? What should it be in the future?

Student unrest over the college and university military research efforts has brought into question the role of postsecondary education as a major contractor for Federal research programs.

A second reason the research category contains policy issues of interest to Federal education policymakers has been stated as follows:

> A century ago, scientists were attempting to transform the old college into a true university, an institution in which faculty and students...could search for new truths instead of dwelling on what was already known. Ironically, now that the university has become such a successful research institution, faculty members are criticized for devoting too much time to research and not enough to telling undergraduates what is already known. Many students would like to turn the university back into a school.46/

The Federal policy and practice of conducting much of its research through colleges and universities began after World War II with the establishment of the National Science Foundation. Establishment of the Atomic Energy Commission and the National Aeronautics and Space Administration strengthened the policy. Though these two agencies have recently cut back their support of research, the National Science Foundation and now HEW have begun to provide steadily larger proportions of the research funds going to colleges and universities. As Wolfle points out, "It was HEW and not DOD that was in the strongest position to influence academic research in 1971."47/

At first, much of the research sponsored at postsecondary institutions was in scientific fields. But recently, with the establishment of the Environmental Protection Agency, the National Foundation for the Arts and Humanities, and the National Institutue for Education, research areas have been expanded into the humanities and the arts.

46/ Dael L. Wolfle, The Home of Science: The Role of the University. (New York: McGraw-Hill, 1972), pp. 128-129.

47/ Ibid., p. 116.

Wolfle states the current problem:

> Government agencies were expected to use universities and other nongovernmental institutions to accomplish their research objectives, and while there has been some coordination among the agencies, they have not been required to integrate their plans or to pay much attention to the permanent welfare of the universities as whole institutions.48/

Postsecondary education must now develop a better rationale for its role in the conduct of the Nation's research. Traditionally many have argued that Federal research support to colleges and universities helps to educate students, to promote and maintain faculty competence, and to preserve the role of postsecondary institutions as critics in our society. Yet, recently, some of the largest universities have been described as quasi-governmental agencies, and there have been increased demands for better institutional, fiscal, and program accountability.

Nevertheless, Federal R&D funds going to colleges and universities continue to rise. For the period 1971-1973, Federal R&D obligations to postsecondary institutions rose from $1.6 billion to $2.1 billion. The National Science Foundation noted that "HEW support of the university and college sector in 1973 is expected to cross the $1 billion line, the first time any one agency will make such a large commitment of funds to this sector."49/

The issues in this area of research support are important. What has been the impact on colleges and universities of these Federal research funds? What will be the capabilities of these institutions to carry out these needed research efforts in the future? Harold Orlans argued that student rebellions on campuses in recent years were due in part, at least, to the demands of federally-sponsored research, which, in his view, caused "the neglect by faculty of their colleagues and their institutions."50/ This problem is tied to the questions raised under the category of educational diversity about the need for more effective education for students. Because Federal research support strongly affects postsecondary education, Federal policymakers must develop a better understanding of those effects and their consequences for the future.

This chapter has identified postsecondary policy issues in the areas of equal opportunity, manpower needs, recurrent education, educational diversity, and research. It is not reasonable to assume that Federal policymakers will be able to focus on all these issues equally. Priorities must be set for future government action. However, this is a difficult task at best. Various methods

48/ Ibid., p. 128.

49/ National Science Foundation, Federal Funds for Research, Development, and Other Scientific Activities. Fiscal Years 1971, 1972 and 1973. (Washington, D.C.: Government Printing Office, 1972), p. 9.

50/ Harold Orlans, The Nonprofit Research Institute. (New York: McGraw-Hill, 1972), p. 141.

can be developed, among them indentifying relative amounts of Federal money involved in programs included under each issue area, or defining issues of more interest to one Federal agency seeking to set priorities than another.

If the level of Federal program funding is used as a criterion for setting priorities among policy issues, then it should be noted that slightly over half of all Federal funds supporting postsecondary education are directed toward equal opportunity and manpower goals. About 100 Federal programs in all the Federal agencies involved were classified in fiscal year 1972 as supporting these two goals. The bulk of the remaining programs (nearly 400 in fiscal year 1972) were directed toward the goals of educational diversity and research. Few Federal programs supported recurrent education. These groupings might be interpreted as directing Federal policymakers to concentrate on equal opportunity and manpower as first priorities, diversity and research issues next, and finally recurrent education. However, it can be argued that there are other ways of assessing priorities.

The Office of Education might survey the postsecondary education programs it administers itself and develop priorities concentrating more heavily on students and equal opportunity issues.

Federal policymakers could also look more to the future, putting aside consideration of current operations, and make the prediction that recurrent education will be a major focus of Federal postsecondary education activity in the next decade.

Whatever priorities are set by the Federal Government, coordination must exist between those responsible for data collection and those responsible for policy identification, in order that future Federal data-collection activities reflect these identified priorities.

IV. FEDERAL DATA NEEDS

This chapter describes the categories of data needed by Federal policymakers to better devise postsecondary programs and strategies for the 1970's and beyond. The data categories are not exhaustive, but they do seek to be comprehensive in responding to the questions raised by the issues in each of the five policy areas described in chapter III. It is not the purpose of this chapter to suggest new postsecondary education programs or alternative strategies for addressing the various policy issues raised in chapter III.

This study, it should be noted, involves a broad view of postsecondary institutions and students. The study surveyed Federal programs sponsored by 25 different agencies, far beyond the range of normal Office of Education operations. The Newman Task Force stressed the need for data-collection activities across this broad spectrum. Federal statistics, they argued, must include a broad range of institutions. Postsecondary education data needed today are of greater complexity than those collected in earlier years. The Federal Government should not "emphasize those things which can be counted most easily."1/ As the National Commission on the Financing of Postsecondary Education put it:

> Information bearing upon the full spectrum of postsecondary education--not just the narrow spectrum now deemed useful for program management in the Office of Education--must be collected. Data on the noncollegiate as well as the collegiate sector should be included and they should reflect the full scope of public sector involvement...the Commission recommends that comparable financial information for the entire postsecondary education enterprise be collected and reported in a timely and systematic fashion.2/

This chapter suggests data categories without regard to methods of collection; in many cases the National Center for Education Statistics would not be the collector. Indeed, some information can be better collected by the Bureau of Labor Statistics, the National Science Foundation, the Census Bureau and other agencies. (This is discussed in chapter VI). For the purposes of this chapter, needed data are noted without regard to collection methodology or responsibilities.

1/ The Second Newman Report, op. cit., p. 100.

2/ In Financing Postsecondary Education in the United States, op. cit., pp. 130, 338.

The pages that follow describe the necessary data categories under each of the five policy issue areas. Data required to respond to one set of issues may well be necessary for another category of problems, and some data overlap will occur among policy categories.

Appendix B, part II, of this report, presents the data needs outlined in this chapter. Each Federal policy issue is broken down into issue dimensions and needed-data categories in this appendix.

A. Equal Educational Opportunity

The Carnegie Commission has recommended that the Commissioner of Education designate a unit within the Office of Education "to develop standard definitions and methods of reporting to ensure the coordination, evaluation, and dissemination of available data" on equal opportunity, as "national policy for equal opportunity must be based on the most recent and significant data."3/

1. Equal Access

To determine the effect of current policies and programs on access, the Federal Government needs better information. More data are needed on the characteristics of postsecondary entering students, including such minimum variables as age, race or ethnic group, sex, some measures of personal or family income, other socioeconomic (SES) background data, and some acceptable measure of ability. These data need to be collected regularly; if not annually, then biennially.

Statistics on entering students must be collected across the broad range of postsecondary education options, including proprietary schools, public trade and technical schools, and other education options as well as from the more traditional higher education institutions.

Similar data on those who do not enter postsecondary education after high school or at any other time are needed if the problems of access are to be understood. Analysis of detailed statistics for students entering postsecondary education with identical data for nonentrants will shed much useful light on the access question.

In addition, information from students, their families and postsecondary institutions is necessary on the perceived and actual barriers to attendance for these nonentrants. These barriers include lack of finances, of motivation, and of nearby postsecondary institutions. Questions as to ability must also be considered and needed data assembled.

Data are required on the motivation and perceptions of potential students toward postsecondary education. What are their alternatives? What are the nonentrant high school leavers doing?

3/ In A Chance to Learn, op. cit., pp. 25-26.

The influence of primary and secondary schools on the propensity of students to enroll in postsecondary education has been noted. More data are needed, including institutional attitudes (as well as personal characteristics) of high school dropouts, choices of high school, influences of parents and peers, curriculum as a factor in postsecondary education attendance, and numbers and characteristics of students completing high school equivalency exams.

National data about how entering students pay for their education need to be collected regularly. Sources of support, including parents, the student himself, spouses and other outside funding sources--Federal, State, local, and private--must be collected.

Once students have entered postsecondary education, they have not necessarily achieved equal access. More data are needed (by the same personal characteristic variables) about part-time as well as full-time enrollees which describe the factors (finances, job or home requirements, and other constraints) behind their enrollment in a less than full-time schedule.

The age of entrants is an important factor in the question of access. More data are needed about the characteristics of late entrance because of lack of finances, job or home requirements, or geographical location of an available postsecondary institution.

Data are needed on the impact of Federal student financial aid funds, since the Government has such a large investment in this area. Such data could be used to assess the impact of student financial aid monies from all agencies providing such funds, not just the Office of Education, but also Veterans' Administration and Social Security benefits, Indian grants, and other sources. Does the provision of student aid break the access barrier for disadvantaged students? How does aid affect the behaviors of students, institutions, and States? What are the varying impacts of these funds by type of aid (grants, loans, and work arrangements)? What is the marginal impact of additional student aid funds in eliminating the access barrier? If Federal policymakers are to evaluate current student financial aid programs in access problems, these data are needed.

The postsecondary education community and education planners in the Department of Defense and other Federal agencies also need up-to-date data on who learns what and how while in the military service. Many servicemen take courses at civilian institutions: more data are needed about these students and their activities.

Data on student financial aid programs should be coordinated at the national level. Data on out-of-State migration of students are needed on a regular basis, perhaps every two years, so that Federal and State incentive programs and additional mechanisms can be devised to promote equal access. These are among the questions for which data are needed on postsecondary education entrants and nonentrants on a State-by-State basis. Once these are answered, potential State barriers to equal access can be identified.

Finally, what attack on barriers to equal access are institutions making? What impact have community colleges made on equality of access? Have their availability, costs, curriculums, teachers, etc. encouraged students to enter postsecondary education? What are postsecondary institutions doing about remedial education? Have counseling and tutoring facilities been established? Federal review of equal access policy issues requires data on these institutional efforts.

2. Equal Choice

Measures of equal student choice within the broad equal educational opportunity question are more complex. Federal officials need data to decide the Federal role. Information about student enrollments (including personal characteristics) at all types of postsecondary institutions must be collected. Institutional charges must be matched to the statistics describing the characteristics of student enrollees. Data concerning the distribution of low-income students at these various types of institutions must be collected. In addition, student charges for out-of-State students must be assembled, so their impact on equal opportunity can be examined.

Students participating in Federal financial aid programs need to be surveyed so the impact of financial assistance on choice of institution can be analyzed. Student financial aid packages must be examined since many low-income students receive funds from more than one Federal or State program source or from self-help. These data will assist policy analysts to measure the sources and extent of the problems of unequal student choice.

3. Opportunity

Dropout and retention rates and reasons are important data needs in the issue of equal opportunity to continue in postsecondary education. The Federal Government needs these data to estimate the success of its equal opportunity programs. Needed data include personal characteristics of dropouts, by type of institution, and level of study completed.

Data on the retention of students in postsecondary education are also necessary. The Federal Government should know who continues through so that the factors which encouraged continuation can be replicated elsewhere. Data on dropouts and on continuing students must include the part-time as well as the full-time. Data are needed on the educational, financial and motivational factors causing students to drop out if equal opportunity is to be achieved.

Data are needed about transfer students. Data on graduates of 2-year institutions and on entrance rates into upper division colleges must be collected by personal characteristics, by field of study, and by institution. Such transfer data should be collected regularly. Potential barriers to transfer must be examined, including availability of student financial aid, transfer admission requirements, and availability of transfer institutions.

In addition, data, including personal characteristics, type of studies, and type and control of institution, must be collected on graduates and others in proprietary institutions and other postsecondary education centers providing

skill training and career education. Many students in proprietary and other similar schools drop out before completing their studies because they have learned sufficient skills to find employment. Data on these dropouts must be gathered, since retention and graduation statistics from these kinds of postsecondary education institutions can be misleading.

A third major area of data needs concerns college graduates and entrants into graduate and professional schools. Graduation information about students, including age, race or ethnic group, sex, field of undergraduate study, type and control of institution from which graduated, and some measure of college achievement (such as grades, Graduate Record Exam scores, or similar information) must be gathered. Similar data must be collected about entrants into graduate and professional schools, including their eventual retention rates, dropout statistics, or final graduation by type of institution, fields of study, and degrees awarded. Minority and disadvantaged students are especially underrepresented in graduate and professional schools. If the Federal Government is to improve equal opportunity throughout postsecondary education, more detailed statistics about these students' progress at advanced educational levels are needed.

B. Manpower Needs

Data needs under this heading relate, as did the issues in chapter III, to two areas: (1) supply and demand, and (2) specific manpower needs.

1. Supply and Demand

The Carnegie Commission has recommended that "the Federal Government should give high priority to the development of more adequate, sophisticated, and coordinated programs of data gathering and analysis relating to highly educated manpower."4/

The Newman Task Force also emphasized the need for Federal efforts in this area. "The Federal Government can help by developing and disseminating more reliable data on the supply and demand for highly educated manpower."5/ As others have put it, "unless we have a system for monitoring the development of educational and career plans, we will be in a poor position to advise students or to plan the needed changes in recruitment policies or educational program development."6/

In considering the future supply of college graduates, Federal policymakers need to know more about shifts in undergraduate enrollment patterns--and their causes, including the increasingly high cost of attending college, the job market for college graduates, and the increasing tendency for students to "stop out" of

---

4/ In College Graduates and Jobs, op. cit., p. 138.

5/ In The Second Newman Report, op. cit., p. 34.

6/ John K. Folger, Helen S. Astin, and Alan E. Bayer, Human Resources and Higher Education. (New York, Russell Sage Foundation, 1970), p. 362.

college and return later.

Student perceptions of viable career options must be analyzed, students' knowledge of the realities of the world of work and necessary skills for jobs must be assessed. More data are required about career education programs now offered by postsecondary institutions. What institutions are training students for what types of skills? Data addressing these questions must be assembled so that better estimates can be made of the supply of trained manpower.

Additional data are needed on the efforts of postsecondary institutions to provide career counseling and job placement services to their students. In proprietary institutions placement services are especially important to students, so data by type of institution and by type of services offered are important here. (Students at proprietary institutions can receive Federal student aid funds; thus the Federal Government needs improved information about the annual operations of these schools.)

Data on enrollments and graduates, at undergraduate, graduate, and professional levels should be collected by age and race or ethnic group, as well as by sex and field of study, as is done now. Such information would help define the future labor force being trained by postsecondary education institutions.

Proper assessment of the overall need for manpower training at the Federal level requires that more data be collected in the following experimental areas: open-entry training systems with no prerequisites; the use and effectiveness of training modules and individualized instruction; ladder approaches and open-exit programs; and cluster training for broad occupational groupings. Data which could demonstrate the effectiveness of stipends to make full-time training possible for adults are also needed.

The Education Amendments of 1974 state that NCES shall collect data on education activities in foreign countries. The migration of American students abroad and foreign students into the United States is one aspect of this activity and represents an important manpower problem. Regular data collection on both these student populations is needed, including statistics on personal characteristics, field of study, location and type of institution, and factors contributing to migration, including lack of equivalent education facilities or courses in the home country. As American medical students denied admission to U.S. medical schools are going abroad, and as many foreign nationals come to the United States to complete their medical training, these data are important to health manpower planners.

Most of the data categories detailed above seek to describe the supply of postsecondary education manpower. Data are also necessary about the demand for educated manpower, so that students can better plan their careers and institutions can develop more relevant educational programs.

More data, including such variables as curriculum studied, ability and personal characteristics, are necessary about the employment patterns of persons from various postsecondary education levels. The Carnegie Commission recommended spe-

cifically that "Federal Government agencies should develop more adequate data on occupational and industrial employment patterns of graduates of 2-year colleges and of dropouts from institutions of higher education."7/

One factor influencing the demand for college-educated personnel is credentials. Data should be collected on the educational requirements and degrees actually necessary for employment in various jobs, ascertaining if specific degrees are really necessary for employment in certain fields. The scope of the survey should include what job skills are needed which can be taught at postsecondary institutions. These data would help planners to examine degrees and educational requirements at colleges and universities and to assess their impact on the flow of college-educated manpower.

The Carnegie Commission also recommended that Federal agencies "should undertake studies of the implications of the changing job market for holders of master's degrees and for enrollment in master's programs."8/ Such a study would require collection of data about the competition college graduates face for jobs from others in the work force, including married women entering or reentering the job market, foreign nationals in the United States, and senior citizens seeking part-time or volunteer employment.

Though manpower forecasting is a difficult process, the Federal Government needs to more accurately predict the future effects of current labor market situations on college graduates. Predictions by individual occupations over a relatively long-term period are necessary so students can acquire appropriate skills and education. Federal planners and the postsecondary education community will require timely release of such data.

2. Specific Manpower Needs

Although much of the Federal effort in manpower skill training is being transferred to State and local governments, Federal data needs remain in this area as some Federal manpower skill training programs are continuing to operate. Needed data include the effectiveness of various kinds of skill training, using such variables as length of training and its results in terms of students' experience of long-term productive employment.

The Federal Government must examine exemplary training programs and gather statistics which describe them in detail sufficient to enable similar results to be replicated elsewhere.

Much manpower training data currently collected deals with basic characteristics of student participants. More data are needed, some suggest, describing how students learn about work attitudes, human relations skills, orientation to the working world, alternative career choices and the acquisition of specific

---

7/ In College Graduates and Jobs, op. cit., p. 47.

8/ Ibid., p. 161.

job skills.9/ Such data collection should enable the Federal Government to improve its own skill training programs as well as to provide assistance to States and local governments in the operations of theirs.

The Carnegie Commission noted that "...present procedures for reporting statistics of students enrolled in occupational programs are highly unsatisfactory. Non-degree credit enrollment is not always equivalent to enrollment in an occupational program, and the regularly published statistics of the U.S. Office of Education shed no light on numbers enrolled in occupational programs in specific fields."10/ The Commission recommended that OE develop a better definition of such enrollments and expand its statistics in this area.

Additional data are needed which project the needs for the many kinds of special teachers now receiving training support from the Federal Government. The Carnegie Commission made the following recommendation:

> The U.S. Bureau of Labor Statistics and the U.S. Office of Education should develop revised estimates of the future demand for teachers that take into account, as exisiting projections do not, the growing demand for teachers in pre-elementary education and in other such settings as adult education programs. There is also a need for revised estimates of supply that take account of the declining enrollment in undergraduate education programs and of a possible future decline in enrollment in master's degree programs.11/

Statistics which demonstrate whether or not manpower shortages exist and whether teacher training programs are alleviating them should be assembled for other areas of manpower training. Substantial amounts of data exist in the health area, but not in other areas of Federal training activities.

C. Recurrent Education

As noted by the National Commission on the Financing of Postsecondary Education, the Federal Government needs statistics which will enable policymakers to estimate the demand from adults for recurrent education.12/

Data must be collected regularly concerning the participants in these courses, including their age, sex, race or ethnic group, and also such data as occupation

---

9/ See for example, Larry McClure and Carolyn Buan, eds., Essays on Career Education. (Portland, Oregon: Northwest Regional Educational Laboratory, 1973), p. 130.

10/ In The Open Door Colleges, op. cit., p. 44.

11/ In College Graduates and Jobs, op. cit., p. 80.

12/ In Financing Postsecondary Education in the United States, op. cit., p. 37.

and special status (veteran, handicapped, etc.). Data must also be assembled to identify those not participating, but who wish to participate, in some form of recurrent education. Barriers to student participation in recurrent education, such as costs, availability, and location of courses, times of course offerings, etc., must be analyzed.

The Federal Government must learn more about how adults of all ages learn. Data to be collected in this broad area include information on learning structures--whether adults learn well in unstructured environments; where recurrent education takes place across the country--at home, in classrooms, through the media, or elsewhere; when recurrent education is being provided to students--at night, part time, on weekends, through monthly seminars, or through correspondence. Data are also needed about what is being studied by adults, for what purposes (self-improvement, new learning, or upgrading of skills), as well as what methods are being used to teach recurrent education and who is teaching these courses. Regular data collection in all these areas should provide the Federal Government with better information with which to assess policy issues.

Data on charges to students for recurrent education and how students pay must be collected regularly. Statistics which describe what portion of these charges are paid by the students themselves, by employers, or by other persons or organizations are necessary for Federal planners reviewing student financial assistance programs, as well as for their consideration of alternatives.

More data are needed on the institutional support of recurrent education; for example, the efforts of community colleges to provide recurrent education. In particular, their role in providing recurrent education to students of all ages; the types of students attending recurrent education courses at community colleges (by personal characteristics, courses taken); teachers of these courses; the possibilities for expansion of recurrent education activities; and techniques these schools use to inform the public about the availability of such courses all need analysis. Data to respond to these questions should be collected. In addition, similar information about recurrent education activities at other types of postsecondary institutions should be gathered, including how courses are being structured--whether through separate colleges within universities, through separate divisions within colleges, in off-campus centers, or in some other administrative arrangement.

Data should be collected on postsecondary retraining programs for adults, ascertaining what kinds of jobs are likely to require the retraining of persons over time; what demand individuals are making for further education so that they may upgrade their skills; and when the need for such retraining is likely to occur during a person's career. Data in all these areas would provide relevant information to those planning the future Federal role in recurrent education.

Finally, the Federal Government should assemble data which describe imaginative and innovative approaches to recurrent education. Data which enumerate these approaches should be accompanied by statistics describing how they work, what their impact is on learning, motivation, and absorption of education by students. Some of these approaches are used more widely than others, such as advanced

placement, independent study and work-study programs. Other newer approaches include external degrees, credit-for-service arrangements, credit for experiential learning or for occupational experiences and on-the-job training run by postsecondary institutions. Data about these so-called "people-centered" educational offerings will provide information valuable in the analysis of the future of recurrent education.

D. Educational Diversity

The data categories of value to Federal planners in the area of educational diversity are divided into two categories, similar to those found in chapter III: (1) data needs relating to new students and new types of postsecondary education, and (2) information concerning the stimulation of institutional diversity.

1. New Students and New Education

Data needed to identify the new students in postsecondary education are similar to those suggested under the category of equal educational opportunity. Characteristics of students (including variables as noted earlier) are relevant data needs if policymakers are to define accurately the new clientele entering postsecondary education. Special areas of statistical interest in this area include ability measures of students and data which examine the motivations of students to commence and continue through postsecondary education. Additional data are needed about student expectations for careers and the impact of these expectations on their choice of field of study. Broad data should be collected about how students learn, what they learn, and where.

Further data are necessary on the student demand for innovative and nontraditional forms of education, including the characteristics of students who prefer to study in these new and innovative educational options and the fields of study and the courses they are selecting.

Information is also required from institutions about new kinds of postsecondary education now offered. As one source put it, "In spite of the great difficulties presented by this data, its paucity and questionability, the double counting (of students), and lack of comparability..., the data lead us to the conclusion that there exists a great deal of educational activity which has been excluded from the 'educational system' regularly reported by the Office of Education."13/

Data are needed about the extent and use of the new degrees (e.g., the doctor of arts) in postsecondary education, including what schools award them and who receives them. Information is needed about experiments involving shorter times for degrees (e.g., bachelor of arts degrees completed in 3 years) and other similar arrangements.

Statistics should be gathered on the numbers of postsecondary institutions by the following variables: varieties of curriculum offerings available to students,

13/ Stanley Moses, The Learning Force: A More Comprehensive Framework for Educational Policy, (Syracuse, New York: Syracuse Univeristy Occasional Papers, No. 25., 1971), p. 24.

varieties of institutional size and administration, and varieties of teaching methods--all measures of institutional diversity as noted by the National Commission on the Financing of Postsecondary Education.14/

Data are specially needed about innovative institutional methods of presenting postsecondary education to students and the application of these methods to other centers of learning. Included here is information about nontraditional ways to earn traditional degrees--Saturday classes, educational television, and courses by newspaper. Data about nontraditional learning methods used to obtain traditional degrees should be assembled, including such options as the University Without Walls, and Britain's Open University. Further information should be collected about the use of examinations, such as CLEP (College Level Examination Program) for credit or degrees, including who takes such exams and which schools accept them. Data about the use of computers, television and other advanced technologies to improve learning should be included here.

Institutional consortia arrangements have spread across the country in recent years. Federal planners examining new education administration arrangements need data about their numbers and their characteristics, including methods of operation, extent of shared facilities, faculties, students, and computers. A number of Federal programs encourage such institutional arrangements, including Developing Institutions, Ethnic Heritage Studies, and the Fund for Improvement in Postsecondary Education programs. More data about the operations of such cooperative arrangements are needed at the Federal level.

Information is needed about the success and failure rates of innovative educational institutions and programs--schools closed, innovative programs discontinued, and similar situations.

Continued and ongoing data collection is especially important in the noncollegiate sector of postsecondary education (as noted by the National Commission on the Financing of Postsecondary Education). Distributions of students, by the characteristics noted in this chapter, and changes in enrollment levels are important data needs.

A survey needs to be undertaken of the estimated 3,500 postsecondary education institutions not yet eligible for participation in Federal programs.15/ Many of these schools are licensed in the States in which they are located. While data about such schools need not be collected annually, Federal planners concerned with problems of supporting educational diversity and improving equal opportunity must know their number, their locations, the courses offered, and the numbers and basic characteristics of the students attending them.

14/ In Financing Postsecondary Education..., op. cit., p. 61.

15/ As estimated by the National Commission on the Financing of Postsecondary Education in Financing Postsecondary Education..., op. cit., p. 17.

2. Stimulating Institutional Diversity

The debate over the merits of Federal support for postsecondary institutions, particularly in the traditional higher education sphere, highlights the need for improved knowledge about institutional financing. The following paragraphs note some of these data areas.

If some institutions are experiencing "financial distress" and if Federal policymakers want to define the Federal role, then better measures of "financial distress" need to be developed and data gathered nationally. The National Commission on the Financing of Postsecondary Education suggested that data be collected on the numbers of institutional closings and mergers, by type and control of institution, and on changes in enrollment patterns.16/ Key institutional income and expenditure components which reflect change should be identified, and data about the so-called "tuition gap" (tuition revenues minus instruction costs) should be gathered. Postsecondary institutions should provide statistics which identify the frequency and size of reported operating deficits and reflect substantial changes in plant assets and institutional indebtedness in order to document "financial distress."

The National Commission on the Financing of Postsecondary Education also noted the following data need in this general area:

> Information about the nature and size of enrollment changes among different types of institutions is central to assessing their financial stability. Unfortunately, opening fall enrollments, which provide only a crude indication of what is taking place, are the only enrollment data collected by NCES that can be related to HEGIS financial data and other relevant institutional information. In order to estimate the full financial impact of enrollment changes, it is necessary to have an enrollment count that is directly related to tuition and fee income and that shows net gains or losses over the academic year.17/

The Carnegie Commission recommended "...all appropriate agencies--the U.S. Office of Education, the Southern Regional Education Board, the Western Interstate Commission for Higher Education and similar bodies--give high priority to the development of more adequate data on the behavior of costs, income, and output in higher education."18/

The Newman Task Force and others have pointed out the importance of collecting data on cost effectiveness from institutions. They define cost effectiveness as " the effects of alternative structures and environments on student learning,...

16/ In Financing Postsecondary Education..., op. cit., pp. 193-194.

17/ Ibid., p. 197.

18/ In The More Effective Use of Resources: An Imperative for Higher Education. (New York: McGraw-Hill, 1972), p. 47.

in terms of the resources utilized."19/ The National Commission on the Financing of Postsecondary Education and others have noted the need for data which could help measure the productivity of educational institutions and the quality of their outputs. Quality is admittedly difficult to measure; data on institutional salaries, institutional costs per student, and student scores on tests such as the Graduate Record Exam, etc.,provide guidance.

Finally, as noted in chapter III, the National Commission on the Financing of Postsecondary Education gave careful consideration to the need for disclosing uniform procedures for reporting per-student costs (chapter 8 of their report). Data needs in this area have been noted in the paragraphs above.

E. Research

Federal planners need data to assist them in examining the impact of Federal research funds on colleges and universities. Their findings will help define the future Federal role in this area.

Data are needed which describe how institutions conduct this research, including costs (both Federal and institutional funds), personal characteristics of those working on the research, characteristics of research facilities and their location, and the administrative structure of these research activities within colleges and universities.

The impact of Federal research funds on faculty, including the percent of faculty time spent on research versus teaching, fields of expertise, relationships of the research to subjects taught, and data on amounts of salaries paid by research funds, should be researched.

Data on the impact of Federal research funds on students describe imagiportant, and should include the numbers and personal characteristics of students participating in research projects at colleges and universities. The number of students receiving financial support from research monies should be ascertained together with the personal characteristics and fields and levels of study of these recipients. How students learn through their participation in such projects and what they learn require analysis. Data collection designs should reflect that student support is really manpower development and equal opportunity assistance.

Various research support mechanisms utilized by the Federal Government must be examined in order to define their different impacts on colleges and universities. Such mechanisms include: (1) grants to individuals or small groups for specific research projects; (2) grants to institutions for the benefit of the school; and (3) university development grants involving substantial funding over several years. More information is needed on the costs of Federal research to postsecondary institutions, such as contributed equipment, faculty time, etc., as well as the income received by institutions, such as fees, overhead, etc.

19/ In The Second Newman Report, op. cit., p. 107.

The flow of Federal research funds has shifted by field of inquiry and has fallen and risen over time. Data are needed at the Federal level about the impact of such funding fluctuations on institutions, by type, control, and field of study. For example, have faculty been hired, students enrolled in graduate work, space rented, only to find that the research support continues for merely a short period and the institution must bear the cost if it wishes to continue the activity? One data recommendation in this area has been that the Federal Government "publish annually a five-year projection of scientific and technological trends, probable national needs for scientific resources, and expected levels of Federal support in various areas..."20/

Finally, the Federal Government needs data which describe how colleges and universities are responding to multidisciplinary research needs, in particular on the kinds of innovative organizational and functional arrangements being tried to meet the new demands of federally-sponsored multidisciplinary research.

Data to respond to all these questions about the nature and impact of Federal research on colleges and universities will assist Federal policymakers to analyze the future capabilities of these institutions to meet the needs described above.

The next chapter briefly compares these broad categories of data needs with current NCES data-collection activities.

20/ Wolfle, The Home of Science, op. cit., p. 159.

V. A BRIEF COMPARISON OF NCES CURRENT POSTSECONDARY DATA COLLECTION WITH DATA NEEDS

A brief review of NCES current data-collection efforts has been made and these activities compared with the broad data-collection needs described in chapter IV.

The outline that follows arranges currently available NCES data-collection instruments and reports by the policy and data need categories identified in chapters III and IV. Each data-collection instrument or report is organized under the categories for which it provides relevant information. Some instruments--forms or reports--provide data useful to the study of more than one category; such reports are repeated wherever necessary in the outline.

The authors were unable to obtain copies of collection instruments for several NCES studies underway but at present not completed. Appendix C of this report includes a complete list of the NCES documents and reports reviewed for this study, and notes at least two which could not be obtained from NCES for use in this review.

I. EQUAL OPPORTUNITY

A. Access

1. National Longitudinal Study of the High School Class of 1972
2. Higher Education: Fall Enrollment in Higher Education, 1971
3. Opening Fall Enrollment in Higher Education, Part A--Summary Data, 1968
4. Opening Fall Enrollment in Higher Education, 1974
5. Postsecondary School Enrollment Survey, 1974
6. Postsecondary Career School Survey, 1973
7. Students Enrolled for Advanced Degrees, Fall 1974
8. Vocational Education: Directory of Postsecondary Schools with Occupational Programs
9. Vocational Education: Inventory of Vocational Education Statistics Available in Federal Agencies
10. Higher Education: Institutions of Higher Education, Index by State and Congressional District, June 1973
11. Higher Education and Basic Student Charges, 1968-69

B. Choice

1. Postsecondary Career School Survey, 1973
2. Survey of Programs and Enrollments, 1973
3. Opening Fall Enrollment in Higher Education, 1974
4. Opening Fall Enrollment in Higher Education, Part A--Summary Data, 1968
5. National Longitudinal Study of the High School Class of 1972
6. Higher Education: Residence and Migration of College Students, Fall 1968
7. Higher Education: Institutions of Higher Education--Index by State and Congressional District, June 1973
8. Vocational Education: Directory of Postsecondary Schools with Occupational Programs (Public and Private), 1971
9. Higher Education Basic Student Charges, 1968-69
10. Vocational Education: Inventory of Vocational Education Statistics Available in Federal Agencies
11. National Longitudinal Survey of the High School Class of 1972

C. Opportunity

1. Opening Fall Enrollment in Higher Education, 1974
2. Opening Fall Enrollment in Higher Education, Part A--Summary Data, 1968
3. Junior-Year Science, Mathematics, and Foreign Language Students, First-Term,1962-63
4. National Longitudinal Survey of the High School Class of 1972
5. Survey of Programs and Enrollments: Postsecondary Schools, 1973
6. Vocational Education: Inventory of Vocational Education Statistics Available in Federal Agencies

(Selected Items From Other Surveys and Reports)

1. Employees in Institutions of Higher Education, 1972-73
2. Degrees and Other Formal Awards Conferred Between July 1, 1973 and June 30, 1974
3. Salaries and Tenure of Full-Time Instructional Faculty, 1974-75

II. MANPOWER

A. Supply and Demand

1. Higher Education: Teaching and Research Staff by Academic Field in Institutions of Higher Education, Fall 1968
2. Students Enrolled for Advanced Degrees, Fall 1974
3. Degrees and Other Formal Awards Conferred Between July 1, 1973 and June 30, 1974
4. Numbers and Characteristics of Employees in Institutions of Higher Education, Fall 1967
5. Junior-Year Science, Mathematics, and Foreign Language Students, First-Term 1962-63

6. Employees in Institutions of Higher Education, 1972-73

B. Specific Manpower Needs

1. Postsecondary Career School Survey, 1973
2. Directory of Postsecondary Schools with Occupational Programs, 1971
3. Vocational Education: Inventory of Vocational Educational Statistics Available in Federal Agencies
4. Survey of Programs and Enrollments in Postsecondary Schools, 1973
5. Projections of Educational Statistics for 1981-88 (1972 Edition)
6. Salaries and Tenure of Full-Time Instructional Faculty, 1974-75
7. 1973-74 Education Directory

(Selected Items From Other Surveys and Reports)

1. Survey of High School Seniors and Recent Graduates, 1974
2. Survey from National Longitudinal Study of the High School Class of 1972

III. RECURRENT LEARNING

A. Continuing, Extension, Adult, Self-Improvement, and Lifelong Learning Programs

1. Continuing Education: Noncredit Activities in Institutions of Higher Education, 1967-68, Professional and Technical Refresher Courses
2. Continuing Education: Noncredit Activities in Institutions of Higher Education: Registrations, 1967-68
3. Fall Enrollment in Higher Education, 1971

IV. DIVERSITY

A. Stimulating Institutional Diversity

1. Continuing Education: Noncredit Activities in Institutions of Higher Education, 1967-68, Professional and Technical Refresher Courses
2. Higher Education: A Taxonomy of Instructional Programs in Higher Education (1970)
3. Survey of Programs and Enrollments in Postsecondary Schools, 1973
4. Postsecondary Career School Survey, 1973
5. Higher Education: Residence and Migration of College Students, 1968
6. Higher Education: Institutions of Higher Education--Index by State and Congressional District, June 1973
7. Financial Statistics of Institutions of Higher Education for Fiscal Year Ending 1974
8. Financial Statistics of Institutions of Higher Education: Federal Funds, 1965-66 and 1966-67
9. 1973-74 Education Directory

B. New Students, New Education

1. Continuing Education: Noncredit Activities in Institutions of Higher Education--Registrations, 1967-68
2. Higher Education: A Taxonomy of Instructional Programs in Higher Education (1970)
3. Vocational Education: Inventory of Vocational Education Statistics Available in Federal Agencies
4. Degrees and Other Formal Awards Conferred Between July 1, 1973 and June 30, 1974
5. Students Enrolled for Advanced Degrees, Fall 1974
6. Opening Fall Enrollment in Higher Education, 1974
7. Survey of Programs and Enrollments in Postsecondary Schools, 1973
8. Postsecondary Career School Survey, 1973

(Selected Items From Other Surveys and Reports)

1. Higher Education: Inventory of Physical Facilities in Institutions of Higher Education, Fall 1969
2. Higher Education Basic Student Charges, 1968-69
3. Higher Education: Earned Degrees Conferred, 1969-70, Summary Data
4. Higher Education: Fall Enrollment in Higher Education, 1971
5. Higher Education: Number and Characteristics of Employees in Institutions of Higher Education, Fall 1967
6. Higher Education: Teaching and Research Staff by Academic Field in Institutions of Higher Education, Fall 1968
7. Salaries and Tenure of Full-Time Instructional Faculty, 1974-75
8. Employees in Institutions of Higher Education, 1972-73

V. RESEARCH

A. Support for Research in the National Interest

1. Higher Education: Number and Characteristics of Employees in Institutions of Higher Education, Fall 1967
2. Higher Education: Teaching and Research Staff by Academic Field in Institutions of Higher Education, Fall 1968
3. Financial Statistics of Institutions of Higher Education for Fiscal Year 1974
4. Higher Education: Inventory of Physical Facilities in Institutions of Higher Education, Fall 1967

The compilers of this report matched, on an item-by-item basis, the kinds of data collected currently by NCES with the data needs described in chapter IV and outlined in appendix B, part II.

At least three major areas of identified data needs were not part of current NCES data-collection activities. These were:

1. regular data collection about those who do not enter postsecondary education;

2. regular data collection about participants in postsecondary education which identifies their age, race or ethnic group, and other personal characteristics of these enrollees; and

3. regular data collection which includes the broad range of postsecondary institutions and also includes data about innovative or experimental efforts at colleges and universities.

The following paragraphs describe each of these three areas in more detail.

As was noted in chapter IV, data defining the characteristics and circumstances of those who do not enter postsecondary education are especially important to the Federal Government. The Federal goal of equal opportunity requires that statistics be available concerning those who face barriers in access to postsecondary education, in choice of institution, and in opportunity to continue through postsecondary education with any necessary assistance which might be required. Such data are not necessary each year, but should be collected regularly, thus permitting Federal planners to assess the progress of their efforts toward equal opportunity.

Regular data collection about postsecondary education participants must include more personal characteristic variables than simply sex. If the policy issues noted in the discussion of equal opportunity and recurrent education are to be resolved, then the Federal Government must have statistics about participants (and, as noted above, nonparticipants), which, at the same time, identify age, race or ethnic group, and financial data. Many Federal programs, for instance, seek especially to aid disadvantaged students; recurrent education is very important to adults. Therefore assessment of the progress of Federal efforts in these areas requires personal characteristic data about enrollees at all levels, in all fields, and in all types of postsecondary institutions.

Finally, both the range of postsecondary institutions and their diverse efforts to provide both traditional and new forms of education to their students must be surveyed regularly. Using the FICE definition of a postsecondary institution, NCES should make regular (if not annual) data-collection efforts in all types of institutions this definition encompasses, especially proprietary institutions and other schools in the noncollegiate area. Policy issues dealing with the diversity of postsecondary institutions, as well as with the equal opportunity of students attending them, cannot be resolved without regular statistical efforts in this area. Data on new approaches to postsecondary education (new types of institutions, new teaching and learning techniques) are also needed. The Federal Government needs relevant statistics in order to analyze the future of postsecondary education and the possibilities for replicating successful new approaches at other postsecondary institutions.

Other data needs are noted throughout chapter IV and therefore are not repeated here.

In reviewing NCES' current data-collection efforts, many items noted in the various categories of necessary data actually were found to have been collected by NCES at one time or another. For example, the National Longitudinal Study of

the High School Class of 1972 asked many questions relevant to the data needs identified in this study. Most of the needed data should, however, be collected regularly, annually or biennially, as well as through the useful methodology of a longitudinal study. Data about student migration, last collected by NCES in 1968, should be updated every 2 or 3 years at most. Surveys of non-collegiate institutions and their students should be regular, ongoing, and continuous projects.

In other words, the problem is one of timing and frequency of data-collection. Costs are understandably high, and in some cases NCES may well have to use samples rather than uinverse surveys.

It was not the task of this survey to analyze costs, benefits, or NCES manpower requirements of more frequent data collection; NCES will undoubtedly perform such analyses itself. But if NCES is to respond fully to the requirements and challenges posed by the Education Amendments of 1974, it must consider increasing the scope of its data-collection efforts.

In response to these challenges, chapter VI offers suggestions for a new NCES role in postsecondary data collection at the Federal level.

VI. A SUGGESTED ROLE FOR NCES IN POSTSECONDARY EDUCATION

The data needs noted in chapter IV are far-ranging. They reflect the broad dispersal of Federal programs supporting postsecondary education and the important policy issues underlying them. The identified data needs call for varied collection methodologies, including surveys, samples, and case studies.

It is evident that NCES' available funds and capabilties for postsecondary data collection will not suffice to meet the data needs identified here. NCES should not, however, ignore any of the identified needs or set priorities for data collection which might delay information needed to resolve major Federal policy issues. Rather, NCES could consider its role in a very different way. The Center does not have to be the major collector of all the necessary postsecondary education data; instead it might consider itself the chief coordinator of all such data. This role would confer substantial advantages on NCES.

For example, some of the data identified as needed in chapter IV can be collected more efficiently by agencies other than NCES. Manpower forecasting data could continue to be assembled by the Department of Labor and the Census Bureau; health manpower statistics relevant to postsecondary education could continue to be collected by the HEW Health Resources Administration; data on Federal research funds going to colleges and universities could continue to be collected by the National Science Foundation. NCES need not collect all necessary data itself; most sources mentioned have data tapes NCES could copy. Though data definitions might not be exactly alike in these various collection instruments, interested researchers can link many of these data sources. The Center should utilize other data sources wherever it can, coordinate statistics wherever possible, and collect data itself only when no other data sources exist and where NCES itself would be the most efficient data collector.

This concept of an NCES data coordination role is broad and argues that NCES should be a National Center. The Education Amendments of 1974 required NCES to expand its operations and its influence on postsecondary education data collection at the Federal level, in coordination with the States and with the postsecondary education community of associations, institutions, and individual researchers. This expanded role is explained in detail below. The chart at the end of the chapter presents the new role in relation to other agencies and organizations involved in postsecondary data collection.

Within the Office of Education and the National Institute for Education are numerous sources of important postsecondary education data which should be tapped by NCES. For example, NCES should annually collect copies of data tapes describing participants in Office of Education student financial aid programs. These

data are broken down by State, by institution and by congressional district. Similar copies should be made of fiscal year data tapes of other postsecondary education programs. NCES would hold such tape copies and make them available to other Federal policymakers and researchers. In addition, NCES should collect copies of data tapes from all relevant planning and evaluation studies conducted within the Office of Education and the National Institute of Education as data from these tapes would assist Federal postsecondary education planners. Finally, NCES should collect on tape the legislative authorization for every program, operating and nonoperating, within OE and NIE, holding it available to the Congress, which is especially interested in such information.

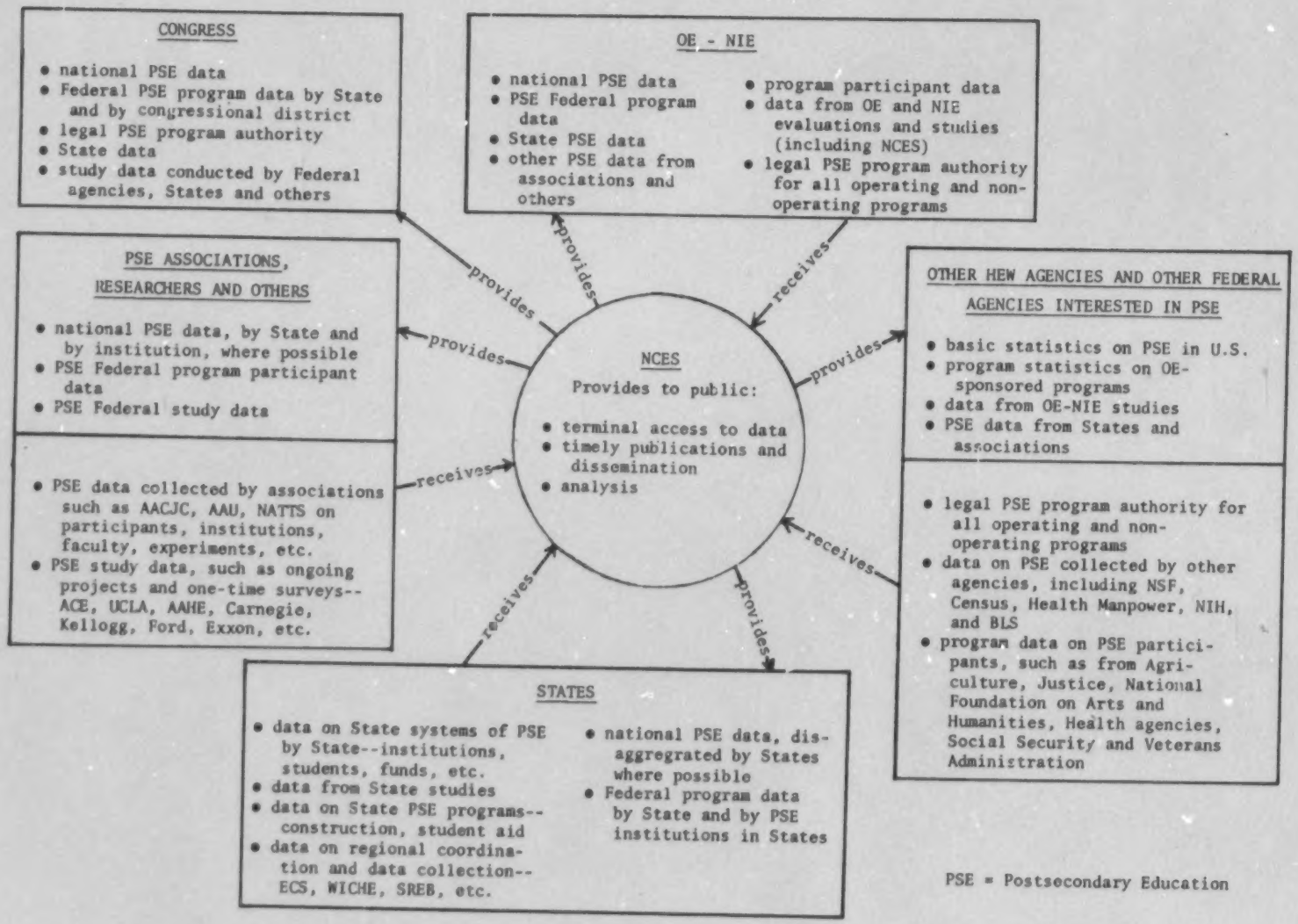
Thus NCES would receive data from all relevant OE and NIE operating programs, and also from all relevant OE and NIE evaluations and other statistical studies. Such data would be broken down (as far as possible) by region, State, institution and participant. Having received all of these data, NCES would be much better placed to provide data to those needing such information within OE, in other Federal agencies, in the Congress, and in the postsecondary education community. After reviewing all received data, NCES could incisively justify additional data collection needed to respond to important postsecondary education policy issues. Costs would be lowered through the elimination of any unnecessary data collection.

NCES should not only receive and provide OE-NIE postsecondary program data, but should require the equivalent from other HEW components and the 24 other Federal agencies supporting postsecondary education. No other government agency, it should be noted, has a National Center for Education Statistics. This does not suggest that NCES collect all data normally collected by these other agencies. Instead, it suggests a role for NCES similar to that it plays within OE and NIE. NCES would receive from the other agencies: (1) copies of data on postsecondary education activities and of studies assembled by these agencies (including the National Science Foundation, the Veterans' Administration, the National Institutes of Health, the Social Security Admininstration, and the Bureau of Health Resources Development); (2) copies of program participant data tapes from these agencies operating such programs; and (3) legislative references for these programs, operating and nonoperating. NCES would then add all these Federal postsecondary data to its data bank and make them available to interested Federal policymakers and other planners.

NCES would operate in a similar fashion vis-a-vis States and postsecondary education associations, researchers, and others. NCES would receive copies of data tapes about the postsecondary activities of these groups and add them to the NCES data bank. NCES would then be in a position to provide to States and others information about postsecondary activities at Federal, State, and local levels. NCES would also collect copies of data from study commissions and other researchers, as was done to create the data base of the National Commission on the Financing of Postsecondary Education.

Preservation of data confidentiality is assumed in all these NCES activities. NCES would provide the public access to its data bank (in keeping with the requirements of confidentiality) through computer terminals, additional copies of data tapes, and timely publications.

Through the coordination of all this information NCES would accumulate a broad data base on postsecondary education activities, making it truly a National Center and enabling it to assess the "conditions" of education, as required in the Education Amendments of 1974.



PSE = Postsecondary Education

APPENDIXES AND BIBLIOGRAPHY

APPENDIX A

LISTING OF FEDERAL POSTSECONDARY EDUCATION PROGRAMS

FEDERAL POSTSECONDARY EDUCATION PROGRAMS

PROGRAM	OMB CATALOG NUMBER
DEPARTMENT OF AGRICULTURE	
Agricultural Research Service	
Basic and Applied Research	10.001
Cooperative State Research Service	
Grants for Scientific Research	10.200
Cooperative Forestry Research	10.202
Payments to Agricultural Experiment Stations	10.203
Rural Development Research	10.204
Extension Service	
Cooperative Extension Service	10.500
Forest Service	
Forestry Cooperative Research	10.651
Forestry Research	10.652
DEPARTMENT OF COMMERCE	
Economic Development Administration	
Economic Development--Grants and Loans for Public Works and Development Facilities	11.300
Economic Development University--Centers Program	------
Maritime Administration	
U.S. Merchant Marine Academy	11.507
State Marine Schools	11.506
National Oceanic and Atmospheric Administration	
Sea Grant Support	11.417
DEPARTMENT OF DEFENSE	
Defense Civil Preparedness Agency	
Civil Defense Education	12.323
Civil Defense Staff College	------
Civil Defense Staff College--Student Expense Program	12.314
Civil Defense University Extension	12.320

Defense Supply Agency

Machine Tool Loan to Educational Institutions	12.001

Office of the Secretary

Off-Duty Education	------
Overseas Dependents Education	------
Professional Education	------
Research and Development	------
Reserve Officers Training Corps (ROTC)	------
Service Academies	------

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Administration on Aging

Aging--Special Programs for the Aging	13.756

Alcohol, Drug Abuse, and Mental Health Administration

Alcohol Research Development Awards	13.271
Alcohol Research Programs	13.273
Alcohol Training Programs	13.274
Drug Abuse Development Awards	13.277
Drug Abuse Research Manpower Fellowship Program	13.278
Drug Abuse Research Programs	13.279
Drug Abuse Training Programs	13.280
Mental Health Fellowships	13.241
Mental Health Research Development Awards	13.281
Mental Health Research Grants	13.242
Mental Health Training Programs	13.244

Center for Disease Control

Disease Control Laboratory Improvement	13.201
Disease Control Research Grants	13.202
Disease Control--Smoking and Health	13.250
Disease Control--Training Public Health Workers	13.203
Disease Control--Venereal Disease	13.205
Occupational Health Demonstration Grants	13.265
Occupational Research Grants	13.262
Occupational Health Training Grants	13.263

Food and Drug Administration

Food Research Training Grants	13.104
Food Research Grants	13.103
Radiological Health Research Grants	13.105
Radiological Health Training Grants	13.106

Health Resources Administration

Associated Health Educational Assistance--Special Programs	------
Associated Health Professions--Special Improvement Grants	13.377
Associated Health Professions--Special Projects Grants and Contracts	13.305

Associated Health Professions--Traineeship Grants	13.303
Comprehensive Health Planning--Training, Studies, and Demonstrations	13.208
Auxiliary Utilization Training Grants	13.319
Dental Health Continuing Education Training Grants	13.320
Family Medicine--Training Grants	13.379
Graduate Training in Public Health--Project Grants	13.338
Health Manpower Education Initiative Awards	13.380
Health Professions Capitation Grants	13.339
Health Professions--Financial Distress Grants	13.381
Health Professions--Scholarships	13.341
Health Professions--Special Projects	13.383
Health Professions--Start-Up Assistance and Conversion Grants	13.384
Health Professions--Student Loans	13.342
Health Professions Teaching Facilities--Construction Grants	13.340
Health Professions Teaching Facilities--Loan Guarantees and Interest Subsidies	13.378
Health Professions Teaching Personnel--Training, Traineeships, and Fellowships	13.385
Health Services Research and Development--Fellowships and Training	13.225
Health Services Research and Development--Grants and Contracts	13.226
Nurse Scientist Graduate Training Grants	13.362
Nurse Training Improvement--Special Projects	13.359
Nursing Capitation Grants	13.386
Nursing Professions--Talent Utilization	13.387
Nursing Research Project Grants and Contracts	13.361
Nursing Scholarships	13.363
Nursing School Construction	13.369
Nursing Schools--Financial Distress Grants	13.388
Nursing Student Loans	13.364
Professional Nurse--Traineeships	13.358
Professional Public Health Personnel--Traineeships	13.366
Regional Medical Programs (RMP's)	------
Schools of Public Health--Grants	13.370
Special Predoctoral and Postdoctoral Fellowships in Nursing Research	13.360

Health Services Administration

Crippled Children's Services	13.211
Dental Health of Children	13.212
Emergency Health--Community Preparedness	13.214
Emergency Medical Services Systems Research	13.285
Family Planning Projects	13.217
Family Planning Research--Service Delivery Improvement	------
Family Planning Services--Training Grants and Contracts	13.260
Health Care of Children and Youth	13.218
Intensive Infant Care Projects	13.230
Maternal and Child Health Research	13.231
Maternal and Child Health Services	13.232

Maternal and Child Health Training	13.233
Maternal and Infant Care Projects	13.234

National Institutes of Health

Allergy and Infectious Diseases	13.855 through 13.858
Arthritis, Metabolism and Digestive Diseases	13.846 through 13.849
Cancer	13.393 through 13.396, 13.399
Cancer--Construction	13.392
Cancer--Research Centers	13.397
Cancer Research Manpower	13.398
Child Health and Human Development	13.864 through 13.866
Dental Research	13.840 through 13.845
Environmental Health Sciences	13.872 through 13.876
Eye Research	13.867 through 13.871
General Medical Sciences	13.858 through 13.863
Heart and Lung Research	13.837 through 13.839
Biomedical Communications Research Contracts	13.836
Biomedical Scientific Publications Grants	13.349
Medical Library Assistance--Library Research Grants	13.348
Medical Library Assistance--Research Grants	13.351
Medical Library Assistance--Special Scientific Project Grants	13.352
Medical Library Assistance--Training Grants	13.353
Neurological Diseases and Stroke	13.851 through 13.854
Animal Resources	13.306
Animal Resources--Fellowships	13.367
Animal Resources--Training	13.368
Biotechnology Resources	13.371
General Clinical Research Centers	13.333
General Research Support Grants	13.337
Minority Schools Biomedical Support	13.375

Office of the Assistant Secretary for Education

Fund for the Improvement of Postsecondary Education	13.538

Office of Education

Educationally Deprived Children--Handicapped	13.427
Handicapped Early Childhood Assistance	13.444
Handicapped Innovative Programs--Deaf-Blind Centers	13.445
Handicapped Media Services and Captioned Films	13.446
Handicapped Physical Education and Recreation Training	13.448
Handicapped Regional Resource Centers	13.450
Handicapped--Research and Demonstration	13.443
Handicapped Teacher Education	13.451
Special Programs for Children with Specific Learning Disabilities	13.520
Educational Personnel Development--Educational Leadership	13.514
Educational Personnel Development--Media Specialists	13.508
Educational Personnel Development--Pupil Personnel Specialists	13.509

Educational Personnel Development--Urban/Rural School Development	13.505
Educational Personnel Training--Special Education	13.417
Educational Staff Training--School Personnel Utilization	13.425
Teacher Corps--Operations and Training	13.489
Teacher Training in Developing Institutions	13.507
Training of Teacher Trainers	13.490
Vocational Education Personnel Development Awards	13.503
Vocational Education Personnel Development--Professional Personnel Development for States	13.504
Emergency School Aid Act	13.525 through 13.530, 13.352
Basic Educational Opportunity Grant Program	13.539
College Personnel Development--Allen J. Ellender Fellowships	------
College Personnel Development, Fellowships--Fellowships for the Disadvantaged	------
College Teacher Graduate Fellowships	13.407
Cuban Education--Student Loans	13.409
Supplemental Educational Opportunity Grants (SEOG)	13.418
Higher Education Facilities Construction	13.458, 13.459
Higher Education Academic Facilities Construction--Interest Subsidization	13.457
Higher Education Academic Facilities--State Administration	13.455
Higher Education Act Insured Loans	13.460
Higher Education--Cooperative Education	13.510
Higher Education--Cost for Veterans' Instruction	13.540
Higher Education--Land-Grant Colleges and Universities	13.453
Higher Education Development--Institutes and Short-Term Training	13.461
Higher Education Personnel Fellowships	13.462
Strengthening Developing Institutions	13.454
Higher Education Work-Study	13.463
National Direct Student Loan Program	13.469 through 13.471
Postsecondary Education Statewide Comprehensive Planning Grants Program	13.550
Special Services for Disadvantaged Students in Institutions of Higher Education	13.482
State Student Incentive Grants	------
Talent Search	13.488
University Community Service--Grants to States	13.491
Upward Bound	13.492
College Library Resources	13.406
Higher Education Instructional Equipment	13.518
Library Training Grants	13.468
Research and Development--Library Research Demonstration	13.475
Adult Education--Special Projects	13.401
Adult Education--Teacher Education	13.402
Vocational Education--Basic Grants to States	13.493
Vocational Education--Consumer and Homemaking	13.494
Vocational Education--Cooperative Education	13.495
Vocational Education--Curriculum Development	13.496
Vocation Education--Innovation	13.502

Vocational Education--Research	13.498
Vocational Education--Special Needs	13.499
Vocational Education--Work Study	13.501
Bilingual Education Training	------
Educationally Deprived Children--Local Education Agencies	13.428
Educationally Deprived Children--Migrants	13.429
Educationally Deprived Children in State-Administered Institutions Serving Neglected or Delinquent Children	13.431
Follow Through	13.433
Preschool, Elementary, and Secondary Education--Special Programs and Projects	13.516
Ethnic Heritage Studies Program	------
Foreign Language and Area Studies--Fellowships, Centers, Research	13.434 through 13.436
Fulbright-Hays Training Grants--Faculty Research, Foreign Curriculum Consultants, Group Projects, Doctoral Dissertation Research Abroad	13.438 through 13.441
Teacher Exchange	13.437
Educational Broadcasting Facilities	13.413
Educational Personnel Training Grants--Career Opportunities (COP)	13.421
Civil Rights Technical Assistance and Training	13.405
Drug Abuse Prevention	13.420
Environmental Education	13.522
Right to Read	13.533

National Institute of Education

Educational Research and Development	13.575

Office of the Secretary

Special Schools	------
Child Development--Child Welfare Research and Demonstration Grants	13.608
Surplus Property Utilization	13.606
Physical Fitness Clinics	13.617

Social and Rehabilitation Service

Social and Rehabilitation Service Research	13.757
Developmental Disabilities--Demonstration Facilities and Training	13.760
Comprehensive Social and Rehabilitation Training	13.758
Developmental Disabilities--Special Projects	13.759
Rehabilitation Services and Facilities--Basic Support	13.746
Rehabilitation Services and Facilities--Special Projects	13.763
Vocational Rehabilitation Services for Social Security Disability Recipients	13.747
Youth Development and Delinquency Prevention	13.610

Social Security Administration

Social Security--Disability Insurance	13.802
Social Security--Retirement Insurance	13.803
Social Security--Survivors Insurance	13.805

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Community Development	
Model Cities Supplemental Grants	14.300
Community Planning and Management	
Community Development Training Grants	14.202
Urban Studies Fellowships	14.217
Office of Policy Development and Research	
General Research and Technology Activity	14.506

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs	
Indian Community Development	15.104
Haskell Junior College	------
Indian Employment Assistance	15.108
Indian Law Enforcement Services	15.131
Indian Agricultural Extension	15.101
Indian Loans	15.124
Indian Education--Adults	15.100
Indian Education--Colleges and Universities	15.114
Bureau of Mines	
Mine Health and Safety Education and Training	15.352
Mine Health and Safety Research--Grants and Contracts	15.306
Mineral Resources and Environmental Development	15.303
National Park Service	
Archeological Investigations and Salvage	15.908
Historic American Buildings Survey	15.903
Office of Water Resources Research	
Additional Water Resources Research	15.950
Water Resources Research--Assistance to States for Institutes	15.951
Water Resources Research--Matching Grants to State Institutes	15.952

DEPARTMENT OF JUSTICE

Bureau of Narcotics and Dangerous Drugs	
Law Enforcement Assistance--Narcotics and Dangerous Drugs Training	16.004
Federal Bureau of Investigation	
Law Enforcement Assistance--FBI Advanced Police Training	16.300
Law Enforcement Assistance--FBI Field Police Training	16.302
Law Enforcement Assistance Administration	
Law Enforcement Assistance--Educational Development	16.511
Law Enforcement Assistance--Internships	16.512

Law Enforcement Assistance--Training	16.513
Law Enforcement Education Program--Student Financial Aid	16.504
Law Enforcement Research and Development--Graduate Research Fellowships	16.505
Law Enforcement Reserach and Development--Project Grants	16.507
Organized Crime Prosecutorial Training	16.514

DEPARTMENT OF LABOR

Employment Standards Administration

Coal Mine Workers' Compensation	17.307 (& 13.806)

Manpower Administration

Concentrated Employment Program	17.204
Job Corps	17.211
Manpower Research and Development Program	17.233
Manpower Research--Doctoral Dissertation Grants	17.218
Manpower Research--Institutional Grants	17.219
Manpower Research Project Grants (Small Grants)	17.221
Public Employment Program (PEP)	17.229
Work Incentive Program (WIN)--Training and Allowances	17.226
Manpower Development and Training--Institutional Training	17.215

Occupational Safety and Health Administration

Occupational Safety and Health	17.500

DEPARTMENT OF STATE

Agency for International Development (AID)

Institutional Grants Program (211d)	19.006
Central Research	19.007

Bureau of Educational and Cultural Affairs

Educational Exchange--Graduate Students	19.101
Educational Exchange--University Lecturers and Research Scholars	19.102

DEPARTMENT OF TRANSPORTATION

Office of University Research

Program of University Research	20.750

U.S. Coast Guard

Coast Guard Academy	------

Federal Aviation Administration

Airport Development Aid Program	20.102
Aviation Education	20.100

Federal Railroad Administration

High-Speed Ground Transportation Research and Development	20.300
Railroad Research	20.302

Urban Mass Transportation Administration

Urban Mass Transportation Grants for University Research and Training	20.502
Urban Mass Transportation Managerial Training Grants	20.503

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Tax Information and Education	21.003

A C T I O N

Peace Corps

Peace Corps Intern Program and Recruitment Program	------
University Year for ACTION	72.004

APPALACHIAN REGIONAL COMMISSION

Appalachian Regional Commission

Appalachian State Research, Technical Assistance, and Demonstration Projects	23.011
Appalachian Vocational Education Facilities and Operations	23.012
Appalachian Vocational and Technical Education Demonstration Grants	23.016

ATOMIC ENERGY COMMISSION

Atomic Energy Commission

Nuclear Science and Technology--Faculty and Student Participation	24.004
Nuclear Science and Technology--Faculty Training Institutes and Workshops	24.007 & 24.008
Nuclear Science and Technology--Research and Development	24.024
Nuclear Science and Technology--Research Reactor and Materials Assistance	24.011
Nuclear Science and Technology--Traineeship Program in Nuclear Engineering, Radiation Protection, and Environmental Sciences	24.020

U.S. CIVIL SERVICE COMMISSION

Civil Service Retirement Fund	------
Intergovernmental Personnel Grants	27.012

DISTRICT OF COLUMBIA

District of Columbia Government: Board of Higher Education

Federal Government Support for District of Columbia Post-secondary Schools (Federal City College, D.C. Teachers College, and Washington Technical Institute)	------

ENVIRONMENTAL PROTECTION AGENCY

Offices of Air, Radiation, Research, Solid Waste, and Water Programs

Research and Development Contracts to Educational Institutions	------
Air Pollution Fellowships	66.002
Air Pollution Manpower Training Grants	66.003
Radiation Training Grants	66.201
Air Pollution Control Research Grants	66.501
Environmental Protection--Comprehensive Research Grants	66.500
Minority Institutional Research Support	------
Pesticides Research Grants	66.502
Radiation Research Grants	66.503
Solid Waste Research Grants	66.504
Water Pollution Control--Research, Development, and Demonstration	66.505
Solid Waste Training Grants	66.303
Water Pollution Control--Direct Training (WQO Short Courses)	66.417
Water Pollution Control--Research Fellowships	66.406
Water Pollution Control Training Grants	66.421

EXECUTIVE OFFICE OF THE PRESIDENT

Special Action Office for Drug Abuse Prevention

Drug Abuse Prevention--Pharmacological Research	73.001

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Research and Development in Space Sciences Technology	------

NATIONAL FOUNDATION ON THE ARTS AND HUMANITIES

National Endowment for the Arts--Promotion of the Arts	45.001 through 45.012
National Endowment for the Arts--Promotion of the Humanities	45.102 through 45.113, 45.115, 45.116

NATIONAL GALLERY OF ART

National Gallery of Art Extension Service	68.001

NATIONAL SCIENCE FOUNDATION (NSF)

Biological Sciences Research Project Support	47.002
Computer Innovation in Education	47.045

Computing Activities	47.003
Engineering Research Initiation Grants and Research Project Support	47.006 & 47.007
Environmental Sciences Research Project Support	47.008
Experimental Research and Development Incentives Programs	47.042
Fellowships and Traineeships Program	47.009
Institutional Grants for Research Management Improvement	47.044
Institutional Grants for Science	47.012
Instructional Improvement Implementation--Pre-College	47.019
Instructional Improvement Implementation--Higher Education	47.032
Science Education Materials and Instruction Development--Pre-College	47.020
Science Education Materials and Instruction Development--Higher Education	47.033
Intergovernmental Science Programs	47.036
International Cooperative Scientific Activities	47.014
International Decade of Ocean Exploration	47.037
International Travel Program	47.015
Materials Research Project Support	47.040
Mathematical and Physical Sciences Research Project Support	47.016
National and Special Research Programs	47.017
National Research and Development Assessment Program	47.043
National Research Centers	------
Oceanographic Facilities and Support	------
Polar Research Programs	47.001
Public Understanding of Science Program	47.038
Research Applied to National Needs (RANN)	47.041
Science Education--Problem Assessment and Experimental Projects	47.046
Science Information Activities	47.024 & 47.025
Scientific Activities (Special Foreign Currency Program)	47.039
Social Sciences Research Project Support	47.029
Undergraduate Student Development	47.034

RAILROAD RETIREMENT BOARD

Social Insurance for Railroad Workers	57.001

THE SMITHSONIAN INSTITUTION

Academic Appointments	60.002
Chesapeake Bay Center for Environmental Studies	60.004
Smithsonian Special Foreign Currency Grants for Museum Programs and Related Research	60.016
Visiting Research Appointments	60.019
Woodrow Wilson International Center for Scholars--Fellowships and Guest Scholar Programs	60.020

VETERANS' ADMINISTRATION (VA)

Department of Medicine and Surgery

Biomedical Research--Career Development Programs	------

Biomedical Research--Contracts to Universities	64.001
Education and Training of Health Service Personnel	64.003
Exchange of Medical Information	64.004
Prosthetics Research	64.006

Department of Veterans Benefits

Pension and Compensation to Veterans' Widows and Children	64.102 & 64.105
Veterans Educational Assistance	64.111
Vocational Rehabilitation for Disabled Veterans	64.116
Dependents Educational Assistance	64.117

APPENDIX B

OUTLINES OF FEDERAL POSTSECONDARY PROGRAMS, POLICY ISSUES, AND DATA NEEDS

INTRODUCTION

Part I of this appendix lists, in outline form, over 400 Federal programs that supported postsecondary education in fiscal year 1974. Each program is classified under one or more of five Federal goals for support of postsecondary education: (1) equal opportunity at all educational levels; (2) development of manpower; (3) recurrent education; (4) encouragement of institutional and student diversity; and (5) support for research. Some programs meet more than one goal and are therefore listed more than once.

Within each Federal goal, the listing of Federal programs has been further subdivided by program funding mechanism and administering agency. Many programs have more than one funding mechanism and therefore appear under several such mechanisms. For example, a program which provides both financial aid to students and a cost of education allowance to institutions would appear under the heading of "institutional support" as well as "student assistance."

This listing makes no judgments about the achievement of the goals under which the programs are listed; it merely shows the intended or apparent purpose.

Numbers following program names refer to their classification in recent editions of the Office of Management and Budget's Catalog of Federal Domestic Assistance. Unnumbered programs, to the best of our knowledge, have not appeared in the Catalog.

Readers wishing to know more about these programs are referred to the Catalog and to Pamela Christoffel, A Compilation of Federal Programs Financing Postsecondary Education, Washington, D.C.: National Commission on the Financing of Postsecondary Education, 1974.

Part II of this appendix outlines postsecondary policy issues and needed data categories.

PART I

FEDERAL GOAL: EQUAL OPPORTUNITY

I. INSTITUTIONAL SUPPORT

A. General Institutional Support

Department of Defense

Service Academies (------)

Department of Health, Education, and Welfare

Health Professions Capitation Grants (13.339)
Special Schools (------)

Department of the Interior

Haskell Junior College (------)

District of Columbia Government

Federal Support for D.C. Postsecondary Education (------)

B. Categorical Aid

Department of Health, Education, and Welfare

Associated Health Professions--Special Improvement Grants (13.377)
Family Medicine--Training Grants (13.379)
Health Manpower Education Initiative Awards (13.380)
Nursing Capitation Grants (13.386)
Nursing Professions Talent Utilization (13.387)
Schools of Public Health Grants (13.370)
Allergy and Infectious Diseases (Traineeships) (13.855-13.858)
Arthritis, Metabolism and Digestive Diseases (Traineeships) (13.846-13.849)
Cancer Research Manpower (Traineeships) (13.398)
Child Health and Human Development (Traineeships) (13.864-13.866)
Dental Research (Traineeships) (13.840-13.845)
Environmental Health Sciences (Traineeships) (13.872-13.876)
Eye Research (Traineeships) (13.867-13.871)
General Medical Sciences (Traineeships) (13.858-13.863)
Heart and Lung Research (Traineeships) (13.837-13.839)
Medical Library Training Grants (13.353)
Neurological Diseases and Stroke (Traineeships) (13.851-13.854)
Animal Resources Training Grants (13.368)
Minority Schools Biomedical Support (13.375)

Alcohol Research Development Awards (13.271)
Drug Abuse Research Development Awards (13.277)
Mental Health Research Development Awards (13.281)
EPDA Educational Leadership (13.514)
Teacher Corps (13.489)
Teacher Training in Developing Institutions (13.507)
Vocational Personnel Awards (13.503)
College Teacher Fellowships (13.407)
Educational Opportunity Centers (13.543)
Cooperative Education (13.510)
Cost for Veterans Instruction (13.540)
NDSL Loans to Institutions (13.469)
Special Services for Disadvantaged Students (13.482)
Talent Search (13.488)
Upward Bound (13.492)
Library Training Grants (L3.468)
EPDA Career Opportunities (13.421)

ACTION

University Year for ACTION (72.204)

C. Construction Aid

Department of Health, Education, and Welfare

Health Professions Construction Grants (13.340)
Health Professions Loan Guarantees (13.378)
Nursing School Construction (13.369)
Academic Facilities Construction (13.458-13.459)
Academic Facilities Interest Subsidy (13.457)

II. STUDENT ASSISTANCE

A. Grants and Scholarships

1. Direct to Students

Department of Defense

Off-Duty Education (------)
Overseas Dependents Education (------)
Professional Education (------)
ROTC (------)
Service Academies (------)

Department of Health, Education, and Welfare

Special Fellowships in Nursing Research (13.360)
Basic Educational Opportunity Grants (13.539)
Social Security Disability Insurance (13.802)
Social Security Retirement Insurance (13.803)
Social Security Survivors Insurance (13.805)

Department of Housing and Urban Development

Urban Studies Fellowship (14.217)

Department of the Interior

Indian Higher Education Grants (15.114)

Department of Labor

Coal Mine Workers Compensation (17.307 & 13.806)

Department of State

Educational Exchange--Graduate Students (19.101)

Civil Service Commission

Civil Service Retirement Fund (------)

National Science Foundation

Graduate Fellowships (47.009)

Railroad Retirement Board

Social Insurance for Railroad Workers (57.001)

Smithsonian Institution

Academic Appointments (60.002)
Visiting Research Appointments (60.019)

Veterans' Administration

Pension and Compensation to Widows and Children (64.102 & 64.105)
Veterans Educational Assistance (64.111)
Dependents Educational Assistance (64.117)

2. Through Institutions

Department of Health, Education, and Welfare

Mental Health Fellowships (13.241)
Mental Health Research Development Awards (13.281)
Associated Health Professions--Grants for Advanced Training (13.303)
Family Medicine Training Grants (13.379)
Health Manpower Education Initiative Awards (13.380)
Health Professions Scholarships (13.341)
Health Professions Teacher Training (13.385)
Nurse Scientist Graduate Training Grants (13.362)
Nursing Scholarships (13.363)
Professional Public Health Personnel Traineeships (13.366)
Allergy and Infectious Diseases (Fellowships and Traineeships) (13.855-13.858)
Arthritis, Metabolism and Digestive Diseases (Fellowships and Traineeships) (13.846-13.849)
Cancer Research Manpower (Fellowships and Traineeships) (13.398)

Child Health and Human Development (Fellowships and Traineeships) (13.864-13.867)
Eye Research (Fellowships and Traineeships) (13.867-13.871)
General Medical Sciences (Fellowships and Traineeships) (13.858-13.863)
Heart and Lung Research (Fellowships and Traineeships) (13.837-13.839)
Neurological Diseases and Stroke (Fellowships and Traineeships) (13.851-13.854)
Animal Resources Fellowships (13.367)
Animal Resources Training Grants (13.368)
Alcohol Research Development Awards (13.271)
Drug Abuse Research Development Awards (13.277)
Drug Abuse Research Manpower Fellowships (13.278)
EPDA Educational Leadership (13.514)
Vocational Personnel Awards (13.503)
Ellender Fellowships (------)
CLEO Fellowships for the Disadvantaged (------)
College Teacher Fellowships (13.407)
Supplementary Educational Opportunity Grants (13.418)
EPDA Higher Education Fellowships (13.462)
Foreign Language and Area Studies Fellowships (13.434)
Fulbright-Hays Doctoral Research Abroad (13.441)
EPDA Career Opportunities (13.421)

Department of Justice

Law Enforcement R&D Fellowships (16.505)

Department of Labor

Manpower Research--Doctoral Research (17.218)

Atomic Energy Commission

Nuclear Science and Technology Graduate Training (24.020)

Environmental Protection Agency

Air Pollution Fellowships (66.002)

B. Loans

Department of Health, Education, and Welfare

Health Professions Student Loans (13.342)
Nursing Student Loans (13.364)
Cuban Student Loans (13.409)
Insured Loans (13.460)
NDSL Student Loans and Cancellations (13.470-13.471)

Department of the Interior

Indian Loans (15.124)

C. Work

Department of Health, Education, and Welfare

College Work-Study (13.463)

III. SUPPORT TO STATES, LOCAL GOVERNMENT AND OTHERS

Department of Health, Education, and Welfare

State Student Incentive Grants (------)
Vocational Education Basic Grants to States (13.493)
Vocational Education Consumer and Homemaking (13.494)
Vocational Education Special Needs (13.499)
Vocational Education Cooperative Education (13.495)
Vocational Education Work-Study (13.501)
Bilingual Education Training (------)

Department of Housing and Urban Development

Model Cities Grants (14.300)

Department of the Interior

Indian Employment Assistance (15.108)

Department of Labor

Concentrated Employment Program (17.204)
Job Corps (17.211)
Work Incentive Program (17.226)
MDTA Institutional Training (17.215)

FEDERAL GOAL: MANPOWER

I. INSTITUTIONAL SUPPORT

A. General Institutional Support

Department of Commerce

U.S. Merchant Marine Academy (11.507)
State Marine Schools (11.506)

Department of Defense

Civil Defense Staff College (------)
Service Academies (------)

Department of Health, Education, and Welfare

Health Professions Capitation Grants (13.339)
Nursing Capitation Grants (13.386)

Department of Transportation

U.S. Coast Guard Academy (------)

B. Categorical Aid

Department of Health, Education, and Welfare

Alcohol Training Program (13.274)
Drug Abuse Training Programs (13.280)
Occupational Safety and Health Training Grants (13.263)
Food Research Training Grants (13.104)
Radiological Health Training Grants (13.106)
Associated Health Special Programs (------)
Associated Health Professions--Special Improvement Grants (13.377)
Associated Health Professions--Special Project Grants (13.305)
Comprehensive Health Training (13.208)
Training in Expanded Auxiliary Management (13.319)
Dental Health Continuing Education Training (13.320)
Family Medicine Training Grants (13.379)
Graduate Training in Public Health (13.338)
Health Professions Special Projects (13.383)
Health Professions Start-Up and Conversion Grants (13.384)
Health Services R&D Fellowships and Training (13.225)
Nurse Training Improvement (13.359)
Regional Nurse Programs (------)
Schools of Public Health Grants (13.370)
Crippled Children's Services (13.211)
Dental Health of Children (13.212)
Family Planning Training (13.260)
Health Care of Children and Youth (13.218)
Intensive Infant Care Projects (13.230)
Maternal and Child Health Services (13.232)
Maternal and Child Health Training (13.233)
Maternal and Infant Care Projects (13.234)
Allergy and Infectious Diseases (Traineeships) (13.855-13.858)
Arthritis, Metabolism and Digestive Diseases (Traineeships) (13.846-13.849)
Cancer Research Manpower (Traineeships) (13.398)
Child Health and Human Development (Traineeships) (13.864-13.866)
Dental Research (Traineeships) (13.840-13.845)
Environment Health Sciences (Traineeships) (13.872-13.876)
Eye Research (Traineeships) (13.867-13.871)
General Medical Sciences (Traineeships) (13.858-13.863)
Heart and Lung Research (Traineeships) (13.837-13.839)
Medical Library Training Grants (13.353)
Neurological Diseases and Stroke (Traineeships) (13.851-13.854)
Animal Resources Training Grants (13.368)
Minority Schools Biomedical Support (13.375)
Handicapped Deaf-Blind Centers (13.445)
Handicapped Physical Education Training (13.448)
Handicapped Regional Resource Centers (13.450)
Handicapped Teacher Education (13.451)
Special Programs--Learning Disabilities (13.520)
EPDA Educational Leadership (13.514)

Media Specialists (13.508)
Pupil Personnel Specialists (13.509)
Urban/Rural School Development (13.505)
EPDA Special Education (13.417)
EPDA Staff Training (13.425)
Teacher Corps (13.489)
Teacher Training in Developing Institutions (13.507)
Training Teacher Trainers (13.490)
Vocational Personnel Awards (13.532, 13.525-13.530)
College Teacher Fellowships (13.407)
Library Training Grants (13.468)
Adult Teacher Education (13.402)
EPDA Career Opportunities (13.421)
Environmental Education (13.522)
UAF Demonstration Facilities and Training (13.760)
Comprehensive Social and Rehabilitation Training (13.758)
Rehabilitation Services and Facilities--Special Projects (13.746)

Department of Justice

Organized Crime Prosecutorial Training (16.512)

Department of Labor

Manpower R&D Program (17.233)
Manpower R&D Institutional Grants (17.219)
Manpower R&D Project Grants (17.221)

Department of Transportation

Aviation Education (20.100)

ACTION

Peace Corps Intern Program and Recruitment Program (------)
University Year for ACTION (72.204)

Environmental Protection Agency

Air Pollution Training Grants (66.003)
Water Pollution Control Training Grants (66.421)
Solid Waste Training Grants (66.303)

National Science Foundation

Instructional Improvement (47.019 & 47.032)

C. Construction Aid

Department of Commerce

Economic Development (11.300)

Department of Health, Education, and Welfare

Health Professions Construction Grants (13.340)
Health Professions Loan Guarantees (13.378)
Nursing School Construction (13.369)

D. Other Assistance

Department of Commerce

University Center Program (------)

Department of Defense

Machine Tool Loans (12.001)

Department of Health, Education, and Welfare

Handicapped Media Services (13.446)

II. STUDENT ASSISTANCE

A. Grants and Scholarships and Training

1. Direct to Students

Department of Defense

Civil Defense Staff College Student Expense (12.314)

Department of Health, Education, and Welfare

Special Fellowships in Nursing Research (13.360)
Vocational Rehabilitation for Social Security Disability Beneficiaries (13.747)

Department of Justice

Law Enforcement Assistance--Narcotics and Drug Training (16.004)
Law Enforcement Assistance--FBI Advanced Police Training (16.300)
Law Enforcement Assistance--FBI Field Police Training (16.302)

Department of the Treasury

Tax Information and Education (21.003)

Environmental Protection Agency

Water Pollution Control--Direct Training (66.417)
Water Pollution Control--Research Fellowships (66.406)

National Science Foundation

Graduate Fellowship Programs (47.009)

Veterans' Administration

Education and Training of Health Service Personnel (64.003)
Vocational Rehabilitation for Disabled Veterans (64.116)

2. Through Institutions

Department of Defense

U.S. Merchant Marine Academy (11.507)
State Marine Schools (11.506)

Department of Defense

ROTC (------)
Service Academies (------)

Department of Health, Education, and Welfare

Mental Health Fellowships (13.241)
Mental Health Training Grants (13.244)
Occupational Safety and Health Training Grants (13.263)
Food Research Training Grants (13.104)
Radiological Health Training Grants (13.106)
Associated Health Professions--Traineeship Grants (13.303)
Associated Health--Special Programs (------)
Family Medicine Training Grants (13.379)
Health Professions Scholarships (13.341)
Health Professions Teacher Training (13.385)
Health Services R&D Fellowships and Training (13.225)
Nurse Scientist Graduate Training Grants (13.262)
Nursing Scholarships (13.363)
Professional Nurse Traineeships (13.358)
Professional Public Health Personnel Traineeships (13.366)
Allergy and Infectious Diseases (Fellowships and Traineeships) (13.855-13.858)
Arthritis, Metabolism and Digestive Diseases (Fellowships and Traineeships) (13.846-13.849)
Cancer Research Manpower (Fellowships and Traineeships) (13.398)
Child Health and Human Development (Fellowships and Traineeships) (13.864-13.866)
Dental Research (Fellowships and Traineeships) (13.840-13.845)
Environmental Health Sciences (Fellowships and Traineeships) (13.872-13.876)
Eye Research (Fellowships and Traineeships) (13.867-13.871)
General Medical Sciences (Fellowships and Traineeships) (13.858-13.863)
Heart and Lung Research (Fellowships and Traineeships) (13.873-13.839)
Medical Library Training Grants (13.353)
Neurological Diseases and Stroke (Fellowships and Traineeships) (13.851-13.854)
Animal Resources Fellowships (13.367)
Animal Resources Training Grants (13.368)
Alcohol Training Programs (13.274)
Drug Abuse Training Programs (13.280)
Handicapped Physical Education Training (13.448)
Handicapped Teacher Education (13.451)
EPDA Educational Leadership (13.514)
Media Specialists (13.509)
Pupil Personnel Specialists (13.509)
EPDA Special Education (13.417)
EPDA Staff Training (13.425)
Training of Teacher Trainers (13.490)

Vocational Personnel Awards (13.503)
College Teacher Fellowships (13.407)
EPDA Higher Education Fellowships (13.462)
EPDA Career Opportunities (13.421)
Comprehensive Social and Rehabilitation Training (13.758)
Rehabilitation Services and Facilities Special Projects (13.763)

Department of the Interior

Mine Health and Safety Education and Training (15.305)
Mineral Resources and Environmental Development (15.303)

Department of Justice

Law Enforcement Assistance--Internships (16.512)
Law Enforcement Assistance Training (16.513)
Law Enforcement Education Program--Student Aid (16.504)
Law Enforcement R&D Fellowships (16.505)

Department of Labor

Manpower Research--Doctoral Research (17.218)

ACTION

Peace Corps Intern Program and Recruitment Program (------)

Atomic Energy Commission

Nuclear Science and Technology Graduate Training (24.020)

Environmental Protection Agency

Air Pollution Fellowships (66.002)
Air Pollution Manpower Training Grants (66.003)
Radiation Training Grants (66.201)

National Science Foundation

Instructional Improvement (47.019 & 47.032)

B. Loans

Department of Health, Education, and Welfare

Health Professions Student Loans (13.342)
Nursing Student Loans (13.364)

III. SUPPORT TO STATES, LOCAL GOVERNMENTS AND OTHERS

Department of Defense

Civil Defense Education (12.323)

Department of Health, Education, and Welfare

Emergency Health Community Preparedness (13.214)
Special Programs for the Aging (13.756)
Training Public Health Workers (13.203)
Educationally Deprived Children, Handicapped (13.427)
Handicapped Early Childhood Assistance (13.444)

EPDA--Professional Personnel for States (13.504)
Vocational Education Basic Grants to States (13.493)
Vocational Education Consumer and Homemaking (13.494)
Vocational Education Cooperative Education (13.495)
Vocational Education Curriculum Development (13.496)
Vocational Education Special Needs (13.499)
Vocational Education Work-Study (13.501)
Bilingual Education Training (------)
Educationally Deprived Children LEA's (13.428)
Educationally Deprived Children, Migrants (13.429)
Educationally Deprived Children in State Institutions (13.431)
Follow Through (13.433)
Civil Rights Technical Assistance and Training (13.405)
Rehabilitation Services and Facilities--Basic Support (13.746)

Department of Housing and Urban Development

Community Development Training Grants (14.202)

Department of the Interior

Indian Community Development (15.104)
Indian Employment Assistance (15.108)
Indian Law Enforcement Services (15.131)

Department of Labor

Concentrated Employment Program (17.204)
Job Corps (17.211)
Public Employment Program (17.229)
Work Incentive Program (17.226)
MDTA Institutional Training (17.215)
Occupational Safety and Health (17.500)

Department of Transportation

Urban Mass Transportation Training (20.503)

Appalachian Regional Commission

Vocational and Technical Demonstration Grants (23.016)
Vocational Education Facilities (23.012)

Civil Service Commission

Interpersonnel Grants (27.012)

FEDERAL GOAL: RECURRENT EDUCATION

I. INSTITUTIONAL SUPPORT

A. General Institutional Support

Department of Defense

Civil Defense Staff College (------)

Department of Health, Education, and Welfare

Special Schools (------)

District of Columbia Government

Federal Support for D.C. Postsecondary Education (------)

B. Categorical Aid

Department of Agriculture

Cooperative Extension Service (10.500)

Department of Defense

Civil Defense University Extension (12.320)

Department of Health, Education, and Welfare

Alcohol Training Programs (13.274)
Drug Abuse Training Programs (13.280)
Mental Health Training (13.244)
Occupational Safety and Health Training Grants (13.263)
Associated Health Professions Special Improvement Grants (13.377)
Comprehensive Health Training (13.208)
Dental Health Continuing Education Training (13.320)
Graduate Training in Public Health (13.338)
Health Services R&D--Fellowships and Training (13.225)
Nurse Training Improvement (13.359)
Nursing Professions Talent Utilization (13.387)
Family Planning Services Training (13.260)
Handicapped Regional Resource Centers (13.450)
Handicapped Teacher Education (13.451)
Special Programs--Learning Disabilities (13.520)
EPDA Educational Leadership (13.514)
Media Specialists (13.508)
Pupil Personnel Specialists (13.509)
Urban/Rural School Development (13.505)
EPDA Special Education (13.417)
EPDA Staff Training (13.425)
Teacher Corps (13.489)
Teacher Training in Developing Institutions (13.507)
Training of Teacher Trainers (13.490)
Vocational Personnel Awards (13.503)
Right to Read (13.533)
Comprehensive Social and Rehabilitation Training (13.758)

Department of the Interior

Indian Agricultural Extension (15.101)

Department of Justice

Law Enforcement Assistance--Educational Development (16.511)

National Science Foundation

Science Education Materials and Methods (47.020-47.033)

C. Construction Aid

No programs found

D. Other

Department of Health, Education, and Welfare

Physical Fitness Clinics (13.617)

National Gallery of Art

Extension Service (68.001)

II. STUDENT ASSISTANCE

A. Grants and Scholarships

1. Direct to Students

Department of Defense

Civil Defense Staff College Student Expense (12.314)
Professional Education (------)

Department of the Interior

Indian Adult Education (15.100)

Department of State

Educational Exchange--University Lecturers (19.102)

Environmental Protection Agency

Water Pollution Control--Direct Training (66.417)

Smithsonian Institution

Academic Appointments (60.002)
Visiting Research Appointments (60.019)
Woodrow Wilson Fellows (60.020)

Veterans' Administration

Career Development (------)

2. Through Institutions

Department of Health, Education, and Welfare

Mental Health Training (13.244)
Occupational Safety and Health Training Grants (13.263)
Associated Health Professions--Traineeship Grants (13.303)
Health Services R&D--Fellowships and Training (13.225)
Professional Nurse Traineeships (13.358)
Professional Public Health Personnel Traineeships (13.366)

Alcohol Training Programs (13.244)
Handicapped Teacher Education (13.451)
EPDA Educational Leadership (13.514)
Media Specialists (13.508)
Pupil Personnel Specialists (13.509)
EPDA Special Education (13.417)
EPDA Staff Training (13.425)
Training of Teacher Trainers (13.490)
Vocational Personnel Awards (13.503)
Foreign Language and Area Fellowships (13.434)
Fulbright-Hays Faculty Research Abroad (13.438)
Comprehensive Social and Rehabilitation Training (13.758)

Department of Justice

Law Enforcement Assistance--Internships (16.513)
Law Enforcement Education--Student Aid (16.504)

Atomic Energy Commission

Faculty and Student Research Participation (24.004)
Nuclear Training--Faculty Training (24.007-24.008)

III. SUPPORT TO STATES, LOCAL GOVERNMENTS AND OTHERS

Department of Defense

Civil Defense Education (12.323)

Department of Health, Education, and Welfare

Disease Control--Laboratory Improvement (13.201)
Emergency Health--Community Preparedness (13.214)
Special Programs for the Aging (13.756)
University Community Service (13.491)
Vocational Education Basic Grants to States (13.493)
Vocational Education Consumer and Homemaking (13.494)
Bilingual Education Training (------)

Department of Housing and Urban Development

Model Cities Grants (14.300)
Community Development Training Grants (14.202)

Department of the Interior

Indian Employment Assistance (15.108)

FEDERAL GOAL: DIVERSITY

I. INSTITUTIONAL SUPPORT

A. General Institutional Support

Department of Health, Education, and Welfare

Health Professions Capitation Grants (13.339)
Nursing Capitation Grants (13.386)

Land Grant Colleges (13.453)
Developing Institutions (13.454)
Special Schools (------)

Department of the Interior

Haskell Junior College (------)

B. Categorical Aid

Department of Agriculture

Cooperation Extension Service (10.500)

Department of Health, Education, and Welfare

Associated Health Professionals Special Improvement Grants (13.377)
Associated Health Professionals Special Project Grants (13.305)
Comprehensive Health Demonstrations (13.208)
Training in Expanded Auxiliary Management (13.319)
Graduate Training--Public Health (13.338)
Health Professions Financial Distress Grants (13.381)
Health Professions Special Projects (13.383)
Health Professions Start-Up and Conversion Grants (13.384)
Health Services R&D, Fellowships and Training (13.225)
Health Services R&D, Grants and Contracts (13.226)
Nurse Training Improvement (13.359)
Nursing Research Project Grants (13.361)
Nursing Schools Financial Distress Grants (13.388)
Regional Medical Programs (------)
Family Planning Research--Services Delivery Improvement (------)
Emergency Medical Services Research (13.285)
Biomedical Scientific Publication Grants (13.349)
Medical Library Resource Grants (13.348)
Medical Library Research Grants (13.351)
Biotechnology Resources (13.371)
Minority Schools Biomedical Support (13.375)
Postsecondary Education Improvement Fund (13.538)
Handicapped Research and Demonstration (13.443)
Teacher Training in Developing Institutions (13.507)
Educational Opportunity Centers (13.418)
Cooperative Education (13.510)
Special Services for Disadvantaged Students (13.482)
Talent Search (13.488)
College Library Resources (13.406)
Higher Education Instruction Equipment (13.518)
Library Research and Demonstration (13.475)
Adult Education Special Projects (13.401)
Vocational Education--Research (13.498)
Fulbright-Hays Group Projects Abroad (13.440)
Educational Broadcasting Facilities (13.413)
Drug Abuse Prevention (13.420)
Environmental Education (13.522)
UAF Demonstration Facilities and Training (13.760)
Developmental Disabilities Special Projects (13.759)

Department of Housing and Urban Development

General Research (14.506)

Department of Labor

Manpower R&D Program (17.233)

Department of State

Central Research (19.007)

Department of Transportation

Airport Development Aid (20.102)

Environmental Protection Agency

Water Pollution Control--R&D (66.405)
Minority Institutions Research Support (------)

National Foundation on the Arts and Humanities

Promotion of the Arts (45.001-45.012)
Promotion of the Humanities (45.102-45.013, 45.015-45.016)

National Science Foundation

Computer Innovation in Education (47.045)
Experimental Research and Development Incentives (47.042)
Instructional Improvement (47.019 & 47.032)
International Cooperative Activities ((47.014)
Public Understanding of Science Programs (47.038)
Science Education Materials and Methods (47.020-47.033)
Science Education Problem Assessment (47.046)
Science Information Activities (47.024-47.025)
Science Activities (47.039)

Smithsonian Institution

Chesapeake Bay Center (60.004)

Veterans' Administration

Exchange of Medical Information (64.004)

C. Construction Aid

Department of Commerce

Economic Development (11.300)

Department of Health, Education, and Welfare

Health Professions Construction Grants (13.340)
Health Professions Loan Guarantees (13.378)
Nursing School Construction (13.458-13.459)
Academic Facilities Interest Subsidy (13.457)

D. Other

Department of Commerce

University Center Program (------)

Department of Health, Education, and Welfare

Surplus Property Utilization (13.606)

Atomic Energy Commission

Nuclear Science and Technology Materials (24.011)

National Gallery of Art

Extension Service (68.001)

II. STUDENT ASSISTANCE

A. Grants and Scholarships

1. Direct to Students

Department of Health, Education, and Welfare

Teacher Exchange (13.437)

Department of Housing and Urban Development

Urban Studies Fellowships (14.217)

National Foundation on the Arts and Humanities

Promotion of the Arts (45.001-45.012)
Promotion of the Humanities (45.102-45.013, 45.015, 45.016)

National Science Foundation

International Travel Program (47.015)

2. Through Institutions

Department of Health, Education, and Welfare

Health Services R&D Fellowships and Training (13.225)
CLEO Fellowships for the Disadvantaged (------)
Foreign Curriculum Consultants (13.439)
Development Disabilities--Special Projects (13.759)

National Science Foundation

Instructional Improvement (47.019-47.032)

III. SUPPORT TO STATES, LOCAL GOVERNMENTS AND OTHERS

Department of Health, Education, and Welfare

EPDA Personnel Development for States (13.504)
Postsecondary Education Statewide Comprehensive Planning Grants (13.550)
Vocational Education Cooperative Education (13.495)
Vocational Education Curriculum Development (13.496)
Vocational Education Innovation (13.502)
Bilingual Education Training (------)

Appalachian Regional Commission

Research, Technical Assistance and Demonstration (23.011)
Vocational and Technical Demonstration Grants (23.016)
Vocational Education Facilities (23.012)

National Science Foundation

Intergovernmental Science (47.036)

FEDERAL GOAL: RESEARCH

I. INSTITUTIONAL SUPPORT

A. General Institutional Support

No programs found

B. Categorical Aid

Department of Agriculture

Basic and Applied Research (10.001)
Contracts and Grants for Scientific Research (10.200)
Cooperative Forestry Research (10.202)
Payments to Agricultural Experiment Stations (10.203)
Rural Development Research (10.204)
Forestry Cooperative Research (10.651)
Forestry Research (10.652)

Department of Commerce

Sea Grant Support (11.417)

Department of Defense

Research and Development (------)

Department of Health, Education, and Welfare

Alcohol Research Development Awards (13.271)
Alcohol Research Program (13.273)
Drug Abuse Research Development Awards (13.277)
Drug Abuse Research Program (13.299)
Mental Health Research Development Awards (13.281)
Mental Health Research Grants (13.242)
Disease Control Research Grants (13.202)
Disease Control--Smoking and Health (13.250)
Disease Control--Venereal Disease (13.205)
Occupational Safety and Health Research Grants (13.262)
Food Research Training Grants (13.104)
Food Research Grants (13.103)
Radiological Health Research Grants (13.105)
Associated Health Special Project Grants (13.305)
Health Services R&D, Fellowships and Training (13.225)
Health Services R&D, Grants and Contracts (13.226)
Nursing Research Project Grants (13.361)

Regional Medical Programs (------)
Family Planning Research--Services Delivery Improvement (------)
Emergency Medical Services Research (13.285)
Maternal and Child Health Research (13.231)
Crippled Children's Services (13.211)
Maternal and Child Health Services (13.232)
Allergy and Infectious Diseases Research Grants (13.855-13.858)
Arthritis, Metabolism and Digestive Diseases Research Grants (13.846-13.849)
Cancer Research Grants (13.393-13.396)
Cancer Research Grants (13.399)
Cancer Research Centers (13.397)
Child Health and Human Development Research Grants (13.864-13.866)
Dental Research (Research Grants) (13.840-13.845)
Environmental Health Sciences (Research Grants) (13.872-13.876)
Eye Research (Research Grants) (13.876-13.871)
General Medical Sciences (Research Grants) (13.858-13.863)
Heart and Lung Research (Research Grants) (13.837-13.839)
Biomedical Communications Research Grants (13.836)
Medical Library Research Grants (13.351)
Medical Library Special Scientific Project Grants (13.352)
Neurological Diseases and Stroke Research Grants (13.851-13.854)
General Clinical Research Centers (13.333)
General Research Support Grants (13.337)
Minority Schools Biomedical Support (13.375)
Postsecondary Education Improvement Fund (13.538)
Handicapped Research and Demonstration (13.443)
Special Programs--Learning Disabilities (13.520)
Library Research and Demonstration (13.475)
Vocational Education--Research (13.498)
Ethnic Heritage Studies (------)
Foreign Languages and Area Studies Centers and Research (13.435-13.436)
Educational Research and Development (13.575)
Drug Abuse Prevention (13.420)
Child Welfare R&D Grants (13.608)
Social Rehabilitation Service Research (13.757)
UAF Demonstration Facilities and Training (13.760)

Department of Housing and Urban Development

General Research (14.506)

Department of the Interior

Mine Health and Safety Research (15.306)
Archeological Investigations (15.908)
Historic America Buildings Survey (15.903)
Additional Water Resources Research (15.950)

Department of Justice

Law Enforcement R&D Grants (16.507)

Department of Labor

Manpower R&D Program (17.233)
Manpower R&D Institutional Grants (17.219)
Manpower R&D Project Grants (17.221)

Department of State

Institutional Centers (19.006)
Central Research (19.007)

Department of Transportation

Program of University Research (20.750)
High Speed Ground Transport R&D (20.300)
Railroad Research (20.302)
Urban Mass Transportation Grants for Research (20.502)

Atomic Energy Commission

Nuclear Science and Technology R&D (24.024)

Environmental Protection Agency

Air Pollution Control Research Grants (66.004)
Environmental Protection Comprehensive Research (66.500)
Pesticides Research (66.502)
Radiation Research Grants (66.503)
Solid Waste Research Grants (66.504)
Water Pollution Control R&D (66.405)
Minority Institutions Research Support (------)

Executive Office of the President

Drug Abuse Prevention, Reserach (73.001)

National Aeronautics and Space Administration

R&D in Space Science (------)

National Science Foundation

Biological Sciences Research Support (47.002)
Computing Activities (47.003)
Engineering Sciences Research (47.006-47.007)
Environmental Sciences Research (47.008)
Experimental Research and Development Initiatives (47.042)
Institutional Grants for Research Management Improvement (47.044)
Institutional Grants for Science (47.012)
International Cooperative Activities (47.014)
International Decade of Ocean Exploration (47.037)
Materials Research (47.040)
Mathematical and Physical Sciences Research (47.016)
Global Atmospheric Research Program (47.017)
National R&D Assessment Program (47.043)
Polar Research Programs (47.001)
Research Applied to National Needs (47.041)
Scientific Activities (47.039)
Social Sciences Research (47.029)

Smithsonian Institution

Chesapeake Bay Center (60.004)
Special Foreign Currency Grants (60.016)

Veterans' Administration

Biomedical Research--Contracts to Universities (64.001)
Prosthetics Research (64.006)

C. Construction Aid

Department of Health, Education, and Welfare

Health Professions Construction Grants (13.340)
Health Professions Loan Guarantees (13.378)
Cancer--Construction (13.392)

National Science Foundation

Oceanographic Facilities and Support (------)

D. Other

Department of Health, Education, and Welfare

Animal Resources (13.306)

National Science Foundation

National Research Centers (------)
Oceanographic Facilities and Support (------)

II. STUDENT ASSISTANCE

A. Grants and Scholarships

1. Direct to Students

Department of Health, Education, and Welfare

Special Fellowships in Nursing Research (13.360)

Department of State

Educational Exchange--University Lecturers (19.102)

Environmental Protection Agency

Water Pollution Control Research Fellowship (66.406)

National Science Foundation

International Travel Program (47.015)

Smithsonian Institution

Academic Appointments (60.002)
Visiting Research Appointments (60.019)
Woodrow Wilson Fellows (60.020)

2. Through Institutions

Department of Health, Education, and Welfare

Mental Health Fellowships (13.241)
Mental Health Research Development Awards (13.281)
Food Research Training Grants (13.104)
Health Services R&D, Fellowships and Training (13.225)
Alcohol Research Development Awards (13.271)
Drug Abuse Research Development Awards (13.277)
Drug Abuse Research Manpower Fellowships (13.278)
Foreign Language and Area Studies Fellowships (13.434)
Fulbright-Hays Faculty Research Abroad (13.438)
Fulbright-Hays Doctoral Research Abroad (13.441)

Department of Justice

Law Enforcement R&D--Fellowships (16.505)

Department of Labor

Manpower Research--Doctoral Research (17.218)

Atomic Energy Commission

Faculty and Student Research Participation (24.004)

National Science Foundation

Undergraduate Student Development (47.034)

III. SUPPORT TO STATES, LOCAL GOVERNMENTS AND OTHERS

Department of the Interior

Indian Community Development (15.104)
Water Resources Research State Assistance (15.951-15.952)

Appalachian Regional Commission

Research, Technical Assistance and Demonstration (23.011)

APPENDIX B: PART II

Issues inherent in PSE goals	Issue dimensions	Needed data categories
I. EQUAL OPPORTUNITY		
A. Equal Access	Who currently enters postsecondary education?	Characteristics of student entrants into the broad range of postsecondary educational options (including proprietary schools, public trade and technical schools, and other options as well as traditional higher education institutions), by the following variables: age race or ethnic group sex some SES background some ability measure some measure of personal or family income
	Who does not enter postsecondary education following high school?	Characteristics of high school graduates not enrolled in postsecondary education following high school, by the variables noted above.
	What are these nonentrants doing instead?	Information about employment (or unemployment) and other possible occupations, such as housewife, etc.
	What were the perceived barriers to equal educational access for these nonentrants?	Personal description of such potential barriers as lack of finances, lack of ability, lack of motivation, lack of availability of a nearby postsecondary school.
	What are the influences of high school curriculum choice, high school dropout, parents and peers on access to postsecondary education?	Postsecondary entrants and nonentrants by high school curriculum studied. Data on characteristics of high school dropouts. Data on persons completing high school equivalency exams and their possible entrance into postsecondary education. Data on group influences on entrance into postsecondary education.
	How do students pay for their education?	Information on sources of support, including who pays for education, other than Federal, State, local, and private funding sources.
	Who enrolls part time?	Characteristics of part-time enrollees, including at least these variables: age, sex, race or ethnic group, other SES background, some measure of personal or family income, some ability measure, high school curriculum, influence of parents, peers, etc.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
A. Equal Access (continued)	What are the reasons the attendee is enrolled part time?	Factors restricting full-time attendance, such as: finances, job, home responsibilities, influences of parents, peers, etc.
	Who are delayed postsecondary education entrants?	Characteristics of delayed entrants, by variables noted above.
	What are the reasons for delayed enrollment?	Factors delaying enrollment, such as: finances, job, home responsibilities, influences of parents, peers, etc.
	What is the impact of financial aid on students directly, and through institutions they attend?	Assessment of the impact of financial aid monies from all agencies providing such funds, including information on funds by type of aid, information on student aid provided by all Federal agencies as a means of breaking the access barrier for disadvantaged students, and information on marginal impact of additional student aid funds in eliminating access barrier.
	Who participates in postsecondary education programs in the military?	Characteristics of servicemen enrolled in both civilian and military postsecondary education programs, by such variables as noted in characteristics of student entrants, including previous education and/or occupational experiences.
	What do these servicemen learn and where?	Types of programs offered and type of programs taken, by types of training categories, by military or civilian institutions, by geographical location or program alternatives, etc.
	What is the national impact of State-promoted equal access?	Data on State-student financial aid should be coordinated at national level.
	What is the impact of migration of students on promoting equal access?	Numbers and student characteristics of out-of-State migration necessary on regular basis, numbers and characteristics of students attending institutions in their own States.
	How can potential State barriers to equal access be identified?	Characteristics and numbers of postsecondary education entrants and nonentrants on a State-by-State basis.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
A. Equal Access (continued)	What has been the impact of equality of student access made by certain types of institutions, e.g., community colleges or open-admission institutions?	Information on geographical availability, costs, curriculum, teachers, etc. which might encourage students to enter postsecondary education at community colleges and other institutions.
	What types of efforts are institutions making to encourage equal access?	Descriptions of special programs, such as remedial education courses, counseling and tutoring facilities, etc., by type of institution offering these services.
Choice	Who is enrolled in postsecondary education at present?	Characteristics as noted in equal access entrants and nonentrants.
	What is the impact of institutional charges on equal choice?	Information on institutional charges to students matched to characteristic statistics on distribution of low-income students at various types of institution, etc.
	What is the impact of Federal financial assistance on choice of institution?	Information on financial aid packages by recipient, types and amounts of aid, etc., and by type of institution, classified by charges to students.
Opportunity	Who does not complete their postsecondary education?	Personal characteristics as noted in equal access entrants and nonentrants, by type of institution they attended, type of programs in which students were enrolled.
	Why don't students complete postsecondary education?	Factors restricting completion, such as: finances, job, home responsibilities, influence of parents, peers, etc.
	At what levels of postsecondary education do students drop out?	Numbers and characteristics of dropouts and those retained from level to level, including full-time and part-time status, sources of support for students in various levels.
	Which students transfer?	Personal characteristics of graduates of 2-year institutions, by field of study, and by institution; personal characteristics of transfers from 4-year institutions, by field of study, and by institution. Personal characteristics of other students who transfer.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Opportunity (continued)	Why don't students complete post-secondary education?	Factors restricting completion, such as: finances, job, home responsibilities influence of parents, peers, etc.
	At what levels of postsecondary education do students drop out?	Numbers and characteristics of dropouts and those retained from level to level, including full-time and part-time status, sources of support for students in various levels.
	Which students transfer?	Personal characteristics of graduates of 2-year institutions, by field of study; by institution, personal characteristics of transfers from four-year institutions, by field of study, and by institution. Personal characteristics of other students who transfer.
	What are the entrance rates into upper division colleges?	Numbers and personal characteristics of transfer students, by institution, on annual or other regular basis.
	What are the potential barriers to transfer?	Factors restricting transferring, such as: availability of student financial aid, transfer admission requirements, and availability of transfer institutions.
	Who has graduated, as well as who attends, proprietary institutions and other postsecondary education centers providing skill training and career education?	Personal characteristics of attendees and graduates, including type of studies, and by type and control of institution.
	Who drops out of proprietary, skill training, and career education institutions?	Personal characteristics of dropouts, including type of studies, and by type and control of institution, as well as some measurement of skill sufficiency gained by level completed and following employment.
	Who graduates from college?	Personal characteristics as noted under student entrants, including age, race or ethnic group, field of undergraduate study, type and control of institution from which student graduated, and some measure of college achievement (grades, GRE scores, etc.).

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Opportunity (continued)	Who enters graduate and professional schools?	Personal characteristics of entrants, as well as their eventual retention rates, dropout statistics, or final graduation by fields of study, degrees awarded, type of institution.
	Who are minority and disadvantaged graduate and professional entrants and which institutions do they attend?	Personal characteristics, as well as types of financial support, programs taken, some measurement of progress at advanced educational levels, dropout and retention rates.
II. MANPOWER NEEDS		
A. Supply and Demand	What is the impact of undergraduate enrollment pattern shifts on the future supply of college graduates?	Information on causes of enrollment shifts, such as increasingly high cost of attending college, the unfavorable job-market for college graduates, and the increasing tendency for students to defer college attendance for a specific period and return later.
	What do students know about the realities of the world of work?	Information on student perceptions of the labor market and the labor force, and their role in it.
	What types of career education programs are now being offered, and by which postsecondary institutions?	Types of career education programs offered and types of programs taken at postsecondary education institutions of all types, especially community colleges and 4-year institutions.
	What institutions are training students for what types of skills?	Types of training programs matched to types of job skills, by institution, by type and control of institution and by participants.
	What efforts are postsecondary institutions making to provide career counseling and job placement services ?	Information detailing career counseling and job placement services by type of institution.
	How do proprietary schools deal with placement services?	Detailed information on types of services offered by institutions, success rates in placing students, etc.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Supply and Demand (continued)	What is the U.S. aggregate picture of the future labor force?	Enrollment and graduate data, at undergraduate, graduate, and professional level, by age, and race or ethnic group, as well as by sex and field of study.
	What is the impact of experimental programs on the overall need for manpower training?	More information on open-entry training systems with no prerequisites, on use and effectiveness of training modules and individualized instruction, on ladder approaches and open-exit programs, on cluster training for broad occupational groupings, and on the effectiveness of stipends to make full-time training possible for adults.
	What is the impact of migration of American students abroad and foreign students into the United States in terms of manpower needs?	Regular information on both American and foreign students on personal characteristics, field of study, location and type of institution, reasons behind student migration, and plans for future, in terms of job and geographic location.
	What is the relationship between patterns of employment and various postsecondary education levels?	More information on personal characteristics, curriculum studied, ability, type of institution attended, and level of institution completed; especially information on employment patterns of graduates of 2-year colleges and dropouts from institutions of higher education.
	Are certain degrees really necessary for employment in certain fields?	Information on educational requirements and degrees actually necessary for employment, more detailed information on the way postsecondary institutions orient their educational curriculums to match needed job skills.
	What are the implications of the changing job market for holders of master's degrees and for enrollment in master's programs?	Numbers and characteristics of master's degree holders and candidates by field of study, level of study completed, in relation to type of job desired, and actual job vacancies, and future outlook for job desired.
	What competition do graduates face for jobs from others in the job market, including married women entering or reentering the job-market, foreign nationals in the U.S., and senior citizens seeking part-time or volunteer work?	What jobs currently utilize what kind and what degree of training, and who fills the job; characteristics of the competing labor market, including married women entering or reentering the job market, foreign nationals in the U.S., and senior citizens seeking part-time or volunteer employment.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Supply and Demand (continued)	What is the future of the current labor market situation of college graduates?	Predictions necessary by individual occupation over relatively long-term period; timely release of needs is important.
Specific Manpower Needs	What is the effectiveness of various types of skill training?	Information using variables such as length of training, location of training, and results in terms of productive long-term employment for the recipient.
	What are the results of exemplary training programs?	Statistics which describe the programs sufficiently so that similar programs can either be duplicated or eliminated according to the success or failure of the exemplary program.
	How can the Federal Government improve its own skill training programs, as well as provide assistance to States for improvement of their programs?	Information needed on student behavior characteristics which describes, among other variables: how students learn about work attitudes, how students learn about human relations skills, how students learn about orientation to the nature of the working world, alternative career choices, and students' actual acquisition of specific work skills.
	How can the Federal Government best count students enrolled in occupational programs?	Development of more accurate definition of enrollment in occupational programs, and expansion of statistics to include changes in enrollments by field of study.
	What are the projections of needs for the many kinds of special teachers now receiving training support from the Federal Government?	Revised estimates of future demands for teachers, that consider the growing demand for preschool teachers and for teachers in other settings, such as adult education programs.
	Do manpower shortages actually exist, and are training programs filling such shortages?	Statistical information which demonstrates whether or not manpower shortages exist, and whether training programs do fill such shortages.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
III. RECURRENT EDUCATION	What is the demand for recurrent education by adults?	Statistics which will enable policymakers to estimate demand, such as numbers of adults currently enrolled in recurrent education programs, types of training programs provided, types of needed skills.
	Who is not enrolled in recurrent education who wishes to be?	Personal characteristics of those persons wishing to be enrolled.
	What are the barriers to participation in recurrent education?	Factors restricting participation, such as: costs of courses, time of courses, geographical location of courses, availability.
	In what ways do adults of different age groups want to learn?	Information on learning environments, such as: do adults learn well in unstructured environments? where do recurrent education courses take place: home, classroom, other? times at which courses are provided: night, weekend, etc. method of instruction: correspondence, lecture, other.
	What is being studied by adults and for what purpose?	Types of courses offered to adults, and types of courses taken by adults; by reasons, such as upgrading skills, self-improvement, or new learning.
	How do adults pay for their courses?	Statistics which describe what portion of these charges are paid by student, by employers, or by others.
	What is the role of the community college in providing recurrent education?	Statistics on what efforts community colleges have made toward recurrent education; on what students, by personal characteristics, are attending recurrent education courses at community colleges; on what recurrent education courses are being offered at community colleges; on what techniques community colleges use to inform the public about recurrent education.
	What is the role of other types of postsecondary institutions?	Similar statistics as mentioned above for community colleges, as well as data on educational structures in the system through which courses are offered (separate colleges within universities, in off-campus centers, etc.).

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Recurrent Education (continued)	What kinds of jobs are likely to require the retraining of persons over time?	Data on the kinds of jobs likely to require further upgrading of skills.
	When is the need for such retraining likely to occur during a person's career?	Information on the kinds of jobs needing further training, by levels of jobs, and by personal characteristics of persons employed.
	What are innovative approaches to recurrent education and what is their impact on learning?	Description of innovative approaches to recurrent education, including statistics describing how they work, what their impact is on learning, motivation, and absorption of education by students.
IV. EDUCATIONAL DIVERSITY		
A. New Students and New Education	Who are the "new" students in postsecondary education?	Personal characteristics of "new" students, similar in kind to those for entrants mentioned under Equal Opportunity, especially, ability measures and motivational data; also, information on career expectations, and their impact on choice of field of study.
	What is the new student demand for nontraditional and innovative forms of education?	Information on what fields of study and what courses new students are taking, on the characteristics of students who prefer to study in new and innovative educational programs.
	What kind of new education is being offered?	Information from the institutions on the extent of the use of new degrees in postsecondary education, including what schools are awarding these degrees, and who is receiving them; information on experiments with shorter times for degrees at all levels, etc.
	Which institutions are offering what types of new educational programs?	Numbers and names of postsecondary institutions by varieties of curriculum offerings, varieties of institutional size and administration, and varieties of teaching methods.
	What is the impact of using exams for credit or degrees?	Information on the use of exams (such as CLEP) for credit or degrees, by number and characteristics of people taking such exams, and by which schools accept them.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
New Students and New Education (continued)	What is the impact of institutional consortia arrangements?	Numbers and characteristics of consortia arrangements, including methods of operation, extent of shared facilities, faculties, students, computers, etc.; also information on Federal programs encouraging such arrangements, including the Developing Institutions and Ethnic Heritage Studies programs.
	What are the success and failure rates of innovative educational institutions?	Information on new school openings and closings, on innovative programs expanded and discontinued, etc.
	How is the noncollegiate sector of postsecondary education affected by innovative educational programs?	Data by personal characteristics of new students in the noncollegiate sector (as mentioned under Equal Educational Opportunity), distribution of students, and changes in enrollment levels.
	What is the extent of the postsecondary institutions not yet eligible for participation in Federal programs?	Information on where such schools are located, how many exist, what courses of study they offer, what their basic characteristics are, and numbers of students attending them.
B. Preserving Institutional Diversity	What is the impact of institutional "financial distress" on institutional diversity?	Improved data on institutional finances; better measures of "financial distress," including numbers of institutional closings and mergers, by type and control of institution, changes in enrollment patterns by type and control of institution, identification of key institutional income and expenditure components, "tuition gap" data, frequency and size of reported operating deficits, and substantial changes in plant assets and institutional indebtedness.
	What is the financial impact of enrollment changes in assessing financial stability?	Information on the nature and size of enrollment, including enrollment counts directly related to tuition and fee income which show net gains or losses over the academic year.
	What is the productivity of educational institutions, and what is the quality of their outputs?	Data including at least these three variables: institutional salaries, institutional costs per student, student scores on tests such as GRE.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
B. Preserving Institutional Diversity (continued)	How can institutions provide better data in the area of cost effectiveness?	Information on quality of educational output, need for uniform procedures for reporting per-student cost.
V. RESEARCH	What is the impact of Federal research funds on colleges and universities?	Data which describe how institutions conduct federally-funded research, including cost of research (both Federal and institutional funds), personal characteristics of those working on research, characteristics of research facilities and their location, and administrative structure of research activities within the institution.
	What is the impact of Federal research funds on faculty?	Information on relevant characteristics, including such variables as: percent of faculty time spent in research versus teaching, field of expertise, relationship of research to subject taught, and data on salaries paid from research funds.
	What is the impact of Federal research funds on students?	Information on numbers and personal characteristics of students participating in research projects at colleges and universities, including: numbers of students, by personal characteristics and field and level of study, receiving financial support from research monies, and data describing how and what students learn through participation in projects.
	What are the costs of Federal research to institutions?	Information including contributed equipment value, faculty time, income received by institutions, etc.
	What is the effect of Federal funding fluctuations on institutions?	Information on institutions, by type, control, and field of study; also identification of projected trends of scientific and technological fields that would include probable national needs for scientific resources, and expected levels of Federal support in the various areas.

Issues inherent in PSE goals	Issue dimensions	Needed data categories
Research (continued)	How are colleges and universities responding to multidisciplinary research needs?	Data needed on types of innovative organizational and functional arrangements currently in operation at various institutions.

APPENDIX C

NCES DATA-COLLECTION INSTRUMENTS AND REPORTS REVIEWED

NCES DATA-COLLECTION INSTRUMENTS AND REPORTS REVIEWED

1. Continuing Education: Noncredit Activities in Institutions of Higher Education, 1967-68, Professional and Technical Refresher Courses
2. Continuing Education: Noncredit Activities in Institutions of Higher Education, Registrations 1967-68
3. Degrees and Other Formal Awards Conferred Between July 1, 1971 and June 30, 1972
4. Degrees and Other Formal Awards Conferred Between July 1, 1972 and June 30, 1973
5. Employees in Institutions of Higher Education, 1972-73
6. Financial Statistics of Institutions of Higher Education for Fiscal Year Ending 1972
7. Financial Statistics of Institutions of Higher Education for Fiscal Year Ending 1974
8. Higher Education: A Taxonomy of Instructional Programs in Higher Education
9. Higher Education Basic Student Charges (1968-69)
10. Higher Education: Earned Degrees Conferred, 1969-70, Summary Data
11. Higher Education: Fall Enrollment in Higher Education, 1971
12. Higher Education: Financial Statistics of Institutions of Higher Education: Federal Funds 1965-66 and 1966-67
13. Higher Education: Institutions of Higher Education, Index by State and Congressional District, June 1973
14. Higher Education: Inventory of Physical Facilities in Institutions of Higher Education, Fall 1969
15. Higher Education: Number and Characteristics of Employees in Institutions of Higher Education, Fall 1967
16. Higher Education: Residence and Migration of College Students, Analytic Report
17. Higher Education: Teaching and Research Staff by Academic Field in Institutions of Higher Education, Fall 1968
18. Indicators of Educational Outcome, Fall 1972
19. Inventory of College and University Physical Facilities (as of September 30, 1974)

20. Junior-Year Science, Mathematics, and Foreign Language Students, First-Term 1962-63 (Higher Education)

21. National Assessment of Educational Progress, Age Class III

22. National Longitudinal Study of the High School Class of 1972:

    Student Questionnaire
    School Questionnaire
    Counselor Questionnaire
    Student's School Record Information
    First Followup Survey
    Capsule Description of High School Seniors Base-Year Survey
    First Followup Questionnaire, Form A (Fall 1973)
    Survey Instrument for the Second Followup (July 1974)

23. Opening Fall Enrollment in Higher Education, 1974

24. Opening Fall Enrollment in Higher Education: Part A--Summary Data

25. Postsecondary Career School Survey, 1973

26. Postsecondary School Enrollment Survey, 1974

27. Projections of Educational Statistics to 1981-82 (1972 edition)

28. 1973-74 Education Directory

29. Salaries and Tenure of Full-Time Instructional Faculty, 1974-75

30. Students Enrolled for Advanced Degrees, Fall 1972

31. Students Enrolled for Advanced Degrees, Fall 1974

32. Survey of High School Seniors and Recent Graduates, 1974

33. Survey of Programs and Enrollments, Postsecondary Schools

34. Vocational Education: Directory of Postsecondary Schools with Occupational Programs, 1971 (Public and Private)

35. Vocational Education: Inventory of Vocational Education Statistics Available in Federal Agencies

36. Characteristics of Students and Staff, 1972, Vocational Education

NCES did not provide the College Entrance Examination Board with copies of the following two documents:

(1) Resident and Extension Enrollment in Institutions of Higher Education, First Term, 1969.

(2) Characteristics of Vocational Education Teachers and Students.

APPENDIX D

OFFICE OF EDUCATION NONOPERATIVE PROGRAMS

APPENDIX D: NONOPERATIVE PROGRAMS

The College Entrance Examination Board, as part of the overall study conducted under OE-NCES Contract No. 74-2126, was asked to compile a list of nonoperative Federal programs in postsecondary education. To begin this task, the project staff met with the Office of Education Budget Office and listed nonoperative programs within the Office of Education. That list of programs is attached.

As the next step, the project staff sought to compile similar lists for other Federal agencies which administered postsecondary programs. It soon became apparent that this was going to be a difficult task. Postsecondary education programs operated by many Federal agencies, such as research grants and special training programs, are relatively incidental to the major purposes and functions of those agencies. As such the legislative authorization for these programs is often buried in broad legislation, such as the Foreign Assistance Act of 1966 (AID programs) and the Snyder Act of 1921 (Indian higher education grants).

While the various agencies could provide legislative references for their operating postsecondary education programs, they were not willing to search through vast amounts of potentially relevant legislation for authorizations of programs not in operation. They had neither the time nor the staff to complete the involved and complex legal research which would be necessary.

Faced with this dilemma, the project staff searched for other sources which might provide the needed information on nonoperative programs. One such possible source which was investigated thoroughly was an Air Force-sponsored computer system known as LITE (Legal Information Through Electronics). This computer system, administered in Denver, Colorado, contained the U.S. Code indexed by key words. Theoretically, one could query this system about existing legislation pertinent to postsecondary education. In fact, however, the LITE system was not current and did not include legislation passed after 1972. Air Force officials agreed that LITE would not be suitable for our purposes.

Conversations with the Harvard University Law Library staff led us to an additional source. A private company, Mead Data Central, also maintains a legal research system which operates similarly to the Air Force LITE system. Called LEXIS, the Mead Data Central system is designed to retrieve legal information by use of key word identifiers. It includes the entire U.S. Code (to mid-1973), indexed by these identifiers. The project staff met with Mead Data Central representatives to discuss possible use of this system. However, a demonstration of the system's capabilities indicated to us and to Mead representatives that LEXIS was not appropriate to the task at hand. Key words could not be found within the LEXIS system which could recall the relevant legislation from the U.S. Code.

The Office of Management and Budget maintains a file of legislation names and expiration dates. We were not permitted to examine this file, but OMB personnel made available to us a listing of legislative titles. This list did not prove useful because it did not specify programs within legislative titles. It was impossible to decipher whether or not an education program might be authorized as a part of a law which was directed basically to other purposes.

Upon consultation with representatives from NCES about these difficulties in compiling a list of nonoperative programs outside the Office of Education, the College Board and NCES agreed not to pursue these efforts further. It should be noted that the Compilation of Postsecondary Education Programs, completed as part of this study, includes the legislative references for all operating programs in all Federal agencies. This compilation also includes (in appendix A) a list of those programs which have ceased operation since fiscal year 1972 for various reasons. As noted earlier, a list of nonoperative programs within the Office of Education was prepared. It is presented below.

Nonoperative Postsecondary Education Programs in the Office of Education

Community Service and Continuing Education Programs--Special Programs and Projects Relating to Problems of the Elderly.

Cost of Education Payments to Institutions of Higher Education.

Work-Study for Community Service Learning Program.

Grants for Construction of Graduate Academic Facilities.

Direct Loans for Construction of Academic Facilities.

Networks for Knowledge.

Graduate Program Grants to Institutions of Higher Education.

Public Service Fellowships.

General Assistance to Graduate Schools.

State Plans for Establishment and Expansion of Community Colleges.

Establishment and Expansion of Community Colleges.

Occupational Education Programs.

Emergency Assistance for Institutions of Higher Education.

Special Adult Education Project for the Elderly.

Grants Programs for Advanced and Undergraduate International Studies.

Law School Clinical Experience Programs.

BIBLIOGRAPHY

American Council on Education. Financing Part-Time Students: The New Majority In Postsecondary Education. Washington, D.C.: Committee on the Financing of Higher Education for Adult Students, 1974.

Belitsky, A. Harvey. Private Vocational Schools: Their Emerging Role in Post-secondary Education. Washington, D.C.: The W. E. Upjohn Institute for Employment Research, 1970.

Carnegie Commission on Higher Education. A Chance to Learn: An Action Agenda for Equal Opportunity in Higher Education. New York: McGraw-Hill, March 1970.

_____. College Graduates and Jobs: A Report and Recommendations. New York: McGraw-Hill, April 1973.

_____. Less Time, More Options: Education Beyond the High School. New York: McGraw-Hill, January 1971.

_____. The More Effective Use of Resources: An Imperative for Higher Education. New York: McGraw-Hill, June 1972.

_____. The Open-Door Colleges: Policies for Community Colleges. New York: McGraw-Hill, June 1970.

_____. Priorities for Action: Final Report of the Carnegie Commission on Higher Education. New York: McGraw-Hill, 1973.

_____. The Purposes and Performance of Higher Education in the United States. New York: McGraw-Hill, June 1973.

_____. Reform on Campus: Changing Students, Changing Academic Programs. New York: McGraw-Hill, June 1972.

_____. Toward a Learning Society: Alternative Channels to Life, Work, and Service. New York: McGraw-Hill, October 1973.

The Chronicle of Higher Education, Vol. IX, No. 1. September 23, 1974.

College Entrance Examination Board. The New York Times Guide to Continuing Education in America. New York: Quadrangle Books, 1972.

Committee for Economic Development. The Management and Financing of Colleges. New York, 1973.

Financing Equal Opportunity in Higher Education. New York: College Entrance Examination Board, 1970.

Folger, John K., Helen S. Astin, and Alan E. Bayer. Human Resources and Higher Education. New York: Russell Sage Foundation, 1970.

Godwin, W. L. and P. B. Mann, eds. Higher Education: Myths, Realities, and Possibilities. Atlanta, Ga.: Southern Regional Education Board, November 1972.

Hall, Lawrence and Associates. New Colleges for New Students. San Francisco: Jossey-Bass, 1974.

Harris, Seymour E., ed. Education and Public Policy. Berkeley, Cal.: McCutchen Publishing Corp., 1965.

Hesburgh, Theodore M., Paul A. Miller, and Clifton R. Wharton, Jr. Patterns for Lifelong Learning. San Francisco: Jossey-Bass, 1973.

Mayhew, Lewis B. Higher Education for Occupations. Atlanta, Ga.: Southern Regional Education Board Monograph No. 20, 1974.

McClure, Larry and Carolyn Buan, eds. Essays on Career Education. Portland, Ore.: Northwest Regional Educational Laboratory, April 1973.

Moses, Stanley. The Learning Force: A More Comprehensive Framework for Educational Policy. Syracuse, New York: Syracuse University Occasional Papers in Continuing Education, No. 25, October 1971.

Mushkin, Selma J., ed. Recurrent Education. Washington, D.C.: U.S. Department of Health, Education, and Welfare, National Institute of Education, 1974.

National Advisory Council on Extension and Continuing Education. A Question of Stewardship, A Study of the Federal Role in Higher Continuing Education. (6th Annual Report and Recommendations). Washington, D.C.: 1972.

National Commission on the Financing of Postsecondary Education. Financing Postsecondary Education in the United States. Washington, D.C.: Government Printing Office, 1973.

National Science Foundation. Federal Funds for Research, Development and Other Scientific Activities, Fiscal Years 1971, 1972, and 1973. Washington, D.C.: Government Printing Office, 1972

Orlans, Harold. The Nonprofit Research Institute: Its Origin, Operation, Problems, and Prospects. New York: McGraw-Hill, 1972

Report of the Committee on Student Economics. New York: College Entrance Examination Board, 1972.

Report on Higher Education: The Federal Role, Data and Decisionmaking in Postsecondary Education. Washington, D.C.: Special Task Force to the Secretary of Health, Education, and Welfare, March 1973.

The Second Newman Report: National Policy and Higher Education. (Report of a Special Task Force to the Secretary of Health, Education, and Welfare.) Cambridge, Mass.: The MIT Press, 1973.

Toward Equal Opportunity for Higher Education. (Report of the Panel on Financing Low-Income and Minority Students in Higher Education.) New York: College Entrance Examination Board, 1973.

U.S. Congress. Senate. Report No. 93-1026, Education Amendments of 1974. 93rd Cong. 2nd sess., Washington, D.C.: Government Printing Office, 1974.

U.S. Department of Health, Education, and Welfare, Office of Education, Office of Planning, Budgeting, and Evaluation. Evaluation Overview: Postsecondary Division, FY 74. Washington, D.C.: unpublished.

Vermilye, D. W., ed. The Future in the Making: Current Issues in Higher Education, 1973. San Francisco: Jossey-Bass, 1973.

Venn, Grant, "Man, Education and Work" in Mangum, Garth L., ed. The Manpower Revolution. New York: Doubleday and Co. Inc., 1966.

Willingham, Warren W. The No. 2 Access Problem: Transfer to the Upper Division. Washington, D.C.: ERIC Clearinghouse on Higher Education, July 1972.

_____. The Source Book for Higher Education. New York: College Entrance Examination Board, 1973.

Wolfle, Dael L. The Home of Science: The Role of the University. New York: McGraw-Hill, 1972.